



International Civil Aviation Organization

ICAO

Eleventh Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/11)

Video Teleconference, 02 – 06 August 2021

Agenda Item 4: Any Other Business

APPLICATION OF PMS AND AMAN IN SHANGHAI TMA

(Presented by China)

SUMMARY

This paper presents application of PMS and AMAN in Shanghai TMA, China, which do work in improving capacity and reducing the ATFM delays efficiently.

1. INTRODUCTION

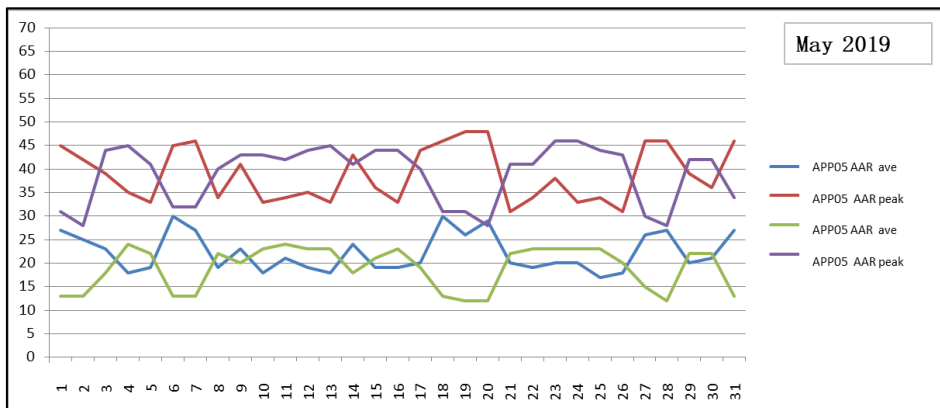
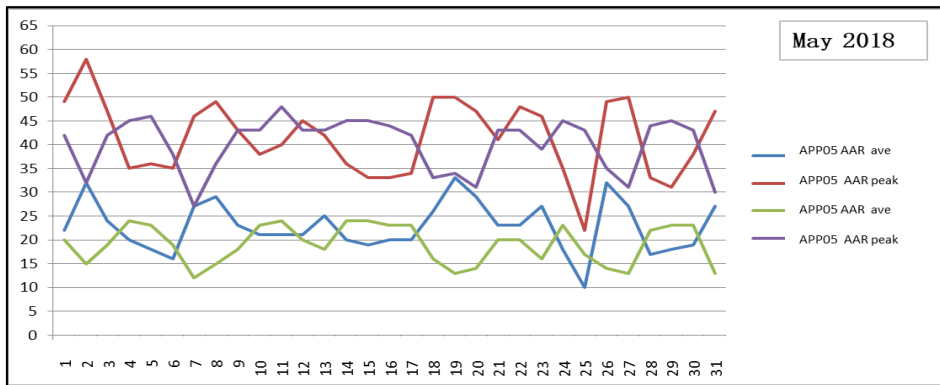
1.1 As an international hub, the flight flow of Shanghai TMA has always been the first in China, with an average of 2,600 scheduled flights per day. Before the COVID-19, from 2015 to 2019, the number of flights in the TMA increased by 1% annually. By 2019, there were a total of more than 2200 departures and arrivals, and other 500 flying over per day.

1.2 The reality is that the airspace of Shanghai TMA cannot be changed structurally and easily, so measures on reducing the workload of ATCO, the pressure of safe operation, and even reducing ATFM delays are urgent to use new technologies and new flight procedures, hoping to improve the operation efficiency of Shanghai TMA. Thus, PMS and AMAN should be the solution for improving efficiency.

2. DISCUSSION

Application of AMAN at ZSSS

2.1 Since May 2019, AMAN has been started and AMAN planner position has been set accordingly at ZSSS where SOIA is used. In the arrival sector (AP05, AP07), the landing traffic flow is well balanced and smooth, and the delay of ATFM is also reduced. The average delay of two-hour night peak (14:00-16:00 UTC) is reduced by 20 minutes per day, with a total reduction of more than 3,600 minutes in the second half of 2019.

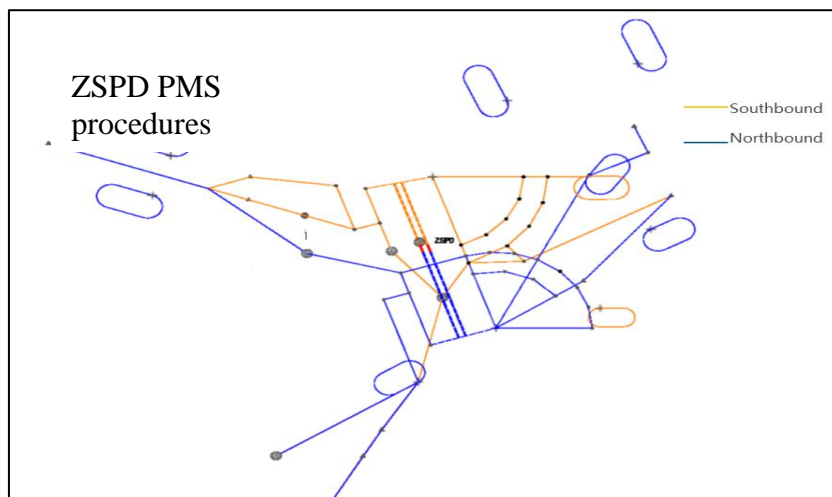


Application of PMS at ZSPD

2.2 The PMS of ZSPD is the first application PMS in China. This program located at east side of ZSPD which is used to sort the landing flights before the IAF, and has started the operation for 2 years.

2.3 In the first phase, the southbound PMS has started in December 2019.

2.4 In the second phase, the northbound PMS has started in December 2020. In January 2020, before the second phase, East China ATMB organized a delegation to JCAB that we carried out exchange activities on key businesses such as PMS program. The PMS program of Tokyo Metropolitan Area provided a useful reference for ZSPD PMS’s second stage optimization design.



Operation benefit

2.5 For flights involved in PMS procedures (from entry points DUMET, MATNU and AND), the relative ATC instructions are reduced by 50%, and the safety risks are also reduced.

Next step plan

2.6 Shanghai TMA is promoting the development of AMAN system at ZSPD, cooperating with the use of PMS, continuing to match new technologies and flight procedures, and improving operation efficiency accordingly.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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