



International Civil Aviation Organization

The Fourth Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/4)

Bangkok, Thailand, 1 – 5 December 2014

Agenda Item 4: Review of Current CDM/ATFM Operations and Problem Areas

MASSIVE DELAY RESPONSE SYSTEM (MDRS) BASED ON CAPACITY MANAGEMENT

(Presented by CHINA)

SUMMARY

This paper presents a brief on the development of Massive Delay Response System (MDRS) in China. The disadvantages of massive delay are even more serious issue than ever before as the continuously traffic growing in recent years. As a response, a set of procedures has been defined to deal with the issues of massive delay in China.

1. INTRODUCTION

1.1 In recent years, China is dedicated to establish sound massive flight delay early warning and emergency response system, improve the disposal capability of the air traffic control system to deal with the massive flight delay, insure the coordination work to be well-organized and high-efficiency, the maximum extent to avoid the adverse situation caused by the massive flight delay, promote the civil aviation activities in a safe and orderly operation.

Delay warning level

1.2 The event location, scope and scale of the impact, time of duration, the degree of decline in dynamic air traffic control capacity and expected recovery time synthetically have been concerned according to the impact or expected recovery time, and the massive flight delay early warning will divided into three levels.

Tab1 massive flight delay early warning level

Level	Event Location	Early Warning Indicator 1 The degree of decline in dynamic air traffic control capacity	Early Warning Indicator 2 Expected recovery time
Yellow	Busy airports and air routes	Dynamic air traffic control capacity during peak hours decreased by 10% - 25% and continue for some time	2-4h
Orange	Busy airports and air routes	Dynamic air traffic control capacity during peak hours decreased by 25% - 50% and continue for some time	4-6h
Red	Busy airports and air routes	Dynamic air traffic control capacity during peak hours decreased by 50% or more and continue for some time	6h or more
<p>1. When the conditions of the early warning indicators 1 or 2 are satisfied, early warning will be started immediately.</p> <p>2. Busy airport usually refers to the one that has more than 10 million annual passenger throughput (24 airports).</p> <p>3. Busy air route usually refers to the one that has more than 500 flights daily. (12 air routes)</p>			

1.3 Definition of the warning level. National traffic flow management unit will jointly determine the early warning level on the daily routine operation management video conference with area traffic flow management units, relevant air traffic control units, meteorological service units, relevant airports and airline operation control units.

1.4 Release of warning level. National traffic flow management unit will release the operation information by NOTAM

1.5 Procedures of the warning response procedures. According to the early warning level, national traffic flow management unit will have a video conference with area traffic flow management units, traffic control units, airlines and airports before starting the early warning system.

Responsibility of relevant units

1.6 National ATFM unit. This level of ATFM unit will master the overall situation of the national civil aviation operation, start different levels of emergency response in accordance with the start condition, organize the operation and coordination, and coordinate and command emergency work of the massive flight delay.

1.7 Regional ATM bureau and administration bureau. The functions of this level is to master the overall situation of civil aviation operation within the jurisdiction, Coordinate with relevant airlines, airports and air traffic control units and flights operation support units, responsible for the disposal and administration and inspection of the massive flight delay work.

1.8 ATC units. This level of ATFM take charge of the operation of its own unit. According to the response program's requirements, the air traffic control units will accelerate the air flow, implement scientific traffic flow control measures, and give the priority to the departures of

the airport which has a massive flight delay, give clearance sequencing to the delayed flights, and give the second clearance sequencing to the airlines and airports in time. The flight operation information interaction and resources sharing could be achieved through collaborative decision-making(CDM) system to implement the program concerned by the operational coordination conference.

1.9 Airports. The arrivals and departures will be monitored on airports level. It can also master all the aspects of the flight operation, take charge for the operations of terminal and apron. According to the response program's requirements, airports will coordinate with the airlines to do with the passengers arranging and boarding work, communicate and coordinate well with the local government, implement the program concerned by the operational coordination conference.

1.10 Airlines. They will master their own flight operations. According to the response program's requirements, the airlines will arrange for the transportation reasonably, adjust flight plans in time, arrange for the passengers properly, implement the program concerned by the operational coordination conference.

2. ACTION BY THE MEETING

2.1 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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