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**ASIA/PACIFIC METEOROLOGY/AIR TRAFFIC MANAGEMENT
(MET/ATM) SEMINAR**

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Agenda Item 2: Impact of MET on Air Traffic Flow Management (ATFM)

**IMPORTANCE OF ADVANCE INFORMATION EXCHANGE WHEN CONDUCTING
CROSS-BORDER ATFM**

(Presented by Japan)

SUMMARY

This paper presents the updated information about International ATFM (air traffic flow management) situations between Japan - republic of Korea, and Japan - Taiwan. And also presents importance of advance information exchange when Cross-Border ATFM is required.

1. Introduction

1.1 It has been about 10years since ATMC (Air Traffic Management Center) was established on October 1, 2005, as the central organization for comprehensive ATM in Japan.

1.2 The air traffic volume in recent years in Fukuoka FIR is increasing continuously, and shows the high rate of increase compared with the domestic flight about an international flight and FIR passage flight.

It is expected from the context of the economic development in the East Asia area that traffic volume hereafter increasing.

There are approximately 4,500 IFR flights in Fukuoka FIR per a day.

2. International ATFM between ATMC and adjacent ACC

2.1 ATMC implements air traffic flow management initiatives according to the situations not only for domestic traffic flow but also for international traffic flow with coordination with adjacent ATC organizations. Particularly, ATMC conclude Letter Of Agreement about ATFM with Incheon ACC (Republic of Korea) and Taipei ACC (Taiwan), and it is to coordinate for sharing information and application of flow control mutually, in the situations of bad weather and the capacity fall in at major international airports.

2.2 Recent achievements of international traffic flow management

2.2.1 International ATFM between Taipei ACC

International traffic flow management achievements between Taipei ACC in 2014 fiscal year are shown in the following table.

Direction and FIR BDY :Airway	Target	Number of ATFM implementation
West bound at FIR BDY BULAN:A1, SALMI: B576 IGURU:G581 SEDKU:R595	For RCTP(Taipei) (RWY construction)	341
	For RCTP(Taipei) (WX and other reason)	14
	For VHHH(Hong Kong) /VMAC(Macao)	55
	For RPLL VTBS etc.	25
East bound at FIR BDY MOLKA :M750 IGURU :G581 BORDO :R583 SEDKU:R595	For RJAA/RJTT(Tokyo)	5
Total		440

Note: Number of ATFM implementation about NE bound at SALMI (B576) is not listed in the table above.

2.2.2 International ATFM between Incheon ACC

International traffic flow management achievements between Incheon ACC in 2014 fiscal year are shown in the following table.

Direction and FIR BDY :Airway	Target	Number of ATFM implementation
West bound at FIR BDY SAPRA:G585	For RKSI/RKSS(Seoul)	31
	For AP beyond Incheon FIR	347
	For ZBAA(Beijing)	101
	For AP in China	40
East bound at FIR BDY LANAT:G597	For RJAA/RJTT(Tokyo)	2
Total		521

Note: Number of ATFM implementation about South bound at ATOTI (B576) is not listed in the table above.

3. The Importance of information sharing between ANSPs when flow management initiatives are required at FIR boundary

3.1 In case any restrictions are expected to require the FIR boundary we think it is necessary to have coordination about ATFM initiatives after sharing information about event that causes the restrictions. Therefore, if the weather is a cause event, it is necessary that accurate weather forecast is provided to the ATC or ATFM authorities by meteorological authorities.

3.2 Air traffic Meteorological Center (ATMetC) which set at the ATMC is providing weather information that has potential to affect the air traffic in Fukuoka FIR to ATMC officers by various means.

4. Advance Information exchange about affect events between ATMC and adjacent ACCs

4.1 Description in the LOA for the international traffic flow management

4.1.1 As described 2.1, ATM center and Taipei ACC, and Incheon ACC have signed the letter of agreement for the international traffic flow management.

In the agreement, following matters are listed as events desired to be provided in a stage where there is the possibility of implementing the traffic flow control at FIR BDY,

- Capacity falls at defined international airports (RJAA, RJBB, RJTT, RKSI, RKSS, RCTP) caused by runway closure, severe weather, or other adverse effects;
- Malfunction of ATC systems, such as radar, flight data processing system (FDP), radar data processing system (RDP), or communication systems;
- Flow control restrictions by the adjacent facility's request on aircraft destined for other FIR; and
- Other adverse effects on international traffic flow

4.2 Unfortunately, we have rare examples of advance information exchange related to weather that affects to air traffic between Incheon - ATMC or Taipei - ATMC so far. ATMC have some examples that advanced information about possibility to implement ATFM initiatives when typhoons or snowfall causes the decrease of airspace capacity around airports near Tokyo area, but there were not sufficient information

5. For the future Multi-nodal Flow Management

5.1 In order to respond to the spread of future international traffic flow management, first of all, weather authorities should provide information about weather phenomena that could affect the air traffic in timely and appropriate manner. It is considered to build a system that weather authorities can provide them to the air traffic control authorities in each country.

5.2 In addition, it is necessary to build a scheme to share advance information about the possible events that affect the air traffic of its own jurisdiction airspace aggressively when ANSP require restriction to other ANSPs at their boundary point.
