



***Our Experience with D-AIM  
based on AIXM***

**AIXM/WXXM Information Exchange Conference**

**Washington DC, May 12 – 14, 2009**

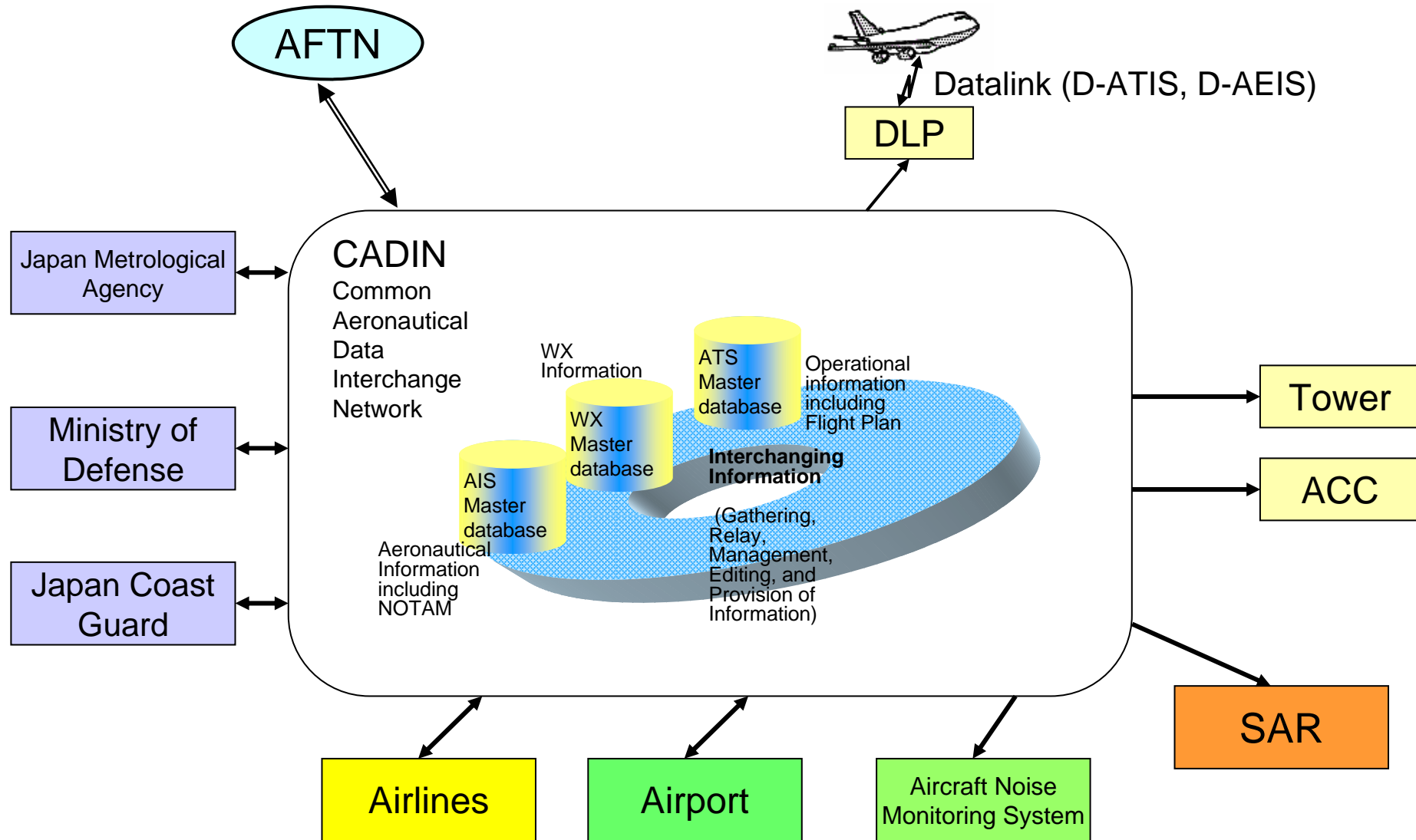
**Takashi Hatta**

**ATC Systems Service, Ltd., Japan**

# Information Management Requirement in Japan

- **1994 New IM for NOTAM and WX**
  - Operational Requirement
    - Automatic selection and management of valid NOTAMs
  - Users' requirement
    - Providing Package-info from origin to destination
    - Providing New information via DATALINK
- **So, JCAB implemented the NOTAM center database in 1994**
  - The first step of AIS automation in Japan
  - Before ICAO AIS divisional meeting!!
  - Technical Limitation - No standard
    - Only AFTN interface and Text format(IA5)
    - Not open web site
    - No graphical information

# First Information Management(1994)



# PKG Service

## From RJTT to RJCC – 10 pages

\*\*\* PKG \*\*\*

08/04/28 14:40

REQUESTED-DATA : NTM AND WX  
 DEP-AERODROME : RJTT EOBT : 08-04-28 05:40UTC  
 DEST-AERODROME : RJCC ETA : 08-04-28 07:10UTC  
 ALTN-AERODROME :

EN-ROUTE : 000 - 999  
 (ROUTE) :  
 FIR :

\* : THIS SUMMARIZED NOTAM IS EDITED BY QUALIFIER LINE

----- DEPARTURE : RJTT 04:40 / 06:40 -----

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(AGA)  
 TWY NOT PASSABLE FOR ACFT TYP B777-300 RJTT  
 TWY B1N B2N T-TWY(D6 THRU D7) 0608/08  
 0602181720/UFN ALT/000/999

METAR : RJTT 280530  
 M 280530Z 11008KT 10KM FEW030CU BKN/// 18/11  
 Q1014/A2997 RMK MOD TURB 1000FT DYE VOR BY  
 B737 AT 0500-

(RAC)  
 IAP TEMPO CHG AIP SUP  
 MDA(H) WX MINIMA 0058/08  
 0804091500/0806041500 ALT/000/999

S-TAF : RJTT 280246  
 280246Z 280312 05010KT 9999 FEW030 BECMG 0305  
 12010KT=

(OTH)  
 OBST: TOWER CRANE EXIST RJTT  
 3532N13948E(QTE/151DEG 2620.366M FM RJTT ARP) 1921/08  
 0803311500/0804301500 ALT/000/003

RWY-INFO : APCH 280530  
 RJTT (APCH)VOR C  
 LDG RWY 16L  
 DEP RWY 16R

OBST: CRANE SHIP AND CRANE OPS RJTT  
 WX MINIMA NO CHG 0691/08  
 0802022230/0808311500EST ALT/000/003

RWY-INFO : APCH 280426  
 RJTT VOR C  
 LDG RWY 16L  
 DEP RWY 16R

OBST: TOWER CRANE EXIST RJTT  
 353307N1394701E(QTE/130DEG 267.7M FM RJTT ARP) 3282/08  
 0804161323/0806081500 ALT/000/005

L-TAF : RJTT 280246  
 280246Z 281206 11007KT 9999 FEW015 SCT030  
 BECMG 1215 05010KT BECMG 0003 09009KT=

# Datalink Example of D-AEIS

## Manual workload for making data

FI JL0723/AN JA8582  
DT JDL HND1 220937 M86A  
- EIS03A01193926SSJ

Request(SSJ Area)

AN JA8582/GL HND1  
- P80TYODLYA220936  
AEIS SSJ

NOTAM INFO  
\*RJTT VALID UNTIL 9911302359EST  
RWY 15/33 CLSD DUE TO BURST

**TURB INFO**  
I D/JAL1234 PN/RJTT-RJFF TP/B763 TM/191447  
OV/SNE 100NE-KCC 50NNW FL/F330-350 DU/OCNL  
TB/MOD TURB SK/CLR I C/LGTICE WV/256056KT  
TA/M56 SB/BELT ON CS/SVC OK

**VOLCANIC INFO**  
VLC WSJ SAKURAJIMA  
MT.SAKURAJIMA ERUPTED AT 0500.VA MAX TOP 10500FT  
UPPER WD KAGOSHIMA AT 0600 5000FT 100/49KT 18000FT 250/56KT

Edited from  
PIREP

# AIS faces Big Change

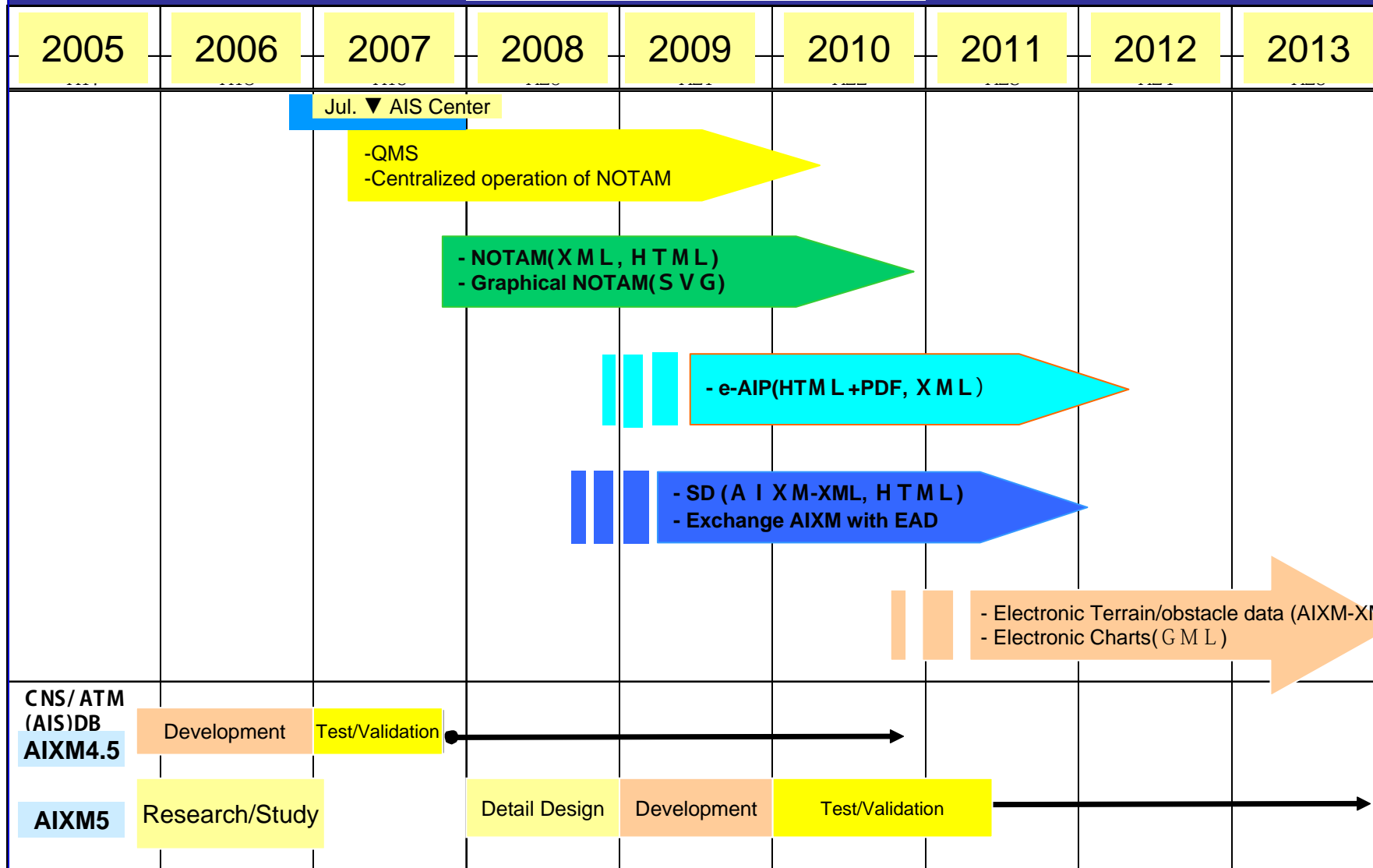
*Need for a new approach to support CNS/ATM*

- **ICAO**
  - ✓ ***GLOBAL AIR NAVIGATION PLAN FOR CNS/ATM SYSTEMS***
- **ICAO**
  - ✓ ***AIS/MAP DIVISIONAL MEETING***
- **ICAO**
  - ✓ ***11th Air Navigation Conference***

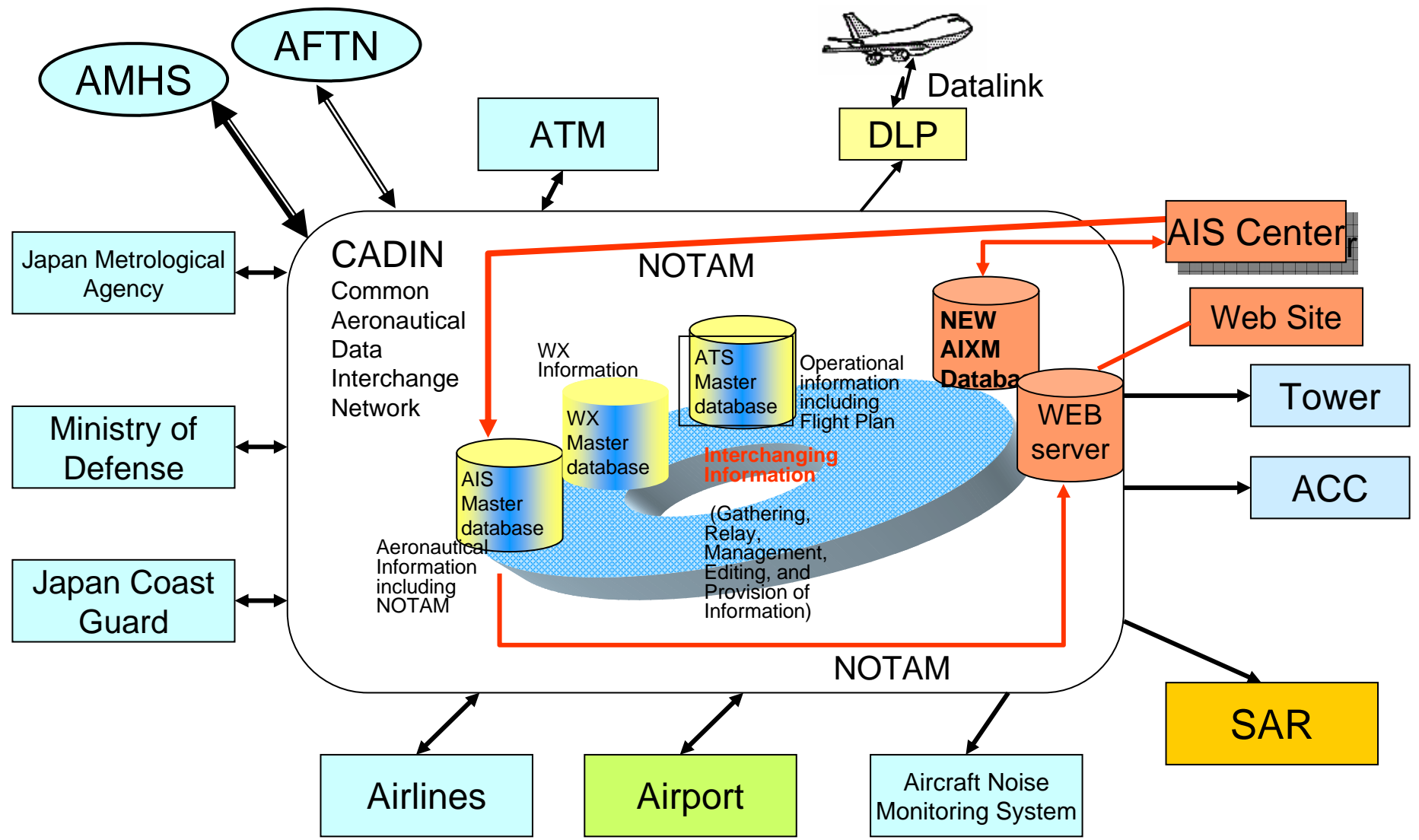


- JCAB participated ADMSG of ICAO, AIS tech-sg and ACCB
  - ✓ Introduction of AIXM/AICM – 2001
- AIS web site – 2003
  - ✓ Open to global

# ROAD MAP to AIXM5



# Current Information Management





# NOTAM & AIP Link (WEB site)

**AIS JAPAN**  
Japan Aeronautical Information Service Center

PRINT CLOSE

### NOTAM Detail

DATE: 07/26/2007 17:26  
KEYS: LOCATION: RJTT  
PERIOD: [07/07/26 17:25] -[07/07/28 17:25]  
SCOPE: A,AE,AW

New : Issued within 24 hours ! : Urgent [to AIP-SUP](#) : Linked AIP-SUP

```
100200 RJTTZPX
(0122/07 NOTAMN
Q)RJJJ/QMXXC//M/A/000/999/
A)RJTT B)0707100000 C)0708312359
E)TWT A3 CLSD TEST2-SVC )
```

[to AIP-SUP](#)

Please click the image below,If you want to see the full size image.

eAIP based  
AIXM-XML

NOTAM-XML

Easy to  
link

From mid of 2009  
also link to eAIP

<https://aisjapan.mlit.go.jp/>

DATE: 12/10/2008 11:39

KEYS: LOCATION: RJAA

PERIOD: [08/12/10 12:00] -[08/12/10 14:00]

SCOPE: A,AE,AW

NOTAM-XML

AIXM-XML

Convert  
to SVG

The following NOTAM can be checked up to 50.  
Graphic will be updated after clicking

Graphical NOTAM  
by SVG

ALL

**RJAA**

[1719/08](#)

[1699/08](#)

[1684/08](#)

[1667/08](#)

[1657/08](#)

[1646/08](#)

[1645/08](#)

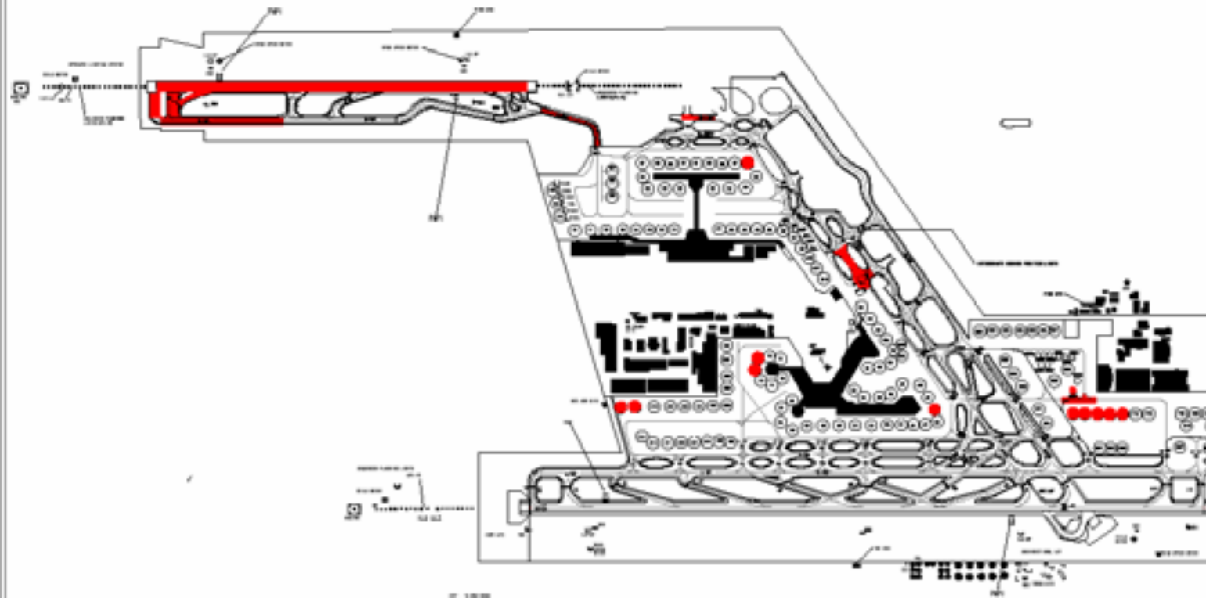
[1644/08](#)

[1643/08](#)

[1642/08](#)

[1641/08](#)

[1640/08](#)



# Considering NOTAM Digitization



TWY A (BTN B1 AND B2)-CLSD

TWY R(INTERSECTION OF S6) R(BTN S6 AND S7)  
S6(BTN R AND B) S6-GWY-CLSD



TWY A (FROM B1 TO B2)-CLSD



TWY A (FROM B1 TO B2 EXCLUDING INTERSECTION OF B2)-CLSD



# Operational Impact in the Digital Environment

- Hard work from paper based AIP to SD-AIXM
  - Need of the special quality management for transition
    - Especially, Data Quality Assurance
    - Feedback to data originators and re-check
  - Spent 3 years
- Convert Digital NOTAM to ICAO legacy NOTAM
- We will consider the operational impact in the digital environment
  - Need OPADD change
  - Change the quality management system
    - We should more close to the CHAIN

# Users' Benefit

- We must reduce the COST impacts to airline systems and other ATM systems.
- New products based on the digital NOTAM and AIXM must directly lead to cost-effectiveness, safety and efficiency of operation.
- We must study and promote what the digital environment brings



Thank You!!!