



DIRECTORS GENERAL OF CIVIL AVIATION-MIDDLE EAST REGION

Second Meeting (DGCA-MID/2)
(Jeddah, Saudi Arabia, 20-22 May 2013)

Agenda Item 5: Air Navigation

GACA CONTINGENCY PLANS

(Presented by Saudi Arabia)

SUMMARY

This paper provides an overview of GACA contingency arrangements which are divided into two levels:

- a) **Level 1 - National/Internal contingency measures** to be introduced to permit the continuity of flights within Jeddah FIR, in the event that the air traffic and support services normally undertaken by the Jeddah or Riyadh (ACCs) should become partially or totally unavailable due to any occurrence that restricts flight operations;
- b) **Level 2 – Regional contingency measures** in the event of both ACCs (Jeddah and Riyadh) becoming inoperative, contingency measures agreed with adjacent Air Navigation Service Providers will be activated catering for the worst case scenario of a total disruption of ATS within Jeddah FIR.

The action by the meeting is at paragraph 6.

1. INTRODUCTION

1.1 Under ICAO Annex 11 Provisions, the contingency arrangements should be established to handle any abnormal situations which might include emergency situations and degraded Modes of Operation that affect the ability of ATS Units to provide safe services

1.2 The contingency arrangements may be activated following security event or technical occurrence/outage which could include fallback modes of operation and Air Traffic Flow regulation. For the technical occurrence, both measures may last until the outage is fixed.

1.3 In all cases, the contingency arrangements are considered by GACA as response to “abnormal” events with an activation of crisis management activities.

2. GACA CONTINGENCY ARRANGEMENTS

2.1 The General Authority of Civil Aviation (GACA) has adopted a comprehensive work program to ensure the continuity of the provision of ATS service in the Kingdom of Saudi Arabia airspace. Since 2009, two Area Control centers (ACCs) were setup in Riyadh and Jeddah mirroring all Air Traffic Management data in order to ensure full backup in case of major failure within one of the ACCs.

2.2 The current internal contingency arrangements are split into two levels:

Level 1 - National/Internal contingency measures to be introduced to permit the continuity of flights within Jeddah FIR, in the event that the air traffic and support services normally undertaken by the Jeddah or Riyadh (ACCs) should become partially or totally unavailable due to any occurrence that restricts flight operations;

Level 2 – Regional contingency measures in the event of both ACCs (Jeddah and Riyadh) becoming inoperative, contingency measures agreed with adjacent Air Navigation Service Providers will be activated catering for the worst case scenario of a total disruption of ATS within Jeddah FIR.

3. NATIONAL/INTERNAL CONTINGENCY MEASURES

3.1 GACA internal Contingency measures cover all potential and major events that may affect the provision of ATS in KSA Airspace. An internal contingency plan was developed to activate back-up/fallback modes in order to maintain the required level of ATS services. The internal plan covers measures to manage the following major events mainly:

- a) Emergency affecting the provision of ATS (such as earthquake, Volcanic Ash Cloud (VAC), natural disaster..etc);
- b) Crisis situation affecting the provision of ATS (national security, military activity...etc);
- c) Partial or total loss of VHF Voice communications affecting one or more ATS Units;
- d) Partial or total loss of VHF Voice communications affecting one or more ATC Sectors;
- e) Partial or total loss of Surveillance data affecting one or more ATS Units;
- f) Partial or total loss of ATM system affecting Jeddah or Riyadh;
- g) Combined partial or total loss of the previous events.

3.2 The internal contingency plan provide detailed description of the potential and major events that should be considered to activate back-up/fallback measures. The purpose of this description is to identify the root causes. Preventive and proactive measures are taken to eliminate causes or reduce the probability of occurrence of these events.

3.3 The internal contingency measures are tested through exercises in order to ensure readiness of Air Traffic Controllers and technicians to handle properly any disturbance and manage the traffic as required.

3.4 In addition, the Letter of Agreements (LoAs) signed between GACA ATS Units, cover special arrangements in order to allow each Unit to take over the traffic when the ability for the provision of ATS services of the other Unit is affected.

4. REGIONAL CONTINGENCY ARRANGEMENTS

4.1 With two ACCs located at Jeddah and Riyadh (more than 800 km apart), it is considered highly unlikely that both centers would be out of service simultaneously.

4.2 However, in the event that both ACCs become inoperable, GACA has concluded contingency arrangements with four ANSPs (Cairo ACC - Egypt, Amman ACC - Jordan, Kuwait ACC - Kuwait and Bahrain ACC - Bahrain).

4.3 These arrangements are detailed in the signed Letters of Agreements (LoAs) which stipulate that in case of ATS disruption in Jeddah FIR (Jeddah and Riyadh ACCs) or within the airspace managed by one of the ANSPs with whom we have an Agreement, flight operations may be severely restricted within the affected FIR,

4.4 however the exchange of traffic and flow management will be arranged in ways that ensure safety and continuous provision of service around the affected airspace.

5. DISCUSSION & CONCLUSION

5.1 The regional contingency arrangements are considered the effective and efficient measures to ensure safe, orderly and continuous air traffic services in case of major events that affect the ability of an Air Traffic Service Provider.

5.2 The contingency arrangements should be based on categorization of events and their effects. The escalation of measures will usually depend on the evolution and consequences of the initial/trigger event.

5.3 Being prepared and ready to deal with unexpected events will reduce the effects and minimize the disturbance on Air Traffic Services.

5.4 GACA Regional contingency arrangements have been developed in close co-operation and collaboration with four of the adjacent ANSPs. Moreover, GACA will work with the remaining adjacent Air Navigation Service Providers to establish the remaining contingency arrangements in order to ensure continuity of service at regional and sub-regional levels.

5.5 In light of the above, this working paper propose to consider the adoption of the following conclusions:

DRAFT CONCLUSION 2/X- COMMON CONTINGENCY ARRANGEMENTS

That, recognizing the importance of contingency arrangements to reduce the effects of unexpected major events, MID States

- a) cooperate to adopt common contingency measures that can be inserted in the Letter of Agreements between adjacent ANSPs;*
- b) exchange expertise on contingency measures; and*
- c) organize, when possible, exercises to check the validity of the contingency measures and readiness of involved ATS Units*

6. ACTION BY THE MEETING

6.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss the proposed conclusions provided under paragraph 5.4.

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