

BASICS FOR AIR TRAFFIC CONTROL – NOTICES TO AIR MISSIONS (NOTAMS)

MODULE OVERVIEW

Purpose: This module discusses how time-critical information concerning the National Airspace System (NAS) is received, processed, and disseminated to all aviation interests.

MODULE OUTLINE

Lesson: Notices to Air Missions (NOTAMS)

Purpose: This lesson discusses how time-critical information concerning the National Airspace System (NAS) is received, processed, and disseminated to all aviation interests.

Objectives:

- Identify methods of disseminating airmen's information
- Identify types of Notices to Air Missions (NOTAMS)
- Describe responsibilities for reporting different classifications of NOTAMS

Topics:

- Dissemination of Airmen's Information
 - National Flight Data Center (NFDC)
- Knowledge Check
- Notice to Air Missions (NOTAMS)
 - Air Traffic Personnel Responsibilities
 - Technical Operations (Tech Ops) Services Responsibility
 - Airport Management Responsibilities
 - Authority
 - Unverified NOTAMS
- Knowledge Check
- NOTAM Classification
 - NOTAM D
 - FDC NOTAM
 - Pointer NOTAM
 - Field Condition (FICON) NOTAM
- Knowledge Check
- Review/Summary

Question and Answer Session – *Parking Lot*

End-of-Module (EOM) Test

INTRODUCTION

LESSON	<ul style="list-style-type: none">■ Notices to Air Missions (NOTAMs)
TOTAL ESTIMATED RUN TIME	1 hr. 02 mins.
MODULE CONTENT	<ul style="list-style-type: none">■ Module Overview■ Lesson: Notices to Air Missions (NOTAMs)■ Q&A Session – Parking Lot■ End of Module Test

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
<ul style="list-style-type: none">■ Instruct students to select Notices to Air Missions (NOTAMs) module link within Blackboard■ Instruct students to read the module introduction and then wait quietly for additional instructions	Blackboard
	EST. RUN TIME
	2 mins.

Conditions of airports, Navigational Aids (NAVAIDs), Air Traffic Control (ATC) facilities, and services to the aviation community are always changing. When the changes occur on a scheduled basis, they are published in the Aeronautical Information System. However, not all changes occur in a timely manner. When this happens, the Notice to Air Missions (NOTAM) System is used to notify the aviation community.

This module discusses how time-critical information concerning the National Airspace System (NAS) is received, processed, and disseminated to all aviation interests.



FACILITATOR INSTRUCTIONS	DELIVERY METHOD
<ul style="list-style-type: none">■ ENABLE Notices to Air Missions (NOTAMs) lesson in Blackboard.■ Instruct students to navigate to the Notices to Air Missions (NOTAMs) lesson in Blackboard■ Instruct students to work individually through the lesson content■ Upon completion of the lesson, students should review previously introduced content or wait quietly until other students have completed	Blackboard
	EST. RUN TIME
	20 mins.

NOTICES TO AIR MISSIONS (NOTAMs)

Purpose: This lesson discusses how time-critical information concerning the National Airspace System is received, processed, and disseminated to all aviation interests.

Objectives:

- Identify methods of disseminating airmen's information
- Identify types of Notices to Air Missions (NOTAMs)
- Describe responsibilities for reporting different classifications of NOTAMs

References for this lesson are as follows:

- FAA Order JO 7110.65, Air Traffic Control
- FAA Order JO 7930.2, Notices to Air Missions (NOTAM)

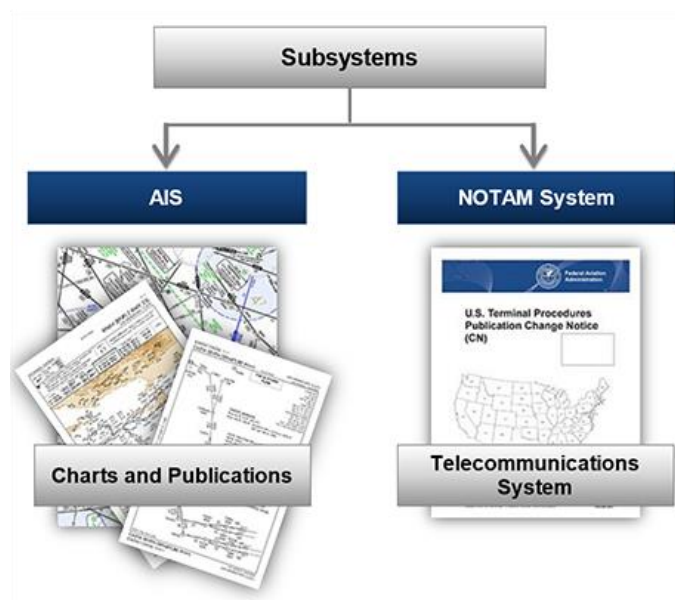
Dissemination of Airmen's Information

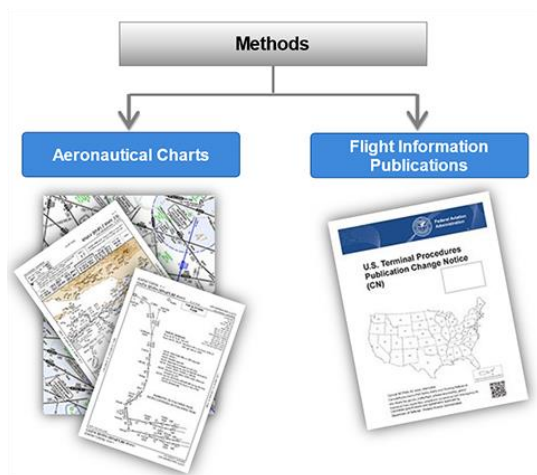
The system for disseminating aeronautical information is made up of two subsystems:

- The Aeronautical Information System (AIS), which consists of charts and publications
- The NOTAM system, which is a telecommunication system

Airmen's information is disseminated by the following methods:

- Aeronautical Charts
- Flight Information Publications in book form





AERONAUTICAL CHARTS	FLIGHT INFORMATION PUBLICATIONS
<ul style="list-style-type: none"> ■ Instrument Flight Rules (IFR) <ul style="list-style-type: none"> • En Route High Altitude Charts • En Route Low Altitude Charts ■ Visual Flight Rules (VFR) <ul style="list-style-type: none"> • Sectional Aeronautical Charts (SACs) • Terminal Area Charts (TACs) ■ U.S. Terminal Procedures Publication (TPP) <ul style="list-style-type: none"> • Departure Procedures (DP) • Standard Terminal Arrivals (STAR) • Standard Instrument Approach Procedures (SIAPs) 	<ul style="list-style-type: none"> ■ Chart supplements

National Flight Data Center (NFDC)

The National Flight Data Center (NFDC) is located in Washington, DC. The NFDC was established by the FAA to operate a central aeronautical information service for the collection, validation, and dissemination of aeronautical data that supports the government, industry, and the aviation community.



Originators of airmen's information are expected to inform the NFDC in sufficient time before the effective dates of changes to permit publishing of aeronautical data on the various charts or in the appropriate publications.

✓ Knowledge Check A

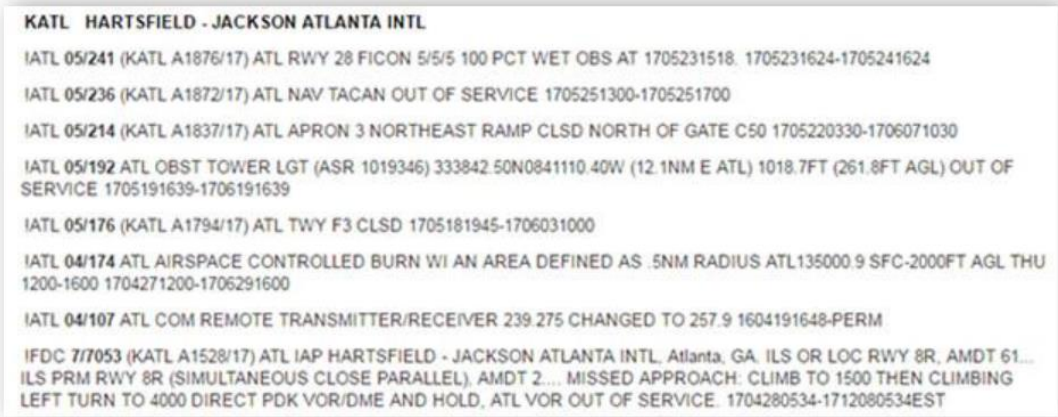
REVIEW what you have learned so far about dissemination of airmen's information. ANSWER the question below.

1. What are the two subsystems for disseminating aeronautical information? *(Select the correct answer.)*

- ☐ Aeronautical Charts and AIS
- ☐ NOTAM System and Flight Information Publication
- ☒ **AIS and NOTAM System**

Notice to Air Missions

A NOTAM is a notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, or procedure of, or hazard in the NAS), the timely knowledge of which is essential to personnel concerned with flight operations.




All air traffic employees, regardless of position, must immediately report any situation or condition considered hazardous to flight to an air traffic facility for appropriate action.

A **Certified Source** is the party who enters/submits a NOTAM to the United States NOTAM System (NS), using an approved direct entry tool or interface.

The Certified Source is responsible for the correct classification and format of the NOTAM and for ensuring that facilities affected by the NOTAM are aware of the new NOTAM.

Responsibilities

	<p>Air traffic personnel must accept all airmen information regardless of source or subject matter, provided the occurrence is no more than 3 days in the future.</p> <ul style="list-style-type: none">■ Obtain the name, title (if appropriate), address, and telephone number of the person furnishing the information and forward all data to the appropriate Flight Service Station (FSS) for NOTAM issuance <p>FSSs, Terminals, and Air Route Traffic Control Centers (ARTCCs) accept and disseminate NOTAMs.</p>
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Technical Operations Services, Operations Center manager, or representative, is responsible for:

- Originating and canceling NOTAM information for shutdown, restoration, or any condition that affects the operations of navigational aids (NAVAIDs), frequencies, or other electronic aids that affect safety of flight

Known or reported malfunctions of a NAVAID must be reported to Technical Operations or appropriate personnel.

Information concerning maintenance shutdown of NAVAIDs that are part of the NAS must be handled as follows:

- **Routine maintenance shutdown** – When possible, approval should be obtained sufficiently in advance of the proposed shutdown time to allow dissemination of a NOTAM at least 5 hours before a shutdown will occur (*See Note*)
- **Emergency shutdown** – When possible, obtain at least 1 hour advance notice so that appropriate dissemination may be made before shutdown
- **Extended maintenance shutdown** – Notify the NFDC sufficiently in advance to permit publication of the information prior to the shutdown date

Note: Approval is obtained from the ATC facility affected by the maintenance shutdown.



Airport management is responsible for observing and reporting the condition of the aerodrome services, facilities, and movement area.

- The FSS air traffic managers (ATMs) must coordinate with appropriate airport managers to obtain a list of airport employees who are authorized to originate NOTAMs

Only airport management can close any portion of an airport.

Authority

- The United States NOTAM Office (USNOF) is the authority ensuring NOTAM formats and is charged with monitoring the NOTAM System (NS)
- All NOTAMs will be processed, stored, and distributed by the NS
- The USNOF may edit any NOTAM (except FDC NOTAMs); the contents of a NOTAM must not be changed without notifying the originating facility
- NOTAMs must have one of the following keywords as the first part of the text; a keyword is used to make it easier to sort and locate the specific data needed

KATL HARTSFIELD - JACKSON ATLANTA INTL		
IATL 05/241 (KATL A1876/17) ATL RWY 28 FICON 5/5/5 100 PCT WET OBS AT 1705231518. 1705231624-1705241624		
IATL 05/236 (KATL A1872/17) ATL NAV TACAN OUT OF SERVICE 1705251300-1705251700		
IATL 05/214 (KATL A1837/17) ATL APRON 3 NORTHEAST RAMP CLSD NORTH OF GATE C50 1705220330-1706071030		
IATL 05/192 ATL OBST TOWER LGT (ASR 1019346) 333842.50N0841110.40W (12.1NM E ATL) 1018.7FT (261.8FT AGL) OUT OF SERVICE 1705191639-1706191639		
IATL 05/176 (KATL A1794/17) ATL TWY F3 CLSD 1705181945-1706031000		
IATL 04/174 ATL AIRSPACE CONTROLLED BURN WI AN AREA DEFINED AS .5NM RADIUS ATL135000.9 SFC-2000FT AGL THU 1200-1600 1704271200-1706291600		
IATL 04/107 ATL COM REMOTE TRANSMITTER/RECEIVER 239.275 CHANGED TO 257.9 1604191648-PERM		
IFDC 7/7053 (KATL A1528/17) ATL IAP HARTSFIELD - JACKSON ATLANTA INTL, Atlanta, GA. ILS OR LOC RWY 8R, AMDT 61... ILS PRM RWY 8R (SIMULTANEOUS CLOSE PARALLEL), AMDT 2.... MISSED APPROACH: CLIMB TO 1500 THEN CLIMBING LEFT TURN TO 4000 DIRECT PDK VOR/DME AND HOLD, ATL VOR OUT OF SERVICE. 1704280534-1712080534EST		
RWY – Runway	COM – Communications	DATA – Data
TWY – Taxiway	SVC – Services	IAP – Instrument Approach Procedure
APRON – Apron	AIRSPACE – Airspace	VFR – Visual Flight Procedure
AD – Aerodrome	ODP – Obstacle Departure Procedure	ROUTE – Route
OBST – Obstructions	SID – Standard Instrument Departure	SPECIAL – Special
NAV – Navigation	STAR – Standard Terminal Arrival	SECURITY – Security
	CHART – Chart	

Unverified NOTAMs

Unverified aeronautical information is used only when authorized by Letters of Agreement (LOAs). An unverified NOTAM will have a (U) in it. A movement area or other information received that meets NOTAM criteria but has not been confirmed by the airport manager or designee would be unverified.

!TEX 06/013 TEX (U) RWY 9/27 UNSAFE DISABLED ACFT W END 1706302124-1707010600



REVIEW what you have learned so far about notice to air missions. ANSWER the questions below.

- Which subsystem is used for disseminating aeronautical information? *(Select the correct answer.)*
 - ☐ **The AIS**
 - ☐ Jeppesen Database
 - ☐ Technical Operations Services
- Who submits a NOTAM to the NS using an approved direct entry tool or interface? *(Select the correct answer.)*
 - ☐ NOTAM Office
 - ☐ Airport Management
 - ☐ **Certified Source**
- Who is responsible for reporting a condition considered hazardous to flight? *(Select the correct answer.)*
 - ☐ **All air traffic personnel**
 - ☐ Technical Operations Services
 - ☐ Airport Management

NOTAM Classification

NOTAMs are classified into the following groups:

- NOTAM D
- FDC NOTAM
- Pointer NOTAM
- FICON NOTAM

NOTAM D



A **NOTAM (D)** is a classification of NOTAMs containing information concerning the establishment, condition, or change in any aeronautical facility, en route navigational aids, services, procedures, hazards and civil public-use airports listed in the Chart Supplement.

- NOTAM Ds are issued when the information requires wide dissemination via telecommunication and pertains to en route NAVAIDS, civil public-use airports listed in the chart supplements, facilities, services, and procedures
- Notice distributed by means of telecommunications, containing information concerning the establishment, condition, or change in any aeronautical facility, service, procedure, or hazard, the timely knowledge of which is essential to personnel concerned with flight operations

EXAMPLES

!LMT 04/053 LMT TWY D BTN TWY E AND TWY F CLSD 1604271936-PERM

!TYR 02/017 TYR RWY 04 RWY END ID LGT OUT OF SERVICE 1702241244-1803311700

!SAN 05/060 JLI OBST MOORED BALLOON WI AN AREA DEFINED AS 1NM RADIUS OF JLI263021 (5.4NM NW RNM) 980FT (500FT AGL) 1605261629-1705261620

Flight Data Center (FDC) NOTAM



FDC NOTAM – the classification of NOTAMs containing flight information that is normally regulatory in nature including, but not limited to, changes to IFR charts, procedures, and airspace usage.

FDC NOTAMs are issued for:

- Interim IFR flight procedures
 - Air traffic service route changes
 - Instrument flight procedure changes
 - Airspace changes in general
- Temporary flight restrictions
 - Disaster/hazard areas
 - Aerial demonstrations
 - Hijacking
- Flight restrictions in the proximity of the President and other parties

The NOTAM-issuing authority is responsible for canceling FDC NOTAMs

- An FDC NOTAM must be issued to cancel an FDC NOTAM

EXAMPLES

!FDC 7/6030 SJC ODP NORMAN Y MINETA SAN JOSE INTL, SAN JOSE, CA. TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 6C... TAKEOFF MINIMUMS: RWY 12L/R, 400-2 1/2 OR STANDARD WITH A MINIMUM CLIMB OF 315FT PER NM TO 500. ADD NOTE: RWY 12L, TEMPORARY CRANE 1.28NM FROM DER, 722FT LEFT OF CENTERLINE, 284FT AGL/ 368FT MSL (2016-AWP-1614-OE). RWY 12R, TEMPORARY CRANE 1.28NM FROM DER, 1472FT LEFT OF CENTERLINE, 284FT AGL/ 368FT MSL (2016-AWP-1614-OE). ALL OTHER DATA REMAINS AS PUBLISHED. 1703211455-1704011455EST

Pointer NOTAM



Pointer NOTAMs are NOTAM D issued to point to additional aeronautical information. The keyword in the pointer NOTAM must match the keyword in the original NOTAM.

Pointer NOTAMs are issued by a flight service station to highlight or point out another NOTAM; such as an FDC or Parachute Jump Exercise (PJE) NOTAM.

- This type of NOTAM will assist users in cross-referencing important information that may NOT be found under an airport or NAVAID identifier
- Keywords in pointer NOTAMs must match the keywords in the NOTAM D that is being pointed out
- Keywords in pointer NOTAMs related to temporary flight restrictions (TFR) must be AIRSPACE

EXAMPLES

Main NOTAM – !MKL 07/195 GHM NAV VORTAC DECOMMISSIONED 1507171856-PERM

Pointer NOTAM – !MKL 02/164 MRC NAV SEE MKL 07/195 VORTAC DECOMMISSIONED 1602191405-PERM

Field Condition (FICON) NOTAM



FICON NOTAMs are used to report the surface conditions on runways, taxiways, and aprons.

- They are also used to report surface conditions of a helipad

EXAMPLES

AD HELIPORT **FICON** 4IN DRY SN OBSERVED AT XX12051621

TWY A **FICON** 1/2IN WET SN

APRON MAIN RAMP BTN RWY 13/31 ABD TWY C **FICON** 1IN DRY SN



Knowledge Check C

REVIEW what you have learned so far about NOTAM classification and notice to air missions publications. ANSWER the questions below.

1. Why are NOTAM Ds issued? *(Select the correct answer.)*
 - ☐ To cancel an FDC NOTAM
 - ☒ **To disseminate information over a wide area**
 - ☐ To highlight or point out another NOTAM
2. What NOTAMs are used to report the surface conditions on runways, taxiways, and aprons? *(Select the correct answer.)*
 - ☐ Unverified NOTAMs
 - ☒ **FICON NOTAMs**
 - ☐ NOTAM D
3. What type of NOTAM is issued for aerial demonstrations? *(Select the correct answer.)*
 - ☐ NOTAM D
 - ☐ Pointer NOTAM
 - ☒ **FDC NOTAM**

SUMMARY

This lesson discussed how time-critical information concerning the National Airspace System is received, processed, and disseminated to all aviation interests.

In accordance with FAA Order JO 7110.65, Air Traffic Control and FAA Order JO 7930.2, Notices to Air Missions (NOTAM), you should now be able to:

- Identify methods of disseminating airmen's information
- Identify types of NOTAMs
- Describe responsibilities for reporting different classifications of NOTAMs

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
<ul style="list-style-type: none"> ■ Review content presented in Notices to Air Missions (NOTAMs) lesson ■ Navigate to the Parking Lot link within Blackboard and review any student questions ■ Address Parking Lot questions and facilitate a brief discussion of the lesson content ■ Instruct students to prepare for the End-of-Module test by putting away their Student Guides 	Facilitated Discussion
	EST. RUN TIME
	20 mins.

FACILITATOR INSTRUCTIONS	DELIVERY METHOD
<ul style="list-style-type: none"> ■ ENABLE NOTAMs End-of-Module Test link in Blackboard ■ Instruct students: <ul style="list-style-type: none"> ○ Clear desks ○ Do not write anything during or after the test ○ Navigate to the NOTAMs End-of-Module Test link in Blackboard ○ Once they are satisfied with their responses, click “Save and Submit;” do not click “OK” to review results until directed to do so ○ Choose “Cancel” if they receive a warning message that the test has unanswered questions; choosing OK will submit the test and not allow them to go back and answer the questions ○ Leave the room after submitting the test and return at the “Be Back” time ■ Note: <i>This test is scored but not graded</i> ■ During test, monitor students to ensure a secure testing environment ■ Identify the most commonly missed questions by reviewing student statistics in Blackboard ■ Instruct students to click “View Results” when ready to review commonly missed questions ■ Review commonly missed questions with students 	Blackboard Assessment
	EST. RUN TIME
	10 mins.

END-OF-MODULE TEST (ANSWER KEY)

Note: Test questions in Blackboard are presented to the students in random order. Please be aware the test key question order will not match the student version.

1. Airmen's information can be disseminated via Aeronautical Charts and _____. (Select the correct answer.)

- ☒ **Flight information publications**
- ☐ Satellite communications
- ☐ Facility directives
- ☐ FAA orders

Reference(s): JO 7930.2, Chap 2 (2-1-2 Dissemination of Airmen Information)

2. Types of Notices to Air Missions (NOTAMs) are: (Select the correct answer.)

- ☒ **FDC, POINTER, and D**
- ☐ GENOT, RENOT, and SERNOT
- ☐ PIREP, ALNOT, and INREQ
- ☐ AIRMET, SIGMET, and MIS

Reference(s): JO 7930.2, Chap. 1 (1-4-6 Definitions), Chap. 2; JO 7110.65 Pilot/Controller Glossary

3. Regarding NOTAMs, which of the following is **NOT** a responsibility of ALL air traffic personnel? (Select the correct answer.)

- ☒ **Format and edit NOTAMs**
- ☐ Immediately report any condition considered hazardous to flight
- ☐ Accept all Airmen's information regardless the source, provided the occurrence is no more than three days in the future
- ☐ Accept and disseminate NOTAMs

Reference(s): JO 7930.2, Chap. 1 (1-3-1 Air Traffic Organization), Chap. 3 (3-1-2 NOTAM Responsibilities)

4. Who is responsible for observing and reporting the conditions of the landing area of an airport? (Select the correct answer.)

- ☒ **Airport manager/operator**
- ☐ Tower controller
- ☐ Pilot
- ☐ Flight Service Specialist

Reference(s): JO 7930.2, Chap. 5 (5-1-1 Originators of Aerodrome NOTAMs)