



INTERNATIONAL CIVIL AVIATION ORGANIZATION

Eighth Meeting of the Airspace and Aerodrome Operation Subgroup (AAO/SG8) of the AASPG

Dakar, Senegal, from 14 to 18 July 2025

Agenda Item 7: Implementation challenges of the Sub-Group

Review of ATM Contingency Events in the AFI Region

(Presented by Secretariat)

SUMMARY	
<p>This paper reports on the ATM contingencies that occurred in the AFI Region since AAO/SG7 and their related impact on air traffic management. The paper also provides information on solutions to address deficiencies in ATM contingency planning and management.</p> <p>The action by the Meeting is in paragraph 3</p>	
REFERENCES <ul style="list-style-type: none"> • AFI Air Navigation Plan, Volume I • Report of the Seventh Meeting of the AAO/SG • Report of the Fourteenth Air Navigation Conference (AN-Conf/14) 	
Strategic Objectives	A – Safety, B – Air Navigation Capacity and Efficiency

1 INTRODUCTION

- 1.1 The effects of disruption of air traffic services in particular portions of airspace are likely to significantly affect the services in adjacent airspace. States should coordinate with neighboring States in the development and implementation of contingency plans, which may in some cases, be developed on a sub-regional basis.
- 1.2 The AFI ANP Volume I mandates ICAO to initiate and coordinate appropriate contingency actions in the event of disruption of air traffic services and related supporting services affecting international civil aviation operations provided by a State, if the authorities cannot adequately discharge their responsibility for the provision of such services to ensure the safety of international civil aviation operations. In such circumstances, ICAO will work in coordination with States responsible for the airspace adjacent to that affected by the disruption and in close consultation with international organizations concerned.

- 1.3 The AFI Region recorded six (06) ATM contingency events between September 2022 and February 2024 as reported during AAO/SG7. Since that meeting, the region has sustained five (05) ATM contingency events including three new ones in DRC, Mali and Togo, and two ongoing in Niger and South-Sudan. In line with the AFI ANP Vol I, ICAO coordinated the response to the disruption of ATS in concerned airspace.
- 1.4 It has been observed that the contingencies in the AFI region and adjacent regions have generated significant impact on air operations due to ineffective or lack of contingency plans in the concerned States or FIRs.
- 1.5 The 14th Air Navigation Conference (AN Conf/14) noted that airspace disruptions have increased in recent years with airlines continuing to face challenges impacting efficient operations around airspace that are no longer available for civil aviation, sometimes for extended periods.

2 DISCUSSIONS

ATM Contingencies in the AFI region and their impact

- 2.1. Between 2022 and 2024, ATM contingencies plans were activated in all ASECNA FIRs (September 2022), Khartoum FIR over South Sudan above flight level 245 (KFOSS245+, April 2023), Brazzaville FIR (Libreville UTA, July and August 2023), Niamey FIR (July 2023), Mogadishu FIR (February 2024). The status of these contingency events, as shown in Appendix 1 to this paper, indicates that four out of six were successfully settled while two are still outstanding, namely in Niamey FIR (flight originating from some States were banned from Niger airspace) and KFOSS245+ (only FIS available on established contingency routes CR1 and CR2).
- 2.2. In January 2025, the Goma TMA in Kinshasa FIR was closed to all traffic following the DRC and M23 armed conflict in the south Kivu. The conflict led to the activation of the Kinshasa Contingency Coordination Team (Kinshasa CCT). The DRC subsequently issued a NOTAM restricting its airspace to all operators and aircraft based in Rwanda. Impacted flights rerouted into KFOSS245+ where off CRs operations were not authorised as per established Khartoum FIR contingency plan. Those flights could therefore only operate below FL 245 in the airspace over South Sudan. A new contingency route (CR7) was established in KFOSS245+ to accommodate impacted air operators. The Kinshasa CCT is still active.
- 2.3. On 9 April 2025, a power blackout occurred at Lome International Airport and rendered all airport and air navigation services unavailable. The Lome ATM contingency plan was activated and ATS in Lome UTA was transferred to Cotonou as per the plan. The situation reverted to normal operations after about 12 hours. No regional CCT was activated based on safety assessment by the national ATS authority.

- 2.4. On 8 May 2025, authorities of the Republic of Mali issued NOTAM A0366/25, restricting its airspace to all civil and military flights to/from Algerian airspace including overflight in retaliation of a similar NOTAM published on 7 May 2025 by Algeria. The immediate impact of these decisions was the shift in traffic pattern into Nouakchott UTA (Dakar FIR), as well as in Niamey FIR where ATS route UR866 became congested and increased ATC workload. ICAO conducted a coordination meeting with Mali to assess the situation and foster consideration for overflights. The NOTAM remains in effect and a follow-up is ongoing.

Deficiencies in ATM contingency management

- 2.5. *Lack of ATM contingency plans:* Concern has been raised over the lack of ATM contingency plans in several FIRs. In such cases, ICAO supported the drafting and publication of an ad hoc contingency plan in coordination with all relevant stakeholders.
- 2.6. *Ineffective contingency plans:* Many FIRs have developed and published their contingency plans; however, those plans were ineffective during real implementation. The plans were either not coordinated with neighbouring FIRs, nor have they ever been tested before, ATC personnel were also not trained on the implementation of contingency procedures during real operational occurrences. It was also observed that for contingencies related to political disputes, the NOTAM/AIC were issued many hours or days into the event and focal points for facilitation were not easily accessible.
- 2.7. *Low regional and interregional collaboration:* Different ICAO Regions have developed their regional contingency plans which are not always aligned with States' contingency plans. Furthermore, there is no collaboration between regions to harmonize the regional plans to ensure cross regional seamless operations during contingency situations.

Improving ATM contingency management in the AFI Region

- 2.8. Occurrence of events leading to activation of ATM contingency plans are hardly predictable and may not be preventable in many cases such as political disputes or natural disasters. However, ICAO has developed several tools including SARPs, guidance material to support the preparation for an effective response to contingency situations provided that all stakeholders work collaboratively towards seamless resilient air navigation system.
- 2.9. The AN Conf/14 recognized the need for global guidance on managing disruptions and returning to normal operations. The Conference issued **Recommendation 1.1/2 – Resilience of the air navigation system**

That States:

a) implement airspace optimization initiatives covered by ICAO provisions, such as air traffic flow management, flexible use of airspace and civil-military cooperation;

b) share advance information related to anticipated disruptions; and

that ICAO:

c) together with States and industry, develop global guidance on air traffic management contingency management, including the recovery phase, as well as regional frameworks, to support the implementation of Annex 11 — Air Traffic Services.

2.9.1. Although item (a) of Recommendation 1.1/2 is already being catered for through established regional Project Teams, it must be observed that these projects are not always coordinated to ensure consistency and efficiency. Therefore, there is need for a coordinated approach to the deployment of these projects to ensure that the regional ATM contingency arrangement framework (RACF) is aligned with regional vision and objectives in civil military cooperation (CMC), flexible use of airspace (FUA) and air traffic flow management (ATFM). This can be achieved through the establishment of an ATM Projects review and coordination at regional and national levels that will conduct periodic coordination meetings of Project Coordinators. The conduct of joint workshops covering RACF, CMC, FUA and ATFM will also provide more awareness of the overall picture of a resilient ATM system.

2.9.2. ICAO has developed a global ATM contingency arrangement framework which will serve as guidance for the redesign of RACF. In this regard, AFI and MID regions are collaborating on a joint project for the development and publication of RACF to ensure harmonization and timely response to contingency events. The project includes joint workshops and assistance to States as well as the conduct of contingency plans testing under the new framework. AFI States are therefore called on to fully commit to the project throughout its various stages. This joint project will be conducted under the AFI ATM Contingency Technical Team with the support of ICAO.

3 ACTION BY THE MEETING

3.1. The meeting is invited to:

- a) Take note of the information provided in this working paper;
- b) Encourage States to support the RACF project;
- c) Encourage States to establish national multidisciplinary team in charge of ATM Contingency Planning, CMC, FUA, ATFM to ensure coherent and harmonized implementation; and

- d) Provide guidance as appropriate.

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APPENDIX A- STATUS OF AFI ATM CONTINGENCY EVENTS SINCE 2022

No	Event	Impact on ATM	Period of occurrence	AFI FIR/States involved	Deficiency identified	Status
1.	Industrial action by controllers	ATS disruption	23-25 September 2022	All ASECNA FIRs	NOTAM issued less than 24 hours prior to the event despite ATC union's advanced announcement of the event.	Closed
2.	Sudan conflict	-Airspace closed over Sudan -ATS not available over South Sudan	15 April 2023 - ongoing	Khartoum FIR (Sudan and South Sudan)	No initial ATM CP for Khartoum FIR (ATM CP over South Sudan drafted and promulgated by ICAO 17 May 2023.)	Ongoing
3.	Major power outage at Libreville ATS unit	ATS disruption	25 July 2023 (0100-1800 UTC)	Gabon	NOTAM issued at 0300 UTC on 25 July 2023.	Closed
4.	Niger unrest (Niger airspace closed to all traffic)	-Airspace over Niger closed -ATS disruption in Niamey FIR	27 July - 02 September 2023	Niger	Notification though NOTAM published 3 hours into the event	Ongoing
5.	Gabon unrest (Gabon airspace closed to all international traffic)	Airspace over Gabon closed	30 Aug - 02 September 2023	Gabon	Notification though NOTAM published 3 hours into the event with ambiguous wording.	Closed
6.	Nigeria (AIC 02A/2024) and Niger (AIC NR 17/A/24GO) airspace	Airspace restriction I Niger and Nigeria	29 January 2024	Niger Nigeria	-No advanced notification in the NOTAMs. Airlines had no time to prepare for the restrictions.	-Closed for Nigeria (AIC 03A/2024) -Ongoing for Niger (AIC NR 20/A/24GO reopened the airspace for all aircraft except

	restriction to aircraft to/from airspace of the States concerned					French registered aircraft and operators)
7.	Mogadishu (Jamming and transmitting on to the Mogadishu ACC frequency 132.5MHz and Hargeisa Tower frequency 118.7MHz)	ATS disruption	13 February 2024	Somalia	NOTAM issued on 14 February 2024)	Closed
8.	Armed conflict at Goma airport (DRC)	-Airspace not available in Goma TMA	25 January 2025	DRC	NOTAM issued on 5 February 2025 (11 days into the event)	Ongoing
9.	Power outage in Lome UTA (Accra FIR)	ATS disruption	9 April 2025	Togo	ICAO was not officially informed despite the considerable impact on international civil aviation.	Closed
10.	Algeria (NOTAM A1040/25) and Mali (NOTAM A0366/25) airspace restriction to aircraft to/from airspace of the States concerned	Airspace not available for traffic to/from airspace of the States concerned	8 April 2025	Mali Algeria	-No advanced notification in the NOTAMs. Airlines had no time to prepare for the restrictions.	Ongoing