

# SWIM Connect 2015



Federal Aviation  
Administration

## *The NOTAM Experience: SWIM and the Department of Defense*

*1:00 PM*

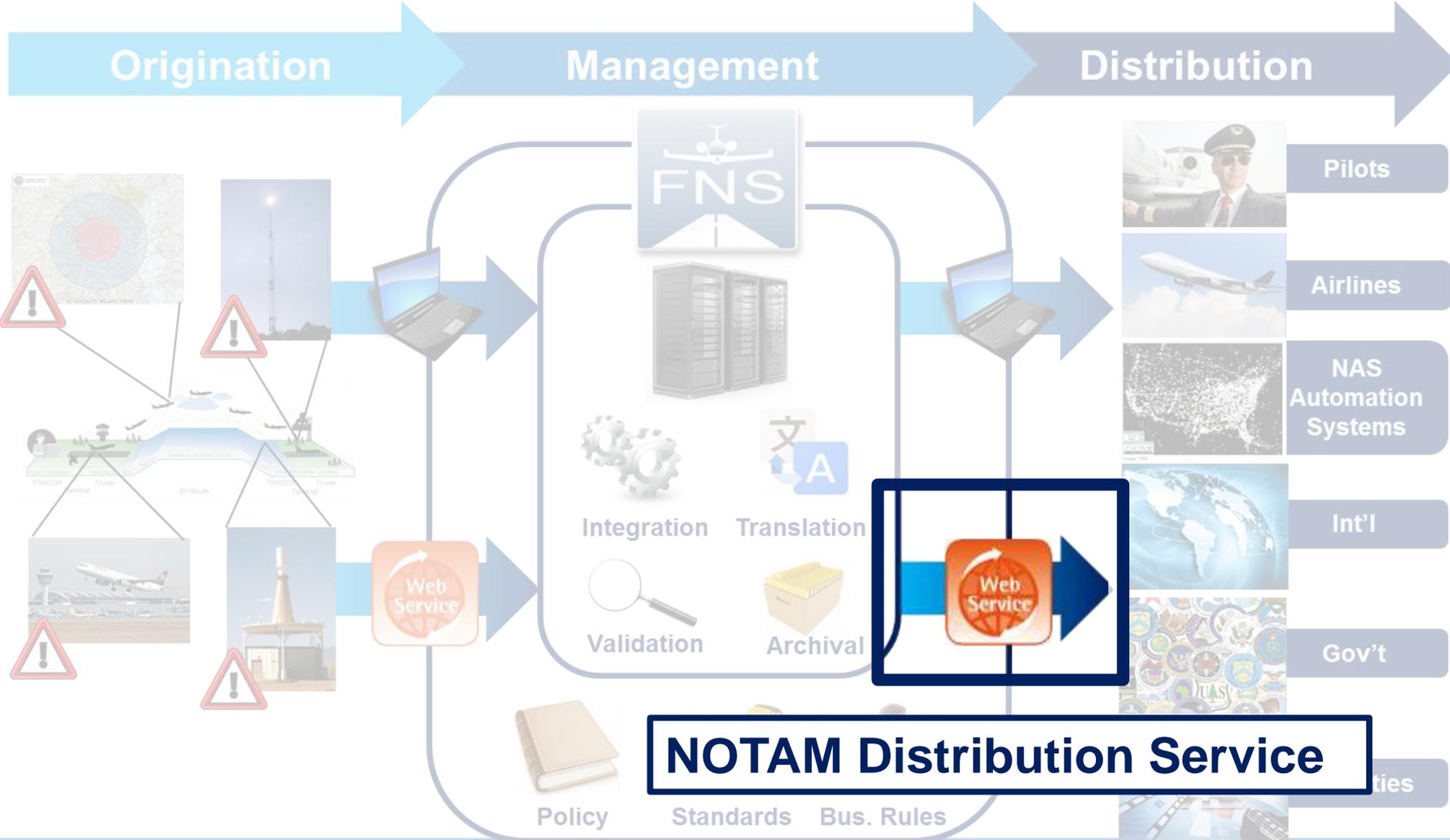
By: Trish Gay, FAA

Jim Mills, HQ/USAF A3OJN

Date: November 3, 2015

The logo for SWIM connect 2015, featuring the word "SWIM" in a large, bold, black sans-serif font, followed by three blue circles of varying sizes (one large, one medium, one small) to the right. Below "SWIM" is the text "connect 2015" in a smaller, black, lowercase sans-serif font. The entire logo is set against a white circular background that overlaps a blue background with abstract circular patterns.

# NOTAM Modernization



**NOTAM Distribution Service**

# NDS via SWIM



**ALL NOTAM DATA**  
DIGITAL + LEGACY

# Digital NOTAM Event Spec



AIXM implementation facilitates true “digital NOTAM”

# Federal NOTAM System

## Implementing the Pilot's Bill of Rights

Digitally at the Source:

- More Timely
- More Accurate

Originate Digital  
NOTAMs



Store NOTAMs

- Centrally Located  
Archived  
Available to the Public

**NOTAM  
Distribution  
Service/SWIM**

- Standards Based (AIXM)  
NOTAM Information

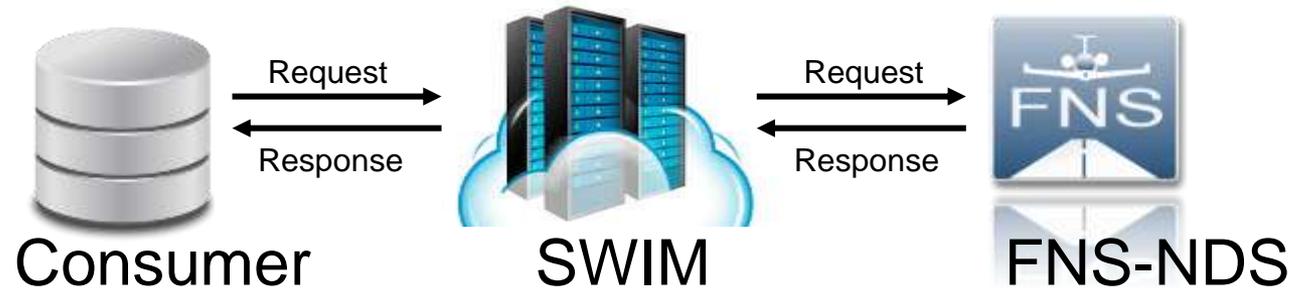
NS  
Search



- User-Friendly Format
- Filterable
- Timely Delivery
- Searchable
- Relevant (Route Specific)



# Request/Response Service



## Example Query Types:

**Bulk**

- all active NOTAMs

**Delta**

- changes to NOTAMs in last X minutes

**Geographic**

- active NOTAMs with X radius of location or coordinates

**Location**

- active NOTAMs with NOTAM location id

**Free Text Search**

- active NOTAMs that match text string

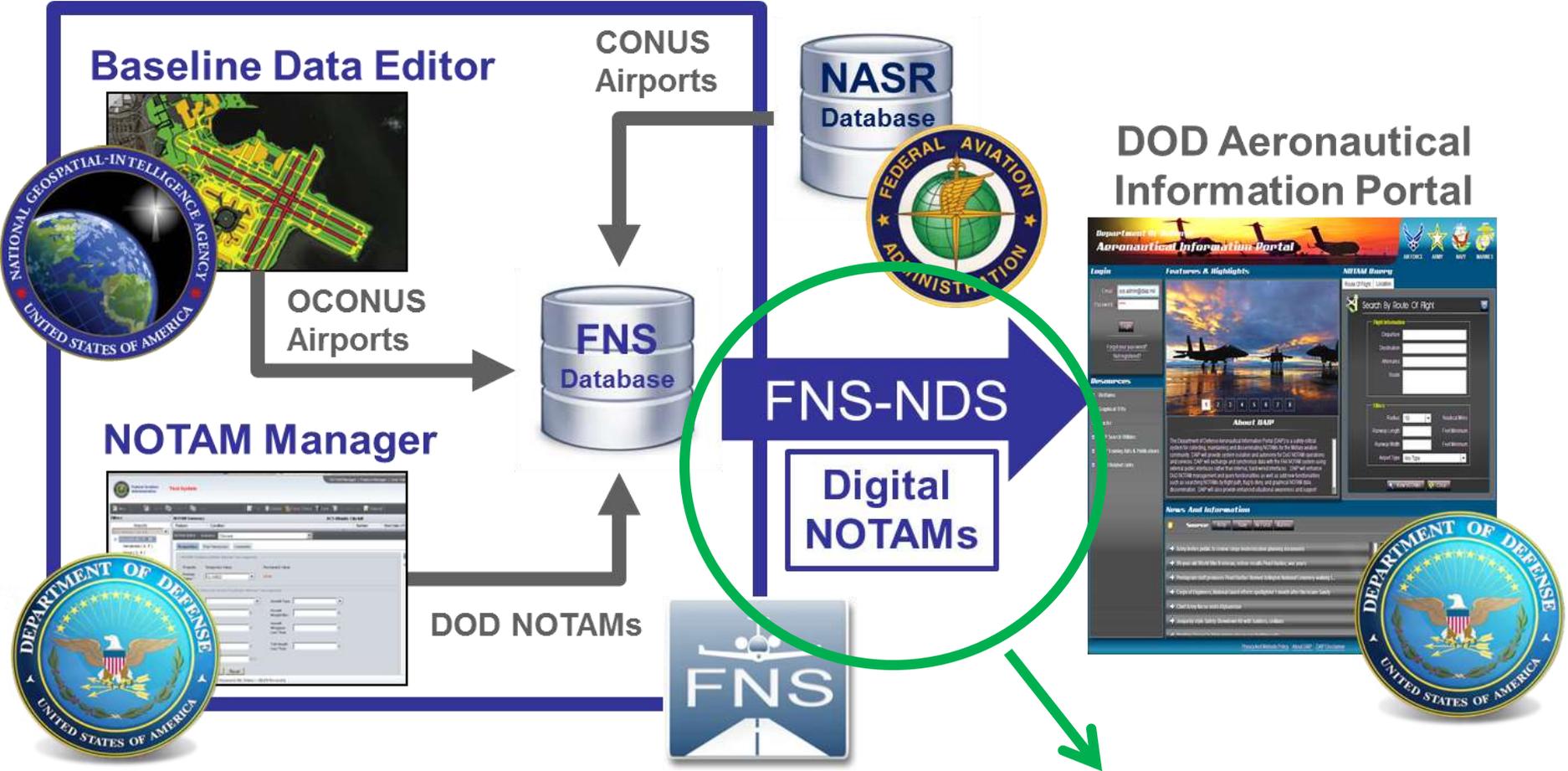
# Publish/Subscribe Service



## Advantages to Pub/Sub:

- Loose coupling between provider and consumer
- Scalability
- Coming soon!

# Operational User: DOD



**Request/Response Service over SWIM**

# DoD AI Modernization Vision

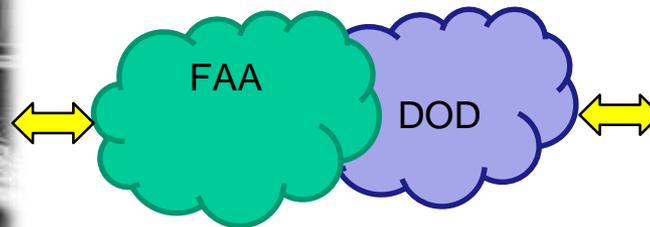
Partner with FAA on NOTAM origination tool and connectivity

Partner with DOD aviation community and military Services on query and distribution

Partner with NGA and FAA on baseline data



New Tool for creation and management



New connectivity and exchange model



Improved tools for Flight Operations

# ***DoD Modernization Today***

- **FTI-OPS and NIPRNet Interface**
  - **MMAC – Tinker AFB gateway (May 2012) with Joint FAA / DoD certification (Primary site for NOTAMs/Flight Plans/Airspace schedules)**
  - **ACY – DISA NIPRNet Federated Gateway IOC July 2015 (DR Site), expect FOC Fall 2015.**
- **SWIM/NEMS Interface**
  - **Web Service Interface for NOTAM distribution IOC March 2015**
  - **JMS Service 2016 – DoD volunteered to support functional testing**
- **Digital NOTAM Services**
  - **Web Service distribution via NDS/SWIM IOC March 2015**
  - **Military NOTAM creation via FNS NM/SWIM March 2015**
  - **NGA partnered with FAA to provide DoD baseline data March 2015**
  - **Customized features for pilots (Route of Flight, Self-Briefing, etc)**

# NOTAM Manager Tool

Action Toolbar

Column Headers

Search

**Filters**

Accountability

KFBG-SIMMONS AAF

Classification ( 11, 11 )

- Aerodrome ( 9, 9 )
- Apron ( 0, 0 )
- Runway ( 0, 0 )
- Taxiway ( 0, 1 )
- Obstruction ( 2, 1 )

Status

- All (23)
- Active (11)
- Activation In Progress (0)
- Cancelled (0)
- Cancellation In Progress (0)
- Draft (11)
- Error Activating (0)
- Error Cancelling (0)
- Expired (1)
- Activation Faxed (0)
- Cancellation Faxed (0)

NOTAM Summary Rows: 50 Page: 1 Go

Feature	Condition	Number	Start Date UTC	End Date UTC	Status
Aerodrome	AERODROME ALL MISSIONS ACCORDING TO THE AIR MOVEMENT TABLE - LUZON - 14	L0413/15	07/14/2015 1200	07/14/2015 2130	Expired
Obstacle	OBST SOUTHWEST RAMP ODESSA AREA - THERE WILL BE AN INCREASE IN EQUIPM	L0416/15	07/15/2015 1030	07/15/2015 2000	Active
Aerodrome	AERODROME LUZON DZ MISSION SCHEDULE IN ACCORDANCE WITH FINAL AIR MOVE	L0415/15	07/15/2015 1200	07/15/2015 2130	Active
Aerodrome	AERODROME UWHARRIE ALERT AREA - A531 - THERE WILL BE A SINGLE AH64D A	L0418/15	07/16/2015 0300	07/16/2015 0600	Active
Aerodrome	AERODROME FLIGHT STRIP 2 - PU895947 - UNIT HAS REQUESTED SOLE-USE OF	L0417/15	07/17/2015 1400	07/17/2015 2100	Active
Aerodrome	AERODROME SIMMONS AAF - 82ND CAB WILL BE SETTING UP A FARP ON THE SE	L0412/15	07/13/2015 1300	07/24/2015 2200	Active
Aerodrome	AERODROME AIRCREWS FLYING IN THESE AREAS ARE TO MAINTAIN VIGILANCE. T	L0414/15	07/16/2015 0800	07/24/2015 2359	Active
Obstacle	OBST THERE WILL BE A SURVEY CREW THAT WILL BE TESTING FOR GROUNDING P	L0367/15	06/22/2015 1341	07/31/2015 2100	Active
Aerodrome	AERODROME DURING HOURS OF TOWER CLOSURE, USE COMMON TRAFFIC ADVISORY	M0075/15	05/28/2015 1658	08/24/2015 0401	Active
Aerodrome	AERODROME CENTER SOD - THERE ARE 3-FOOT CONSTRUCTION SURVEY STAKES LO	L0389/15	06/30/2015 2220	09/01/2015 2100	Active
Aerodrome	AERODROME AERODROME MACKALL - ****AIRCREWS USE CAUTION. THERE WILL BE	M0105/15	07/13/2015 2300	10/05/2015 2359	Active
Aerodrome	AERODROME *****MAP CORRECTION***** FT BRAGG MILITARY INSTALL	M0104/15	07/13/2015 2300	10/05/2015 2359	Active
Obstacle	OBST OBSTRUCTIONS TO FLIGHT: ***AIRCREWS USE EXTREME CAUTION*** 1. VI	-	-	-	Draft
Taxiway	TWY T CLSD TO ALL ROTARY WING TRAFFIC	-	-	-	Draft
Aerodrome	AERODROME NEW INADVERTANT IMC PROCEDURE IN EFFECT FOR R5311: IF AIRCR	-	-	-	Draft
Aerodrome	AERODROME LOCAL AIRPORTS RESTRICTIONS 1. POPE AAF (POB) ARVL/DEP PROC	-	-	-	Draft
Aerodrome	AERODROME PERMANENT/SEMIPERMANENT LOCAL NOTAMS CAN BE FOUND AT THE FO	-	-	-	Draft
Aerodrome	AERODROME JET A **SAAF WEEKEND FUEL REQUEST** ALL WEEKEND FUEL REQUE	-	-	-	Draft
Aerodrome	AERODROME *****MAP CORRECTION***** 1. FT BRAGG MILITARY INST	-	-	-	Draft
Aerodrome	AERODROME NOISE ABATEMENT PROCEDURES. 1. HURTZ DZ/LZ(P 1896965): FOR S	-	-	-	Draft
Aerodrome	AERODROME IER ENROUTE SUPPLEMENT CHANGE: 1. OPR HRS: CONTROL TOWER	-	-	-	Draft



# DoD NOTAM Manager Tool

NOTAM Editor - Scenario: Closure Lat, L

Properties | Prior Permission | Comments

Domestic | ICAO | Plain Text

**NOTAM Condition (Fields Marked \* are required)**

Property	Temporary Value	Permanent Value
Status:*	CLOSED	

**Restrictions (Taxiway Closed For) (Fields Marked \* are required)**

Operations:	<input type="text"/>	Aircraft Type:	<input type="text"/>
Aircraft Wingspan Greater Than:	<input type="text"/> ft	Aircraft Wingspan Less Than:	<input type="text"/> ft
Aircraft Weight Ovr:	<input type="text"/> lb		

XX/XXX NOTAMN  
Q) ZDC/QMXLC/IV/NBO/A/000/999/3507N07856W005  
A) KFBG  
E) TWY T CLSD

# DoD Aeronautical Information Portal



U.S. DEPARTMENT OF DEFENSE  
AERONAUTICAL INFORMATION PORTAL

Home Defense

### Login

Email

Password

Login

[Forgot your password?](#)  
[Not registered?](#)

- ### Resources
- European Birdtams
  - Graphical TFRs
  - North Atlantic Track
  - Location Lookup
  - Q-Code Lookup
  - DAIP Training Document
  - AFI 11-208(I), AR 95-10, OPNAVINST 3721.20C
  - FAA Special Use Airspace (SUA)
  - FAA Notices To Airmen (NTAP)
  - Domestic/International

### Search NOTAMS by Route of Flight

#### FLIGHT INFORMATION

Departure

Destination

Alternates

Route

#### FILTERS

Radius

Runway Length (Feet)

Runway Width (Feet)

Airport Type

View NOTAMS Clear

### Search NOTAMS by Location

#### LOCATIONS

Enter upto 50 Locations (ICAO Identifiers) separated by comma or space.

Locations (ICAOs)

View NOTAMS Clear

# Graphical NOTAM Display

- Base Airfield Diagram geo-rectified
- Digital NOTAM feature geometry extracted
- NOTAM overlaid on diagram
- Result
  - Integrated, automated, geo-referenced NOTAMs overlaid on NGA FLIP products



# ***DoD Future AI Enhancements***

- **One Stop Shop for DoD (Right Info / Right Place / Right Now)**
  - **Enhanced NAS Integrated Web Services (NIWS) – Traffic Flow data**
  - **Enhanced Graphical NOTAM overlay as a Service**
  - **Semantic Decision Support Tool (SDST)**
  - **Interface with Aeronautical Common Service (ACS)**
  
- **Data to support NextGen Collaborative Decision Making process**
  - **Air Traffic Preferred Routes w/ real time updates**
  - **Flow Constraints**
  - **Daily Ops Plan**

# Summary

- DAIP URL: <https://www.daip.jcs.mil/daip/mobile/index>
- DoD NOTAM Office: Commercial # 540-422-4750/52/53/54/55
- Contact information:
  - Jim Mills: DoD NOTAMS Program Manager; [james.w.mills3.civ@mail.mil](mailto:james.w.mills3.civ@mail.mil)
  - David von Rinteln: HPE Project Manager; [david.vonrinteln@hp.com](mailto:david.vonrinteln@hp.com)
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