



International Civil Aviation Organization

The Third Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/3)

Singapore, 10 – 14 March 2014

Agenda Item 5: Development of Regional ATFM Framework

RELEVANT IDEAS AND PRACTICES OF CDM/ATFM IN THE SOUTH CHINA SEA AREA

(Presented by China)

SUMMARY

This paper presents current ATFM status and problem in the South China Sea area, and introduces the relevant ideas and practices of CDM/ATFM in the South China Sea Area.

1. INTRODUCTION

1.1 The South China Sea area is a hub of high-density air traffic flow in the Asia/Pacific Region, as well as a choke point of many busy city-pairs. The air traffic flow management construction, which is suitable for the development of civil aviation in South China Sea area, is not only an important cornerstone of protecting the safely, orderly and efficient development of civil aviation in this area, but also an important part of integrating and promoting the scientific development of ATM in the Asia Pacific Region.

1.2 The continuously growing flight flow in the South China Sea area makes the flight congestion situation in this area more and more serious. At the same time, the typhoon weather, unidentified traffic and some other factors in this area have a great impact on airspace capacity. Moreover, the flow control from the neighboring countries and regions also makes the work of air traffic management in this area more complicated.

1.3 To implement the air traffic flow management of the South China Sea area and to actively participate in the general research and planning of the Asia Pacific regional air traffic flow management, CAAC has started the construction of ATFM center in Sanya ACC.

2. DISCUSSION

The Major Problems of ATM in the South China Sea Area

Rapidly Increased Air Traffic

2.1 Sanya FIR in the South China Sea area is the converging area for flights connecting Southeast Asia to Chinese mainland and Northeast Asia. Flights dispersed in multi-air route converge to route A1 in Sanya FIR, and disperse after out of Sanya FIR, which results in high complexity of the air traffic. At the same time the average annual growth rate of flight movements in this area has already exceeds 10%.

Numerous Factors for Reduction of Capacity

2.2 South China Sea area is vulnerable to typhoon weather and many other factors, which results in the reduction of airspace capacity. At this stage, the South China Sea area implements Large Scale Weather Deviation Contingency Procedure (LSWDPC) and some other measures, more effective methods still need to be further developed.

Lack of information sharing

2.3 Information sharing is the basic and critical element in CDM/ATFM. Some countries and regions have carried out inter-regional CDM/ATFM trial and coordination mechanisms have also been established among adjacent Flight Information Regions. However, the platform and mechanisms of information sharing still need to be established in a scale of the entire Asia Pacific Region including the South China Sea area.

The even more constraints

2.4 There are many air traffic flow control activities around the South China Sea, which is prone to amplification effect in the delivery process. Thus this will cause complication of ATFM.

The two ATFM elements concerned

Interactive platform for information sharing

2.5 The ATFM information platform has been initially established in Sanya ACC. The platform can provide ATFM information for ATC units concerned, air space users and other stakeholders.

2.6 China appeals to establish the information sharing and exchange mechanisms as soon as possible in the Asia Pacific Region. We are appreciated to exchange information with participating members in a common set of agreed principles.

Airspace ATFM initiatives

2.7 ATFM initiatives that solve airports' capacity bottleneck are being taken seriously by Asia Pacific countries and regions, and further studies are being carried out. However we cannot ignore that, with the continued growth in air traffic flow, the ATFM initiatives for the high-density and complexity air traffic flow during the en-route phase is being more and more important. Sanya FIR as a member of the South China Sea area connected the Air Navigation Service Providers (ANSPs) from the Southeast Asia and Northeast Asia. So the regional ATFM framework cannot ignore the ATFM initiatives of high-density and complexity air traffic flow in this area. The research of airspace ATFM initiatives of Sanya FIR in South China Sea area is already in progress.

Participation in the ATFM network operational research and trial

2.8 At this stage, Sanya FIR is willing to participate in the distributed multi-nodal ATFM framework which proposed by the tripartite collaboration, and establish CDM/ATFM mechanism including information sharing with Hong Kong China, Singapore, Thailand and other countries and regions.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information contained in this paper.
- b) Support Sanya FIR to participate in the ATFM network operational research and trial on distributed multi-nodal ATFM framework which proposed by the tripartite collaboration.
- c) Discuss any relevant matters as appropriate.