

Digital NOTAM Submission Working Group
Minutes December 5, 2007 Meeting (#2)
Washington DC

Attendees

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Briefings

1. Brett Brunk (FAA Aeronautical Information Management) briefed the results from the last working group meeting and discussed the agenda for the current meeting.
2. Vinod Vallikat (CGH Technologies) provided an overview of the proposed NOTAM submission work flow for Digital NOTAMs based on a UML activity diagram.
3. Col Ed Rosado Jr. (Air Mobility Command, USAF) briefed a selection of slides related to current and planned maintenance of NOTAMs.
4. Scott Wilson (EUROCONTROL) briefed on the AIXM Temporality Model and the use of metadata in AIXM.
5. Eddy Porosnicu (EUROCONTROL) briefed on the xNOTAM project and showed working examples of the current prototype.
6. Tony Rubiera (CNAC) provided a summary of an event hierarchy for NOTAMs.

Discussion during these briefings is summarized in the following sections of these meeting minutes.

Discussion

The issues discussed have been grouped into the following categories:

- Preference of Network Type
- Consecutive Events
- NOTAM synchronization
- Use of Baseline Data by Pilots
- NOTAM reference numbers
- NOTAMs from facilities with co-located organizations
- NOTAM Baseline Data Harmonization
- NOTAM Authoring Domain Harmonization
- U.S. Participation in xNOTAM Trial
- Implementation Plan for the Digital NOTAM System
- NOTAM Event Categories

For the sake of brevity and cohesion, this summary is not chronological: the same topic may have been discussed by one or more participants at various times during the meeting.

Preference of Network Type

The issue of using private versus public (i.e. the internet) networks for NOTAM submission was discussed. The consensus opinion is that if the internet is sufficiently secure for NOTAM entry today it should be likewise secure for NOTAM submission using the Digital NOTAM System. Also it was mentioned that there were instances where public internet was available when private networks were having connectivity issues.

Consecutive Events

The issue of successive events was discussed. The example cited was the case where a NOTAM was issued to close 1000 ft from the edge of the Runway (usually referred to as a partial closure of a Runway). Later on, while this NOTAM is active, if an additional 1000ft needs to be closed from the same Runway edge, how would the Digital NOTAM system accommodate/facilitate this? The consensus of the group is that the NOTAMs are temporary events. If a new event occurs that results in a total of 2000 ft to be closed, then the first NOTAM would need to be cancelled and a new NOTAM issued that results in 2000ft of the Runway edge to be closed.

This also led to the discussion whether the Digital NOTAM system will have inbuilt rules to either alert or prevent originators from creating multiple similar events on the same feature. This issue was taken as an action item and reported back in the next meeting.

NOTAM synchronization

The issue of consistency between the paper copy of the NOTAM publication (referred to as the NTAP), which is published every 28 days and the Digital NOTAM system was discussed. The consensus of the group was that NOTAMs are dynamic in nature and difficult to be published in a document. The action item was to research this more to see the future of NTAP.

Use of Baseline Data by Pilots

Similar to the first meeting, the issue of baseline was discussed extensively and it was a consensus in the group that baseline is extremely important to ensure consistency and accuracy of NOTAMs being issued. Currently pilots use the baseline data from the last published cycle combined with all current NOTAMs. It will be possible in the future for the data to be updated using a cycle shorter than the 28-day cycle, and for the data to be updated while en-route. Before these advances are made, it was the consensus opinion that similar to the paper products that will continue to be used, the Digital NOTAM system should also use the same 28 day cycle for updating the baseline.

NOTAM reference numbers

Mention was made that today it is possible to find an active NOTAM with the same number being re-used after the information in it has been updated. This inconsistency of

the current system forces users to verify which of the versions of the same NOTAM is the most current by looking at the modification date. Mention was made that the Digital NOTAM System will need to use a reference system that corrects this deficiency. As presented in the concept of operations, the consensus of the group was that once a NOTAM has been published, any changes to it would require the original NOTAM to be cancelled and a new one to be issued resulting in a new NOTAM number.

NOTAMs from facilities with co-located organizations

Mention was made that the Digital NOTAM System will need to capture correctly NOTAMs entered at facilities with co-located organizations (e.g. airports with separate civilian, commercial, and military facilities). Memphis International Airport, for example, has a runway dedicated to Federal Express air cargo operations. The consensus of the Working Group is that the responsibilities of each co-located organization are outlined locally, and are not within the scope of the Digital NOTAM System. It was also mentioned that the metadata accompanying the NOTAM submission would contain information on the user submitting the change.

Baseline Data Harmonization

Mention was made that the current lack of harmonization between NASR (the baseline data maintained by the FAA) and DAFIF (the baseline data maintained by NGA) needs to be addressed. The consensus opinion is that although, this lack of harmonization poses a risk to the implementation of the Digital NOTAM System, this issue is out of scope for the Digital NOTAM submission working group and it has to be handled in a separate forum.

NOTAM Authoring Domain Harmonization

Mention was made that the airway, procedure, and ARTCC NOTAMs issued by the National Flight Data Center (NFDC), and D NOTAMs authored by airports are not harmonized. Mention was made that the current focus of the Digital NOTAM System trial on NOTAMs authored by airports is acceptable to make significant progress, and that FDC NOTAMs will at some point in the future need to be addressed

U.S. Participation in xNOTAM Trial

Mention was made that even though participation of U.S. airports in the xNOTAM trial could be useful, the current significant differences in NOTAM encoding between the U.S. format and the ICAO format would prove a significant stumbling block for U.S. airports to benefit from the xNOTAM trial.

Implementation Plan for the Digital NOTAM System

Extensive discussion was held on how best to implement the Digital NOTAM system at facilities (airports) and to ensure that the application has captured all the NOTAM events. Mention was made that inputs from NOTAM subject matter experts (SMEs) at airports should be pursued. Mention was also made that these inputs should be used to design an implementation plan for the Digital NOTAM System deployment. . The aspects of the Digital NOTAM System implementation plan are summarized in the table below.

Topic	Discussion	Consensus
Scope	The planned scope is to focus on NOTAMs entered by airports. These NOTAMs do not include airway and ARTCC NOTAMs (FDC NOTAMs).	Keep focus to airport NOTAMs.
Participation	A cross-section of U.S. airports as relates to size, volume of NOTAMs issued, and types of NOTAMs issued.	Same as discussion.
SME inputs	The two major options discussed are the use of a cognitive lab and visits to airports.	The least disruptive option is to visit airports and be minimally obtrusive to airport NOTAM operators.
Event validation	Use an Event Taxonomy or Hierarchy as well as Event Relationships.	Same as discussion.
NOTAM Encoding	Use a representative sample of NOTAM events and test how each event would be encoded by NOTAM authors. Test if the same event is encoded differently depending on the NOTAM author.	Same as discussion. The prevailing view is that using NOTAM events is more operationally effective than testing how current NOTAMs are encoded.

NOTAM Event Categories

Mention was made that there are many ways to categorize NOTAMs. Mention was also made that there is a many-to-many relationship between the various aeronautical features described in NOTAMs. The consensus opinion of the Working Group is that a hierarchical category is a starting point, and that the relationships between NOTAM events need to be outlined.

Action Items

- Make corrections to the Concept of Operations based on inputs from the Working Group.
- Distribute to the Working Group the Interface Control Document (ICD).
- Distribute to the Working Group the Event Hierarchy based on the diagrams shown during this meeting.

Next Meeting

The next meeting is scheduled for Wednesday, April 2, 2008, in Washington, DC.