



International Civil Aviation Organization

**Middle East Air Navigation Planning and
Implementation Regional Group**

**Sixteenth Meeting (MIDANPIRG/16)
(Kuwait, 13 – 16 February 2017)**

Agenda Item 5.2.2: Specific air navigation issues

DISRUPTION RESILIENCE IN THE MIDDLE EAST

(Presented by United Arab Emirates)

SUMMARY

The purpose of this working paper is to present the resilience measures used in the UAE to overcome the challenges posed by weather. For the effectiveness of these measures and for the benefit of a larger community this knowledge needs to be shared with the states in the region to establish similar measures in the region.

Actions by the meeting are at paragraph 3.

1. INTRODUCTION

1.1 The network disruption caused by weather has a devastating effect on the passengers, airline operations and air traffic service units.

1.2 This working paper is looking into its impact and what is done by the UAE in this regard and what needs to be done in the region to minimise the impact of various weather phenomena.

2. DISCUSSION

2.1 The global weather has a cycling nature throughout the year. This is not different in the ICAO MID region. The weather in the region can be generally classified as:

- a) Dust storms;
- b) Thunderstorm and CB activities; and
- c) Fog activities.

2.2 These weather phenomena have been identical with varying intensity over the decades. Evaluating such patterns will prepare the aviation community in the regions to deal with adverse weather and the resulting air traffic disruptions.

2.3 The disruption caused to the aviation community through the effects of fog is not unique to the UAE. During the month of December 2016, fog disruption took place in multiple airfields across the world, including Heathrow, Gatwick, Delhi, Lahore, Doha and several across the U.S. and Canada.

2.4 The season for potential fog disruption in the UAE is normally from October through to February, however the number of days of fog across a given year is often in the single figures. From 26 December 2016 to 04 January 2017, the UAE experienced heavy fog for long periods. This resulted in serious air traffic disruptions. A total of 847 flights were affected stranding 117,556 passengers. This incurred additional expenses of 1.37 million US Dollars to a single airline.

2.5 To maintain a safe flow of air traffic during adverse weather conditions the UAE applies departure restrictions to certain traffic arriving to the UAE. To apply these restrictions efficiently a zone system was introduced in 2014 and published as AIC 05/2014. Selected airports are classified into three zones based on flying time to the UAE. Emirates Area Control Centre applies zone closure depending on the current arrival delay for a UAE airport. The zone closure and opening messages are shared with concerned ATSU's through AFTN.

2.6 The closure and opening of zones requires a lot of collaboration amongst UAE aviation stakeholders as well as the affected airports in the vicinity of the UAE. In the attempt to resume normal operations all parties have varying priorities. The airline operations give priority to the repositioning of diverted flights, the ground operations give priority for the releasing of parking gates and the ATSU's priority is to ensure that the safety of air traffic is not compromised.

2.7 In the lessons learned session after the disruptions of December 2016 – January 2017, the UAE aviation community, under the umbrella of National Airspace Advisory Committee (NASAC), identified certain areas of improvement. For the effectiveness of these measures and for the benefit of a larger community this knowledge needs to be shared within the region. The following measures will be employed:

- a) Establish a task force under NASAC that will include all the aviation community in the UAE,
- b) Share the priorities of each stakeholder to avoid contradictory actions or procedures.
- c) Encourage knowledge sharing and collaborative working towards a shared goal of equalising operational performance during periods of disruption as much as possible.
- d) Understand the issues affecting resilience, identify issues preventing stakeholders from being completely resilient to any situation and agreeing on actions to address those.
- e) Coordinate airport / airline / ATC activities / regulator / best practice to minimize the negative impacts of disruption.
- f) Actively review disruptions as soon as practicable. (If agreed as serious disruption, a review within 24 hours is the goal)
- g) Discuss and plan for upcoming known issues that could possibly cause disruption.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a. note the information in the paper and take action as appropriate; and
- b. consider the establishment of a task force to:
 - i. consider preparation of the high level weather patterns of the MID region;
 - ii. discuss, agree and establish regional mechanisms and procedures to deal with weather disruption; and
 - iii. actively participate in the weather disruptions management and resilience task force.