

Federal NOTAM System (FNS)



Federal Aviation
Administration

Harmonization Efforts with the International Community

Presented to: NOTAM System Interface
Stakeholder Meeting

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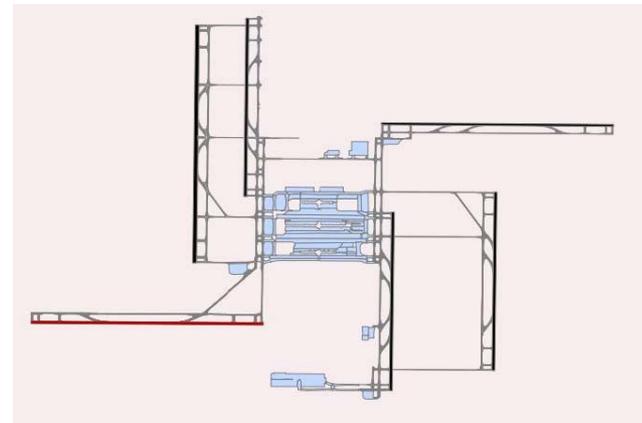
International Digital Harmonization

- **Key Concepts:**
 - Establish a set of international standards and specifications for exchanging digital information
 - Data-centric operations that ensure:
 - The quality of the aeronautical information required by modern air navigation and ATC systems
 - The efficiency and the cost effectiveness of the system
 - Real time information



Digital NOTAM Concept

- **Digital NOTAM Definition:**
 - A dataset that contains NOTAM information in a structured format
 - Fully interpreted by an automated system **without** human interpretation
- **Digital NOTAM Characteristics:**
 - Geo-referenced
 - Temporal
 - Linked to static data
 - Transformable
 - Query enabled
 - Electronically distributable



Digital NOTAM Requirements

- **In order to encode NOTAM information digitally, the information must:**
 - Be modeled and specified in a data exchange format
 - AIXM 5
 - Adhere to rules and guidelines to harmonize the encoding of different categories of NOTAM events
 - Digital NOTAM Event Specification



Digital NOTAM Event Specification

- **Collaboration between the FAA, EUROCONTROL, ECAC Member States, airlines, & industry**
- **Focus Group meets several times a year**
- **Tasks include:**
 - Develop standards for NOTAM events

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Event Specification Overview

- **Defines the rules for harmonized encoding of NOTAM information as AIXM data sets**
- **Document intended primarily for system developers**
- **Goal: To enable the interoperability of the different systems that produce, transform, transmit and consume Digital NOTAM data**

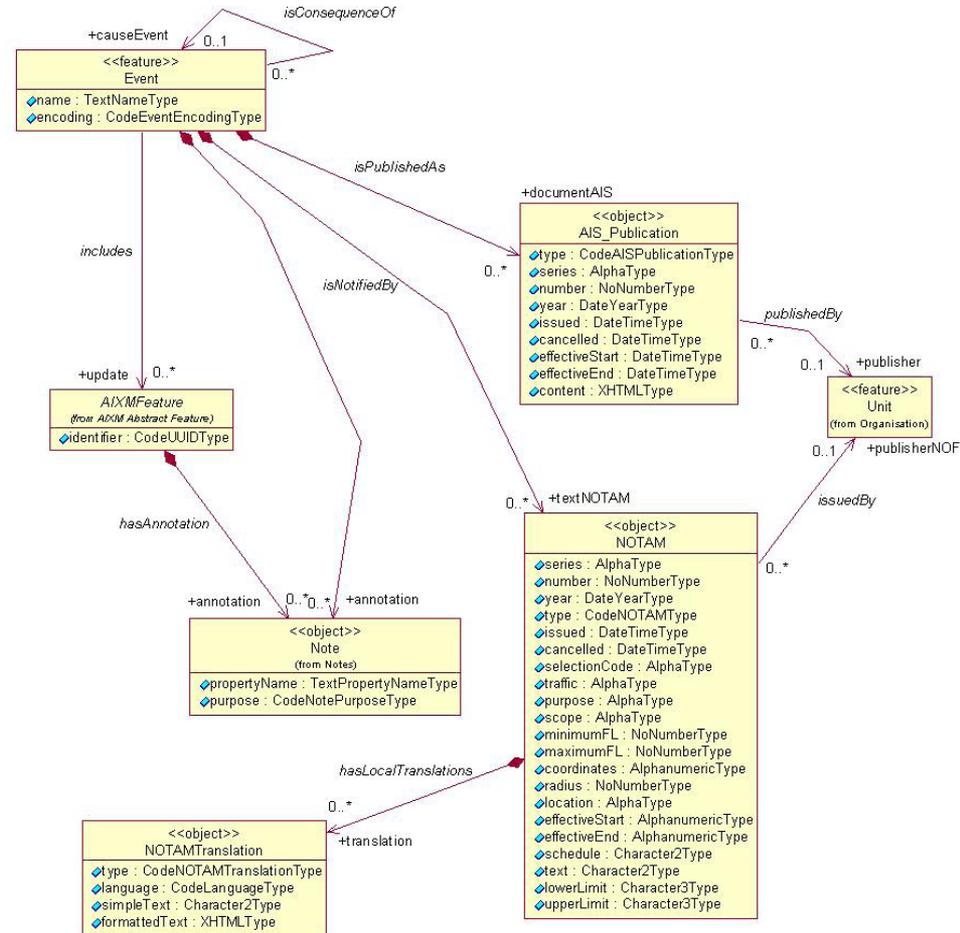


Event Specification Approach

- **Identify categories of events**
 - An event is a situation that affects one or more aeronautical features
 - Examples: temporary obstacle at the airport, ad-hoc restricted area, runway closure, etc.
- **For each type of event, the documentation specifies the:**
 - Minimum required data
 - Business rules
 - Names for the user interface fields
 - AIXM mapping
 - Conversion rules for text NOTAMs
- **Provide Digital NOTAM Event Specifications in increments based on usage and user priority**

Event Specification Approach

- The document also includes:
 - General requirements:
 - Baseline data, data synchronization, etc.
 - AIXM event schema for NOTAMs
 - Data encoding rules
 - XML encoding examples



Event Specification Timeline

- **Increment 1:**

- Posted on the AIXM Forum for public review on August 5.
- Document can be found under ‘Digital NOTAM’ at: http://www.aixm.aero/public/subsite_homepage/homepage.html
- Events include: special activity area, navaids, AD/RWY/TWY closure, obstacles, airport surface contamination, etc.



Event Specification Timeline

- **Increment 2:**

- The International Digital NOTAM Focus Group will begin working on Increment 2 in November
- Events include more events related to airport operations such as runway partial closure, taxiway limited usage, ILS, etc.



Updating ICAO Annexes

- **ICAO Aeronautical Information Services – Aeronautical Information Management Study Group (AIS-AIMSG)**
 - Established in March 2008
 - Develop a global AIS-AIM strategic roadmap
 - Develop Standards and Recommended Practices



AIS to AIM Strategic Roadmap

1. Consolidation – now/ongoing:

1. Quality, AIRAC, WGS-84, electronic terrain and obstacle data

2. Going digital - began Nov 2009:

1. Introduce database-driven processes
2. Aeronautical information conceptual model guidance developed

3. Information management – begin Oct 2011:

1. Meet Global ATM requirements
2. Quality assured new products and services
3. Development of Standards (Already underway)
4. Implementation of Standards
5. Performance and business driven

Digital Harmonization Benefits

- **Efficient exchange of information between operational systems**
- **Automated processing of information**
- **Display customized for end user**
- **Result:**
 - Enable the machines that assist the specialists to provide a common and accurate view of the aeronautical 4D environment

What's Next?

- **Continue Collaboration with EUROCONTROL and the international community on AIXM and Digital NOTAM Event Specifications**
 - Event Specification Increment 2
 - Update ICAO Annex 15 for AIXM 5



Summary

- **Increase safety, efficiency and capacity of the National Airspace System with the use of digital information**
- **Continue to work with the international community to adhere to a common standard for digitized Aeronautical Information**



Questions?

- **Contact Information**

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- **FNS Website**

- <http://notams.aim.faa.gov>



