



International Civil Aviation Organization

**The Twentieth Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/20)**

Singapore, 05 – 09 July 2010

Agenda Item 8: Review developments relating to CNS/ATM implementation

**STATUS OF THE DEVELOPMENT AND IMPLEMENTATION OF AERONAUTICAL
INFORMATION MANAGEMENT DIGITAL NOTAM PROGRAM**

(Presented by the United States of America)

SUMMARY

The purpose of this information paper is to present an outline of the U.S. Federal Aviation Administration's (FAA) recent success regarding the implementation of digital capture and transmission of NOTAMs. This first step is necessary as the FAA moves towards the United States NOTAM System (USNS) becoming ICAO compliant and meeting our future needs of digital aeronautical information exchange.

1. INTRODUCTION

1.1 In order to increase safety and efficiency in the National Airspace System, the United States must modernize its Notice to Airmen (NOTAM) system. This transition to digital data represents one of the foundation elements of the Next Generation Air Traffic Service plan (NextGen) and improved shared situational awareness by air traffic controllers and pilots.

2. DISCUSSION

2.1 Until 2008, the United States NOTAM System had changed very little since it began. The legacy system uses all upper case letters and hundreds of little known contractions making them difficult to read. Also, United States NOTAMs are not consistent with international standards and recommended practices (SARPs) for safe international operations. Further, in their current format NOTAMs, are hard to integrate into maps or other graphical aids used by pilots and controllers to achieve situational awareness. Lastly, there is no ability to sort, filter, alert or combine NOTAM data with other datasets so a pilot or dispatcher has to review many pages of NOTAMs before every flight.

2.2 In 2008, the United States added keywords to help group NOTAMs into categories and thus help pilots and other users to review those NOTAMs which were most critical to their flight. But the process to create NOTAMs and get them to those who needed them had to be updated as well. With the legacy system an originator, such as an airport, has to call or send a message to a third party specialist. The third party specialist manually types the NOTAM into the system. The NOTAM then had to be reviewed by more personnel at the

US NOTAM Office before it was sent out to those who need it. This caused delays in publishing safety critical information.

2.3 The next step to improve the system was to optimize and automate the processes for creating NOTAMs and publishing NOTAMs. First, the United States developed an Internet-based software program for automating NOTAM origination. The software automates the processes describing in NOTAM SARPS by using business rules and AIXM to allow originators of the NOTAMs to create the NOTAM digitally. The originator creates digital NOTAMs by selecting from menus with templates that describe all of the various scenarios used to create a NOTAM. Second, since the NOTAM is created nearly error-free (it cannot correct user mistakes such as closing runway 34R when the user meant 34L), it is sent directly into the US NOTAM System (USNS) and then immediately published. Since the NOTAM is created digitally the format is always consistent. This eliminates third party review that can cause up to 30 minutes of publishing delay and also cause non-standard language and typographical mistakes. Third, since the NOTAM is computer-generated it can be displayed in multiple formats including ICAO, plain language and the old legacy format.

2.4 On April 20, 2010 at 15:14 UTC, the Operations Manager at Atlantic City International Airport securely logged into the FAA's new system for creating Digital NOTAMs and used the software menus and templates to create the following NOTAM according to the legacy format:

ACY 04/061 ACY TWY K PAEW ADJ SE SIDE WEF 1004201514-1010202359

This first digitized NOTAM was sent to, numbered by and published by the US NOTAM System and then transmitted to the users of NOTAMs within 3 seconds.

The NOTAM in plain language appeared as:

South-East of Side
Issuing Airport: (ACY) Atlantic City Intl
NOTAM Number: 04/061
Effective Time Frame
Beginning: Tuesday, April 20, 2010 1514 (UTC)
Ending: Wednesday, October 20, 2010 2359 (UTC)
Affected Areas:
Taxiway: K
Warning: Personnel and Equipment Working

The ICAO formatted NOTAM was displayed as:

04/061 NOTAMN
Q)KZDC/QMRHW/IV/NBO/A/000/999/3927N07434W005
A)KACY(ACY)
B)1004201514
C)1010202359
E)TWY K PAEW ADJ SE SIDE

The United States will move forward with deploying this new process at another 11 airports this year and then move on to other NOTAM originators next year.

3. **CONCLUSION**

3.1 The meeting is invited to:

- a) Note the information presented in this paper.
- b) For additional information please visit the following web site:
<http://notams.aim.faa.gov>.
