U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Notice to Airmen (NOTAM) for Airport Operators

Date: DRAFT **AC No:** 150/5200-28H
Initiated By: AAS-300

1 Purpose.

This Advisory Circular (AC) contains the Federal Aviation Administration (FAA) standards and guidance for airport operators on the issuance of Notice to Airmen (NOTAM). This AC provides guidance on using the NOTAM system for airport condition reporting and 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 NOTAM system is not intended to be used to advertise data already published or charted.

2 Cancellation.

This AC cancels AC 150/5200-28G, *Notices to Air Missions (NOTAMs) for Airport Operators,* dated May 25, 2022.

3 Applicability.

The FAA standards and guidance in this AC are provided 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 audience for this AC is any office responsible for originating airport-related NOTAMs. The standards and guidance in this AC are not legally binding in their own right and will not be relied upon by the FAA as a separate basis for affirmative enforcement action or other administrative penalties. Conformity with this AC is voluntary only and nonconformity will not affect rights and obligations under existing statutes and regulations, except as follows:

1. Use of the standards and guidance in this AC is mandatory for airports that receive funding under Federal grant assurance programs, including the Airport Improvement Program (AIP). See Grant Assurance #34.
2. Use of the standards and guidance in this AC is mandatory for projects funded by the Passenger Facility Charge (PFC) program. See PFC Assurance #9.
3. This AC provides an acceptable means of meeting the requirements of 14 Code of Federal Regulations (CFR) Part 139, including § 139.339, *Airport Condition Reporting*.

4 **Principal Changes.**

This AC has been updated to align with the updates being made to FAA Order 7930.2, *Notice to Airmen (NOTAM)*. The AC also reflects the transition from the Federal NOTAM System to the NOTAM Management Service which is slated to take effect in 2026. It is also being updated to incorporate and retire several CertAlerts including:

- CertAlert 21-07, *NOTAM examples for Airport Operations/Aircraft Rescue and Fire Fighting (ARFF) frequency monitoring during air traffic contingency operations*
- CertAlert 22-09, *Notice to Airmen (NOTAMs) Additional Emphasis and Procedure Awareness for Airport Operators*
- CertAlert 24-01, *Part 139 CertAlert 24-01: Part 139 Requirements for Issuing a Notice to Airmen (NOTAM) When the Airport Operator Has No Operative Airport Rescue Fire Fighting (ARFF) Equipment Available on the Airport*

A summary of AC changes is included below:

1. Changed AC title from *Notices to Air Missions (NOTAMs) for Airport Operators* to *Notice to Airmen (NOTAM) for Airport Operators*.
2. Paragraph 1.3 – Changed duration of NOTAM.
3. Paragraph 2.3.7 – Changed examples of Lower Limit then Upper Limit or Height to reflect Changes in the NOTAM Order.
4. Paragraph 2.3.14 – Updated Additional Notes translations and additional Notes included to provide clarity.
5. Paragraph 3.10 – Added additional language to clarify when field condition (FICON) NOTAMS are described using both runway ends and updated the translation for one of the examples.
6. Paragraph 3.13 – Added clarifying remarks to remind the user of the time of the expiration of FICON NOTAMs and to update the Airport Master Records (FAA Form 5010) and Reports.
7. Paragraph 3.16 – Changed the examples around NOT STD NOTAMS, the Order and system will require a remark to be input into the system describing why it is not standard.
8. Paragraph 4.1 – Updated Work In Progress (WIP) to reflect the changes in the NOTAM Order and practices identified in CertAlert 22-09.
9. Paragraph 4.2.4 – Added the section “ARFF Frequency Monitoring During Air Traffic Contingency Operations” that was outlined in CertAlert 21-07.
10. Paragraph 4.2.5 – Added the section “ARFF Not Available on Airport” that was outlined in CertAlert 24-01 to address situations of when there is no ARFF capability available.

5 Related Code of Federal Regulations (CFRs) and Reference Materials.

The following are FAA regulations and publications (see current versions) used during the preparation of this AC and may provide useful supporting and/or supplemental information to airport operators, or their agents, in understanding and implementing this AC. Electronic versions of these documents are available online.

1. Electronic CFRs are available at www.ecfr.gov.
   a. 14 CFR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*
   b. 14 CFR Part 139, *Certification of Airports*
   c. 14 CFR Part 152, *Airport Aid Program*
   d. 14 CFR Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports*
   e. 14 CFR Part 161, *Notice and Approval of Airport Noise and Access Restrictions*
   f. 47 CFR Part 17*, Construction, Marking, and Lighting of Antenna Structures*
   g. 49 CFR Part 1542, *Airport Security*
   h. 49 CFR Part 1544, *Aircraft Operator Security: Air Carriers and Commercial Operators*
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 7930.2, *Notice to Airmen (NOTAM)*
3. Aeronautical Information Manual (AIM). https://www.faa.gov/air_traffic/publications/atpubs/aim_html/
4. Pilot/Controller Glossary (P/CG). https://www.faa.gov/air_traffic/publications/media/pcg_10-12-17.pdf
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 150/5300-13, *Airport Design*
   c. AC 150/5340-30, *Design and Installation Details for Visual Aids*
   d. 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, *Mitigating the Risks of a Runway Overrun Upon Landing*
   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 https://www.faa.gov/regulations_policies/orders_notices/.
   a. FAA Order 8900.1, *Flight Standards Information Management System*
   b. FAA Order 5190.6, *FAA Airport Compliance Manual*
8. The Chart Supplement is available at https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/.
9. Domestic/International Notices at https://www.faa.gov/air_traffic/publications/notices/.
10. NMS Public NOTAM Search will be available from the NMS home page at https://nms.aim.faa.gov/
11. Airport Improvement Program Grant Assurances are available at: https://www.faa.gov/airports/aip/grant_assurances/media/airport-sponsor-assurances-aip-2020.pdf.
12. Passenger Facility Charge Program Assurances are available at: https://www.faa.gov/airports/pfc/media/pfc-assurance.pdf.

6 Using this Document.

Hyperlinks (allowing the reader to access documents located on the internet and to maneuver within this document) are provided throughout this document and are identified with underlined text. When navigating within this document, return to the previously viewed page by pressing the "ALT" and " ←" (left arrow) keys simultaneously.

To aid in document navigation, users may add custom bookmarks to the bookmark panel list. Navigate to the location you want to bookmark. Highlight and select the text to appear on the bookmark, then click the "add bookmark" button at the top of the bookmark panel and edit the bookmark text as needed. New bookmarks appear at the end of the bookmark list, but you may drag and drop them to a preferred position.

7 Use of Metrics.

This AC uses U.S. customary units followed with "soft" (rounded) conversion to metric units. The U.S. customary units govern.

8 Where to Find this AC.

You can view a list of all ACs at https://www.faa.gov/regulations_policies/advisory_circulars/. You can view the Federal Aviation Regulations at https://www.faa.gov/regulations_policies/faa_regulations/.

9 Feedback on this AC.

If you have suggestions for improving this AC, you may use the Feedback Form at the end of this AC.

Trish Hiatt
Acting Director of Airport Safety and Standards

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Chapter 1. Background and Responsibilities

1.1 Use of this AC.

The NOTAM Management Service (NMS) is tailored to airport condition and facility reporting needs. Additionally, it describes the preferred NOTAM system, in this case, the NMS airport operators should use. The NOTAM Management Service replaces the previous Federal NOTAM System (FNS), including the NOTAM Manager and ENII Function of the NOTAM System**.**

NMS provides essential information to all airport users concerned with flight and airport operations. Using NMS satisfies the requirements of 14 CFR § 139.339. The essential information functions associated with NOTAMs are:

1.1.1 Providing timely information on unanticipated or temporary changes to components of, or hazards in, the NAS. Component changes may pertain to infrastructure, facilities, services, procedures, or hazards in the NAS.

1.1.2 Providing information that becomes available too late to publicize in the associated aeronautical charts and related publications.

1.2 Improper Use of NOTAM System.

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]

1.3 Duration of NOTAM.

NOTAMS must only address the time that the activity or condition is taking place. Temporary changes anticipated to last less than three months are information of short duration, which is distributed by NOTAM.

1.3.1 Extended Period NOTAMs.

When a temporary change, condition, or activity is expected to last more than three months from the date of NOTAM issuance, it is considered information of long duration. Consideration should be given for publication of the long duration temporary change of condition until the subject of the NOTAM is returned to normal operation. If the condition is a permanent change or condition, the airport operator should submit the NOTAM information to the Federal Aviation Administration (FAA) via the PERM NOTAM process in paragraph 2.3.13, to have the information published in an appropriate FAA publication(s) and/or chart(s). The originator of the NOTAM should

[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 Code of Federal Regulations (CFR) Part 161, *Notice and Approval of Airport Noise and Access Restrictions.* Contact the Regional Offices (Safety and Standards Branch) for guidance on complying with 14 CFR Part 161.

cancel the PERM NOTAM promptly after the relevant information is published elsewhere by the FAA.

1.4 Airport Records and Controls.

1.4.1 Airports certificated under Part 139 and federally obligated airports have requirements for maintaining records. Specifically, under 14 CFR 139.339(d), airport operators must maintain "for at least 12 consecutive calendar months, a record of each dissemination of airport condition information to air carriers prescribed by this section," including the dissemination of information using the NOTAM system for origination, modification, or cancelation of NOTAMs.

1.4.2 Airports may use information derived from NMS, to create its own electronic archive of the system confirmation emails they receive when issuing, modifying, or cancelling a NOTAM. The airport operator is ultimately responsible for maintaining these records (as specified by Part 139) and therefore the NMS system itself should only serve as a backup to the airport's primary method of record retention for purposes of demonstrating compliance with Part 139 recordkeeping requirements.

1.4.3 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.

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

1.5 Responsibilities.

1.5.1 Airport Operators.

Airport operators have the following responsibilities under the NMS:

1.5.1.1 Making known, as soon as practicable, any condition, existing or anticipated, within five miles of 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. Although advanced communication can be provided to air carriers and other airport stakeholders, NOTAM publications are limited to being published seven days in advance.

1.5.1.2 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, Flight Service Station (FSS), or the airport traffic control tower (ATCT).

1.5.1.3 Reporting and updating airport field conditions, the condition of airport services, facilities, movement areas, parking areas, loading aprons, and holding bays. Specific airport operator management responsibilities are outlined in Part 139, *Certification of Airports*; Part 152, *Airport Aid Program;* and Part 157, *Notice of Construction, Alteration, Activation, and Deactivation of Airports.*

Note: It is recommended that airport personnel operating on the airfield monitor the local traffic and air traffic frequencies. This will enable personnel to identify approaching aircraft, which may pose an operational safety risk, and allow time to avoid a conflict. For example, air traffic control and /or the pilots may not be aware of a runway closure at the non-towered airport. That is, sometimes a NOTAM is issued after an aircraft becomes airborne and the pilot did not receive the latest update, especially at an uncontrolled airport. The FAA recommends that NOTAMs for runway closures, snow removal operations, and any other lengthy maintenance activities at uncontrolled airports be directly coordinated with the overlying air traffic control facility (TRACON or ARTCC) when the operation will begin in less than 60 minutes. It is imperative that air traffic facilities are notified in advance when changes occur affecting the safe and expeditious movement of aircraft for a facility or surface area operated and maintained by the airport.

1.5.1.4 Ensuring notifications are made no more than 7 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.

1.5.1.5 Issuing NOTAMs for facility components such as pavements, runway lights, and airport guidance sign systems they are responsible for. 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.

1.5.1.6 Being aware, along with pilots, of Temporary Flight Restrictions (TFR) that may affect airport operations. TFR information is available at https://tfr.faa.gov/tfr2/list.html, 1800wxbrief.com, or by calling any FSS for a pilot briefing.

1.5.1.7 Keeping informed of NOTAM technology as advancements in NOTAM delivery capabilities change. Currently, the FAA web-based NOTAM Management Service (NMS) is the preferred system for initiating NOTAMs. For information on NMS or to onboard as a new user, please go to https://nms.aim.faa.gov/ or email NOTAMS@faa.gov.

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

1.5.1.8 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, as provided under 14 CFR § 139.303.

1.5.1.9 Using the optional NOTAM Log (electronic or paper) found in Appendix A. Alternatively, a downloaded history from NMS may be used. These records serve as the primary or backup method for tracking the origination, modification, cancellation, or status of NOTAMs. Maintaining these records demonstrates compliance with Part 139 recordkeeping requirements.

1.5.1.10 Inputting Pilot Weather Report (PIREP) information into NMS, when received from aircraft operators or the ATCT, to assist in comparing PIREPs and airport operator condition assessments. See paragraph 3.12 for application.

1.5.1.11 Providing an up-to-date list of airport employees who are authorized to access and issue NOTAMs through NMS or to the FSS air traffic manager.

1.5.1.12 Respond to NOTAM inquiries from Regional Airport offices (Safety and Standards Branch), United States NOTAM Office (USNOF), and FSS or FSS representatives on matters pertaining to the NOTAM process.

1.5.1.13 NOTAMs associated with published information, which are intended to be a permanent change, should follow the PERM NOTAM process outlined in paragraph 2.3.13. The airport operator will need to monitor publishing dates to confirm the submitted information has been updated. Once the information has been published in an appropriate FAA publication or chart, the airport operator will need to cancel the corresponding NOTAM in the system.

Note: NOTAM information for permanent changes will not auto-cancel out of the NOTAM system when the alternate FAA publication is updated and requires action by the airport operator to be cancelled.

1.5.2 Flight Service.

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 AC and FAA Order 7930.2. This responsibility is delegated to the Safety and Operations Policy Group, which oversees the FSS and FSS representatives. If there are questions on the validity of a NOTAM, an FSS representative will attempt to contact the airport operator. When there is no response from the airport operator after 30 calendar days of multiple contact attempts, (e.g., phone and email), then FSS will inform the appropriate FAA Regional Airport office of the issue for assistance.

1.5.3 Regional Offices (Safety and Standards Branch).

When requested by FSS, the regional office communicates with the airport operator to confirm if a NOTAM is still valid and, if needed, may ask the airport operator to submit a change to the FAA via the process in the PERM NOTAM paragraph 2.3.13.

1.5.4 U.S. NOTAM Office (USNOF).

The USNOF is responsible for NOTAM formatting compliance. NOTAMs submitted through the NMS must be in the proper format. (See paragraph 2.3 for proper NOTAM format.) To ensure NOTAMs are issued in accordance with NOTAM policy pursuant to FAA Order 7930.2, USNOF will:

1.5.4.1 Maintain the integrity of the NOTAM system by managing it for compliance 24/7/365.

1.5.4.2 Process, store, and distribute NOTAMs through the NOTAM system.

1.5.4.3 Provide quality control during the review, processing, and origination of NOTAMs.

1.5.4.4 Notify the transmitting party when the USNOF determines that NOTAM information submitted is not in compliance with the criteria or procedures.

1.5.4.5 Ensure NOTAM policy questions are forwarded to the US NOTAM Governance Team for decision-making in consultation with other interested program offices.

1.5.5 To submit a NOTAM policy questions, go to: https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/Aeronautical_Inquiries/

1.6 **Compliance.**

1.6.1 Certificated Airports.

The Office of Airport Safety and Standards is responsible for enforcing the airport operator responsibilities, as outlined in Part 139. Additionally, Office of Airport Safety and Standards has responsibility to collaborate with the USNOF on NOTAM criteria

challenges and other concerns that will assist in improving the overall functionality and use of the NOTAM system.

1.6.2 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 Part 139, see Part 152, Appendix D, and the current FAA Order 5190.6. 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:

1.6.2.1 **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 , Part-time Operation of Airport Lighting section, 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.

1.6.2.2 **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 by issuing NOTAMs.

1.6.2.3 **Safe Operations.**

The airport will be operated at all times in a safe and serviceable condition. 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 ATC.

1.7 Dissemination of NOTAMs.

1.7.1 Determining NOTAM Distribution.

The USNOF is charged with monitoring NMS 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.

1.7.2 Domestic NOTAMs.

The NOTAM (D) criteria of FAA Order 7930.2 requires wide dissemination of NOTAM (D) information via telecommunication and pertains to any aeronautical

facility, en-route navigational aids, services, procedures, hazards, certificated part 139 airports, and civil public-use airports , as listed in the Chart Supplement U.S.

1.7.3 Determining NOTAM Issuance Criteria.

1.7.3.1 NOTAMs should not be issued contrary to standards or guidance. This includes (but not limited to) NOTAMs with websites, commercial information, or non-safety critical changes.

1.7.3.2 The following examples typically would not meet criteria for issuance of a NOTAM, unless determined by the Office of Airports and the USNOF supervisory authority that it impacts safety:

1.7.3.2.1 The lack of ramp or apron marshalling services and road traffic control.

1.7.3.2.2 Activities such as parachuting, gliding, acrobatics, and training when conducted in uncontrolled airspace under Visual Flight Rules (VFR) conditions and when the activity is already published.

1.7.3.2.3 Electronic Navigational Aid (NAVAID) operating on or without emergency backup power or standby transmitter, except when applicable to Category (CAT) II/III Instrument Landing Systems (ILS).

1.7.3.2.4 When Air Traffic Services (ATS) are made available using contingency plans transparent to the users, such as call re-routing and remote monitoring.

1.7.3.2.5 Training activities by ground units (e.g., military operations at the airport).

1.7.3.2.6 Unavailability of back-up and secondary systems if these do not have an operational impact.

1.7.3.2.7 Announcement or warnings about possible/potential limitations without any operational impact.

1.7.3.2.8 General reminders on already published information.

1.7.3.2.9 Availability of equipment for ground units without containing information on the operational impact for airspace and facility users. (e.g., military operations at the airport).

1.7.3.2.10 Information about laser emissions without any operational impact or fireworks below minimum flying heights.

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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. See 14 CFR § 139.339(c)(9) and Grant Assurance 19. Airport operators are also responsible for initiating NOTAMs to report runway condition assessments and field condition (FICON). See 14 CFR § 139.339(c)(9) and Grant Assurance 19. 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 use to identify and report runway surface conditions into NMS. 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 NMS, can submit information for NOTAMs to FSS.

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

2.2 NOTAM Criteria.

For airport operators awareness, FAA personnel tasked with accepting NOTAM information must use the official International Civil Aviation Organization (ICAO) contractions and abbreviations specified in FAA Order JO 7340.2 and the allowed exceptions found in FAA Order 7930.2 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 may be published to address the following conditions or categories of information:

2.2.1.1 *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.

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

2.2.1.3 *Aircraft Rescue and Fire Fighting (ARFF) capability.* Restrictions to air carrier operations.

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

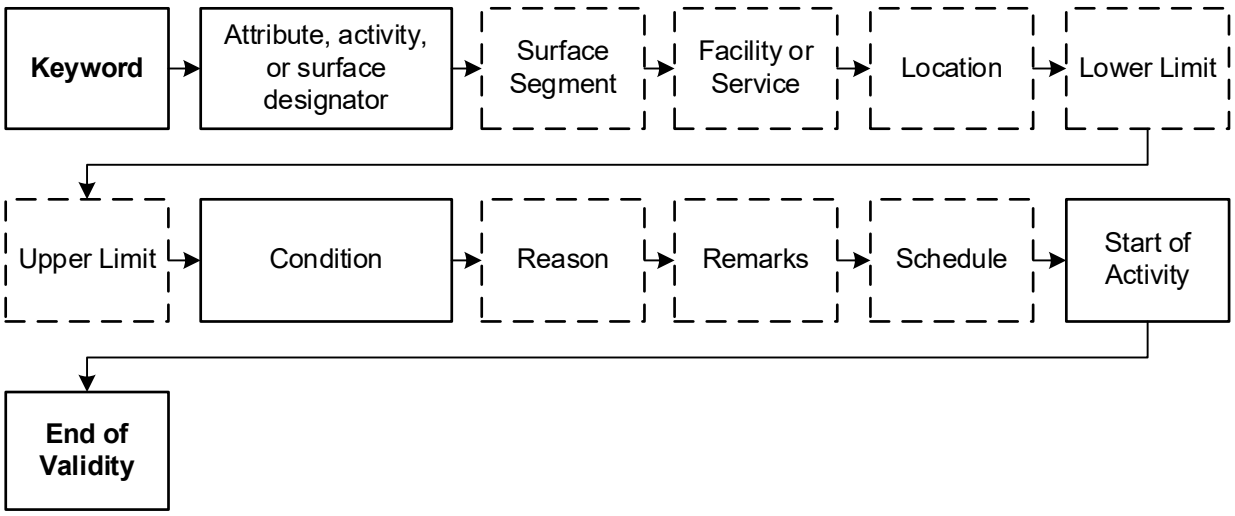
2.2.1.5 *NAS lighting systems.* Commissioning, decommissioning, outages, changes in classification or operation, as defined in AC 150/5340-30, *Design and Installation Details for Visual Aids.*

References: Aeronautical Information Manual (AIM), FAA Order JO 7930.2, and AC 120-57.

2.3 NOTAM Composition.

The purpose of the NOTAM diagram below is to provide a basic outline of the content of a NOTAM. The elements keyword, attribute, activity, or surface designator; condition, start of activity, and end of validity are mandatory. All other elements are included, as needed. The paragraphs below provide some examples for each of the elements of the NOTAM composition.

Figure 2-1. Basic Outline of a NOTAM Content



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 PRKG 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:

2.3.7.1 For Surface (SFC), or 1 to 17,999 feet, include the unit of measurement (FT) (for example, 50FT, 1275FT AGL, 10500FT MSL).

2.3.7.2 For 18,000 feet and above, express in flight levels (FL) (for example, FL180, FL550, or UNL (unlimited; altitudes greater than 99,900 feet)).

2.3.7.3 "Feet" means mean sea level (MSL) unless otherwise stated and, therefore, the reference indication label MSL must not be included after the stated altitude in the NOTAM (for example, 1200FT). When referencing heights above ground level (AGL), include the reference indication label AGL after the stated altitude in the NOTAM (for example, 800FT AGL). Include heights AGL when required (obstacle NOTAM) 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 include 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 U/S

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). To ensure NOTAM system compatibility, 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). To ensure NOTAM system compatibility, these times must be separated by a hyphen "-".

Example: ! JFK JFK RWY 12/30 CLSD YYMMDD2330-YYMMDD1300

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 YYMMDD2330-YYMMDD1300

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 cancelled or replaced before the NOTAM reaches its End of Validity time. If the NOTAM is not cancelled or replaced, it will expire at the end of validity time regardless of EST.

Example: !JFK JFK RWY 12/30 CLSD YYMMDD2330-YYMMDD1300EST

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 ensuring the NOTAM data gets published in the appropriate publication and then cancelling the NOTAM once the published information is verified. See PERM NOTAM information in paragraph 2.3.13.

Example: !JFK JFK RWY 12/30 CLSD YYMMDD2330-PERM

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

2.3.12.6 When the condition of a number of facilities, NAVAIDs, services, or landing areas/runways are related to the same event (for example,

611 date/time, facility closing, part-timing, runway closures, etc.), issue
612 separate NOTAMs for each facility.

613 2.3.12.7 Each NOTAM concerning a specific aid, service, or hazard should be a
614 complete report including all deviations unless reference is made to other
615 restrictions already published.

616 2.3.12.8 If information is published elsewhere and is still valid, make references to
617 that publication with the statement, “PLUS SEE (publication).” A NOTAM
618 issued not stating “PLUS SEE (publication)” indicates the NOTAM
619 replaces previously published similar data.

620 2.3.13 PERM NOTAMs Publication Process.

621 2.3.13.1 PERM NOTAMs are NOTAMs issued for airport facilities, features, or
622 infrastructure alerting users of a permanent condition and that a NOTAM
623 will be in effect until the information is published in an appropriate FAA
624 publication(s) and/or chart(s).

625 2.3.13.2 When a NOTAM is originated for a permanent change to published
626 aeronautical information, “PERM” must be inserted in lieu of a ten-figure
627 date-time group end of validity time.

628 2.3.13.2.1 Before issuing a PERM NOTAM, the originator must submit the required
629 information through the publication process.

630 2.3.13.2.2 The originator must enter a temporary NOTAM until they are able to
631 confirm the initiation of the publication process.

632 2.3.13.3 Generally, PERM NOTAMs information should be published or charted
633 within 90 days of NOTAM issuance.

634 2.3.13.4 Obstacle NOTAMs should not be issued as PERM. To initiate the
635 publication process of obstacles, contact the FAA Obstacle Data Team at 9-
636 ajv-532-obstdata-req@faa.gov.

637 2.3.13.5 Once PERM information is published or charted, the PERM NOTAM
638 should be immediately cancelled.

639 2.3.13.6 A PERM NOTAM for wildlife hazards should not be issued if the
640 information is already published in the remarks section of the Airport
641 Master Record or Chart Supplement.

642 2.3.13.6.1 PERM NOTAMs for wildlife activity can be issued if it is new permanent
643 wildlife information.

644 2.3.13.6.2 Immediate action should be pursued to publish new information or activity
645 in the appropriate FAA publication.

2.3.13.7 A flowchart diagram at Appendix D illustrates what tools can be used to complete the PERM NOTAM process and which tool is the preferred method for accepting certain airport information. Additionally, the following link can be accessed for addressing PERM NOTAMs: https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data/Submitting_Data/. Once the PERM NOTAM is issued, follow the process specified below to publish the information in appropriate FAA charts or Chart Supplement:

2.3.13.7.1 Airport Data Information Portal (ADIP).

NOTAM information dealing with airport 5010 data changes can be submitted through this application to receive Regional Airport Offices (Safety and Standards Branch) approval. Typically, the Regional Airport Offices (Safety and Standards Branch) concurrence on the airport name change is needed before submitting the name change through ADIP. In addition, declared distances, wildlife, and any other 5010 data changes should be submitted through ADIP.

2.3.13.7.2 Aeronautical Information Portal (AIP).

The remainder of PERM NOTAM changes can be submitted by the airport operator or Regional Airport Offices (Safety and Standards Branch) to the AIP as either a chart or data change. If it is not a 5010 data change, then AIP should be used. The following website provides access to AIP: https://nfdc.faa.gov/nfdcApps/.

2.3.13.7.3 Aeronautical Chart Change (ACC).

NOTAM for taxiway changes, closed, or any other information that impacts the airport diagram will be submitted to the ACC Portal.

2.3.13.7.4 Aeronautical Data Changes (ADC).

NOTAMs for any other data changes that do not go through ADIP are sent through the ADC.

674

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.

2.3.14 NOTAM examples and translations. The paragraphs below provide some examples for various categories and plain text translations illustrating the structure of certain keyword NOTAMs. NOTAMs will not always contain all the NOTAM composition elements.

2.3.14.1 **Runway.**

…RWY 09/27 CLSD TO ACFT MORE THAN 12500LB YYMMDD1300-YYMMDD2000

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 YYMMDD1200-PERM

Translation: Runway designation 13/31 from the time period specified is permanently changed to 14/32.

Note: When this information is published this NOTAM should be canceled.

…RWY 16/34 CLSD TO ACFT WINGSPAN MORE THAN 70FT AND TO ACFT TAIL HEIGHT MORE THAN 49FT YYMMDD1300−YYMMDD2000

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

Note: As displayed in the example above, do NOT refer to Airplane Design Group in NOTAMS but instead refer to the size characteristics associated with aircraft (for example weight, tail height, wingspan etc.).

2.3.14.2 **Taxiway.**

…TWY A3, A4, A5 EDGE LGT U/S YYMMDD1800-YYMMDD2200

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

…TWY ALL CLSD YYMMDD1800-YYMMDD2200

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

…TWY A WIP ELECTRICAL LINE TRENCHING YYMMDD0800-YYMMDD1400

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

2.3.14.3 **Aprons/Holding Bay.**

…APRON NORTH APN E 50FT CLSD YYMMDD2150-YYMMDD0700

Translation: The east 50 feet of the north apron is closed during the specified time period.

…APRON SOUTH CARGO APN CLSD YYMMDD1300-YYMMDD1300EST

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

2.3.14.4 **Commissioned.**

…TWY EE BTN TWY M AND TWY ED 4795FT X 75FT CONC LGTD COMMISSIONED YYMMDD2150- PERM

Translation: Taxiway EE between taxiway Mike and taxiway ED, which is 4795 feet long and 75 feet wide, is concrete, and lighted is commissioned at the specified start date.

A Commissioned NOTAM should include the following:

1. Surface Designator
2. Condition “COMMISSIONED”
3. Location of movement area in reference to existing airport surfaces using phrases (PARL, ADJ, BTN, cardinal direction and distance).
4. Length and width of movement area, (for example, 5000FT X 150 FT).
5. Type of surface (for example, CONC, ASPH)
6. Lighting Status (LGTD, NOT LGTD).
7. Pavement Classification Rating (PCR), if provided
8. Runway declared distances, required for only runway commission, if provided.

Note: This type of NOTAM may need to be filed through calling FSS and/or by using the free form selection.

2.3.14.5 **Spots, Gates, Hardstands, Etc.**

Can be used as geographical reference points to delineate a section on aprons or taxiways, but do not meet NOTAM criteria as its own individual “attribute”.

…APRON SOUTH TERMINAL RAMP APN BTN GATE 3 AND SPOT 4 CLSD YYMMDD1300 – YYMMDD1300EST

Translation: South terminal ramp apron between gate 3 and spot 4 is closed during the specified times with an estimated return to service time.

…APRON EAST TERMINAL RAMP APN BTN SPOT 23 AND HARDSTAND 4 CLSD YYMMDD0900 – YYMMDD2300

Translation: East terminal ramp apron between spot 23 and hardstand 4 is closed during the specified times.

2.3.14.6 **Aerodrome.**

…AD AP CLSD YYMMDD2330-PERM

Note: See paragraph 2.3.13 for the PERM NOTAM process before issuing a PERM NOTAM.

Translation: Airport is permanently closed beginning at specified date/time.

…AD AP CLSD EXC 2HR PPR MON-FRI YYMMDD1000-YYMMDD1200

Translation: Airport closed except for two hours prior permission required. Monday through Friday during time period.

2.3.14.7 **Services.**

…SVC ATIS NOT AVBL YYMMDD1600-YYMMDD1800

Translation: ATIS is not available during specified time period.

…SVC TWR CLSD YYMMDD2100-YYMMDD2300

Translation: Airport tower is closed during specified time period.

2.4 NOTAM Submission.

Airport operators should use NMS as the preferred and most effective method for entering NOTAMs into the system. NMS 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 NMS

2.4.1.1 For information on NMS or to onboard as a new user, please go to https://nms.aim.faa.gov/ or email NOTAMS@faa.gov.

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 the FSS, 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 NMS Public NOTAM Search will be available from the NMS home page at https://nms.aim.faa.gov/

2.6 **NOTAM Management.**

Consistent with the requirement to disseminate airport condition information to air carriers in 14 CFR § 139.339, airport operators are responsible for issuing NOTAMs as well as updating NOTAMs when the underlying condition has changed, or promptly cancelling NOTAMs that are no longer applicable to airport 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. See 14 CFR § 139.339. The airport operators should utilize NMS 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 two methods available to airport operators. The first and preferred method is NMS, a direct-entry 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 should ensure they are compatible and consistent. See 14 CFR § 139.339(b). Supplemental systems used for dissemination of NOTAM information are not recommended due to the potential to advertise outdated information which may 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. A FICON NOTAM should not be originated for the sole purpose of reporting a dry runway. See 14 CFR § 139.339(c)(3). A dry surface is reported when there is a 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.

3.2.5 The issuance of a Runway Condition Code (RwyCC) NOTAMs applies as follows:

3.2.5.1 RwyCC NOTAMs are not allowed on a runway with an active closure NOTAM in effect. This prevents any confusion on whether the runway is open or not.

3.2.5.2 The issuance of multiple RwyCC NOTAMs for the same runway, e.g., one for each end, is also not permitted. This prevents confusion about which runway direction is available and what the conditions are on the surface for that particular landing runway.

3.2.5.3 RwyCCs can be read in reverse for situations permitting opposite direction operations.

Note: RWY CC NOTAMs (Field Condition Reports or FICONS) should be updated even if conditions do not change. This practice provides a time stamp of your last observation.

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 than 1/8 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 third of the runway. See 14 CFR 139.339(c)(3). 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.

Term	Definition
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.
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.

Term	Definition
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 Note:. 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.

892 **Note:** Percentages only apply to runways, not any other surface.

893 **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%

894 ## 3.6 Runway Condition Assessment Matrix (RCAM).

895 Upon completing an assessment of a runway surface, the next step is determining how
896 the RCAM applies. The threshold for determining RwyCC applicability is 25%. The
897 airport operator must first determine whether the overall runway length and width is
898 contaminated greater than 25%. If the contaminant noted is greater than 25%, RwyCCs
899 will be applicable. If 25% or less of the runway is contaminated, then a RwyCC will not
900 be generated.

901 ### 3.6.1 Using the Runway Condition Assessment Matrix (RCAM).

902 The RCAM is the method an airport operator uses to assess and report conditions on a
903 runway surface when contaminants are present. Use of the RCAM is only applicable to
904 paved runway surfaces. Once an assessment has been performed, the RCAM defines the
905 format by which the airport operator reports and determines a Runway Condition Code
906 "RwyCC" (when applicable). This function is automatically calculated in NMS. Below
907 are the basic steps for obtaining a RwyCC and some examples of how it will appear as a
908 NOTAM. Consult AC 150/5200-30, *Airport Field Condition Assessments and Winter*
909 *Operations Safety*, for current guidance for assessing and reporting airport surface
910 conditions using the RCAM.

911 **Note:** When it is discovered that one or more thirds of a runway has a RWYCC of "0",
912 you must stop operations on that runway and perform mitigating actions.

3.6.2 Determining Runway Condition Codes (RwyCC).

Upon identifying that a runway is contaminated greater than 25%, use the RCAM (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.

Runway Third:	Touchdown	Midpoint	Rollout	
RwyCC:	5	5	5	22
Contaminant:	70% 1/8 inch Wet Snow	70% 1/8 inch Wet Snow	70% 1/8 inch Wet Snow	
04				

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	22
Contaminant:	20% 1/8 inch Wet Snow	20% 1/8 inch Wet Snow	20% 1/8 inch Wet Snow	
04				

Note: In the example above, a NOTAM would not be published because the total affected coverage of the runway must exceed 25%. The combined impact across the three runway thirds is 20%, which falls below the required threshold. For comparison, if two runway thirds were affected at 20%, the remaining third would need to be affected at 40% to trigger a NOTAM. In that case, the combined coverage would be 26.7%, which exceeds the 25% threshold.

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 will 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% 1/4 inch Slush**	20% 1/8 inch Wet Snow **30% 1/4 inch Slush**	20% 1/8 inch Wet Snow **30% 1/4 inch Slush**
	Total Coverage 50%	Total Coverage 50%	Total Coverage 50%

04 **22**

Runway Third:	Touchdown	Midpoint	Rollout
RwyCC:	1	1	1
Contaminant:	**30% Ice** 60% **1/4** inch Slush	**30% Ice** 60% **1/4** inch Slush	**30% Ice** 60% **1/4** inch Slush
	Total Coverage 90%	Total Coverage 90%	Total Coverage 90%

04 **22**

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 will be based on the contaminant with the higher percentage for that third.

Runway Third:	Touchdown	Midpoint	Rollout
RwyCC:	2	2	2
Contaminant:	10% Ice **20% 1/4 inch Slush**	10% Ice **20% 1/4 inch Slush**	10% Ice **20% 1/4 inch Slush**
	Total Coverage 30%	Total Coverage 30%	Total Coverage 30%

04 **22**

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 will 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:	**20% Ice** 20% 1/4 inch Slush	**20% Ice** 20% 1/4 inch Slush	**20% Ice** 20% 1/4 inch Slush
	Total Coverage 40%	Total Coverage 40%	Total Coverage 40%

04 **22**

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 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:	04	10% Ice 10% 1/4 inch Slush	10% Ice 10% 1/4 inch Slush	10% Ice 10% 1/4 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 AC 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 criterion will not be used for Nil pilot reported braking action reports.

3.7 Examples of System Capabilities Associated Field Condition (FICON) NOTAMs.

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 PCT 1/8IN DRY SN OBSERVED AT YYMMDD1620. YYMMDD1625-YYMMDD1625

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.

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:	04L	5	5	5	22R
Contaminant:		50% 1/8 inch Dry Snow	50% 1/8 inch Dry Snow	50% 1/8 inch Dry Snow	

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

!DEN DEN RWY 25 FICON 5/3/5 50 PCT WET, 50 PCT 1/8IN WET SN OVER COMPACTED SN, 50 PCT 1/8IN SLUSH OBS AT YYMMDD1655. YYMMDD1700- YYMMDD2000

Translation: Denver airport assessment using the RCAM produced a FICON of 5/3/5 with contaminants consisting of 50% Wet, 50% 1/8-inch Wet Snow over Compacted Snow, and 50% 1/8-inch 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.

Runway Third:		Touchdown	Midpoint	Rollout	
RwyCC:	25	5	3	5	07
Contaminant:		50% Wet	50% 1/8 inch Wet Snow over Compacted Snow	50% 1/8 inch Slush	

3.7.3 Two Different Contaminants in Each Runway Third.

!SLC SLC RWY 34L FICON 3/5/2 50 PCT WET AND 50 PCT 1/8IN WET SN OVER COMPACTED SN, 50 PCT WET AND 25 PCT 1/8IN WET SN OVER COMPACTED SN, 10 PCT 1/4IN SLUSH OVER ICE AND 75 PCT 1/4IN SLUSH OBS AT YYMMDD1855. YYMMDD1900-YYMMDD2200

Translation: Salt Lake City airport assessment using the RCAM produced a FICON of 3/5/2 with contaminants consisting of 50% Wet and 50% 1/8-inch Wet Snow over compacted Snow, 50% Wet and 25% 1/8-inch Wet Snow over compacted Snow, 10% 1/4-inch Slush over Ice and 75% 1/4-inch 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% 1/4 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 PCT COMPACTED SN OBS AT YYMMDD0230. COND NOT MNT YYMMDD0300-YYMMDD1045.

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 during a specified timeframe as illustrated.

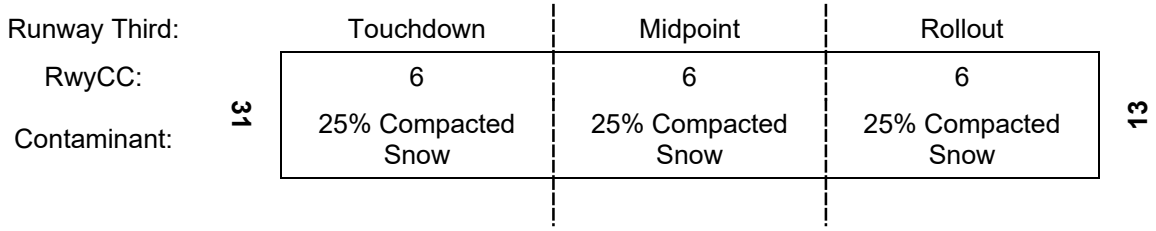
Note 1: All FICON NOTAMs have "OBSERVED (OBS) AT" and effective/expiration times but not all have "CONDITIONS (COND) NOT MONITORED (MNT)".

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 PCT COMPACTED SN...

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 PCT 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 PCT 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 PCT 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 PCT 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 PCT COMPACTED SN, 25 PCT COMPACTED SN, 100 PCT 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 PCT 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 PCT COMPACTED SN 8IN SNOWBANKS...

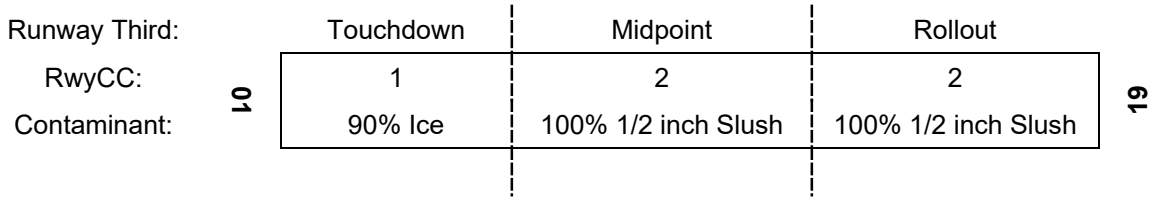
Translation: Runway 16 is the landing runway, has a RwyCC of "3" in all thirds, and has been completely plowed and swept. Therefore, the terms PLOWED or SWEPT are not used. The temperature is warmer than 5°F (-15°C). The runway is 100% covered with compacted snow and has 8-inch snowbanks.

…RWY 33 FICON 4/4/4 100 PCT 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 PCT ICE, 100 PCT 1/2IN SLUSH, 100 PCT 1/2IN 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 PCT 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 PCT 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 with sand. The depth of ice is not reported.

…RWY 11 FICON 5/5/5 100 PCT 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 PCT 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 OBS AT YYMMDD0230 YYMMDD0300-YYMMDD0430.

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 of 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 snowbank. Use the terms “SNOWBANKS,” “BERMS,” or “WINDROWS”.. Snowbanks and Berms contain earth/gravel. Windrows are ridges of snow created by mechanical means. 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 PCT 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 1/4 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% 1/4 Inch Wet Snow	100% 1/4 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 only 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 PCT 2IN MUD, DRY, DRY. OBS AT YYMMDD0230. YYMMDD0300-YYMMDD0400.

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.

…RWY 01L FICON 100 PCT ASH...

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

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

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, *Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces*, the airport operator must report, via the NOTAM system, a RwyCC of "3" for the entire runway (by thirds: 3/3/3), and follow it with the term "SLIPPERY WHEN WET" when the runway is Wet.

A "Wet" runway should not be reported 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.

Slippery When Wet NOTAMS and non-paved runway braking action are the only FICON NOTAMS that are described using both runway ends.

Note: If airport operator judgment deems a downgrade is necessary, the downgrade must be made, such that all three runway thirds match (e.g., 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: Runway 01/19 has failed to meet minimum friction level classification and is wet.

Note: Even if only the approach end of RWY 01 failed, when a portion of a runway surface fails 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, the type of vehicle making the report should not be provided 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 OBS AT YYMMDD0230. YYMMDD0253-YYMMDD0400

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 Report (PIREP), Braking Action.

3.12.1 A PIREP can be 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. 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 may 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 NMS. 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 is 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 1: 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.

Note 2: When an airport operator receives two consecutive Pilot Braking Action Reports of "Poor", assess the runway before the next flight operation unless you have already instituted continuous monitoring procedures.

3.13 "Conditions (COND) Not Monitored (MNT)" NOTAMs.

3.13.1 Airport operators should use "conditions not monitored" NOTAMs to provide information to pilots related to the conditions not being monitored at the airport, perhaps due to operations hours or staffing. COND NOT MNT is appended to the last FICON NOTAM 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 "COND NOT MNT" (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. After 24 hours of not being updated, the FICON NOTAM will automatically expire and be removed by the system.

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 PCT ICE OBS AT YYMMDD0230. COND NOT MNT YYMMDD0300-YYMMDD1045.

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 during a specified timeframe.

3.13.5 The airport operator can submit for publication a note stating conditions are not monitored during periods of time specified in the Chart Supplement or their Airport Master Records and Reports (5010). If the airport has published times in the Airport Master Record/Chart Supplement, then a NOTAM is only necessary to reflect when "conditions not monitored" are occurring outside of the published timeframes.

3.14 "Surface (SFC) Conditions (COND) Not Reported (REP)" NOTAMs.

When it is determined that no surface condition reports will be conducted and no current observation exists, issue a single NOTAM for the entire time-period. Use the phrase "SFC COND NOT REP", 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 FICON NOTAM that is accompanied with the most recent observation. Conditions Not Monitored is to be used when surface condition reports will not be conducted and no current observation exists. 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.

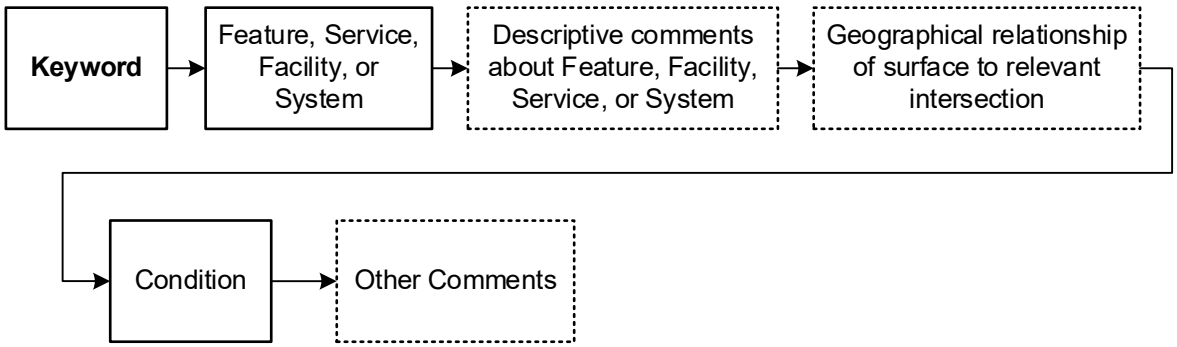
Example: !CWA CWA AD AP SFC COND NOT REP YYMMDD2200-YYMMDD0500

Translation: Central Wisconsin airport surface conditions are not being reported during a specified timeframe.

3.15 Runway Light Obscuration or Outages.

The diagram below illustrates the elements for a NOTAM to address runway light obscuration or outages. The paragraphs below provide some examples and plain text translations. Not all NOTAMs will contain all of the NOTAM elements.

Figure 3-1. NOTAM Elements to Address Runway Light Obscuration or Outages



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 REDL OBSC YYMMDD1300-YYMMDD1400

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 U/S YYMMDD2300-YYMMDD1200

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).**

!ATL ATL RWY 08R RTZL U/S YYMMDD2300-YYMMDD1200

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

3.15.2.3 **Runway Edge Lights (REDL).**

!ATL ATL RWY 08R/26L REDL U/S YYMMDD2300-YYMMDD0400

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, Low Intensity Runway Lights (LIRL), Medium Intensity Runway Lights (MIRL), High Intensity Runway Lights (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 Lead-In Lighting System (LDIN)).**

!DCA DCA RWY 19 RLLS U/S YYMMDD2300-YYMMDD1200

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 **Runway End Light (RENL) co-located with Threshold Lights.**

!IAD IAD RWY 01R RENL U/S YYMMDD2000-YYMMDD2130

Translation: Washington Dulles airport Runway 01R runway end light is out of service with a self-cancelling expiration time.

3.15.2.6 **Aerodrome Total Power Failure.**

!SPA SPA AD AP LGT U/S YYMMDD2300-YYMMDD1200

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.

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

These examples discuss controlling runway or approach lights.

!SBY SBY SVC PCL ALL U/S YYMMDD2300-YYMMDD1200

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

…SVC PCL FREQ CHANGED TO 122.8 YYMMDD2300-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 U/S YYMMDD2300-YYMMDD1200

Translation: Runway 18 pilot control Visual Approach Slope Indicator (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 should be coordinated for publication.

3.16.2 Some examples of other reportable conditions are as follows:

!TSG TSG RWY 12/30 NUMEROUS 3IN CRACKS YYMMDD0100-YYMMDD1700

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

… AIRSPACE CONTROLLED BURN WI AN AREA DEFINED AS .5NM RADIUS OF FXE360001 SFC-1500FT YYMMDD2300-YYMMDD0100

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

Note 1: 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.

Note 2: As seen in below NOTAMS, when using "NOT STD" (not standard) airport operators when prompted must include in remarks the reason for the subject of the NOTAM not meeting standards.

3.16.2.1 Signage.

…SFC PAINTED HLDG PSN SIGN NOT STD NOT REFLECTIVE YYMMDD1200- YYMMDD2300

Translation: Surface painted holding position signs are not standard due to non-reflectivity for a specific date with a self-cancelling expiration time.

3.16.2.2 Taxiway Lights.

!SHL SHL TWY K, L EDGE LGT U/S YYMMDD2300-YYMMDD1200

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

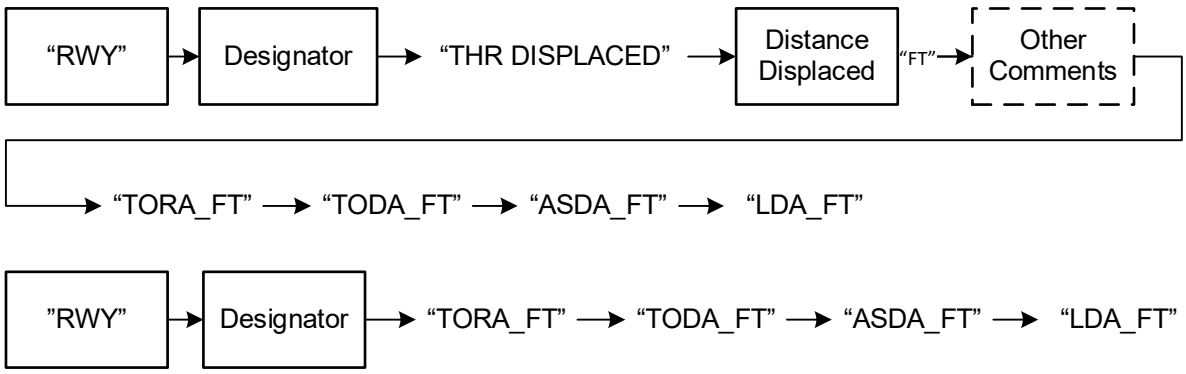
…TWY C STOP BAR LGT FOR RWY 16R/34L U/S YYMMDD2300-YYMMDD1200

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

3.17 Runway Thresholds and Declared Distances.

The diagram below illustrates the elements for a NOTAM to address runway thresholds and declared distances. 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.

Figure 3-2. NOTAM Elements to Address Runway Thresholds and Declared Distances



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 prior to displacing a threshold because the resulting displacement may result in Instrument Flight Procedures (IFPs) 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.

3.17.3 Permanent changes to the TORA, TODA, ASDA, and LDA should be issued as a PERM NOTAM and should not last for more than 90 days. When the change will be permanent, submit the new information to the appropriate Regional Offices (Safety and Standards Branch) through the ADIP. Maintain the PERM NOTAM until the new information is processed and published in the appropriate FAA publication or Chart Supplement. Once published, cancel the PERM NOTAM.

Note: Any temporary change to declared distance information should not be issued as a PERM NOTAM.

!MKC MKC RWY 19 THR DISPLACED 300FT MARKING NOT STD. DECLARED DIST: TORA 6827FT TODA 6827FT ASDA 6827FT LDA 6527FT. YYMMDD1500–YYMMDD1600

!MKC MKC RWY 01 DECLARED DIST: TORA 6827FT TODA 6827FT ASDA 6527FT LDA 6527FT YYMMDD1500 -YYMMDD1600

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. YYMMDD0300–YYMMDD0600

… RWY 10L DECLARED DIST: TORA 13001FT TODA 13001FT ASDA 11501FT LDA 11501FT YYMMDD0300–YYMMDD0600

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 YYMMDD0300–YYMMDD2100

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. YYMMDD0300–YYMMDD2100

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.

3.17.4 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. YYMMDD0300–PERM

Translation: Charlotte airport Runway 05 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. YYMMDD0300–PERM

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

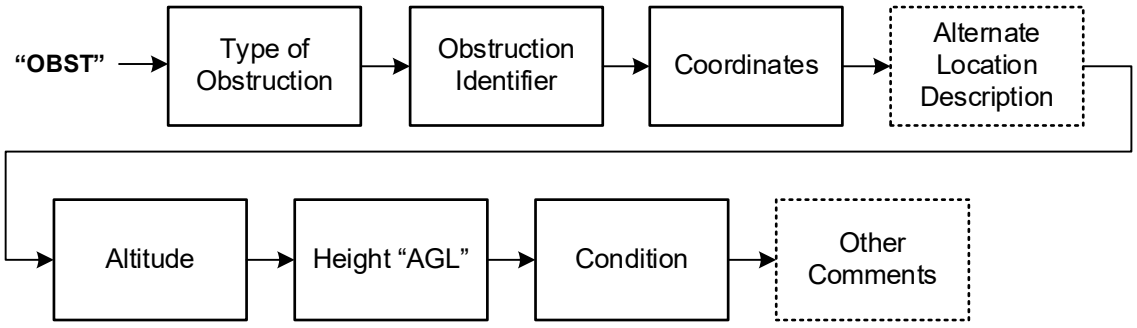
… RWY 08/26 NOW 10000FT X 150FT DECLARED DIST: RWY 08 TORA 9000FT TODA 9500FT ASDA 9000FT LDA 9000FT. RWY 26 TORA 9000FT TODA 9000FT ASDA 9400FT LDA 10000FT. YYMMDD0300–PERM

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 diagram below illustrates the elements for an obstruction NOTAM. The elements "OBST; Type of Obstruction; Antenna Structure Registration (ASR) Number/Aeronautical Study Number (ASN); 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.

Figure 3-3. NOTAM Elements for an Obstruction



3.18.1 Obstructions such as towers, cranes, stacks, wind turbines, non- Federal Communications Commission (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 Specify the altitude MSL with the unit of measurement (FT), if known. Otherwise, state UNKNOWN. In parentheses, specify the height with the unit of measurement (FT) and reference datum (AGL). 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 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 OFA should 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 Report the height of obstruction lights on terrain (hills) in MSL only, as the terrain is the obstacle, not the light on the terrain.

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 (NM)).
3. Direction from the 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 ASR number (if applicable). The tower registration number can be found at wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp.

3.18.6 A NOTAM should be issued for 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 AGL. When able, report outages to the limits of the Part 77 surfaces of the airport.

!GSP GSP OBST TOWER LGT (ASR 1234567) 345313.12N0815744.34W (3NM SSW SPA) 1528FT (564FT AGL) U/S YYMMDD1200-YYMMDD1200

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) U/S YYMMDD1600-YYMMDD1600

Translation: Airport reports an obstruction tower light at a specific lat/long and within 12NM of north of Chicago Executive 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 Part 77 surfaces of the airport. An 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 YYMMDD2300-YYMMDD2300

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 YYMMDD2330-YYMMDD2359

Translation: Airport reports a wind turbine within an 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 The 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 with obstruction ownership responsibilities should report 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. Reporting the operating status of obstruction lights on communication towers is the responsibility of the communication tower operator (47 CFR § 17.48).

3.18.9.1 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 NMS Public NOTAM Search page at https://nms.aim.faa.gov/If NOTAMs are not found, contact and advise the tower operator about the outage.
2. If the tower operator is not known, look up the information on the FCC website at wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp.

3.19 Birds and Other Wildlife.

Birds and other wildlife activity NOTAMs should focus on chronic or persistent problems that are relatively short-lived or seasonal in nature. NOTAMs of this type are effective at providing timely alerts when migration (e.g., birds, caribou), and other seasonal nesting, breeding, or movement activity is contrary to or beyond the scope of published airport data in the Chart Supplement or 5010 Airport Master Records.

3.19.1 Information that should be published in the Chart Supplement or 5010 Airport Master Record includes locations and conditions for seasonal movements or migrations associated with specific geographic locations, altitudes, or predictable behaviors. For example, waterfowl, raptors, gulls, or caribou that migrate on or near an airport during a short period each spring and fall in a predictable pattern. Movement activity of some hazardous species significantly increases during the breeding season (e.g., deer in the fall and alligators in spring to early summer) which may escalate wildlife/aircraft strike risk on airports during those seasons. Similarly, nest locations of hazardous species (e.g., bald and golden eagles, heron rookeries) located on or near an airport should be identified in the publications cited above.

3.19.2 When the airport operator observes any unusual or abnormal activity different from what is already published in Chart Supplement or 5010 Airport Master Record, a NOTAM can be issued citing the change in wildlife activities or conditions. Additionally, NOTAMs can be issued to provide information concerning the presence of threatened or endangered species.

3.19.3 NOTAM language should be as specific as possible to describe the activity that is occurring. NOTAM information should be updated and or cancelled as soon as possible once the condition dissipates and should not duplicate any published information or be published for the duration of seasonal events. Some examples of NOTAMs language are as follows:

….AD AP INCREASED BIRD ACT NW SIDE YYMMDD1000 – YYMMDD1700

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

….AD AP BIRD MIGRATION INPR YYMMDD0800 – YYMMDD2000DLY

Translation: Bird migration in progress daily according to specific times.

….AD AP WILDLIFE ACT INCREASED NORTH SIDE YYMMDD1200 – YYMMDD2359DLY

Translation: Wildlife activity increased daily on the north side of the airport according to specific times.

3.19.4 Issue a PERM NOTAM for bird/wildlife activities or conditions only when it is a new condition being established as a permanent activity for the airport. Wildlife NOTAMs

are not issued as PERM, unless the publication process has been initiated. See paragraph 2.3.13 for the PERM NOTAM process.

Chapter 4. Select NOTAM Requirements Criteria

4.1 Work In Progress (WIP).

Use the WIP 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.

WIP must not close or restrict a movement area. If the terms CLSD, PPR, or Barricaded are used, the movement area is considered to be restricted and a closure NOTAM for the movement area must be issued.

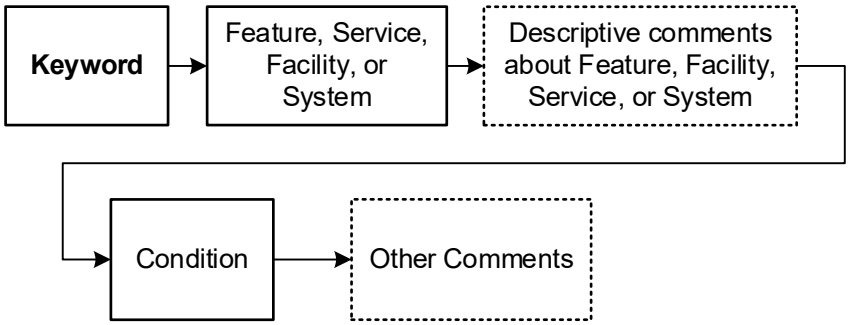
If a movement area is closed, DO NOT issue an additional WIP NOTAM for the closed area.

Some recommended best practices for the use of WIP NOTAMs include:

- WIP NOTAMS should only be issued when the work is occurring or is about to start.
- Runways should be closed via NOTAM during snow removal operations, especially at non-towered airports.
- Do not use the WIP format as a long-term (e.g., seasonal) NOTAM. For taxiway/apron snow removal, WIP NOTAMs are routine, but they should only be active while the activity is occurring. For long-term occupation of a taxiway/apron area, a closure NOTAM is more appropriate.

The diagram below illustrates the elements for a WIP NOTAM. 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.

Figure 4-1. Work-in-Progress NOTAM Elements



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 (SN) 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 WIP 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 ATCT 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, ATCT, or other local airport control centers as applicable. Some examples of WIP NOTAMs are as follows:

…AD AP ALL SFC WIP SN REMOVAL YYMMDD0700-YYMMDD1500

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

Note: A NOTAM associated with snow/ice removal can 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 YYMMDD0700-YYMMDD1500

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

…TWY A WIP ELECTRICAL LINE TRENCHING YYMMDD0800-YYMMDD1400

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

!IAD IAD RWY 01L/19R NE 500FT WIP MOWING ADJ YYMMDD0700-YYMMDD0150

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

…TWY E BTN RWY 05/23 AND TWY A WIP TRENCHING SOUTH SIDE YYMMDD0700-YYMMDD1500

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 YYMMDD0700-YYMMDD1500

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.

…APRON FEDEX APN W HALF WIP RESURFACING YYMMDD0700-YYMMDD1500

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 YYMMDD0700-YYMMDD1500

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 YYMMDD0700-YYMMDD1500

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

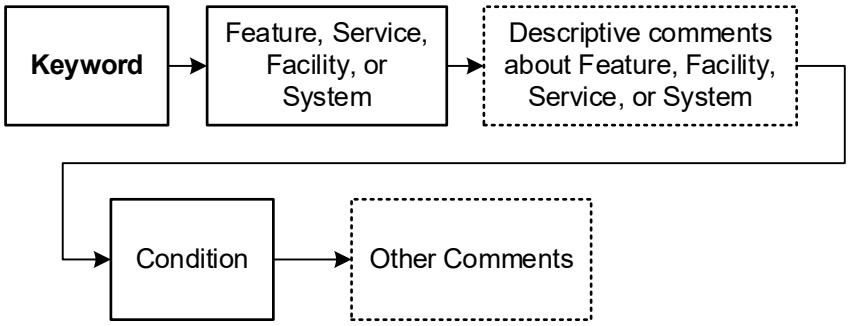
4.2 Certificated Airport Aircraft Rescue and Fire Fighting (ARFF).

4.2.1 Part 139.339(c)(8) 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 should provide 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 diagram below illustrates the elements for an ARFF-related NOTAM. 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.

Figure 4-2. ARFF-related NOTAM Elements



4.2.3 ARFF Index.

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. See 14 CFR 139.319(d)(3). 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. See 14 CFR 139.319(g)(3).

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 YYMMDD2300-YYMMDD2300

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

… AD AP ARFF NOT AVBL YYMMDD1200-YYMMDD1200

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

4.2.4 ARFF Frequency Monitoring During Air Traffic Contingency Operations.

4.2.4.1 Airport operators need to ensure there are defined procedures in place, for towered Part 139 airports, to address unplanned and immediate air traffic closures. Distinct local procedures should be established for ARFF notification and response to ensure no lapse in ARFF service. A NOTAM should be created to communicate the change should anyone need ARFF emergency response.

4.2.4.2 Airport operators are encouraged to use the following NOTAM examples when addressing unplanned and immediate air traffic facility tower closures:

…AD AP ARFF MNT LOCAL CTL XXX.XX YYMMDDHHMM – YYMMDDHHMM

Translation: Airport ARFF is monitoring the local control frequency within the specified time period.

…AD AP ARFF MNT CTAF XXX.XX YYMMDDHHMM – YYMMDDHHMM

Translation: Airport ARFF is monitoring the common traffic advisory frequency within the specified time period.

4.2.5 ARFF Not Available on Airport.

4.2.5.1 14 CFR § 139.319 states that when any required ARFF vehicle/s becomes inoperative, it must be replaced immediately with equipment with at least equal capabilities. If replacement equipment is not available immediately, the certificate holder must notify the Regional Airports Division Manager and each air carrier using the airport in accordance with §139.339. 139.339(c)(8) requires the certificate holder to notify air carriers using the airport and to issue a NOTAM when the required ARFF capability is not available.

4.2.5.2 Certificated holders must immediately issue a NOTAM closing the airport to air carrier operations in any instance when there is no (zero) ARFF capability available. Additionally, the airport will notify the FAA Airport Certification and Safety Inspector (ACSI) assigned to the airport when that action is taken.

… AD AP ARFF NOT AVBL YYMMDD1200-YYMMDD1200

Translation: Airport ARFF is not available during the defined time period.

…AD AP ARFF NOT AVBL AND AP CLSD TO AIR CARRIER OPS

Translation: Airport ARFF is not available and closed to air carrier operations during the defined time period.

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. See 14 CFR § 139.339(c)(9). An EMAS NOTAM should be issued when these conditions exist. 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 1 PANEL DAMAGED YYMMDD1320-YYMMDD2200

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 U/S YYMMDD1335-YYMMDD1200

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

1800

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 _____

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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-inch (3mm) 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.*

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Appendix C. FRICTION MEASURING EQUIPMENT ABBREVIATIONS AND NAMES

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)
NAC	Neubert Aero Corp
RFT	Runway friction tester (Dynatest)
RT3	Haliday Technologies
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)

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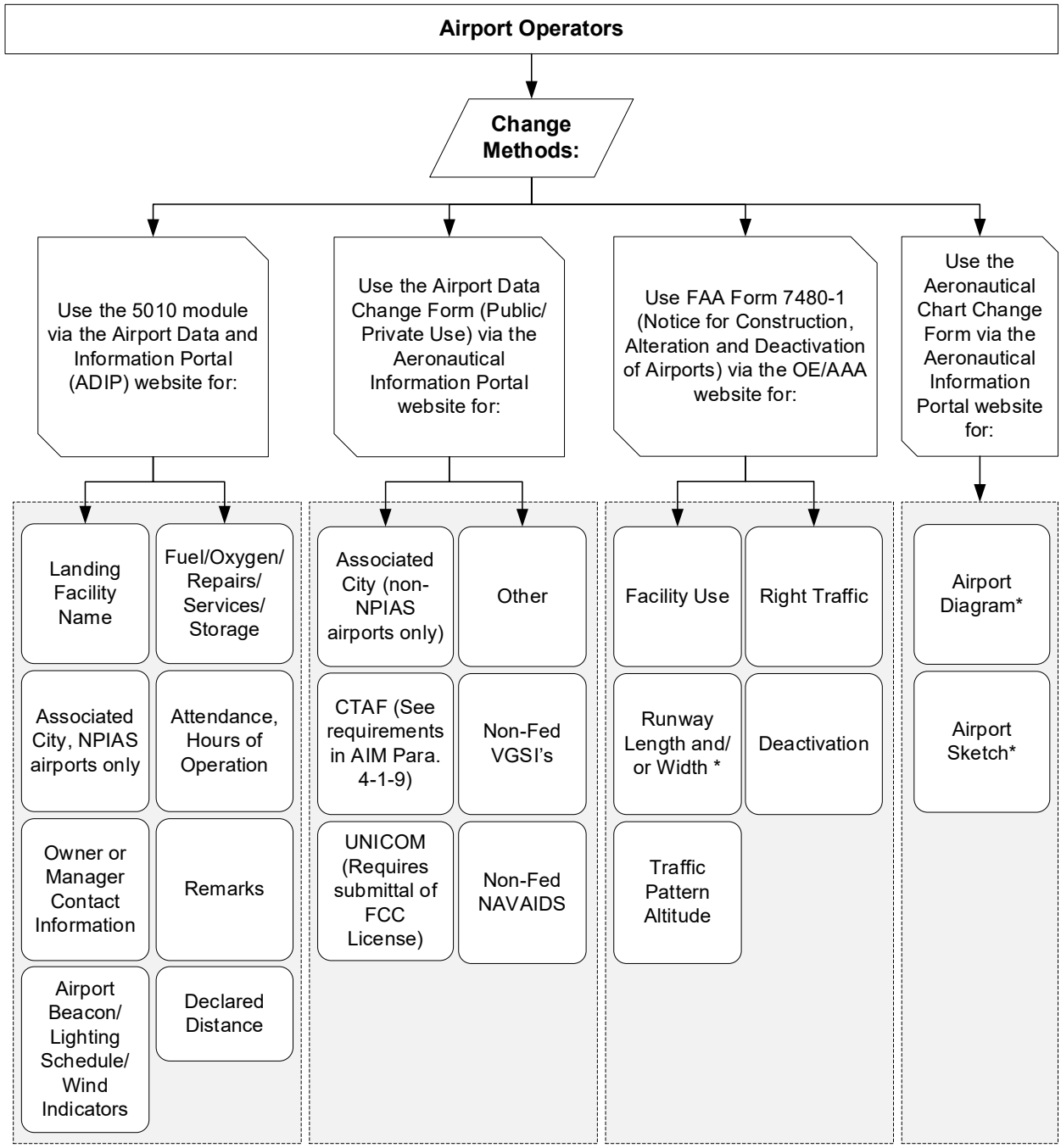
Appendix D. PERM NOTAM PUBLICATION PROCESS FLOWCHART



OMB Control Number: 2120-0746
Expiration Date: 11/30/2024

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 emailing this form to theAirport Safety and Operations Division, Federal Aviation Administration at 9-arp-airportopssafety@faa.gov

Subject: AC 150/5200-28H 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: _____