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Digital NOTAM Workshop *Industry Experience*

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THALES



Having the **Right** Aeronautical Information
Understandable by Computers is Improving **Safety & Efficiency**



Modelise environment & Aeronautical Rules

- ◆ Using Static Data (AIXM5) with
 - ◆ **Digital NOTAM** (AIXM5)
 - ◆ **Terrain & Obstacle** (eAIP)
 - ◆ **Meteo** (WXXM)
 - ◆ **Flight plan** (FIXM)

AIM is a key component of ATM Strategy



TopSky-AIM

- ◆ **TopSky-AIXM** (*AIXM5 aeronautical database*)
 - Web client interface (textual and graphical)
 - Operation oriented input forms
 - Eurocontrol Business Rules Engine check
 - Web Services interface
- ◆ **TopSky-eAIP** (*Publication component*)
 - Latest Technologies & Direct connection to DB
 - Automatization of AIP Generation
- ◆ **TopSky-AIS & TopSky-Internet Briefing**
 - NOF, ARO and MET operation
 - now integrating **Digital NOTAM**
- ◆ **Integrated with third party components**
 - GéoTitan - Procedure design
 - AGC - Charting

The image displays several screenshots of the TopSky software interface. The main screenshot shows the 'TopSky' web client interface with a search date of 2014/01/30 and an organization of LF-FRANCE. It features a navigation menu on the left, a search bar, and a main content area displaying a table of aeronautical data (Designator, Local Type, Name, Type) and a map of France with various airports marked. Below this, there are two smaller screenshots: one showing the 'TopSky' interface with a 'Quick search' bar and a map of France, and another showing a detailed view of a flight procedure (GEN 0 - Préface) with text in French and English. At the bottom, there is a screenshot of a flight procedure design tool showing a 3D perspective view of a runway and a 2D charting tool showing a flight path with various parameters like MAFPT, CFIS, FAF, and IF.

MEMBER OF
SESAR
JOINT UNDERTAKING



◆ AIXM CCB

- Lead by Eurocontrol/FAA

◆ Feedback to Digital NOTAM focus group

- Digital NOTAM Event specification document

◆ SESAR Digital NOTAM prototype (WP 13.2.2)

- Digital NOTAM in SESAR validation exercises
- Digital NOTAM in SESAR SWIM Demo

Based on the Digital NOTAM Event specification document VERSION 1.1

Implement Specific Interface PER EVENT (except for « OTHER » event)

The screenshot displays the Thales TopSky NOTAM interface. On the left, the 'Aerodrome Closure' section is active, showing a table for 'Exception Usage' with columns for Operation, Type, Prior Permission, and Valid. Below the table, 'Operation' is set to 'AIRSHOW' and 'Type' is set to 'PERMIT'. On the right, the 'NOTAMICAO' section shows a form for creating a NOTAM, with fields for date, location, and type. Below the form, a 3D map of an airport is shown with a blue highlighted area representing the closure.

Allows **Automatic Build**
of the **Current ICAO NOTAM**



AIXM5 Database RETRIEVAL

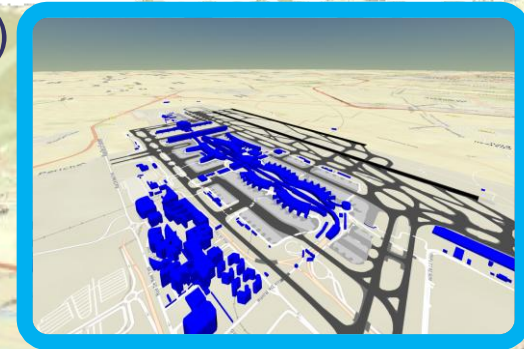
- ◆ **SWIM**
Aeronautical Information Feature Service - 1st AIM service defined by Thales

Digital NOTAM DISTRIBUTION

- ◆ **SWIM** (WS-Notification Broker)
Aeronautical Information Notification Service
- ◆ **Email**

HMI Definition & Validation

- ◆ **HMI Usability** of the “Per Event Interface” using **SESAR Digital NOTAM prototype** (WP 13.2.2)
- ◆ **3D AIXM5 Viewer** integration dedicated for Digital NOTAM illustration



Interfaces Definition & Validation

- ◆ **AIXM5 Aeronautical Information Feature Service** using **TopSky-AIXM**
- ◆ **PIB Production** with DNOTAM converted in Current ICAO NOTAM using **TopSky-AIS** (also interfaced for ICAO NOTAM Numbering)



Digital NOTAM INTEROPERABILITY with AIXM 5

- ◆ ADQ (Metadata, CRC), Timesheet interpretation

Digital NOTAM requires AIXM static DATA SHARING

- ◆ Database synchronization, AMHS distribution, SWIM services,
- ◆ Digital NOTAM Checklist

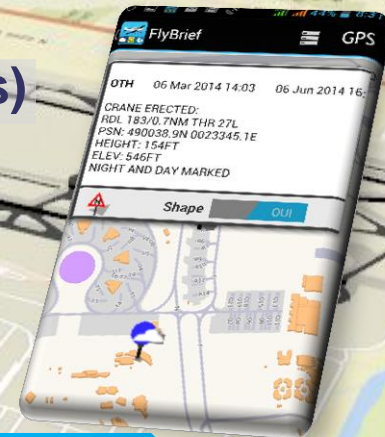
Digital NOTAM DISTRIBUTION not yet defined

- ◆ AMHS distribution, SWIM services (Filtering capabilities)

Digital NOTAM on AMDB

- ◆ Publish AMDB in AIXM 5 format
- ◆ and/or Convert Digital NOTAM to AMDB

Interoperability, Data sharing, Distribution and Link with AMDB
still requires recommendations & additional specifications





Thank you for your attention !

YOU are **WELCOME** to visit **THALES** exhibition in the hall.

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