International Civil Aviation Organization
North American, Central American and Caribbean Office

Third NAM/CAR Regional Contingency and Emergency Planning and Response Meeting

(NAM/CAR/CONT/3)

Final Report

Mexico City, Mexico, and on-line, 9 to 11 May 2023

Prepared by the Secretariat

July 2023

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HISTORICAL

ii.1   Place and Date of the Meeting

The Third NAM/CAR Regional Contingency and Emergency Planning and Response Meeting (NAM/CAR/CONT/3) was held at the ICAO NACC Regional Office in Mexico City, Mexico, and on-line, from 9 to 11 May 2023.

ii.2   Opening Ceremony

Mr. Julio Siu, Acting Regional Director of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO) delivered an opening speech, highlighting the objectives of the meeting, the alignment of the different regional efforts in favor of the States in the management of crises and contingencies, the importance of the preparation, awareness and active participation of the States and aviation stakeholders in terms of their coordination and action in the face of emergencies and the adequate management of crises and recovery, welcomed the participants and finally officially opened the meeting.

ii.3   Officers of the Meeting

The NAM/CAR/CONT/3 Meeting was led by Mr. Luis Miranda (Costa Rica), Deputy Director General of the Costa Rican Civil Aviation Authority. Mr. Eddian Méndez, Regional Officer, Air Traffic Management and Search and Rescue of the NACC Regional Office served as Secretary of the meeting and was assisted by Mr. Roberto Sosa, Regional Officer, Air Traffic Management and Search and Rescue, Mrs. Fabiana Todesco, Regional Officer, Aerodromes and Ground Aids, from the ICAO SAM and NACC Regional Offices respectively.

ii.4   Working Languages

The working languages of the Meeting were English and Spanish. The working papers, information papers and report of the meeting were available to participants in both languages.

ii.5   Schedule and Working Arrangements

It was agreed that the working hours for the sessions of the meeting would be from 09:00 to 15:00 hours daily with adequate breaks.

ii.6   **Agenda**

Agenda Item 1:   **Adoption of the Provisional Agenda, Schedule and Review of Outstanding Conclusions**

Agenda Item 2:   **ICAO Requirements for Air Navigation Services (ANS) and Aerodromes and Ground Aids (AGA) Contingency Planning**

Agenda Item 3:   **Regional Initiatives for Contingency Planning and Response**

Agenda Item 4:   **Evaluation of Impact and Response of Contingencies Faced in 2022**

Agenda Item 5:   **CAR Region Air Traffic Services (ATS) Contingency Plan**

Agenda Item 6:   **CAR Region Contingencies Table-Top Exercise**

Agenda Item 7:   **Other Business**

ii.7   **Attendance**

The Meeting was attended by 19 States/Territories from the NAM/CAR/SAM Regions, and 2 International Organizations, totalling 89 delegates as indicated in the list of participants.

ii.8   **Draft Conclusions and Decisions**

The Meeting recorded its activities as Draft Conclusions and Decisions as follows:

DRAFT
CONCLUSIONS: Activities requiring endorsement by the Directors of Civil Aviation of North America, Central America and Caribbean (NACC/DCA).

DECISIONS: Internal Actions.

Number	Title	Page
C/1	*STATUS OF AIRPORT EMERGENCY PLANNING AND RESPONSE*	2-1
C/2	*UPDATE OF THE REGIONAL TEMPLATE FOR AIR TRAFFIC SERVICES (ATS) CONTINGENCY PLANS*	3-4
C/3	*HARMONIZATION OF CONTINGENCY PROCEDURES IN THE CAR REGION UPPER AND LOWER AIRSPACE*	4-2
C/4	*ENHANCED GUIDANCE FOR INTERNAL AIR NAVIGATION SERVICE PROVIDERS (ANSPs) CONTINGENCY PLANS*	5-2

ii.9   **List of Working and Information Papers and Presentations**

Refer to the Meeting web page:
https://www.icao.int/NACC/Pages/meetings-2023-cont3.aspx

Number	Agenda Item	Title	Date	Prepared and Presented by
		WORKING PAPERS		
WP/01	1	Review and Approval of the Provisional Agenda and Schedule of the Meeting	09/02/23	Secretariat
WP/02	1	Review of the Conclusions and Decisions of NAM/CAR Regional Contingency and Emergency Planning and Response Previous Meetings	2/05/23	Secretariat
WP/03	2	ICAO Requirements for Air Traffic Services (ATS) Contingency Planning	2/05/23	Secretariat
WP/04	2	CADENA´s Contingency Planning and Response	27/04/23	CANSO

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/05	3	CAR Contingency and Emergency Response Coordination Team (CAR CERT)	8/05/23	Secretariat
WP/06	4	Review of Contingencies Occurred in the CAR Region in 2022	8/05/23	Secretariat
WP/07	3	Strengthening Foundational Aspects of Aerodrome Preparedness	09/05/23	United States

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01	--	List of Working, Information Papers and Presentations	08/05/23	Secretariat
IP/02	3	Airport Emergency Plan	09/05/23	United States

PRESENTATIONS

Number	Agenda Item	Title	Presented by
P/01	3	ICAO Requirements for ATS Contingency Planning	Secretariat
P/02	3	CADENA:Contingency Planning and Response	CADENA
P/03	6	Briefing on CADENA Annual Hurricane / Tropical StormTraining	CADENA
P/04	2	ICAO Annex 11 Mapping to the CADENA AFTM/CDM Procedures Manual	CADENA
P/05	3	Airport Emergency Plan	Secretariat

LIST OF PARTICIPANTS

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1. Shenneth P Phillips

ARUBA

2. Albert Boekhoudt
3. Rino Hermans
4. Willem Angelus Ines Vrolijk

BAHAMAS

5. Alexander Berkley Ferguson
6. Michael Fountain

BARBADOS

7. Christopher King (V)
8. Donna Archer (V)
9. Gail Clarke (V)
10. Glyne Blanchette (V)
11. John Parris (V)
12. Neil Sarjeant (V)
13. Roderick Oliver (V)

BELIZE/BELICE

14. Ellis Stanley Gideon
15. Marvin Polanco

CANADA/CANADÁ

16. Andrei Janus (V)

COSTA RICA

17. Luis Miranda Muñoz
18. Mario Sequeira Quiros
19. Rolando Richmond (V)

CUBA

20. Ramón Arnulfo Ramírez Reyes

CURAÇAO/CURAZAO

21. Jacques Lasten
22. Michael Celestijn

ECCAA

23. Eloise Denise Silston

GUYANA

24. Trevor Daly

HONDURAS

25. Consuelo Yalena Bonilla

JAMAICA

26. Mark Phillips
27. Troy Blackwood

MEXICO/MÉXICO

28. Álvaro Edgar Pérez Galindo (V)
29. Martín Reza Castillo
30. Sandra Fabiola Carrera Peña
31. Alan Munive (V)
32. Alarico Símuta Arriaga (V)
33. Eduardo Alejandro Trujillo Avilés
34. Fernando Landázuri Espinosa
35. Jaime Castelan Trejo (V)
36. Jose Antonio Peña Solis (V)
37. Jose Ramon Alvarez Juarez (V)
38. Juan Liberato Perera Rodriguez (V)
39. Lucila Garcia Jiménez (V)
40. Luis Angel Velarde Vazquez
41. Mario Enrique Morales Garcia (V)
42. Miguel Angel Antonio Escorcia
43. Nuris Sanchez Dias (V)
44. Ohmar Zeferino Martinez Cruz
45. Osiris Antonio González Frias
46. Alexandro Ruiz Ricardez
47. Carlos Ménendez López

48. Mariana Cervantes Abdala (V)
49. Sydney Ordóñez (V)
50. Alberto Romero Flores
51. Jorge Caballero (V)
52. Jose Guillermo Manzo Espadas (V)
53. José Inés Gil Jiménez
54. Jose Pedro Gregorio Pineda Jimenez (V)
55. Nancy Medina Velazquez
56. Sofía Patricia Manzo Espadas
57. Zeldy Elizabeth Flores Rivera

SAINT KITTS AND NEVIS/SAN KITTS Y NEVIS

58. Kenrick Duncan (V)

SAINT VINCENT AND THE GRENADINES/SAN VICENTE Y LAS GRANADINAS

59. Allan Providence (V)
60. Andrea Best (V)
61. Dillett Davis
62. Eddison Edwards (V)
63. Jeronnie Richardson
64. Jevon Jackson (V)
65. Josette Greaves (V)
66. Ravie Francis (V)
67. Sarah-Lina Dos Santos (V)
68. Shaverne Walker (V)
69. Stanton Gomes (V)

TRINIDAD AND TOBAGO/TRINIDAD Y TABAGO

70. Barry Phirangee

TURKS AND CAICOS ISLANDS/ISLAS TURCAS Y CAICOS

71. Darrak Williams
72. Emanuel Rigby

NOTE: (V): VIRTUAL ATTENDANCE

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73. Daniel Ayotte
74. James Bedow (V)
75. James Webb (V)
76. Jason Alves
77. Jessa Gottlich (V)
78. Jorge Chades (V)
79. Keanne Vallejo-Huertas (V)
80. Kristle Newman (V)
81. Maggie Geraghty (V)
82. Norma Campos
83. Rudolph Lawrence
84. Vincent McMenamy (V)

CANSO

85. Midori Tanino
86. Albert Castillo

COCESNA

87. Pablo Alexander Luna Servellon
88. Roger Pérez
89. Victor Manuel Andrade Salgado

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90. Eddian Méndez
91. Roberto Sosa
92. Fabiana Todesco
93. Ernie Snyder

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Agenda Item 1   **Adoption of the Provisional Agenda, Schedule and Review of Outstanding Conclusions**

1.1   The Meeting elected Mr. Luis Miranda, Deputy Director General of the Directorate General of Civil Aviation of Costa Rica, as Chairperson.

1.2   The Secretariat presented WP/01 and invited the Meeting to approve the Provisional Agenda and Schedule. The Meeting approved the Agenda and Schedule as presented.

1.3   The Secretariat presented WP/02 with the updated list of Conclusions of NAM/CAR Regional Contingency and Emergency Planning and Response previous meetings. The status and follow - up comments for each Conclusion were reviewed and all remained unchanged.

1.4   Regarding Conclusion NAM/CAR/CONT/1/1 *PUBLICATION AND PERIODIC REVIEW OF ATS CONTINGENCY PLANS*, this task remains valid, since some States have not yet sent their ATS contingency plans to the ICAO NACC Regional Office, Conclusion NAM/CAR/CONT/2/01 is still pending and will be presented to the NACC/WG/08 meeting for its attention. Likewise, Conclusion NAM/CAR/CONT/2/2 *PROPOSALS TO IMPROVE THE EFFECTIVENESS OF REGIONAL CONTINGENCY PLANS*, will be presented to the NACC/WG/08 meeting and subsequently to GREPECAS to request the update of the regional format of ATS contingency plans.

Agenda Item 2   **ICAO Requirements for Air Navigation Services (ANS) and Aerodromes and Ground Aids (AGA) Contingency Planning**

2.1   Under this Agenda Item the Secretariat, through P/05, presented the ICAO Standards and Recommendations Practices (SARPs) for the airport emergency plan provided for in Annex 14 Vol. 1, Doc 9981 – Procedures for Air Navigation Services (PANS) *Aerodromes* and in Doc 9137 *Airport Services Manual Airport Emergency Planning*, Part 7.

2.2   Moreover, the Secretariat informed on the process of updating ICAO documents through the Aerodrome Design and Operations Panel (ADOP), which the following topics are expected to be included in Doc 9137 Part 7: preparedness and response to public health emergencies; disaster and business continuity management; assistance to air crash victims and their families; and unauthorised Unmanned Aircraft Systems (UAS) disruption to aerodromes.

2.3   The Secretariat also reported on the low level of compliance with the Universal Safety Oversight Audit Programme (USOAP) Protocol Questions (PQs) related to the airport emergency plan (PQs 8291, 8293, 8297, 8299 and 8301), which have an average of 50% no satisfactory for States of the CAR Region.

2.4   In this sense, with the objective of identifying the main support needs for the States so that their airports respond to emergency situations, through a decision, the development and application of a questionnaire to the States and airports of the CAR Region was proposed. The Meeting noted the above information and formulated the following Conclusion:

CONCLUSION	
NAM/CAR/CONT/3/01	**STATUS OF AIRPORT EMERGENCY PLANNING AND RESPONSE**

What:	**Expected impact:**
That, ICAO NACC Regional Office send an electronic questionnaire to the civil aviation authorities of States in the CAR Region to inform about the planning and response to airport emergencies by June 2023. The data and information received from the States will be important to identify projects and activities, such as the development of guide materials and training, to support airports and States to respond to an emergency.	☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To collect the information about airport emergency plan (considering: preplanning BEFORE an emergency; operations during the emergency; and support and documentation AFTER the emergency) to identifying the main support and needs in the CAR Region.	

When:	June 2023	**Status:**	☒ Valid / ☐ Superseded / ☐ Completed
Who:	☐ States ☒ ICAO ☐ Other:		

2.5   The Secretariat presented WP/03, supported with P/01, to detail ICAO's requirements for contingency arrangements by Air Traffic Service (ATS), provide information regarding regional agreements for contingency planning and outline the role of the Regional Offices to respond to regional contingencies.

2.6   Annex 11 requires ATS authorities to develop and promulgate contingency plans for implementation in the event of disruption, or potential disruption, of ATS and related supporting services in the airspace for which they are responsible for the provision of such services. Attachment C to Annex 11 provides material supplementary to the contingency arrangements SARPs, to guide its application, objectives and define responsibilities. The role of ICAO, and of the ICAO Regional Offices, is also explained.

2.7   The Secretariat also explained the regional agreements for contingency planning and response, and their status of compliance. Currently, 66% of the CAR Region States have complied with the agreement to send an updated copy of their ATS contingency plan to the ICAO NACC Regional Office.

2.8   CANSO presented P/04 to provide a mapping between ICAO Annex 11 Attachment C, Material relating to contingency planning, to the CANSO Air Traffic Flow Management Data Exchange Network for the Americas (CADENA) Air Traffic Management (AFTM)/Collaborative Decision Making (CDM) Procedures Manual. The presentation went through each section of ICAO Annex 11, Attachment C and mapped it to corresponding CADENA ATFM/CDM Procedures Manual sections. The body of the presentation included at least one mapping to the CADENA Procedures Manual. At the end of the presentation, a table was displayed that included a more complete mapping to the CADENA Procedures Manual (i.e., all applicable mapping sections were included). The table is included in Appendix A of the presentation. *Note: see the briefing titled "ICAO Annex 11 Mapping to the CADENA ATFM/CDM Procedures manual" for details.*

2.9   CADENA has collaboratively developed Contingency Checklists with Air Navigation Service Providers (ANSPs), airlines and other stakeholders. Each checklist contains initial and follow up contingency actions.

Agenda Item 3 **Regional Initiatives for Contingency Planning and Response**

3.1 Under this Agenda Item CANSO presented WP/04, supported by P/02, to provide key information on how CADENA has prepared for, handle, communicate during, capture benefits for and track lessons learned from contingency events in the Latin America and Caribbean (LAC) Region.

3.2 At the beginning of CADENA, many ANSPs in the region did not have a Flow Management Unit (FMU) nor a solid understanding of the ATFM function. CADENA supported these ANSPs in the building of their FMUs and provided guidance for the establishment of ATFM functions. CADENA prepared the CADENA ATFM/CDM Procedures Manual based on ICAO Doc - 9971 and tailored it for the LAC region. CADENA developed multiple forms (e.g., contingency checklist) and templates (e.g., ATFM Daily Plan, Aeronautical Information Circular (AIC)/Aeronautical Information Publication (AIP) approval process) and made them available to the stakeholders to ensure a harmonized and efficient operation. CADENA continues to offer many types of training including annual hurricane training and quarterly contingency training.

3.3 CADENA recognized the importance of handling contingency events and building capabilities among CADENA participating ANSPs to face such events. The capabilities built to manage contingency events include: training of FMU staff, establishing communication methods (e.g., web conferences, CADENA OIS, emails via group lists, WhatsApp Chat Group); developing procedures (e.g., CADENA ATFM/CDM Procedures Manual), documents (e.g., briefing templates and manuals), forms (e.g., contingency form and contingency check lists) and, establishing the CADENA Virtual Support Team.

3.4 The CADENA ATFM/CDM Procedures Manual provides details of agreed upon LAC region ATFM/CDM processes and procedures. This manual is certainly one of the key documents that makes the LAC region ATFM/CDM work. The LAC region contingency handling procedures and related information are described in this manual (Section 6, CADENA and Contingency Planning).

3.5 To handle contingency events, it is essential that each ANSP has an FMU with trained personnel. CADENA identified the minimum requirements for ANSPs to establish a functional FMU and FMU personnel qualifications. With adequate guidance and training, almost all the ANSPs in the CAR Region have successfully established their FMUs and continue to enhance their contingency handling skills. It is appropriate to comment that the NACC Dashboard shows this compliance indicator with respect to the implementation of the FMUs in the CAR Region, with progress of 40%.

3.6   CADENA has prepared the ANSP Contingency Form (see below from the CADENA ATFM/CDM Procedures Manual, Section 6.4) to help collect pertinent contingency event information, put all of the available information in one form, and display it on the CADENA OIS for stakeholder situational awareness. This form is completed and uploaded to the CADENA OIS by the participating ANSP that has taken the lead for a contingency event.

3.7   In collaboration with participating ANSPs and airlines, in August 2017, CADENA launched the CADENA OIS, allowing ANSPs to easily share special events, contingency events, and operational information via the web application. Since then, the CADENA OIS has been enhanced several times to provide more capabilities to exchange ATFM/CDM related information and to boost coordination opportunities. The CADENA OIS plays a critical role during a contingency event by offering participating ANSPs a basic capability of sharing information including: the ANSP Contingency Form; briefings on the event; CADENA advisories; Contingency Events Checklists; and, the Planned Airway System Alternative (PASA) route database. The CADENA OIS provides functions to issue CADENA advisories and PASA End-to-End (E2E) route requests.

3.8   PASA routes are contingency routes that can be used temporarily to circumvent airspace impacted by a significant event (e.g., major hurricane, complete power outage, satellite outage, etc.). There are two types of PASA contingency routes: predetermined routes stored in the CADENA database and dynamic end-to-end (E2E) routes that can be created and requested as needed.

3.9   Predetermined PASA routes were motivated by an Air Traffic Control (ATC) Zero event in September 2017. A few PASA routes were identified and used in response to the loss of an ANSP's surveillance capabilities and the closure of a large volume of airspace in the CAR Region. Recognizing the usefulness of PASA predetermined contingency routes for each Flight Information Region (FIR), CADENA created the PASA route database based on routes that were already in use by the airlines and have been approved by the participating ANSPs. The implementation of PASA routes must be coordinated with the appropriate ANSPs through their FMU prior to use.

3.10   Airlines can request a tactical PASA E2E route on an "as needed" basis through the CADENA OIS. Notable examples of PASA E2E route usage include: Delta Airlines' creation of a special route to avoid a hurricane while traveling from the Mexico to United States in October 2020; and, American Airlines successful transport of COVID vaccines from the U.S. to Chile via the coordinated efforts of ANSPs which resulted in the vaccine's timely arrival and safe delivery in December 2020.

3.11   The Secretariat presented WP/05 to provide information regarding the CAR Contingency and Emergency Response Coordination Team (CAR CERT) as the mechanism on which ICAO relies for the fulfilment of its responsibilities regarding the planning and response to contingencies that impact the CAR Region.

3.12   After the approval of the CAR Region ATM Contingency Plan, the establishment of CAR CERT and periodic ICAO meetings for contingency planning and response, compliance with ICAO requirements regarding Air Traffic Services (ATS) contingency arrangements has significantly improved. The number of States/Territories that submitted to ICAO updated contingency planning information has also increased.

3.13   The attention of the States/Territories regarding planning and response to contingencies has improved, however, major awareness work is still pending, to improve transparency and the exchange of updated operational information. In the same way, the work to strengthen the resilience of air navigation systems deserves more attention, starting with high-level decision makers in the region.

3.14   The Meeting requested more information regarding the CAR Region Contingency Plan and its Appendix C Contingency Plan Template, agreed by the GREPECAS.

3.15   The Contingency Plan Template contains arrangements to ensure the continued safety of air navigation in the event of partial or total disruption of ATS and is related to ICAO Annex 11- Air Traffic Services. The contingency plan template proposes to provide alternative routes, using existing airways in most cases, which will allow aircraft operators to fly through or avoid affected airspace.

3.16   Most States/Territories in the CAR Region that have used this template have established an ATS contingency routes scheme to be used in the case of total disruption of ATS, where air operators would fly through affected airspace without ATS surveillance or two-way communications. This ATS contingency routes scheme requires the coordination with adjacent ATS units. This coordination is normally reflected in the bilateral Letter of Agreement (LoA).

3.17   Some States called the attention of the challenges they face with the use of contingency routes where no surveillance and communication services are being provided. Since the use of these routes need to be agreed upon by the ANSPs that will utilize these routes, LOAs will be needed to document the approval of all ANSPs involved.

3.18   United States made a statement regarding the activities within their National Airspace System. Facility by facility, the United States Federal Aviation Administration (FAA) is identifying the safest and most efficient solution for providing the continuity of ATC services during a contingency event. The FAA is currently reviewing their existing LoAs and procedures, as well as working collaboratively with stakeholders to find suitable options that will meet both regulatory requirements and customer needs, such as acceptable/approved level of communications with ATC. Additionally, the FAA intends to coordinate these plans with neighbouring ANSPs, where applicable to provide for improved contingency operations.

3.19   Given the time that has elapsed since the contingency procedures approved by GREPECAS were published, the Meeting considered it appropriate to present to the NACC/WG, and subsequently to GREPECAS, the difficulties regarding the regionally adopted contingency procedures, as well as and make recommendations that promote its updating in the current context of operations. This will ensure stakeholders expectations are taken into account, in order to guarantee improved levels of services, as far as practicable.

3.20   The following Conclusion was adopted:

CONCLUSION	
NAM/CAR/CONT/3/02	**UPDATE OF THE REGIONAL TEMPLATE FOR AIR TRAFFIC SERVICES (ATS) CONTINGENCY PLANS**
What:	**Expected impact:**
That, to verify that the contingency procedures adopted regionally maintain their relevance and adequately respond to the expectations of stakeholders in cases of ATS contingency the Secretariat: a) present to the NACC/WG/08 Meeting the considerations regarding the regionally adopted contingency procedures and the difficulties faced by some States regarding the use of ATS contingency routes where no ATS surveillance and communications is available; and	☐ Political / Global ☒ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical

b) recommend to the NACC/WG to submit to GREPECAS a request to review the agreed ATS contingency procedures, to ensure they remain valid, allowing for regional seamless application and use.	
Why: To ensure the effectiveness of the contingency procedures established by GREPECAS	
When: NACC/WG/8	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☒ ICAO ☒ Other:	NACC/WG, GREPECAS

3.21   Through WP/07, United States submitted information about the Caribbean Aviation Resilience and Recovery Group (CARRG). This group is undertaking with the ICAO NACC Regional Office and Airports Council International (ACI) – Latin America (LAC), to address foundational aspects that would enable airport operators to respond to an emergency. This paper also details plans for "Mutual Assistance Subject Matter Expert (SME) Pilot Programme" that airport operators can contact for assistance related to an emergency event.

3.22   In 2019, United States and 16 Caribbean States signed a Declaration of Intent (DoI) creating the CARRG seeking to strengthen coordination on aviation resilience and recovery from emergency events. From United States, the FAA's Office of International Affairs has served as the de facto coordinator of the CARRG. Since then, ICAO NACC Regional Office, and ACI-LAC have begun coordinating how best to collaborate in the area of resiliency and disaster preparedness in the Caribbean.

3.23   During the Tenth North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/10) held in Fort de France, Martinique, France, from 21 to 23 June 2022, the FAA CARRG team briefed on the concept of airport-to-airport mutual assistance. Airport-to-airport mutual assistance is a voluntary assistance programme where an airport(s) outside an area impacted by a disaster voluntarily sends aid to an airport(s) impacted by a disaster that pulls on the expertise of other skilled airports in the State and/or region to provide services such as conducting airfield inspections, assisting in facility restoration, providing emergency support services, and other activities as the situation warrants. A mutual assistance programme may be as simple as a group of experts being "on call" during an emergency to provide support and advice to an affected airport. Conversely, mutual assistance can be as complex as sending a team to an impacted airport with supplies to provide on-the-ground assistance. It also allows for potentially impacted airport staff to be supplemented by outside experts in the event they need to care for their affected home and/or family. The fundamental premise is that no one knows how to help an airport better than someone from another airport.

3.24   At that time, the FAA CARRG team sought support from ICAO Member States to form a Task Force (TF) to develop a proposed framework for airport-to-airport mutual assistance in the Caribbean.

3.25   In February 2023, the TF began meeting to determine the feasibility and next steps for supporting Caribbean airports ahead of the 2023 Atlantic hurricane season. The group agreed to pursue two concurrent work streams to support resiliency efforts specific to the needs of aerodromes:

1)   Phase 1 Foundational Effort: The goal of Phase 1 is to identify what guidance and training is needed to allow airport operators to respond to an emergency. Additionally, this effort can identify where Civil Aviation Authorities (CAAs) might need to increase guidance and/or oversight to their aerodromes.

2)   Phase 2 Operational Effort: The goal of Phase 2 is to launch a "Mutual Assistance Subject Matter Expert Pilot Programme" that airport operators can virtually contact for assistance/advice related to an emergency event.

3.25   For Phase 1, the TF plans to send an "Aerodrome Readiness Questionnaire" to airports and CAAs in the Caribbean region to identify what guidance and training is needed to enable airport operators to respond to an emergency. This questionnaire is being coordinated with the ICAO NACC Regional Office, which is proposing the draft Decision through P/05.

3.26   Currently, there are no existing organizations where an airport can call to request advice leading up to or in the immediate aftermath of a natural disaster. Through the development and execution of the Airport Excellence (APEX) in Safety Programme, ACI-LAC already has amassed a list of aerodrome experts from the region with expertise based on different types of events (hurricanes, floods, earthquakes, etc.). ACI-LAC plans to pilot a virtual assistance group where airport operators can call with questions and be paired with an expert to provide assistance. In the Pilot Phase, the Mutual Assistance Peer Group intends to operate virtually. United States intends to support this group by providing experts with hurricane response. Once the group is operational, FAA intends to support.

3.27   Through IP/02, United States provided submitted information about Airport Emergency Plan. United States informed that ICAO Annex 14 volume 1 requires each airport operator to establish and maintain an Aerodrome Emergency Plan (AEP), so for United States the development of an AEP is required under United States 14 CFR Part 139.325, Airport Emergency Plan. The AEP addresses essential emergency related and methodical actions planned to ensure the safety of, and emergency services for, the airport populace and the community in which the airport is located.

3.28   The AEP document should be functionally oriented, comprehensive in the assignment of responsibilities, and coordinated at all levels. At a minimum, and at its most basic level, the AEP is a document that:

a)   assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in responding to an emergency.

b)   sets forth lines of authority and organizational relationships and shows how all actions should be coordinated.

c)   describes how people and property will be protected in emergencies and disasters.

d)   identifies personnel, equipment, facilities, supplies, and other resources available—within the airport or by agreement with communities—for use during response and recovery operations.

e)   as a public document, cites its legal basis, states its objectives, and acknowledges assumptions.

f)   facilitates response and short-term recovery to set the stage for successful long-term recovery.

Agenda Item 4   Evaluation of Impact and Response of Contingencies Faced in 2022

4.1   The Secretariat presented WP/06 with a summary and review of the contingencies related to ATS occurred in the CAR Region in 2022, and analysis of lessons learned.

4.2   Since 2019, the ICAO NACC Regional Office has been promoting the annual review of contingency events that occur in the CAR Region, aiming to improve the resilience of the region's aviation system. This review is based on information available to the CAR Contingency and Emergency Response Coordination Team (CAR CERT) and other information submitted to the ICAO NACC Regional Office.

4.3   The nature of the contingencies faced in the CAR Region during 2022 was the same as previous years. The number of air operations in the CAR Region has had a good recovery after the reduction due to the COVID-19 pandemic. Unfortunately, some States restrict the information they share on contingencies experienced on their systems, which limits the opportunity to analyse the effectiveness of the established controls and find systemic solutions.

4.4   Hurricanes and tropical storms continue to be one of the main threats to the civil aviation system in our Region. Most of the events follow their traditional form of evolution, beginning their formation near the Eastern Caribbean Islands. However, some events started as weather disturbances that become more active in the southern part of the Central Caribbean or on the coasts of Central America.

4.5   Social demonstrations and protests continue to be a matter to be taken into consideration by the CAR Region due to their tendency to affect not only local airport operations but also the continuity of operations in the upper airspace, since they put the facilities for ANS provision in a difficult situation, since they restrict the access and change of shift of key personnel as well as the resources to maintain these facilities.

4.6   Industrial actions by ATC personnel continue to occur in this region, either openly or through actions to reduce service capacity and continuity. The causes of these actions are sometimes related to changes or measures that are taken outside our Region, which are considered to affect the social conditions of ATC personnel.

4.7   The interruption of the regional telecommunications network, as well as the outages or lack of reliability in ATS surveillance systems are the failures that most affect the continuity of operations. Failures in flight plan processing systems also continue to affect services in the region.

4.8   The periodic update and review of contingency procedures must continue to be a priority for ATS in the region. The rehearsal and inclusion of contingency plans as part of the recurring training of ATC personnel must be assumed as a regional standard to ensure an effective response to contingencies.

4.9   Social events and changes in the working conditions of the States must continue to be closely monitored. One aspect to be taken into consideration is the degradation of the airspace classification in contingency situations. Coordination with the ATS service providers of adjacent airspaces can help to maintain better levels of service, as well as the application of contingency routes for arrivals and departures.

4.10   Due to the importance that Communication, Navigation and Surveillance (CNS) systems have on the sustainability of ANS, service providers must continue working to reduce the possibility of failure of these systems and improve recovery times.

4.11   Within the framework of the evaluation of the contingencies that occurred in 2022, the meeting identified the challenges derived from contingencies that occurred in FIRs in which the responsibility for the provision of ATS in the upper and lower airspace is assigned to different service providers. In this context, events were pointed out in which the lack of harmonization of contingency procedures in the upper and lower airspace was evidenced, as well as the lack of procedures for assigning routes and flight levels that allow the transition between these airspaces. The Meeting requested ICAO to evaluate these contingency plans and take action to ensure their harmonization. It was also recognized that closer collaboration among States was required to ensure the efficiency of contingency operations, so the Meeting agreed on the following Conclusion:

CONCLUSION NAM/CAR/CONT/3/3	HARMONIZATION OF CONTINGENCY PROCEDURES IN THE CAR REGION UPPER AND LOWER AIRSPACE
What: That, to address identified challenges regarding the FIRs where the responsibility for the provision of ATS in the upper and lower airspaces is assigned to different States/Territories/Service Providers, ICAO a) in consultation with relevant States/Territories/Service Providers, evaluate the contingency plans for the CAR Region, to verify the harmonization of upper and lower airspace contingency procedures; and b) present the result of this evaluation to the NAM/CAR/CONT/3 Meeting, with any recommendation for improvement.	**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why:	

To ensure harmonization of contingency procedures in the upper and lower airspace of the CAR Region	
When: NAM/CAR/CONT/4	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☒ ICAO ☐ Other:	

Agenda Item 5   CAR Region Air Traffic Services (ATS) Contingency Plan

5.1   Under this Agenda Item, the Meeting reviewed the status of the ATM contingency plans for States/Territories/Service Providers of the CAR Region.

5.2   The Meeting noted the updates from Anguilla, Antigua and Barbuda, Barbados, Costa Rica, Cuba, Guatemala, and Honduras.

5.3   The Meeting encouraged States/Territories and International Organizations that provide ATS services in the CAR Region to comply with the ICAO requirements and regional agreements to submit and/or update their ATM contingency plans.

5.4   The contingency plans of several of the participating States/Territories and Service Providers were reviewed.

5.5   The CAR Region ATM Contingency Plan establishes a hierarchy of three levels for contingency plans:

- Level 1, for internal State plans dealing with internal/domestic coordination actions for the ANSPs;
- Level 2, for coordinated (inter-State) contingency plans involving two or more States; and
- Level 3, to detail contingency arrangements in the event of partial or total disruption of ATS designed to provide alternative routes, using existing airways in most cases, which will allow aircraft operators to fly through or avoid airspace within the relevant FIRs.

5.6   Level 1 Contingency Plans and Level 2 Contingency Arrangements are referenced but not included in the Plan. Level 3 Contingency Plans are published by States, Territories and International Organizations providing ATS in the CAR Region to provide information and expected actions in the event of partial or total disruption of ATS.

5.7   Following up discussions held at the NAM/CAR/CONT/2, the Meeting considered necessary to update the CAR Region ATM Contingency Plan, to include more guidance regarding Level 1 Contingency Plans. The following Conclusion was approved:

CONCLUSION **NAM/CAR/CONT/3/4**		**ENHANCED GUIDANCE FOR INTERNAL AIR NAVIGATION SERVICE PROVIDERS (ANSPs) CONTINGENCY PLANS**

What:
 	
 That, in order to improve the guidance provided to States for the development of internal contingency plans, the Secretariat
 	
   a) collect relevant information that supports the development of internal contingency plans for air navigation service providers in the CAR Region; and
 	
   b) present said information to the NAM/CAR/CONT/4 Meeting as a proposal to update the CAR Region ATM contingency plan.
		Expected impact:
		
		 ☐ Political / Global
		 ☐ Inter-regional
		 ☐ Economic
		 ☐ Environmental
		 ☒ Operational/Technical

Why: To include more guidance in the CAR Region ATM Contingency Plan		
When: NAM/CAR/CONT/4	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☐ States ☒ ICAO ☐ Other:		

Agenda Item 6   CAR Region Contingencies Table-Top Exercise

6.1   With P/03 CADENA presented how they conduct their annual hurricane/tropical storm training. The presentation went over the two main sections of the CADENA hurricane training, the refresher training section, and the hurricane exercise. The presentation also included the materials they use to conduct the training.

6.2   CADENA conducted its first Hurricane Training for the Latin America and Caribbean region in the spring of 2017. CADENA has continued to provide Hurricane Training for the LAC region once each year. Hurricane Training participants include LAC region ANSPs, airlines, and other stakeholders.

6.3   The Hurricane/Tropical Storm refresher training consists of a review of CADENA's training philosophy and the Hurricane/Tropical Storm section of the CADENA ATFM/CDM Procedures Manual.

6.4   Several days before the Hurricane/Tropical Storm exercise, participating ANSPs are provided with the hurricane/tropical storm simulation details: Level of hurricane, Projected path, Forecasts (timeline), etc. The details of the hurricane are based on historical hurricane events. Each year, the path of the hurricane is varied to provide an opportunity for other ANSPs to participate. Hurricane Web Planning hosts are also alternated from year-to-year. Participating ANSPs prepare Hurricane Web Conference slides (CADENA ATFM/CDM Procedures Manual – Appendix E) based on the information provided. A day or two before the exercise, the participating ANSPs send the slides to CADENA Headquarters.

6.5   The Secretariat presented the following list of contingencies that occurred in 2022:
- Staff shortage in an Air Traffic Control Centre (ATC zero)
- RADAR Failure in an Air Traffic Control Centre (airspace restricted).
- RADAR Failure in an Approach Control Office (airspace restricted/conventional procedures)
- Evacuation of an Air Traffic Control Unit.
- Failure of MEVA network.
- Social unrest.
- Hurricane, tropical storm effect.

6.6   The Meeting analysed each of the scenarios and the participants provided information on how their contingency plans addressed each of the events indicated, providing opportunities to compare and assume good practices.

6.7   The main recommendation for improvement resulting from this analysis is the need to harmonize ATS contingency procedures between service providers in upper and lower airspace. This recommendation was outlined as a Decision in Agenda Item 4.

Agenda Item 7   **Other Business**

7.1   There were no items discussed under this Agenda Item.