



Ministry of Land Infrastructure Transport and Tourism  
**CIVIL AVATION BUREAU OF JAPAN**

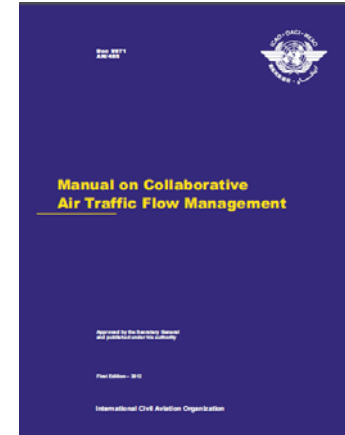


# **CDM in JAPAN**

Japan Civil Aviation Bureau

# Doc.9971 Manual on Collaborative Air Traffic Flow Management

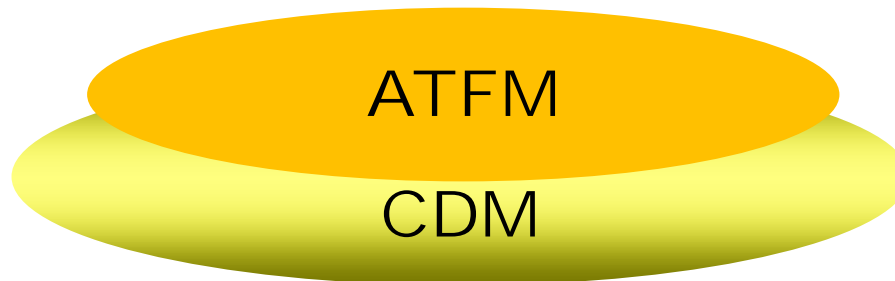
Part 1 Collaborative Decision Making(CDM)  
Part 2 Air Traffic Flow Management



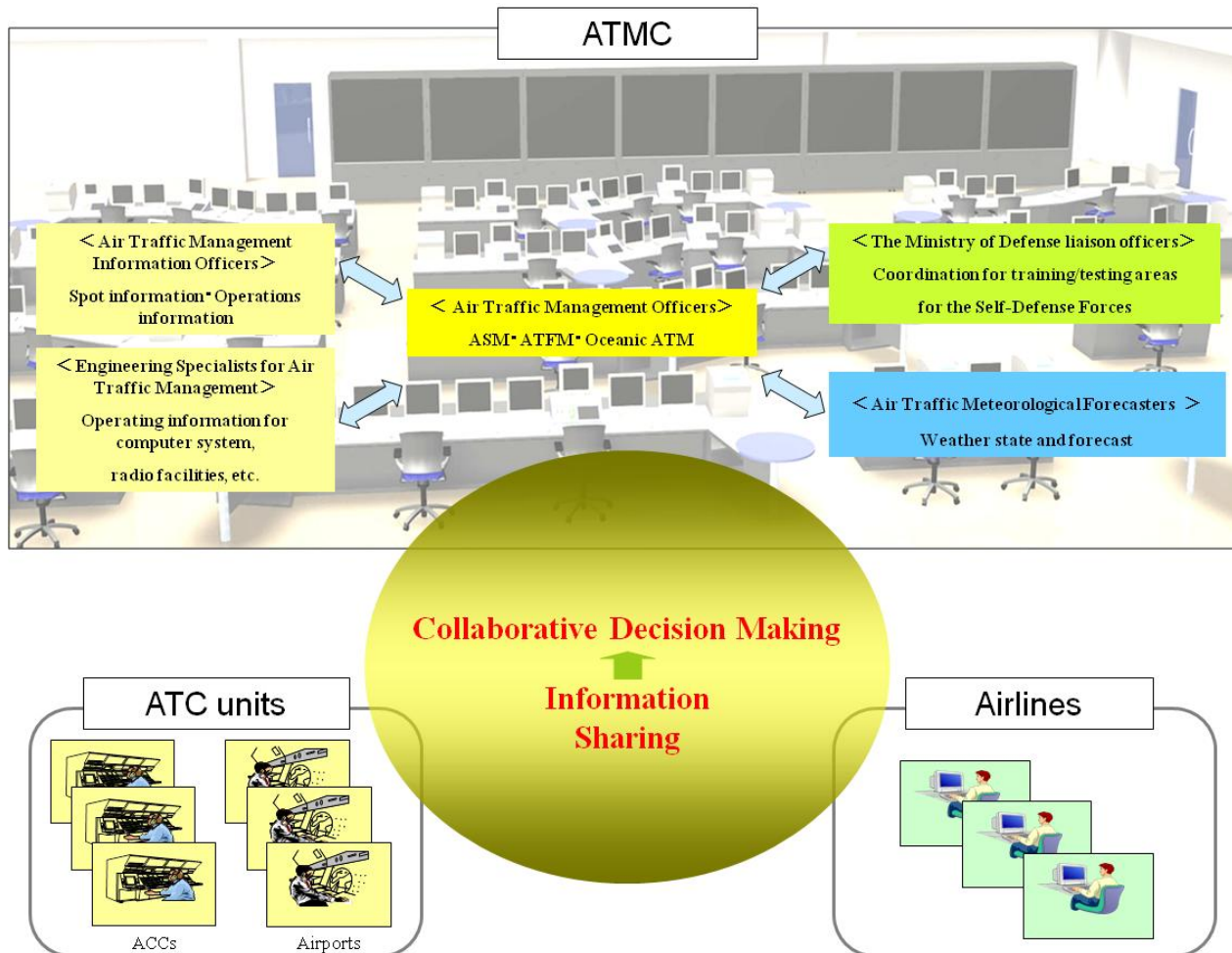
CDM is cradle of ATFM

Effective ATFM is based on good CDM environment.

CDM need tool for information sharing.

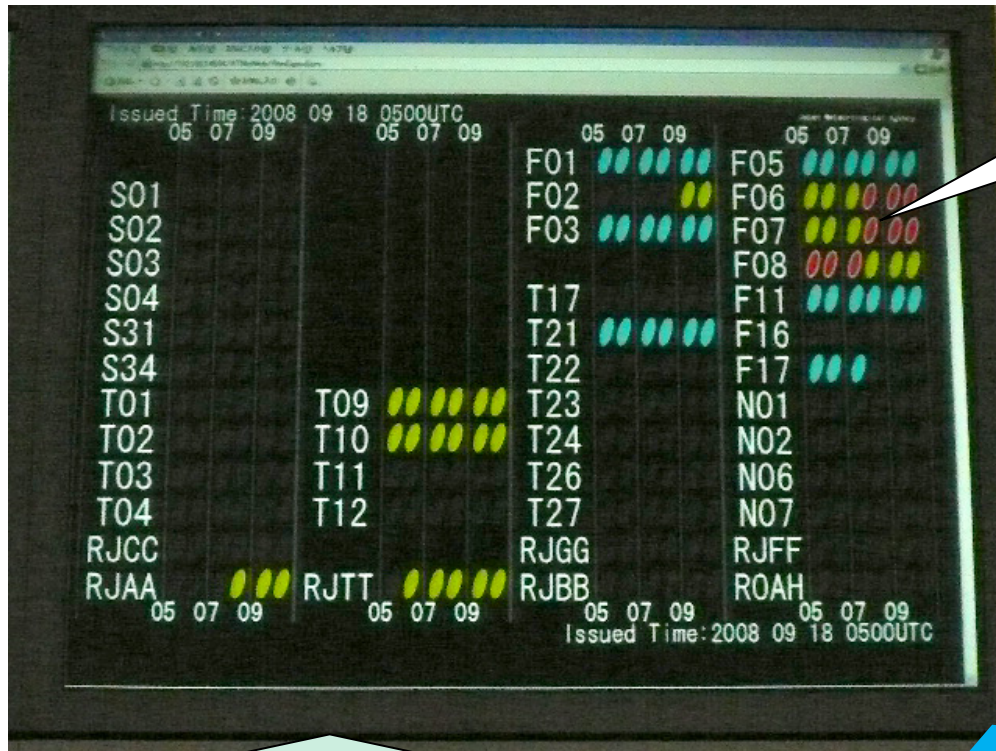


# Collaborative Decision Making



# CDM Tools

## Meteorological Information



Alert classification is shown by colored symbol

Large 8 Displays

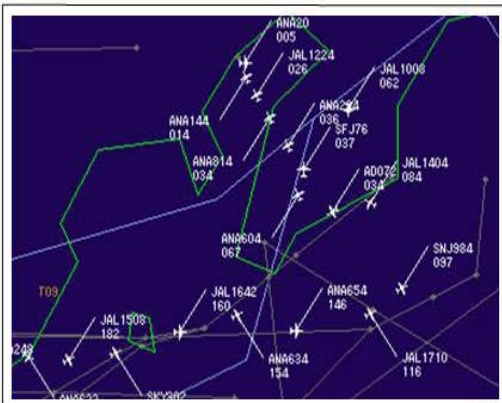
Chronological forecast



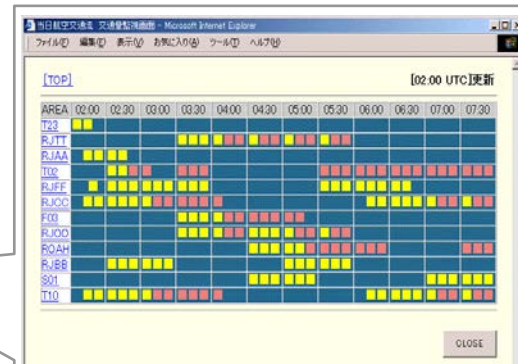
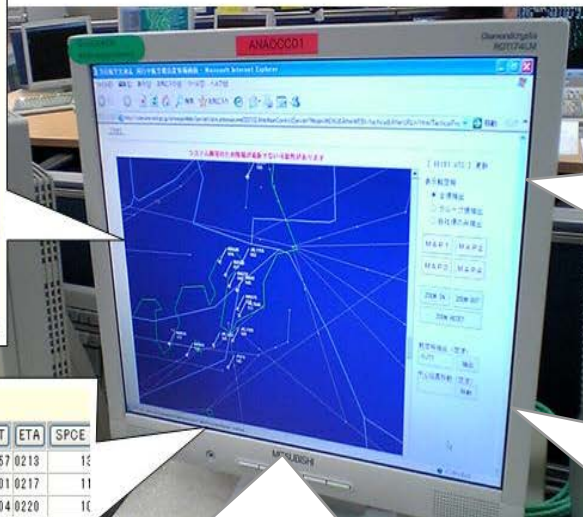


# CDM Tools

Aircraft position information



ATFM Workstation



Traffic volume monitor information

327 件中 61 - 80 件目 SPACING : 10

STS	C/S	TYPE	DEP	EOBT	ETD	SDL	ETDP	DLA	EDOT	ATD	EIT	ETA	SPCE
I	ANA144	B772	RJBB	0055	0104	----	----	----	0114	0157	0213	10	
I-E	ANAR14	A320	RJOH	0055	0100	----	6 0106	0106	0201	0217	11		
I-E	ANA294	A320	RJOR	0100	0108	----	5 0113	0114	0204	0220	10		
I-E	ADO22	B734	RJCM	0030	0039	----	15 0054	0054	0203	0220	12		
I	ANA3201	F50	RJAA	0100	0115	----	----	----	0126	0154	0230	2	
I-E	SFJ76	A320	RJFR	0045	0050	----	2 0052	0057	0206	0222	12		
I-E	ANAR64	A320	RJFM	0045	0056	----	8 0104	0107	0212	0228	8		
I-E	JAL1404	A306	RJOT	0115	0119	----	11 0130F	0130	0215	0231	7		
I-E	JAL1808	B743	RJCC	0100	0113	----	7 0120F	0121	0215	0232	8		
I-E	JAL1710	B772	RJFF	0100	0105	----	7 0112	0116	0218	0234	8		
I-E	SNJ384	B734	RJFU	0045	0054	----	3 0103	0104	0220	0236	8		
I-E	ANAR64	B772	RJOB	0120	0130	----	10 0140F	0140	0222	0238	8		
I-E	ANAR64	B772	RJOT	0115	0119	----	11 0130F	0135	0222	0238	10		
I-E	JAL1642	MD90	RJDC	0105	0113	----	10 0123F	0124	0224	0240	10		

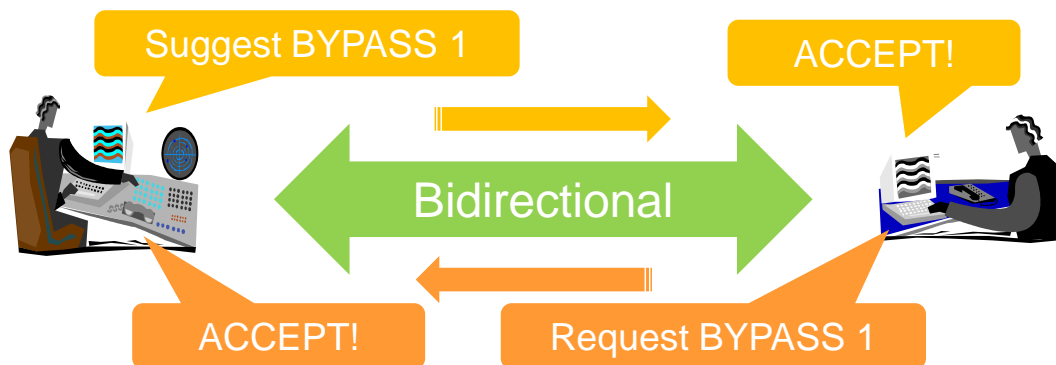
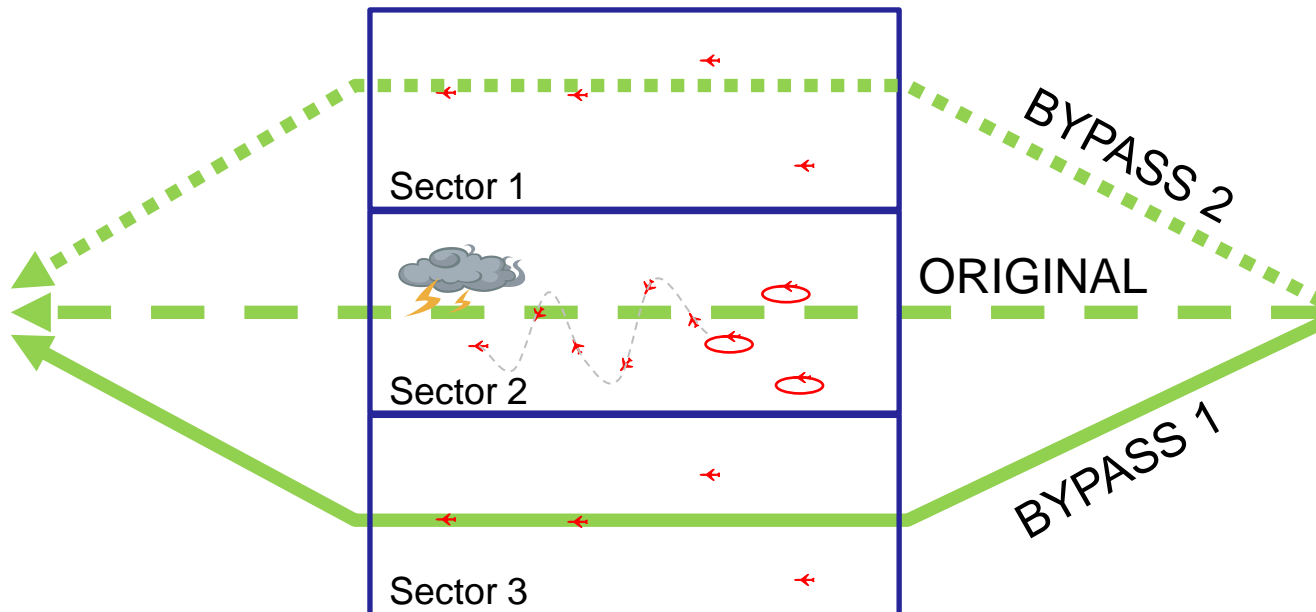
Flight plan data

日付開始時刻	終了時刻	行先エリア	FROM TO	機体種別	REMARKS	更新時刻
12/4 0400	0700	523	0400 0700	E		0250
12/4 0500	0600	RJFF	0530 0600	EHC		0310
12/4 0500	0500	T30	0200 0500	E+with		0240
12/4 0500	0600	RJTT	0200 0600	A		0240
12/4 0520	0400	T2	0230 0400	E		0230
12/4 0700	0000	RJTT	0100 0700	E		0225
12/4 0500	0000	T4	0200 0500	E		0250
12/3 0300	0200	RJCC	0200 0200	E+5		2055
12/3 2100	0100	RJTT	2100 0100	EHC		2100
12/3 2000	2130	T3	2000 2130	E		2000
12/3 1800	2000	500	1800 2000	E		1800
12/3 1700	1830	023	1700 1830	E		1730
12/3 1500	1800	RJTT	1500 1800	A		1500
12/3 1000	1330	T3	1000 1330	E		1000
12/3 0850	0700	RJFF	0850 0700	E		0830
12/3 0240	0400	T22	0240 0400	E		0240
12/3 0000	0220	505	0000 0220	E		0000

Traffic flow control information

# CDM Tools

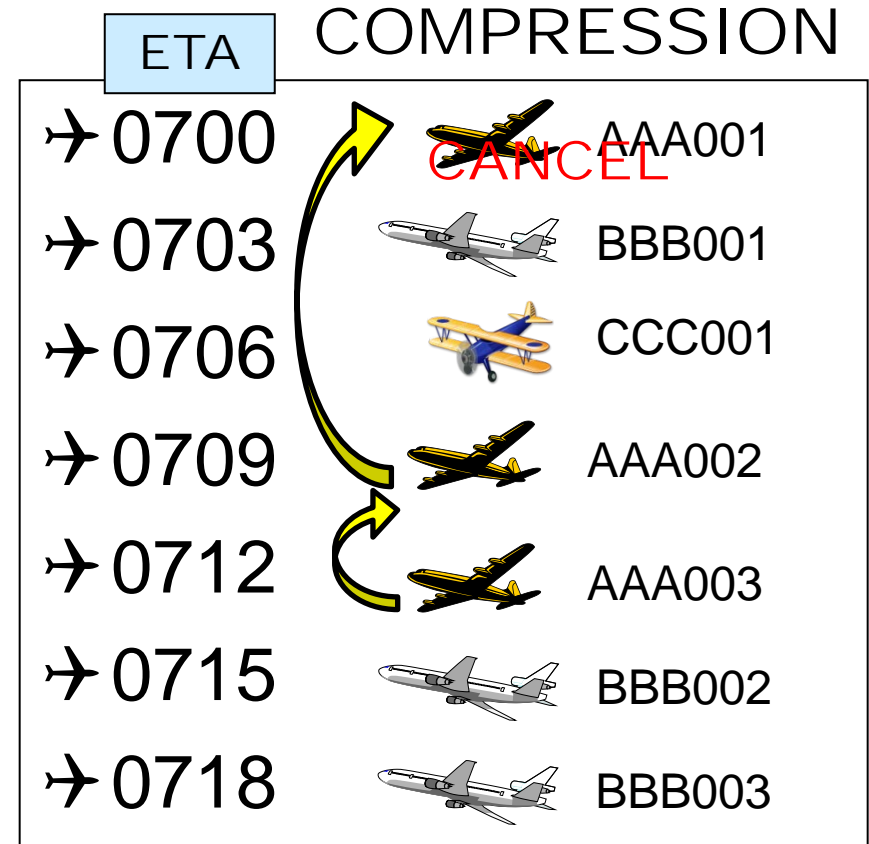
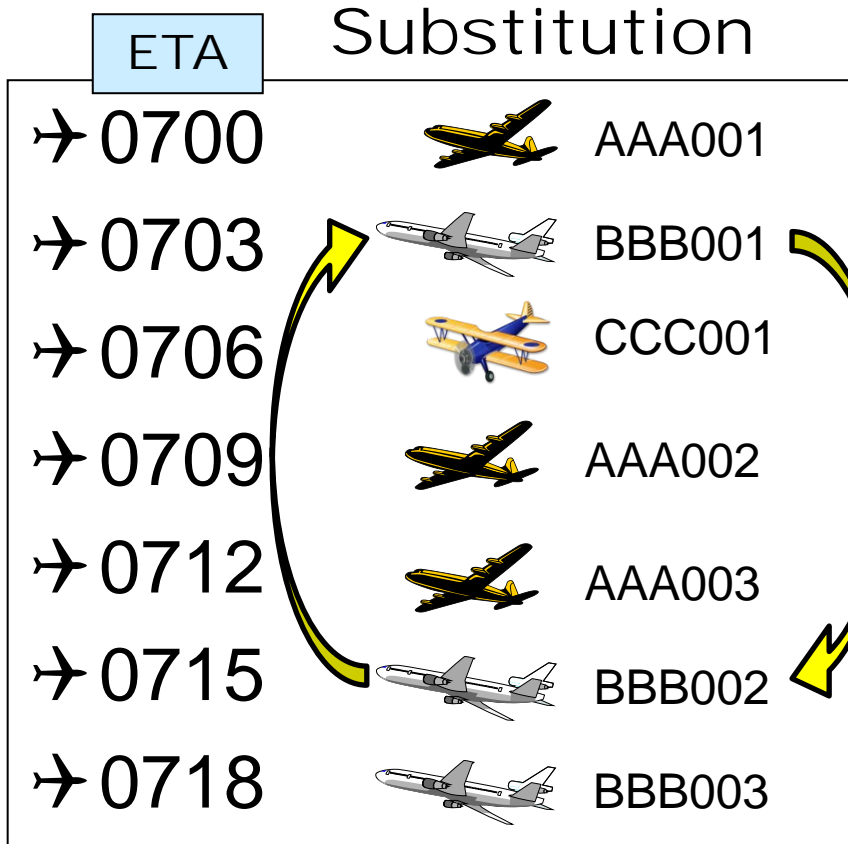
## ROUTE COORDINATION



# CDM Tools

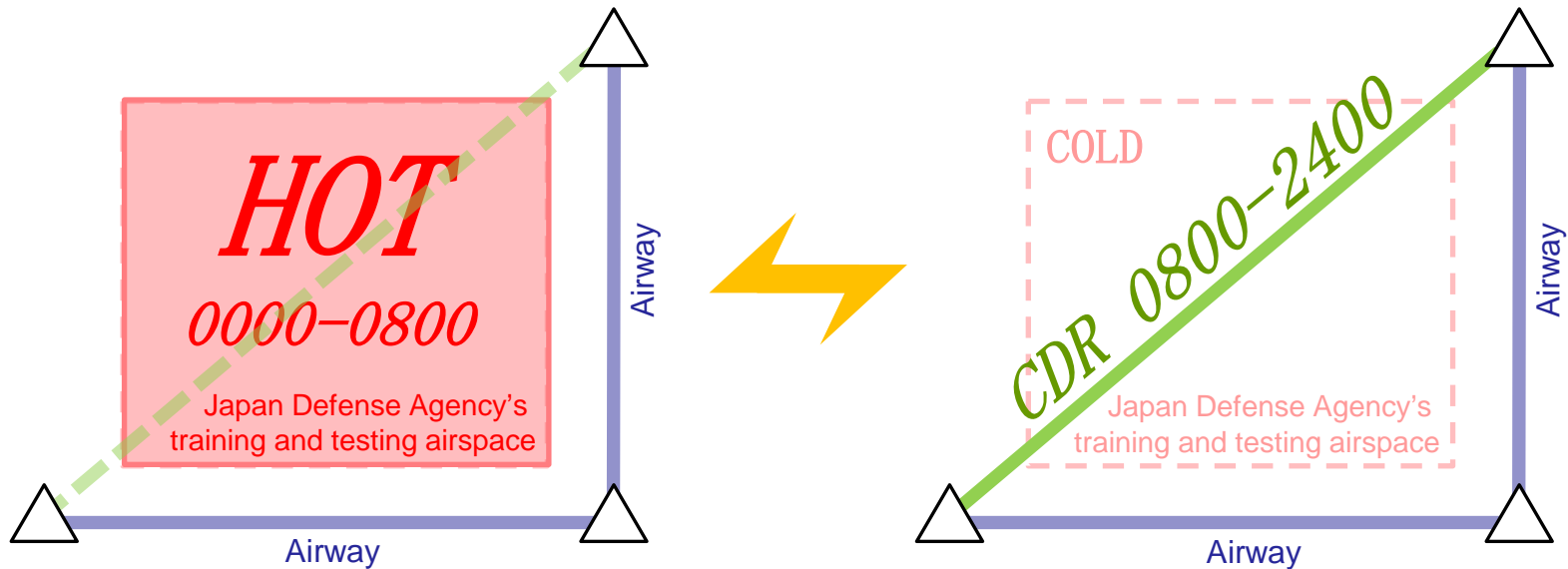
## TIME FRAME COORDINATION

**Arrival slot coordination** (AOs carry it out by oneself with ATM workstation.)



# CDR(Conditional Route) Operation

## Reduction of Flight Planned Distance



Jan. 2013 Japan

CDR1 ( 1 route ) : Notified by AIP

CDR2 (12 routes) : Notified by NOTAM



# CDM Tools



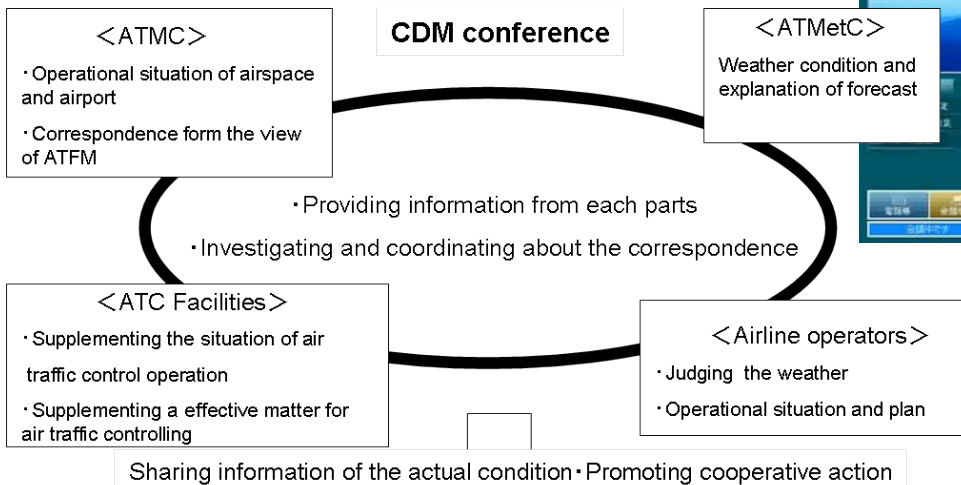
- CDM Conference**
- Participants  
ATMetC, ACCs, Terminals, AOs(ANA,DAL,JAL), ATMC
  - Regular Conference  
(Twice a day)
  - Extra Conference  
(As necessary)

# CDM Tools

## OP (Operations Plan)

Hold the regular (twice a day) CDM conference to share the situation for 6 hours.

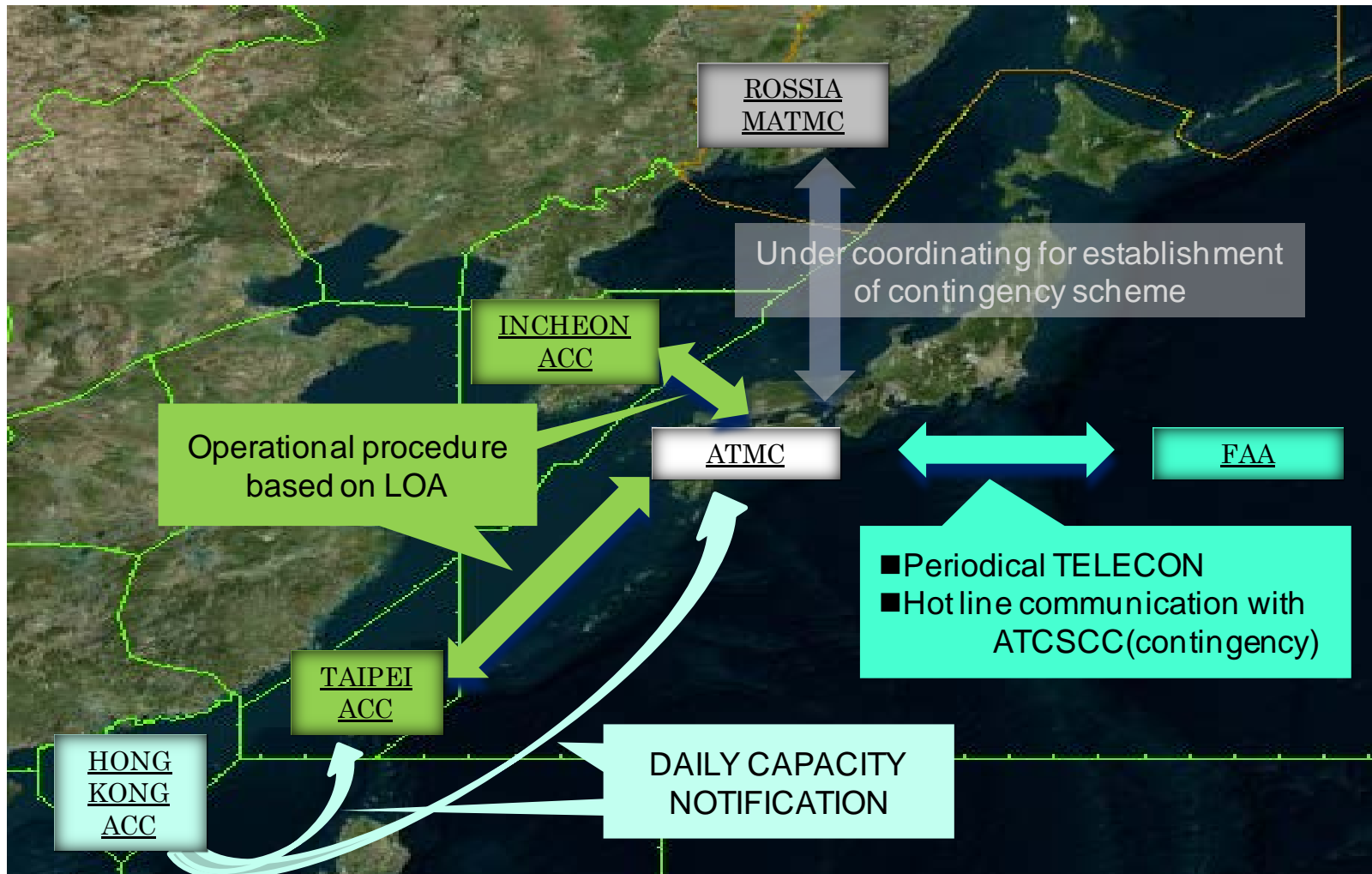
\* Using the internet TV conference system



\* Example of OP

```
====ATM OPERATIONS PLAN====
VAL ID 2010/0201/2345 THRU 0545
-- CAPACITY (GAPA) & CONSTRAINTS --
RJTT : 0200-0300 GAPA=14 FLTK
T03 : 0030-0700 GAPA=07 DEV (GB)
-- INITIATIVE --
RJTT : 2330-0130 EDGT
T12 : 2300-0905 2MINIT DEP FM RJAA/RJTT
<POSSIBLE>
RJAA : 0330-0500 15NM IN-TRAIL @ ALL APPROACH FIX
-- OTHER --
NEXT CDM CONFERENCE 2010/0202/0620
```

# Sharing Information with Neighboring Facility



# ATM Service Conference

- ❑ MEMBER: JCAB, JMA, MOD/JASDF, CDM AIRLINEs
- ❑ TWICE A YEAR
- ❑ ATM SERVICE OPERATIONAL ANNUAL REPORT
- ❑ ANALYSIS, EVALUATION AND DEVELOPMENT FOR ATM OPERATION



**航空交通管理業務運用評価報告書**  
**年次報告**  
 (平成 23 年 4 月～平成 24 年 3 月)

平成 24 年 6 月  
 国土交通省  
 航空交通管理センター

1.4 回航交通利用率

■ 統計対象：全日計状況

新幹線利用率

年度	4月	5月	6月	7月	8月	9月	10月	11月	12月	1月	2月	3月	合計
JR東日本	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
JR西日本	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
JR東海	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
JR九州	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
JR四国	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
JR北海道	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
合計	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1

■ 11 回航交通管理業務運用評価委員会

■ 11 回航交通管理業務運用評価委員会

■ 11 回航交通管理業務運用評価委員会

■ 11 回航交通管理業務運用評価委員会

■ 11 回航交通管理業務運用評価委員会

# THANK YOU

