



ICAO

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

# **First Meeting for the Establishment of Caribbean Regional Accident and Incident Organization (CARAIO)**

## **Final Report**

### **SUMMARY OF DISCUSSIONS**

Mexico City, Mexico

21-22 February 2017

**First Meeting for the Establishment of Caribbean Regional Accident Investigation Organization  
(CARAIO)**

**Summary of Discussions**

<b>Date</b>	21 to 22 February 2017
<b>Location</b>	ICAO North American, Central American and Caribbean Regional (NACC) Regional Office, Mexico City, Mexico.
<b>Meeting Opening</b>	<p>The Meeting was attended by nine participants from CAR Regional Safety Oversight Organizations (RSOOs) and ICAO as shown in <b>Appendix A</b>. United States (National Transportation Safety Board – NTSB) sent excuses for not attending the meeting.</p> <p>Mr. Melvin Cintron, Regional Director, ICAO NACC Regional Office, welcomed the participants, highlighted the importance of launching this ambitious project for the CAR Region, and acknowledged the contribution of Caribbean Aviation Safety and Security Oversight System (CASSOS), <i>Corporacion Centroamericana de Servicios de Navegacion Area/Agencia Centroamericana de Seguridad Aérea</i> (COCESNA/ACSA) and ICAO for this purpose.</p> <p>Mr. Julio Siu, Deputy Regional Director, served as Secretary of the Meeting, assisted by Messrs.; Mr. Marcus Costa, Chief, Accident Investigation (AIG) Section from ICAO Headquarters; Eduardo Chacin, Regional Officer, Flight Safety; and Gilbert Ordoñez, Regional Officer, Flight Safety 2; from the ICAO NACC Regional Office.</p>
<b>Discussion Items</b>	
<b>Agenda Item 1:</b>	<p><b>Approval of the Provisional Agenda and Work Schedule</b></p> <p>1.1 The Meeting adopted the agenda and approved the working schedule presented in WP/01. The documentation for the Meeting was available in English at the following website: <a href="http://www2010.icao.int/NACC/Pages/meetings-2017-caraio.aspx">http://www2010.icao.int/NACC/Pages/meetings-2017-caraio.aspx</a></p>
<b>Agenda Item 2:</b>	<p><b>Overview of Accident Investigation and Prevention (AIG) Status in Caribbean and Central American States</b></p> <p>2.1 The following documentation was presented and discussed by the Meeting: WP/05, P/01, P/02 and P/03.</p>

2.2 The Meeting noted that Annex 13 to the Convention on International Civil Aviation – *Aircraft Accident and Incident Investigation* requires that the State of Occurrence shall institute an investigation into the circumstances of the accident and be responsible for the conduct of the investigation, but it may delegate the whole or any part of the conducting of such investigation to another State or a regional accident and incident investigation organization by mutual arrangement and consent.

2.3 In regard to the Regional Accident and Incident Organization (RAIO) concept, as stated in the ICAO *Manual on Regional Accident and Incident Investigation Organization* (Doc 9946), the Meeting noted that it is an effective and efficient mean for States to achieve the desired level of implementation of accident and incident investigation without giving up their sovereignty or responsibilities. It eliminates duplication of efforts, and achieves economies of scale. Through this concept investigators in the Region will gain experience quicker, and States will achieve independence of investigations.

2.4 It was highlighted that for a RAIO being effective, it is essential that all Member States of the RAIO be represented in its Board.

2.5 The Meeting learned that a RAIO shall be functionally independent from other States aviation organizations such as the RSOOs. Therefore agreed on the following conclusion:

#### **CONCLUSION**

#### **CARAIO 1/1 INDEPENDENCE OF RAIO FROM OTHER STATES AVIATION ORGANIZATIONS**

That in order to have RAIOS independent-functionally from other States aviation organizations:

- a) *Grupo Regional de Investigación de Accidentes Aéreos* (GRIAA) and the Caribbean Regional Accident Investigation Organization (CARAIO) include in its implementation plans a transition phase for its independence from COCESNA and CASSOS respectively by December 2017;
- b) CASSOS adjust its RAIO name to denote Caribbean Regional Accident and Incident Organization (CARAIO); and
- c) the agreement establishing the CARAIO be registered with ICAO, as per Art. 83 of the Convention on International Civil Aviation, as soon as it is available.

2.6 The Meeting was briefed on the background of the CARAIO proposal and the actions conducted by ICAO and the stakeholders to support Conclusion NACC/DCA/6/5 - *Establishment of a RAIO in the CAR Region*.

2.7 The Meeting agreed that for proper establishment of the CARAIO, a joint effort between CASSOS and COCESNA under the Memorandum of Cooperation (MoC) signed between both RSOOs would be necessary. The ICAO NACC Regional Office will assist in the coordination as required.

2.8 The Meeting acknowledged that for the development of the CARAIO, the following items will be included under 2017 CARAIO outcomes to be defined and arranged, being part of the project development:

- a) Elaboration of the necessary set of regulations and documents in accordance with ICAO guidelines that will allow standardization procedures for carrying out accidents and incidents investigations for CASSOS Member States within a common and harmonized framework.
- b) Revision of Accident Investigation (AIG) related Protocol Questions (PQs) of the Universal Safety Oversight Audit Programme (USOAP), and the impact of CARAIO in resolving them.
- c) Signing of an agreement by the accident and incident investigation authorities of the CARAIO and GRIAA Member States for regional cooperation and for the use of the following resources:
  - 1. Investigators or other specialists related to the field of AIG;
  - 2. technical facilities;
  - 3. equipment related to accidents and serious incidents investigations;
  - 4. training, including On-the-Job Training (OJT);
  - 5. read-out of flight data recorders and cockpit voice recorders;
  - 6. material and fluids trials; and
  - 7. elaboration of documents and other publications.
- d) Establishment of a website where all the documents and activities developed by CARAIO be posted.
- e) Establishment of a safety data collection and processing system to guarantee the collection, storage, and management of accidents and incidents data of Member States. This system will permit establishing the necessary preventive measures to improve safety in the Region.

- f) Consideration of the harmonization of regulations, activities with multinational teams to facilitate accident and incident investigation assistance, training activities, workshops, meetings, and implementation of Accident/Incident Reporting/European Coordination Centre for Accident and Incident Reporting Systems (ADREP/ECCAIRS) in the annual activities programme.

2.9 The Meeting was informed that:

- a) CASSOS Member States need CARAIO due to a number of identified deficiencies regarding AIG issues. Therefore, CASSOS Board supports the creation of CARAIO and acknowledged the assistance of the ICAO NACC Regional Office and COCESNA on this issue.
- b) The CASSOS AIG Standing Committee developed Terms of Reference (TOR), which were approved by the Board, and submitted to ICAO for review. CASSOS will update them based on ICAO guidance by **31 March 2017**.
- c) CASSOS developed an accident protocol for the deployment of an accident investigation team, and submitted it to ICAO for review. CASSOS will update the document based on ICAO guidance and integrate it in the CASSOS AIG Manual by **31 March 2017**.
- d) CASSOS distributed the Jamaica and Barbados' AIG Manual for review.
- e) CASSOS established an aircraft accident investigation "Go-Team" and a "Go-Team kit" for assisting in the initial response to an aircraft accident or incident. CASSOS will inform ICAO of this pool of investigators, including their current training status and areas of expertise by **31 March 2017**.
- f) CASSOS will develop its activities to be integrated into the CARAIO Establishment Plan by **19 April 2017**
- g) CASSOS has the status of observer on the AIG Regional Cooperation Mechanism (ARCM) of South America since 2016.
- h) CASSOS expects from CARAIO the following:
  - a. facilitate regional training and cooperation;
  - b. exchange of safety information;
  - c. improve and enhance accident and incident investigation effectiveness;

- d. improve and enhance reporting occurrences;
  - e. reduce fatality risks from accidents and incidents; and
  - f. improve USOAP-CMA results in CASSOS Member States.
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- i) CASSOS will draft a CARAIO Memorandum of Agreement (MoA) based on ICAO Doc 9946 sample to be approved/signed by all CASSOS Members States, **by 31 March 2017**.
  - j) COCESNA will provide its Aircraft Accident Investigation Manual to CASSOS to assist in the documentation/procedures development, by **31 March 2017**.

2.10 The Meeting agreed on the actions/activities/tasks determined for each stakeholder under this agenda item, which will be incorporated in to the project schedule.

**Agenda Item 3:**

**Project Description - Phase I / Project Composition**

3.1 Under WP/02, the Meeting was informed that the ICAO Safety Fund (SAFE) Project for CARAIO presented by ICAO NACC Regional Office to ICAO Headquarters was approved for 2017.

3.2 The Meeting learned that the Project Proposal for the establishment of CARAIO was formulated in two phases.

3.3 Phase 1 – Planning

- a) CARAIO Study: conduct a feasibility study for the establishment of the CARAIO in coordination with ICAO NACC RO, ICAO HQs AIG Section, United States National Transportation Safety Board (NTSB) COCESNA, etc.
- b) CASSOS Member States Accident and Incident Investigation Capacity Building Assessment:
  - a. Conduct study to determine existing capabilities (both human and material) of every CASSOS Member State to carry out their investigation responsibilities, such as number of qualified personnel, research and analysis institutions, and facilities to carry out flight data recorder analysis;
  - b. develop CARAIO models/options that best suits CASSOS Member States, including recommendations and financial resources to ensure its sustainability; and

- c. develop a regional training programme in coordination with ICAO Global Aviation Training (GAT), NAM/CAR Training Centers, etc.
- d. CASSOS Member States Accident and Incident Investigation Action Plan: an action plan for the development of the CARAIO was developed and presented by CASSOS.

3.4 Phase 2 – The establishment of CARAIO will be defined in the Fourth Meeting of the Project, based on the progress achieved during Phase 1 – *Planning*.

3.5 The Meeting agreed with the project proposal and encouraged the ICAO NACC RO to expedite the process of contracting the Subject Matter Expert (SME) needed for Phase 1 – Planning of the Project.

**Agenda Item 4:**

**Proposed CARAIO Project Schedule**

4.1 Under WP/03, the Meeting agreed with the timelines, activities, and responsibilities included in the Project Schedule. This included the identification of some tasks that can be mutually beneficial for GRIAA and CARAIO, and that can be executed within this Project. The original schedule was complemented with the actions/tasks discussed under Agenda Items 2 and 5. The schedule is presented at **Appendix B**. The following decision was agreed:

**DECISION**

**CARAIO 1/2 CARAIO PROJECT SCHEDULE**

That, in order to start the establishment of the CARAIO, CASSOS Member States and COCESNA Member States agreed on the CARAIO Project Schedule in Appendix B .

**Agenda Item 5:**

**Training Support and In-kind Contributions**

5.1 Under WP/07, the Meeting discussed the possibility of getting in-kind contributions and other support for the project execution from the United States NTSB and industry such as Airbus, Boeing, and Embraer.

5.2 The Meeting was informed that GRIAA received support from the Regional Aviation Safety Group – Panamerica (RASG-PA).

5.3 The NACC Regional Office RD mentioned the possibility of getting funding from the Turkish Cooperation Agency (TIKA) in Mexico for the establishment of the CARAIO.

5.4 The Meeting agreed to contact other organizations to seek training support for the activities regarding the establishment of the CARAIO such as: Aeronautical Accidents Investigation and Prevention Center (CENIPA), Brazil; *Bureau d'Enquêtes et d'Analyses* (BEA), France; Singapore Aviation Academy (SAA), Singapore; and *Instituto Centroamericano de Capacitación Aeronáutica* (ICCAE), COCESNA.

5.5 The Secretariat also mentioned the possibility of the development of an AIG course by the *Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares "Ing. Roberto Kobeh González"*, (CIIASA) (TRAINAIR PLUS) Center of Excellence, in Mexico City, Mexico, with the participation of other stakeholders such as: *Dirección General de Aeronáutica Civil* (DGAC) of Mexico, *Colegio de Pilotos Aviadores de Mexico* (CPAM), etc.

5.6 In this regard the following conclusion was formulated:

**CONCLUSION**

**CARAIO 1/3 TRAINING SUPPORT AND IN KIND CONTRIBUTION FOR CARAIO**

That in order to support the development of the CARAIO ICAO, CASSOS, and COCESNA contact AIG-related entities for support (including NTSB, CENIPA, BEA, and SAA).

**Agenda Item 6:**

**Draft Terms of Reference (ToRs) for AIG – RAIO Expert**

6.1 Under WP/06, the Meeting discussed and amended the ToRs for contracting an AIG SME to support CARAIO's implementation according to Phase 1 - *Planning* of the Project. See **Appendix C**. The Meeting agreed on the following decision:

**DECISION**

**CARAIO 1/4 APPROVAL OF TORS FOR AIG RAIO EXPERT**

That, in order to proceed with the hiring of the AIG SME for CARAIO, the ToRs included in Appendix C are approved in principle.

6.2 The Meeting agreed that the Secretariat will coordinate with the ICAO Technical Cooperation Bureau (TCB) the recruitment of the SME.

**Agenda Item 7:**

**Other Business**

7.1 Under WP/04, the Secretariat informed the Meeting on the ICAO activities to promote the collaboration and agreement on regional solutions, such as the RAIO, as a cost-effective and sustainable solution for resolving AIG issues and achieving safety improvements.



7.2 The Secretariat also informed the Meeting that ICAO is organizing the Forum on Regional Safety Oversight Organizations (RSOOs) for Global Aviation Safety in Mbabane, Swaziland, from 22 to 24 March 2017, with the objective of addressing the sustainability and effectiveness of RSOOs. CASSOS and COCESNA confirmed their participation in the Forum.

7.3 Additionally, CASSOS and COCESNA agreed to present a joint working paper on CARAIO/GRIAA issues at the Seventh Meeting of the North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/07).

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## APPENDIX A

## LIST OF PARTICIPANTS

Name / Position	Administration / Organization	Telephone / E-mail
<b>CASSOS</b>		
<b>Christopher Kirkcaldy</b> Chairman, CASSOS AIG Standing Committee	CASSOS	Tel. +1592-225-6822 E-mail ckirkcaldy@gcaa-gy.org
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# APPENDIX B

ID	Task Name	Start	Finish	Resource Names	Text1	November	January	March	May	July	September	November	January	March	May	July	September							
						0/10/11	1/11/12	2/12/12	3/01/13	4/02/13	5/03/13	6/04/13	7/05/13	8/06/13	9/07/13	10/08/13	11/09/13	12/10/13	1/11/14	2/12/14	3/01/15	4/02/15	5/03/15	6/04/15
1	Kick-off Meeting	Tue 21/02/17	Wed 22/02/17	CASSOS,NACC,1 HQICAO NACC																				
2	Update of ToRs of CASSOS AIG Standing Committee based on ICAO guidance	Thu 23/02/17	Fri 31/03/17	CASSOS	CASSOS actions for CARAIO establishment																			
3	Update of CASSOS AIG Protocol following ICAO guidance and integrate it into AIG Manual	Thu 23/02/17	Fri 31/03/17	CASSOS	CASSOS actions for CARAIO establishment																			
4	Inform of CASSOS pool of Investigators - including current training status and areas of expertise	Thu 23/02/17	Fri 31/03/17	CASSOS	CASSOS actions for CARAIO establishment																			
5	Resulting from CASSOS deliberations- inform ICAO on new actions to be included or change to existing CARAIO Action Plan	Thu 23/02/17	Wed 19/04/17	CASSOS	CASSOS actions for CARAIO establishment																			
6	ACSA will share their AIG Manual to CASSOS for CARAIO documentation development	Thu 23/02/17	Fri 31/03/17	COCESNA/ACSA	CASSOS actions for CARAIO establishment																			
7	Contact other organizations to seek training support for CARAIO establishment	Thu 23/02/17	Fri 29/12/17	CASSOS,NACC,COCI	In kind support and other contributions																			
8	Development of AIG course by CIASA for CARAIO	Thu 23/02/17	Fri 29/12/17	NACC	In kind support and other contributions																			
9	ToR of Subject Matter Expert (Feasibility study, training plan and support for workshop)	Thu 23/02/17	Wed 08/03/17	NACC,HQ																				
10	Data gathering for CASSOS AIG Committee/CASSOS	Thu 09/03/17	Wed 19/04/17	CASSOS	in house work by CASSOS/NACC																			
11	SME contracting period	Thu 09/03/17	Tue 11/04/17	NACC																				
12	SME work- part 1 (feasibility analysis, training plan)	Wed 12/04/17	Wed 03/05/17		ICAO NACC																			
13	2th Meeting CARAIO	Mon 15/05/17	Fri 19/05/17																					
14	3 days workshop - supported by SME	Mon 15/05/17	Wed 17/05/17	CASSOS,NACC,NTSE	CASSOS Facilities: Kingston																			
15	2 days CARAIO meeting	Thu 18/05/17	Fri 19/05/17	CASSOS,NACC,HQ	CASSOS Facilities: Kingston																			
16	21th CASSOS Board of Director Meeting- CARAIO presentation- results	Mon 15/05/17	Mon 15/05/17	CASSOS,NACC	TBD- approval of activities																			
17	Documentation review and updates- development	Tue 16/05/17	Fri 04/08/17	CASSOS,NACC	in house work by CASSOS/NACC																			
18	3th CARAIO Meeting/ AIG Workshop	Mon 07/08/17	Fri 11/08/17	CASSOS,NACC,NTSE	NACC facilities																			
19	Presentation of Working Paper on CARAIO/GRIAA matters for NACC/DCA/7 Meeting	Thu 23/02/17	Thu 17/08/17	CASSOS,COCESNA/																				
20	4th CARAIO Meeting/workshop- II phase formulation	Mon 13/11/17	Fri 17/11/17	CASSOS,NACC,NTSE	CASSOS Facilities: Kingston																			
21	22th CASSOS Board of Director Meeting- CARAIO presentation- Phase II proposal	Wed 22/11/17	Wed 22/11/17	CASSOS,NACC	TBD- approval of Phase II activities and seek funds																			
22	Inclusion of transition Phase for CARAIO and GRIAA AIG independence	Thu 23/02/17	Fri 29/12/17	CASSOS,COCESNA/																				
23	CARAIO establishment agreement to be registered in ICAO as per Art. 83 of Chicago convention	Thu 23/02/17	Fri 29/12/17	CASSOS																				

**APPENDIX C****DRAFT TERMS OF REFERENCE (TORs) FOR CARAIO AIG EXPERT**

**Title:** AIG Subject Matter Expert

**Duration:** 6 months

**Qualification Requirements:**

1. University degree in aeronautical engineering or equivalent qualification. Recognized professional qualifications gained over a period of at least 10 years of experience in aviation related fields, such as: operations, airworthiness, and quality systems.
2. Five years of experience at a supervisory level of governmental regulatory practices in accident investigations administration.
3. Formal training in aircraft accident investigation
4. Have served as IIC (Investigator in charge) of the management of the investigation of accidents and incidents.
5. Working knowledge of ICAO Standards and Recommended Practices (SARPs) and related documentation.
6. Fluent in the English language. Proven ability in preparing investigation reports and similar documents. Basic knowledge of Spanish is desirable.
7. Initiative, tact, sound judgment and ability to maintain harmonious relationships.

**Competencies:**

1. **Judgment/decision-making:** Proven ability to take ownership of all responsibilities and to honour commitments, to exercise mature judgment, to recognize key issues and analyse relevant information, to make feasible recommendations and to take sound decisions.
2. **Communication:** Ability to write clearly and concisely and to present articulate verbal reports.
3. **Teamwork:** Ability to work with colleagues to achieve the project goals and maintain harmonious working relationships in a multinational environment.
4. **Client Orientation:** Ability to establish and maintain partnerships with external collaborators, to work and advocate effectively in a consensus-based system and to successfully manage and resolve conflict.
5. **Technological awareness:** Ability to use contemporary office automation equipment, software, databases.

**Deliverables:**

**Perform the feasibility analysis for the establishment of CARAIO, which includes:**

- a) perform an AIG gap analysis, including the manpower requirements, in the CASSOS States in accordance with ICAO AIG SARPs and Guidance Material;
- b) review and identify national procedures regarding its compliance with ICAO AIG related SARPs and guidelines;
- c) review and identify updates on AIG documentation for implementation of CARAIO; and
- d) review the draft memorandum of agreement for the establishment of CARAIO.

**Duration:** Four (4) weeks

**Training needs**

- a) Assess the training needs of the AIG qualified Investigators in CASSOS Members States; and
- b) identify training programmes necessary for CARAIO Investigators.

**Duration:** One (1) week

**Presentation of deliverables in the first RAIO Workshop**

Present the above results at the CARAIO/GRIAA AIG workshop.

**Duration:** Five (5) days