



Agenda Item 5: Review of NOTAM Contingency Plans

JAMAICA’S EXPERIENCE - NOTAM CONTINGENCY LOA WITH CURAÇAO

(Presented by Jamaica)

EXECUTIVE SUMMARY

This Information Paper presents Jamaica’s experience in implementing and executing the NOTAM contingency arrangement established with Curaçao. It highlights the effectiveness of the arrangement, key lessons learned, improvements implemented, and best practices to support continuous enhancement and regional collaboration.

The arrangement, formalized through a Letter of Agreement (LOA), ensures the uninterrupted provision of NOTAM services within the Kingston FIR, including the Cayman Islands during system outages or operational disruptions affecting Jamaica’s International NOTAM Office (NOF)

<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Every Flight is Safe and Secure• Aviation Delivers Seamless, Accessible, and Reliable Mobility for All• No Country Left Behind
<i>References:</i>	<ul style="list-style-type: none">• ICAO DOC 8126, 8400, 10066 and Annex 15• AIPs (Jamaica and Curaçao)

1. Introduction

1.1 The provision of timely and accurate NOTAM information is a safety-critical function within Aeronautical Information Management. However, like many States, Jamaica identified vulnerabilities associated with system outages, particularly disruptions to the Air Traffic Services Message Handling System (AMHS) and MEVA network.

1.2 Such disruptions pose a significant risk to the continuity of NOTAM services and, by extension, to the safety and efficiency of air navigation and ground movement.

1.3 Recognizing this risk, a proactive approach was taken to contingency planning by pursuing a bilateral arrangement with Curaçao.

2. Establishment of the LOA

2.1 The NOTAM Contingency LOA between Jamaica and Curaçao came into effect on 0001UTC on March 26, 2020, following coordination among:

- a) AIM personnel
- b) Technical and communication specialists
- c) Relevant service providers

2.2 These discussions defined roles and responsibilities, standardized message formatting and addressing, as well as established clear activation and deactivation protocols.

2.3 A key component of the success was end-to-end system testing, which validated:

- a) Alternative communication channels
- b) NOTAM message processing accuracy
- c) Timeliness and integrity of information exchange
- d) Accuracy of distribution addresses

2.4 This collaborative and practical approach ensured operational readiness and system interoperability.

3. LOA Drafting Process

3.1 Both States engaged in discussions to establish the needs and requirements of the Letter of Agreement (LOA), ensuring that the operational capabilities of both parties can adequately support the proposed arrangements. Key considerations were:

- a) Clearly defined requirements of the arrangement
- b) Operational hours
- c) Staffing levels and workload during periods of activation

3.2 Drafting of the LOA was conducted through a collaborative review process between both parties to ensure that all terms are mutually agreed and aligned with operational requirements. This process may involve multiple meetings and iterative revisions prior to finalization.

3.3 Comprehensive system testing was conducted to verify interoperability, communication reliability, and overall readiness to support the agreed arrangements prior to implementation.

3.4 In the case of Jamaica, all agreements are subject to review by the Legal Department prior to approval, signature, and implementation.

4. Objective and Scope of the LOA

4.1 Objective:

4.1.1 The objective of the LOA is to specify NOTAM Contingency procedures between Jamaica and Curaçao.

4.2 Scope:

4.2.1 The LOA outlines supplementary procedures to ICAO Standards and Recommended Practices, including Annex 15, the AIS Manual (Doc 8126), PANS-ABC (Doc 8400), and PANS-AIM (Doc 10066). They detail NOTAM procedures, formats, and the conditions under which responsibility for NOTAM service provision shall be transferred between the specified AIS/AIM units.

4.2.2 This Agreement addresses the implementation of short-term contingency measures in situations where NOTAM services are disrupted or partially unavailable due to communication failures or staffing constraints.

4.2.3 It also formalizes the temporary delegation of NOTAM service provision from AIS/AIM Jamaica to AIS/AIM Curaçao for the Kingston Flight Information Region (FIR), including the Cayman Islands (ensuring continuity of the service across the entire area of jurisdiction).

5. Operational Implementation

5.1 The LOA provides a structured mechanism for activation during system failures, including AMHS outages and communication disruptions.

5.2 Key operational elements include:

- a) Defined activation triggers
- b) Coordination procedures between both NOFs
- c) Use of alternative communication channels (telephone and email)
- d) Standardized templates to ensure consistency and reduce errors

5.3 Activation/Deactivation

5.3.1 The contingency arrangement is activated and de-activated by the AIM Manager (international NOTAM Office) Jamaica or AIM Director through initial coordination via telephone with Curaçao Director General DC-ANSP or AIS/ARO Manager, DC-ANSP.

5.3.2 This is subsequently formalized through official email communication to Curaçao Director General DC-ANSP or AIS/ARO Manager, DC-ANSP.

6. Operational Experience

6.1 Since its establishment in 2020, the contingency arrangement has been activated on several occasions due to system outages and communication failures. These activations ranged from technical issues to disruptions caused by severe weather. In each instance, the arrangement enabled continued dissemination of NOTAM, thereby maintaining operational safety and compliance with ICAO requirements.

6.2 Hurricane Events

6.2.1 During two major weather events - Hurricane Beryl (2024) and Hurricane Melissa (2025):

- a) The AMHS antenna was secured as a protective measure
- b) Communication systems disrupted
- c) NOTAM services were effectively maintained with the support of Curaçao.

6.2.2 Outcomes:

- a) Timely dissemination of NOTAM
- b) Operational resilience under pressure

7. Outputs

7.1 The arrangement successfully facilitated NOTAM dissemination during the following events:

EVENTS/TRIGGERS	OUTPUT	REMARKS
AIM Communication Network System Failure June 10 – 11, 2021	One A-Series NOTAM disseminated	-
Tropical Storm Grace – August 17, 2021	Nil NOTAM disseminated.	Standby activation was in effect for possible AIM0 condition due to expected disruption of the MEVA III node
Hurricane Berly (Activated on July 4, 2024)	9 NOTAM disseminated	3 associated with the Hurricane and 6 for testing purposes.
Hurricane Melissa (Activated from Oct 25 – 29, 2025)	6 NOTAMs transmitted (5 A-Series, 1 C-Series)	Related to Airport/ Aerodrome closure, airspace closure/restrictions, unavailability of navigation and surveillance facilities at the two major international airports and well as notification of postponement of AIRAC-related changes, including MKJP threshold displacement

8. Actual NOTAM Disseminated by Curaçao on Jamaica's behalf

A0316/25 NOTAMR A0313/25

Q) MKJK/QAFXX/IV/NBO/E/000/999/1713N07808W999

A) MKJK

B) 2510282038

C) 2510291800

E) NO ATS AVBL IN KINGSTON FIR DUE HURRICANE MELISSA. ATS CONTINGENCY ROUTING PROC NOT IN EFFECT. CAYMAN TMA NOT AFFECTED. SENT BY TNCCYNYX ON BEHALF OF MKJKYNYX.

Sent: Oct 28, 2025

A0317/25 NOTAMN

Q) MKJK/QCTAS/I/BO/AE/000/999/1830N07754W250

A) MKJS

B) 2510282042

C) 2510291800

E) NORWOOD TAR U/S DUE HURRICANE MELISSA. SENT BY TNCCYNYX ON BEHALF OF MKJKYNYX.

Sent: Oct 28, 2025

A0318/25 NOTAMR A0304/25

Q) MKJK/QFALC/IV/NBO/A/000/999/1756N07647W005

A) MKJP

B) 2510290239

C) 2510302000

E) AD CLSD DUE HURRICANE MELISSA. SENT BY TNCCYNYX ON BEHALF OF MKJKYNYX.

Sent: Oct 29, 2025

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9. Operational Effectiveness and Outcome

9.1 The contingency arrangement has proven effective in:

- a) Maintaining continuity of NOTAM services
- b) Ensuring timely dissemination of safety-critical information
- c) Supporting compliance with ICAO Annex 15

9.2 Overall, the arrangement ensured uninterrupted service delivery and maintained operational safety during disruptions.

10. Contingency Execution – Curaçao

10.1 From Curaçao perspective, the operational coordination with Jamaica has demonstrated a high level of effectiveness and professionalism. Upon receipt of a contingency notification, Curaçao is initially placed on standby status, allowing for immediate readiness in case of activation.

10.2 As part of the established procedures, Jamaica consistently provides the last published NOTAM number, as well as any pending NOTAM requiring dissemination, including those issued on behalf of the Cayman Islands. This ensures continuity and traceability of NOTAM operations.

10.3 In the event of full activation, coordination transitions seamlessly to an active contingency mode, where all required NOTAM are processed and disseminated without delay. Communication is systematically conducted through multiple channels (email, telephone, and messaging applications such as WhatsApp), ensuring redundancy and reliability in message delivery.

10.4 Similarly, during deactivation, structured communication is maintained to formally conclude contingency operations. When Curaçao disseminates NOTAM on behalf of Jamaica, confirmation is provided through the same multiple communication channels, including the transmission of the last published NOTAM number to ensure full operational alignment.

11. Contingency Execution – Jamaica

11.1 From Jamaica perspective, the contingency arrangement has proven to be a reliable and essential safeguard in maintaining continuity of NOTAM services during system outages and operational disruptions. The structured activation process, supported by clearly defined procedures and established communication channels, enables timely coordination with Curaçao.

11.2 Jamaica has consistently ensured that all required information, such as the last issued NOTAM number, pending NOTAM requests, and specific operational details are accurately compiled and transmitted to facilitate seamless continuation of services. This has supported effective NOTAM management, including those issued on behalf of the Cayman Islands.

11.3 The use of standardized templates and predefined workflows has minimized errors and enhanced efficiency during high-pressure situations. Additionally, the professionalism and responsiveness of both teams have contributed to smooth execution, ensuring that safety-critical information is disseminated without interruption.

- 11.4 The following advantages were experienced during activations:
- a) Continuity of NOTAM service delivery despite system outages and communication failures
 - b) Enhanced operational resilience, particularly during severe weather events and emergency situations
 - c) Timely dissemination of safety-critical information, maintaining compliance with ICAO requirements
 - d) Effective coordination and collaboration between Jamaica and Curaçao
 - e) Reduced risk of service disruption through the use of alternative communication channels
 - f) Improved confidence in contingency procedures due to successful real-world activations

12. Actions Taken

- 12.1 To address these challenges, the following actions were implemented:
- a) Immediate activation of contingency procedures
 - b) Establishment of alternative communication channels
 - c) Coordination and validation of NOTAM data with Curaçao
 - d) Continuous monitoring of NOTAM dissemination

13. Operational Challenges Post-Implementation

- 13.1 The following challenges were encountered during activations:
- a) Limited communication channels → Email, WhatsApp
 - c) Increased operational workload
 - d) Initial coordination delays and communication gaps
 - e) System Setting issues
 - e) Need for continuous staff familiarity with procedures

14. Strengths and Benefits

- 14.1 Key strengths of the LOA include:
- a) Continuity of safety-critical information
 - b) Operational redundancy
 - c) Enhanced regional collaboration
 - d) Standardized procedures
 - e) Integration with SOPs and QMS

15. Lessons Learned

15.1 Key lessons include:

- a) Importance of regular simulation exercises
- b) Need for updated contact information
- c) Continuous staff training and awareness
- d) Importance of clearly defined activation procedures
- e) Value of redundant communication systems
- f) Need for more communication channels

16. Improvements implemented

16.1 Based on operational experience:

- a) Procedures and checklists were strengthened
- b) Staff training and awareness increased, and will be ongoing
- c) Coordination protocols enhanced
- d) Contingency processes integrated into SOPs

17. Recommendations and Next Steps

17.1 To further enhance the arrangement:

- a) Conduct periodic testing and validation
- b) Regularly review and update the LOA
- c) Expand toward two-way contingency partnerships
- d) Include SNOWTAM processing in the arrangement
- e) Improve communication redundancy

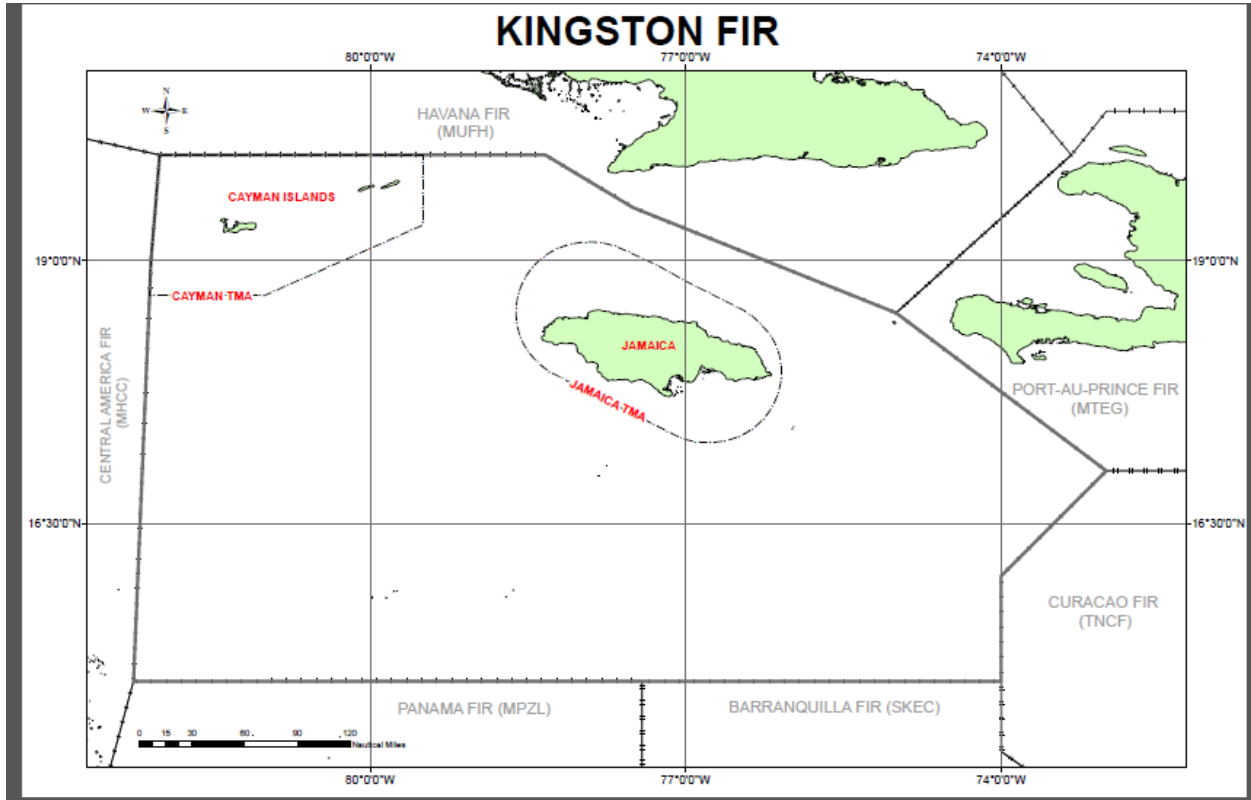
18. Implementation considerations

- a) Conduct regular testing, staff briefings and training
- b) Incorporate procedures into operational manuals
- c) Maintain documentation during activations
- d) Ensure continuous oversight

19. Conclusion

19.1 Jamaica's experience demonstrates that the NOTAM contingency arrangement with Curaçao is a practical, effective, and essential mechanism for ensuring continuity of aeronautical information services. Its successful application during real-world disruptions highlights the importance of preparedness, collaboration, and continuous improvement in maintaining safety, compliance, and operational resilience.

20. **Kingston Chart**



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