

Global Harmonization Through Collaboration

Key note EUROCONTROL

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**Federal Aviation
Administration**

AIR TRANSPORTATION INFORMATION EXCHANGE CONFERENCE - (FEATURING AIXM, WXXM AND FIXM)

August 28, 2012 - August 31, 2012
NOAA Auditorium and Science Center
Silver Spring, Maryland



Today's News from Europe



Air Transportation Information
Exchange Conference - (featuring
AIXM, WXXM and FIXM)

- Some real good news and some less
- Exchange models - Elevator brief & The Recipe
- At your Service
- Challenges
- Look into the future



We know what SWIM is !



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“The 'horizontal' support process, which

SESAR Definition of SWIM:

“SWIM consists of

standards, infrastructure & governance

enabling the management of ATM information

and its exchange between qualified parties

via interoperable services.”

Source: ATM Strate

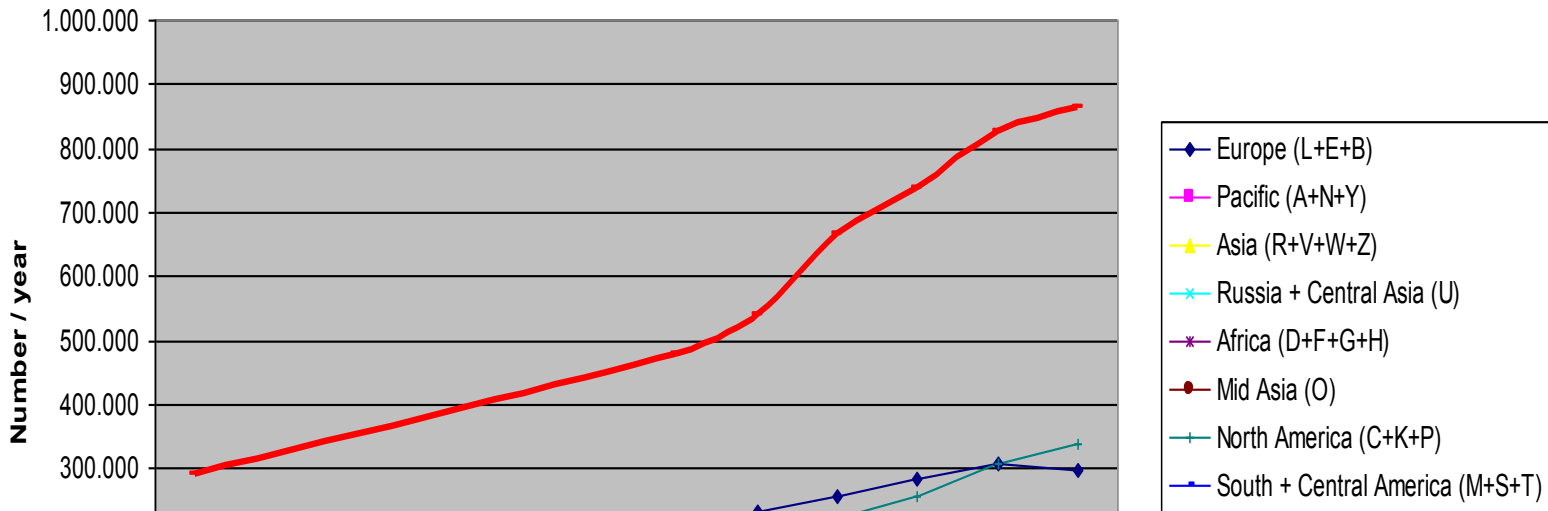
SOA/EA

AIM/NOP

Some not so good news



(International) NOTAM Trends



- **Safety concerns !**
- **Accelerate Digital NOTAM & Review of NOTAM system**
- **Applications !**
- **IM approach**



Exchange models

Elevator Brief



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AIXM

De-facto global standard
ICAO Anx15 & EU Law
Change Control Board

WXXM

Data becoming available
ICAO Anx3/WMO

FIXM

+ - V1

European coordination platform
Lets Plan !

ICAO Blocks / Roadmaps / SWIM

	Block 0	Block 1	Block 2	Block 3
Information Management	SWIM CONOPS	SWIM G-G	SWIM A-G	
		B1-25, 30, 31 SWIM (Ground-Ground): Flight Intents before departure, ATM Information exchanges	B2-25 SWIM (Ground-Ground): Inter-Centre coordination B2-31 SWIM (Air-Ground): Aircraft integration	
	ATM Information Reference & Service Model, Common governance, ISO, OGC, ...			
Flight and Flow		1-30, 25	2-25	3-25, 05
Capability		Exchange of Flight Intents and Strategic Flight Information (initial FF-ICE)		
Enabler		Flight and Flow Coordination (initial FF-ICE)		
AIS/AIM	0-30			
Capability	AIS-AIM Enhanced quality Paper → Digital data exchange Digital NOTAM			
Enabler	eAIP, AIXM			
Meteorology				
Capability	Traditional codes replaced by digital information			
Enabler				

<p>International Civil Aviation Organization WORKING PAPER TWELFTH AIR NAVIGATION CONFERENCE Montreal, 19 to 30 November 2012 Agenda Item 3.1: Performance Improvement Through the Application of System-Wide Information Management SWIM Global Concept</p> <p>SUMMARY Considering the importance of information management in the services to be delivered to airspace users, this paper introduces actions and basic principles that will serve as the basis for the development of a Global Concept of System Wide Information Management (SWIM). Action by the ASAC and ICAO is an on-going effort.</p>
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Exchange models

The Recipe behind

A silk revolution & Growing



New challenges

Increased Enterprise thinking (G2G)

Need for a common operating

Bridges

One logic – Many solutions

(AMXM, AIDX, Asterix, ...)

Eur answer

ATM Information Reference Model (AIRM)

- Complementary, Semantic, ATM wide interoperability
- IM hook to SWIM compliance

SESAR AIRM



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AIRM

AIRM – The service Payload



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We unbundle to better rebundle

existing model - mapped

e.g. AIXM

The road to Services



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Not easy

From religion to opportunism

Some examples

- AirportMap
- AirportMetCapacity
- VolcAsh
- AirspaceManagement
- DigNOTAM
- AMAN/DMANCoupling
- FlightServices
- ...



How real is this all ?

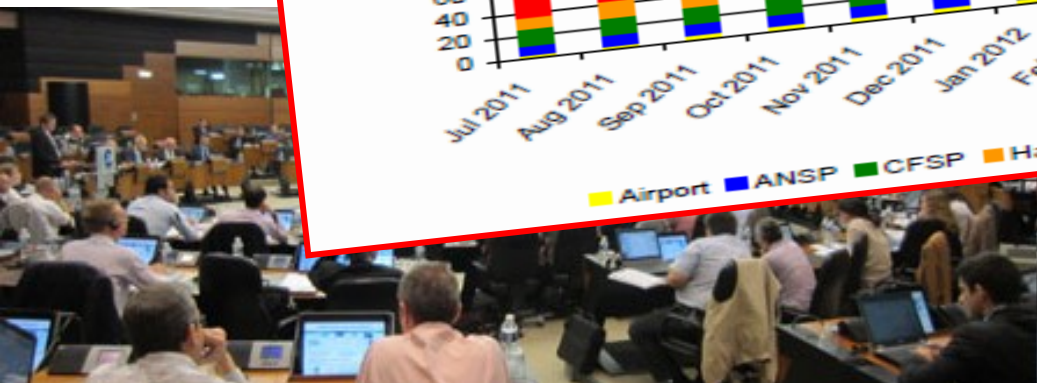
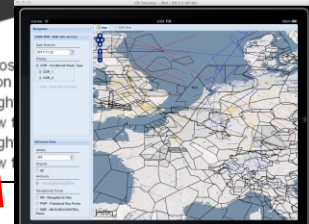
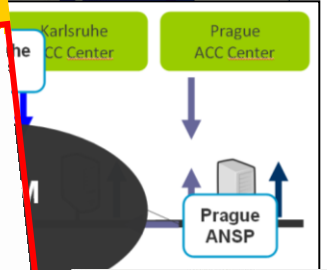
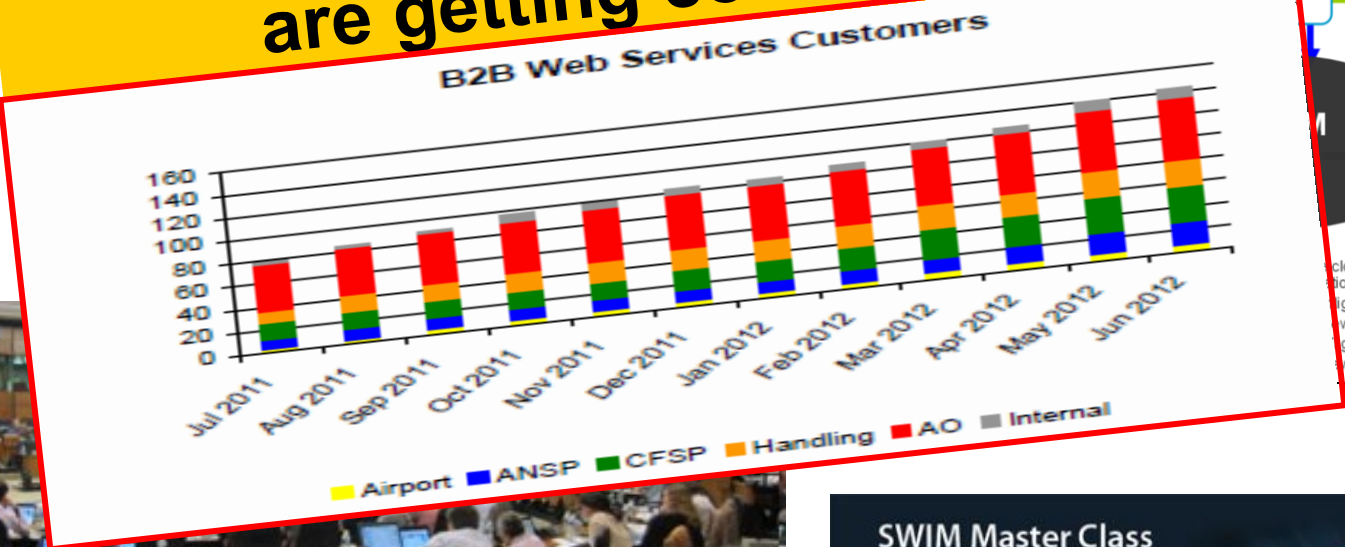


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Dozens of systems & organisations are getting connected

Year



SWIM Master Class
June – October 2012



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Global dimension



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AIRM



RTCA

State vs Industry

Time for a High Level Deal!
- ATM Information Wide
- What before Who/How

OGC
Open Geospatial Consortium, Inc.

Se

NextGen 

Global XMs



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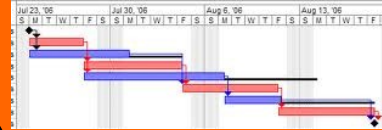
International Standardisation Checklist



Flexibility



Phasing



Open



Inclusive



Early Adopters

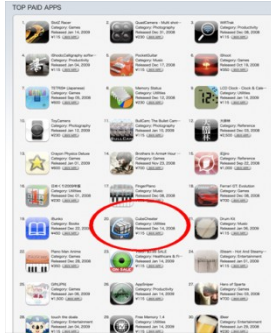
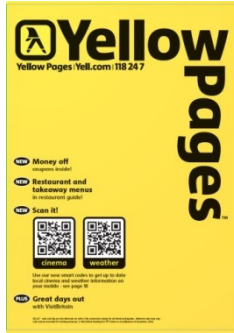


A look into the future

'Or why to come back next year'



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Registry
Pilot, Survey, Interop

First interregional trials ?



SWIM Compliance levels

So far: 'Use XMs, be SOA, max. COTS techno'

Towards: AIRM, Standard Services, Registry

→ Global IM Architecture framework

Conclusion



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- ATM Data/Information/Services more than ever holding the key to the future
- In terms of implementation
 - Unlock the data
 - The XMs are safe investments (but only half the job)
 - Be SOA - Publish / Consume services
- Lets go for a truly global ATM ...



Contact Information



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- **EUROCONTROL**

<http://www.eurocontrol.int/im>

<http://im.eurocontrol.int/wiki>

Click [here](#) to access the NOP B2B

- **SESAR Joint Undertaking**

<http://www.sesarju.eu/swim>

- **E-mail** paul.bosman@eurocontrol.int



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Questions?



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Have a nice day - unless you've made other plans