

International Civil Aviation Organization

The Twenty-Second Meeting of the APANPIRG ATM/AIS/SAR Sub-Group (ATM/AIS/SAR/SG/22)

Bangkok, Thailand, 25 – 29 June 2012

Agenda Item 5: Provision of ATM/AIS/SAR in the Asia/Pacific Region, including associated CNS matters

IMPLEMENTATION OF CAPACITY NOTIFICATION SCHEME FOR HONG KONG INTERNATIONAL AIRPORT

(Presented by Hong Kong, China)

SUMMARY

This paper reports the implementation of a Daily Capacity Notification by Hong Kong, China.

The Scheme provides upstream ATM Units and Airline Operators with advance advice on the anticipated arrival acceptance rate at Hong Kong International Airport and any associated delays.

This paper relates to –

Strategic Objectives:

- A: Safety Enhance global civil aviation safety
- C: Environmental Protection and Sustainable Development of Air Transport Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment

Global Plan Initiatives:

GPI-6 Air traffic flow management

1. INTRODUCTION

- 1.1 Following a trial period with Taipei ACC and Fukuoka ATMC in 2010, Hong Kong, China has implemented a Daily Capacity Notification Scheme effective from 11 October 2011.
- 1.2 The Notification Scheme provides information to upstream ATM units and Aircraft Operators on the anticipated arrival capacity and any expected delay at Hong Kong International Airport (HKIA) for a period of up to 8 hours in advance.

2. DISCUSSION

- 2.1 In the absence of a regional flow management mechanism, HKIA is largely reliant on a robust airport capacity declaration and schedule coordination process plus ad-hoc flow control measures to ensure that overload of the Air Traffic Control system does not occur during periods of reduced airport and airspace capacity due to factors such as weather, runway closure and reduced terminal holding capacity.
- 2.2 Prior to the Scheme, measures to deal with such events were typically reactive rather than proactive, resulting in short notification times to upstream units and operators, in turn resulting in additional ATC workload and risk of aircraft diversion due to a lack of necessary holding fuel.
- 2.3 Under the Scheme, determination of runway and airspace capacity is made by Supervisory staff at the Hong Kong ATCC on a twice-daily basis using a standard template which takes into account not only airport conditions but also the surrounding terminal airspace and holding areas. Whereas on some occasions during the convective weather season, runway capacity itself may be largely unaffected, the ability to consistently deliver aircraft from the hold areas to the approach area may be severely hampered.
- 2.4 Such determinations are made at 2200 UTC and 0500 UTC each day to provide an ATFM "horizon" of about 4-5 hours based on Hong Kong's typical schedule, which can capture a large percentage of arriving traffic prior to becoming airborne at the point of departure.
- 2.5 Once the arrival capacity has been determined, ATC Supervisors make reference to scheduled demand charts and apply standardized flow guidance to determine the need for and extent of flow control.
- 2.6 The objectives are to ensure that flow restrictions are only implemented when absolutely necessary, that Hong Kong's internal FIR capacity is utilized to the fullest extent possible and that as much prior notice is given as possible to upstream ATC units and Operators.
- 2.7 At present, the notification message is sent via email to Taipei ACC, Fukuoka ATMC and Airline Operators at HKIA. It is planned to expand the distribution list to include other regional ATC Centres in the near future, commencing with Bangkok and Guangzhou.
- 2.8 At the Fifth Meeting of the East Asia ATM Coordination Group (EATMCG/5) held in Hong Kong in April 2012, Japan presented Working Papers indicating their appreciation of the Scheme and positive feedback on further possible enhancements in the future. They also urged other States to consider the determination and dissemination of Airport Capacity on a real-time basis. Favorable feedback was also received from airline operators using the scheme.
- 2.9 This is the starting point of a series of CDM/ATFM initiatives by Hong Kong to improve regional ATM and a minor step forward in achieving the objective of a seamless Asian sky.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) note the implementation of the Capacity Notification Scheme and its benefits;
 - b) consider implementing similar capacity related advice; and
 - c) discuss any relevant matters as appropriate.

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