International Civil Aviation Organization

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

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Discussion Topic 3 (2): Enhancing MET support to ATM

ATM MEASURES BY USING THE WEATHER INFORMATION

(Presented by Japan)

SUMMARY

This paper presents the overview of ATM including CDM and ATM measures to be taken by Japan Civil Aviation Bureau in order to maintain safe and orderly flow even in the bad weather condition.

1. Introduction

1.1 There are about 4,100 flights in Fukuoka FIR a day,which include not only domestic flights but also international ones.

1.2 No to mention, it is more difficult to deal with these many traffic in the bad weather situation than usual.Japan Civil Aviation Bureau(JCAB) has been considering how we could handle these traffic safely and effectively with Japan Meteolorogical Agency even if confronting the bad weather.

1.3 In this paper, JCAB would like to intoroduce some ATM measures to deal with the bad weather situation.

2. Discussion

2.1 Our partners to share information based on CDM concepts are as follows:

- Same operation room in Fukuoka ATMC
  - Air Traffic Management Officer(ATFM and ASM)
  - ATM Information Officer (Aeronautical Information Services , spot management etc)
  - Military Liaison
  - CNS Engineer
  - Airspace Designer
  - Air Traffic Controller (Oceanic Control)
  - MET office
- ACC and TMA connected with CDM network
- TMU (Traffic Management Unit) in busy ACC and TMAr partners of CDM are as follows;
- Aircraft Operators connected with CDM network

2.2 ATMC provides the ATFM information to Contracted Aircraft Operators by ATFM workstations. The information includes;

- Capacity of Airport and ACC sector
- Expected Traffic Demand
- Delay information
- Traffic Situation display
- ATFM Operation Plan

2.3 There are some measures to deal with bad weather.

2.3.1 From the starategic point of view, JCAB establishes the alternate route settings to be used when in bad weather in addition to the standard route settings,which are applied when in normal weather condition.

2.3.2 From the pre-tactical /tactical point of view, JCAB makes route change coordination with airline operators based on the alternate route settings by using ATM system to avoid bad weather before filing flight plan.

2.3.3 From the tactical point of view, JCAB changes the sector capacity based on the coordination with ATC facilities concerned , considering the weather forecast which are provided from MET office .

2.4 There are some lessons learned through CDM with parties concerned.

2.4.1 JCAB holds ATM Service Conference twice a year.

- Member: JCAB, JMA, MOD/JASDF,CDM AIRLINEs
- JCAB makes ATM Service operational annual report and conducts continuous analysis, evaluation and development for ATM Operation.

2.4.1.1 JCAB believes Periodic Meeting with all stakeholders are beneficial for mutual understanding.

2.4.2 Route catalog of City-Pairs has become common language between ANSPs and Aircraft Operators.

2.4.2.1 Route catalog of City-Pairs (including Distance and information ID for avoiding bad weather area or ACC sector name) contribute to:

- Easy communication for both ANSP and Aircraft Operators.
- Reduction of human error, such as misreading, mishearing and miswriting.
- Easy processing of route information by computer system.

2.4.3 By making the list of sector capacity depending on deviation flight due to bad weather, ATMC can make decision to reduce capacity in accordance with the situation of bad weather smoothly ,easily and adequately.

2.4.3.1 This cannot function effectively without CDM concepts between ATM and MET.

3 Conclusion

3.1 The meeting is invited to note the information provided.

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