International Civil Aviation Organization

The Second Meeting of the APANPIRG ATM Sub-Group (ATM /SG/2)

Hong Kong, China, 4-8 August 2014

Agenda Item 4: ATM Systems (Modernisation, Seamless ATM, CNS, ATFM)

AIR TRAFFIC FLOW MANAGEMENT DATA EXCHANGE

(Presented by JAPAN)

SUMMARY

This paper presents the inquiry of the Air Traffic Flow Management data exchange in Asia Pacific region.

This paper will also discuss the future data exchange scheme in order to enhance safety and efficiency in Air Traffic Flow Management in Asia Pacific region through a measured improvement in capacity to meet the future growth of air traffic in this region.

1. INTRODUCTION

1.1 The significant concept for Air Traffic Flow Management (ATFM) is to enhance air traffic efficiency as well as to ensure safety. The demand for a mature ATFM system has been increasing to adopt with the air traffic growth in Asia Pacific (APAC) region.

1.2 Some states in APAC region have gained ATFM experiences individually and trial operations for the information exchange related international ATFM have been conducted among those neighboring states in this region.

2. DISCUSSION

2.1 With the air traffic growth within APAC region, initiating Air traffic flow control operations in single ANSP sometimes bring difficulty to manage the air traffic flow efficiently and timely. In such a circumstance, mature international ATFM would be required.

2.2 Recognizing the circumstances, the trial operation for international ATFM has been conducted in Hong Kong, Singapore and Thailand. ICAO Beijing Regional Sub Office also has coordinated with China, Japan and the Republic of Korea to establish the meeting group 'North-Asia Regional ATFM Harmonization Group (NARAHG), in order to enhance the international ATFM among those states. NARAHG had been presented at the Third Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/3) held in Singapore, 10–14 March 2014. ANSPs recognize the importance for data exchange for international ATFM and have high expectations for the Regional Sub Office effort.

2.3 In order to conduct the efficient international ATFM initiatives beyond ANSPs, it is essential to exchange the information of the airspace capacity and the traffic volume of each ANSPs for the efficient traffic flow management.

2.4   Data exchange related air traffic through constructing network among ANSPs system is the key for performing efficient international ATFM, besides, it is required to define the basic information data model .

2.5   Any ANSP will be capable for conducting international ATFM by introducing the basic information data model, even if each ANSP has the different system and ATFM measures. Introducing 'the basic information data model' is the basis for implementing an efficient international ATFM.

2.6   For instance, sharing estimated arrival time over FIR boundaries of the aircraft would be effective to conduct ATFM initiative in the initial phase of the international ATFM. In the next phase, ANSPs would be able to exchange their information of capacity and traffic volume mutually. When each ANSP accomplishes this phase efficient and appropriate international ATFM measures come in reality.

2.7   Furthermore, understanding the capacity of the related airspaces, ANSPs concerned are able to provide the strategic ATFM measures such as route change coordination, detouring congested airspace and etc.

2.8   By considering each ANSPs ATFM development conditions, defining the core information and the optional information regarding the basic information data model is also effective. So that any ANSPs group will be able to adopt the appropriate data model corresponding to the ATFM phase of the group.

2.9   Japan has a long term of experience in the area of international ATFM for over twenty years and is ready to contribute to develop and enhance the international ATFM data exchange model by learning the efficient flow management method.

2.10   ATFM steering group meeting and related working group would be appropriate meeting structures to discuss the details on this matter so that the basic concept will be consistent with ICAO global standard.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a) note the information contained in this paper;

b) encourage discussion to develop ATFM data exchange model in APAC region led by ICAO APAC RSO office.

c) encourage enactment to build ATFM data exchange model in global level (not only within the APAC region).