Content

• Digital NOTAM Specification
• Implementation plans in Europe
• Graphical Pilot Briefing
Digital NOTAM Specification

• Purpose
  – Identify types of “events” for which the information is currently provided through NOTAM
    • Example: runway closed, navaid u/s, new obstacle, etc.
  – Provide the AIXM 5.1 encoding rules for each type of event
    • business rules!
  – Support the automatic generation of NOTAM messages (as long as necessary)
  – Overall, ensure global harmonisation
Digital NOTAM Specification

- Introduced the concept of "aeronautical information events"
- Applicable to all aeronautical data, including AIP, charts, NOTAM data...
- WIP
  - extract a separate AI Event Specification
  - Including support for both short term and long term planning
Event Specification version 2.0 (work in progress)

<table>
<thead>
<tr>
<th>Increment 1 scenarios</th>
<th>Increment 2 scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Published special activity area – activation</td>
<td>Displaced threshold</td>
</tr>
<tr>
<td>Published ATS airspace - activation or deactivation</td>
<td>Declared distances changes</td>
</tr>
<tr>
<td>Ad-hoc special activity area – creation</td>
<td>Runway portion closure</td>
</tr>
<tr>
<td>Ad-hoc ATS airspace – creation</td>
<td>Airport Usage limitation</td>
</tr>
<tr>
<td>Route portion closure</td>
<td>Runway usage limitation</td>
</tr>
<tr>
<td>Route portion opening</td>
<td>Taxiway usage limitation</td>
</tr>
<tr>
<td>Aerodrome closure</td>
<td>Approach lights unserviceable</td>
</tr>
<tr>
<td>Runway closure</td>
<td>Approach lights downgraded</td>
</tr>
<tr>
<td>Navaid unserviceable</td>
<td>Runway lights unserviceable</td>
</tr>
<tr>
<td>New obstacle</td>
<td>Obstacle lights unserviceable</td>
</tr>
<tr>
<td>Taxiway closure</td>
<td>Visual Approach slope indicator unserviceable</td>
</tr>
<tr>
<td>Surface contamination (SNOWTAM)</td>
<td>Taxiway lights unserviceable</td>
</tr>
<tr>
<td>Other Event (any other situation that does not have a dedicated scenario)</td>
<td></td>
</tr>
</tbody>
</table>
Digital NOTAM Specification

- Eurocontrol
  - model the most common events, both airport and airspace
  - focus on R&D (SESAR)
- FAA
  - initial focus on all airport events
  - fast deployment (FNS-NDS)
Digital NOTAM Specification

Event Specification 1.0 – Runway Closure

- airport designator
- airport name
- runway
- landing direction
- PPR details
- PPR time
- flight
- start time
- end time
- schedule
- note

Mapping

FNS Airport Scenario – Runway/RunwayDirection

- RWY
- RUNWAY
- type=FORBID
- restriction
- type=PERMIT
- restriction
Digital NOTAM implementation in Europe

- Through Centralised Service CS#5 (EAIMS)
  - Digital NOTAM coding capability available in 2018
  - Including ePIB (graphical briefing)
  - Currently working on the functional specification (requirements)

- One key challenge for deployment
  - Need a critical mass of Digital NOTAM data in order to justify the investment in graphical briefing
    - Some NOTAM will have to be post-digitised by the service provider, at least in the initial phase
Graphical PIB – SESAR project

Current PIB = list of NOTAM
Graphical PIB – SESAR project

Departure Aerodrome: UKBB

METAR:
UKBB 091455Z 13508KT 090V165 9999 BKN000 20/12 Q1015 CAVOK NSW
TAF:
UKBB 091415Z 0919 1016 0010G21KT 6000 OVC007
TEMPO 0915/0917 1000 SHSN BR BKN008 SCT008CB
BECMG 0917/0919 10016G25KT 4000 SN BKN008 OVC005
TEMPO 0919/1016 0600 SHSN BLSN OVC008 BKN008CB
BECMG 1006/1008 14014G23KT N04/1003Z TKM00/1012Z

AFR1953 – 09 May 2011 15:15
UTC – UKBB-LFPG
Graphical PIB – SESAR project

→ Prototype
  – Prepared by Frequentis for SESAR 13.2.2

→ Covers
  – enhanced Preflight Information Bulletin
  – DNOTAM events
  – Division into phases of flight
  – Representation as charts / text / timeline
<table>
<thead>
<tr>
<th>Departure</th>
<th>Arrival</th>
<th>EOBT Date</th>
<th>EOBT Time</th>
<th>Flight Identification</th>
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</thead>
<tbody>
<tr>
<td>KJFK</td>
<td>ESSA</td>
<td>2015-08-04</td>
<td>10:16</td>
<td>UAL 234</td>
</tr>
<tr>
<td>KIAD</td>
<td>ESGG</td>
<td>2015-08-04</td>
<td>10:16</td>
<td>UAL 234</td>
</tr>
</tbody>
</table>
ePIB Prototype
ePIB Prototype
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ePIB Prototype
ePIB Prototype
ePIB Prototype
Conclusions

• “Digital NOTAM” is not a NOTAM in another format!
  – it is AIXM 5.1 data complying with the coding rules established for a specified event scenario
• Global harmonisation of Digital NOTAM encoding is the common goal
  – FAA FNS-NDS versus Event Specification 2.0 is just a temporary situation due to
    • Different priorities
    • Faster FAA implementation
    • Digital NOTAM Specification 3.0 needs to bridge the eventual gaps (target 2018)
• Europe
  – Focus on Graphical PIB research and development (SESAR)
  – Moving towards implementation through Centralised Services
Contacts

• Eduard Porosnicu  
(Senior AIM Specialist, EUROCONTROL)  
eduard.porosnicu@eurocontrol.int

• Alexandru Savulov  
(SESAR WP 13.2.2 Project Lead, Frequentis)  
alexandru.savulov@frequentis.com