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TECHNICAL COMMISSION

Agenda Item 36: Aviation safety and air navigation implementation support

CARIBBEAN AVIATION SAFETY AND SECURITY OVERSIGHT SYSTEM (CASSOS) PLAN FOR THE ESTABLISHMENT OF THE CASSOS REGIONAL ACCIDENT INVESTIGATION ORGANISATION (CARAIO)

(Presented by Jamaica on behalf of the CASSOS Members States: Barbados, Guyana, Haiti, Jamaica, the OECS¹, Suriname and Trinidad and Tobago)

EXECUTIVE SUMMARY

This paper highlights the activities that have been carried out to date toward the establishment of the CASSOS Regional Accident Investigation Organisation (CARAIO) within the Caribbean Aviation Safety and Security Oversight System (CASSOS). The CARAIO will improve and strengthen CASSOS Member States capabilities to investigate accidents and incidents both at the individual State level and Regional level. The progress made to date is highlighted in this working paper.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	
<i>References:</i>	Annex 13 — <i>Aircraft Accident and Incident Investigation</i> Annex 19 — <i>Safety Management</i> DOC 9946, <i>Manual on Regional Accident and Incident Investigation Organization</i>

¹ Namely, Antigua and Barbuda, Grenada, Saint Lucia, Saint Kitts and Nevis and Saint Vincent and the Grenadines

1. INTRODUCTION

1.1 In an attempt to comply with the mandate outlined under Annex 13 to the Convention on International Civil Aviation: *Aircraft Accident and Incident Investigation* which requires the State of Occurrence to initiate an investigation into the circumstances of the accident and be responsible for the conduct of the investigation, or the State may delegate the whole or any part of the investigation to another State or regional accident and incident investigation organization by mutual arrangement and consent, and under Annex 19 to the Convention on International Civil Aviation: *Safety Management* in reference to State Safety Programme (SSP) which requires the State to maintain the independence of the accident and incident investigation organization from other State's aviation organizations, the creation of a regional organisation to manage and carry out aircraft accident and incident investigation has become a reality in the Caribbean.

1.2 CASSOS Member States² often plagued by resource constraints in other areas face the reality of inadequately trained personnel, limited financial resources, lack of equipment, and lack of independence of the aircraft accident and incident investigation organization from member States civil aviation authorities or departments among other deficiencies, in this area as well. Furthermore, as shown in the ICAO Universal Safety Oversight Audit Programme – Continuous Monitoring Approach (USOAP - CMA) audit reports of States in the Region these efforts are badly needed.

1.3 The USOAP findings confirm that no Member State has succeeded in implementing an effective system of accident and incident investigation. The findings often indicate a lack of:

- a) Human and financial resources.
- b) Appropriate legislation and regulations.
- c) Independent organization to carry out accident and incident investigations.
- d) Applicable guidelines, procedures and policies.

2. THE IMPORTANCE AND BENEFITS OF A RAIIO FOR CASSOS MEMBER STATES

2.1 The establishment of a Regional Accident Investigation Organization (RAIO) for CASSOS Member States would go a far way in removing these current deficiencies as resources both human and financial etc. would be shared amongst Member States.

2.2 The creation of the RAIO does not remove or affect Member States sovereignty or the authority and responsibility they have been assigned under Annex 13 to the Convention on International Civil Aviation: *Aircraft Accident and Incident Investigation*. In fact, the RAIO will strengthen and improve collaboration and experience sharing between States producing other benefits including:

- a) *No duplication of effort*: resources-human, technical, financial, laboratories, equipment etc. would be centralised;

² Barbados, Guyana, Haiti, Jamaica, Suriname, the OECS and Trinidad and Tobago

- b) **Collaboration:** gathering, analysis and sharing of information on accidents and incidents will be collaborative;
- c) **Integration:** improve the progress of integration of the Member States leading to greater solidarity;
- d) **Standardization:** accident and incident investigation regulation and procedures would be standardised;
- e) **Training:** accident investigators' training (theory, On the job training etc.) would be standardized in the region;
- f) **Credibility:** regional independence and achievement of credibility in accident and incident investigation since investigations would be performed by the RAIO; and
- g) **Group Advantage:** each State brings its expertise to the RAIO to achieve one common goal.

3. THE RAIO SOLUTION

3.1 The ICAO encourages States to implement an adequately funded, professionally trained accident investigation authority and at the Sixth Meeting of the North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/06) held in Nassau, Bahamas, 10-12 May 2016, the ICAO Secretariat pointed out that Annexes 13 and 19 and ICAO DOC 9946 *Manual on Regional Accident and Incident Investigation Organization (RAIO)* provide guidance to Member States on how to establish and manage an accident and incident investigation system.

3.2 Noting that CASSOS Member States can also benefit from collaboration with the Central American States established GRIAA (Grupo Regional de Investigación de Accidentes Aéreos), which is supported by the Regional Aviation Safety Group – Pan America (RASG-PA) and lead by the Corporación Centroamericana de Servicios a la Navegación Aérea (COCESNA/ACSA) and that CASSOS having signed an MOC with COCESNA in May 2016 is in a good position to benefit from the sharing of best practices and practical implementation ideas in their creation of a RAIO.

4. THE PROPOSAL TO ESTABLISH A RAIO FOR CASSOS

4.1 At the mentioned NACC/DCA/6 Meeting, the ICAO Secretariat proposed the establishment of a RAIO for CASSOS Member States by providing economies of scale through the sharing of the necessary financial and human resources under the ICAO NACC Regional Office “No Country Left Behind” (NCLB) Strategy. The proposal shall allow:

- a) CASSOS Member States to comply with their investigation obligations as established by ICAO SARPs in order to contribute to a safer international air transportation system; and
- b) Enhance a CAR Regional Cooperation Mechanism, increasing the maturity level of the States on the implementation of the ICAO SARPs.

4.2 The proposal's task structure:

- a) A number of tasks have been identified as follows:
 - 1) A feasibility study for establishing the RAIO will be conducted in collaboration with ICAO HQ AIG Section, COCESNA/ACSA, and other accident investigation agencies;
 - 2) A study will be carried out to identify existing capabilities (both human and material) of individual States to carry out their investigation responsibilities. This study will identify the number of qualified personnel, research and analysis institutions, and facilities currently in States to carry out flight data recorder readout and analysis;
 - 3) A regional training programme will be developed in collaboration with ICAO Global Aviation Training (GAT), NAM/ CAR Training Centres, etc.;
 - 4) An Action Plan for improving Member States AIG performance under the ICAO USOAP - CMA will be developed; and
 - 5) An Action Plan for effective implementation of a RAIO in CASSOS will also be developed.

5. MAIN OBJECTIVES

5.1 The main objectives of the project will be:

- a) CASSOS Member States will not only comply with their investigation obligations, as established by ICAO SARPs, but will also contribute to a safer international air transportation system; and
- b) This CAR Regional Cooperation Mechanism is expected to improve member States the implementation of the ICAO SARPs.

6. PROJECT AREAS

6.1 CASSOS Regional Accident and Incident Investigation Organization (CARAIO)

- a) Conduct a feasibility study for the establishment of the CARAIO in coordination with ICAO HQ AIG Section, COCESNA/ACSA, and other accident investigation agencies.

6.2 CASSOS Member States AIG Capacity Building Assistance Programme

- a) Conduct study to determine existing capabilities (both human and material) of individual States to carry out their investigation responsibilities, such as number of

qualified personnel, research and analysis institutions, and facilities to carry out flight data recorder readout and analysis;

- b) Develop a regional training programme in coordination with ICAO GAT, NAM/ CAR Training Centres, etc.

6.3 **CASSOS Member States Technical Assistance Programme**

- a) Develop an Action Plan for improving AIG area under USOAP-CMA;
- b) Develop an Action Plan for effective implementation of the CARAIO.

7. **EXPECTED OUTCOME OF THE CARAIO PROJECT**

7.1 The expected outcome of the CARAIO Project will be:

- a) Facilitate regional training, cooperation and the exchange of safety information for AIG activities not only among CASSOS Member States but also other NAM and CAR States as well;
- b) Improve and enhance accident and incident investigation rate and quality;
- c) Improve and enhance reporting of occurrences;
- d) Reduce fatality risks from accidents and incidents; and
- e) Improve USOAP-CMA results in CASSOS Member States.

8. **THE ESTABLISHMENT OF CARAIO**

8.1 The action items from the first teleconference held 7 June 2016 were:

ACT 01/01: ICAO NACC RO and CASSOS will draft a tentative action plan for the CARAIO for the National Transportation Safety Board (NTSB) of United States and COCESNA/ACSA to comment and review by 29 July 2016 – Done

ACT 02/01: ICAO NACC RO and CASSOS will draft Terms of Reference (TORs) for the CARAIO Team for NTSB and COCESNA/ACSA to comment and review by 29 July 2016 - In progress

9. **THE CASSOS ACTION PLAN**

9.1 The Action Plan (AP) developed presents the steps to be taken toward establishing the CARAIO within CASSOS as well as confirming that this organisation will support aircraft accidents and incidents investigation and the improvement of safety in the Region. The AP is presented at the **Appendix**.

9.2 The AP invites the CASSOS Board of Directors' to:

- a) Take note of the creation of the CARAIO;
- b) Urge the CASSOS Member States to subscribe agreements with the CARAIO to strengthen regional AIG cooperation; and
- c) Support the CARAIO in achieving its objective addressed to improve effective implementation (EI) of the ICAO SARPs by its member States in order to reduce the regional aircrafts accidents and incidents rate.

10. CONCLUSIONS

10.1 The Assembly is invited to note:

- a) CASSOS' commitment to the development of the CARAIO;
- b) the progress made by CASSOS in the development of the CARAIO;
- c) CASSOS' commitment to meeting the standards mandated by ICAO;
- d) CASSOS's commitment to working in partnership with various organisations including COCESNA, Unites States NTSB, etc., under the leadership of ICAO NACC Regional Office; and that
- e) CASSOS is committed to the enhancement of safety in the Region.

APPENDIX



ACTION PLAN

**ESTABLISHMENT OF A
REGIONAL ACCIDENT
INVESTIGATION ORGANISATION
WITHIN THE CARIBBEAN
AVIATION SAFETY AND SECURITY
OVERSIGHT SYSTEM**

SUMMARY

This Action Plan presents the steps toward establishing a Regional Accident Investigation Organisation (RAIO) of the group of States represented by the Caribbean Aviation Safety and Oversight System (CASSOS) as well as confirming that this organisation will support aircraft accidents and incidents investigation and the improvement of safety in the Region.

AIG Group Decision

The Group invites to:

1. Take note of the creation of the AIG Regional Accident Investigation Organisation of CASSOS (CARAIO)
2. Urge the CASSOS States to subscribe agreements with the CARAIO to strengthen regional AIG cooperation; and
3. Support the CARAIO in achieving its objective addressed to improve effective implementation (EI) of its member States and to reduce the aircrafts accidents and incidents rate in the Region.

<i>Strategic objectives:</i>	<ul style="list-style-type: none"> • Compliance with the ICAO requirement under the Revised Annex 13 for States to establish an aircraft accident investigation body independent of the CAA. • Improved Effective Implementation within the concept of the No Country Left Behind (NCLB) approach by ICAO. • Improved accident investigation capability within the CASSOS group of states.
<i>Financial considerations</i>	<ul style="list-style-type: none"> • The preparation of an estimate of the funding level required for the operation. • Identify the resources required to establish and manage the organization. • Identify Funding partners.
<i>Legal considerations</i>	<ul style="list-style-type: none"> • CASSOS and ICAO to consider the need to have a legal entity to strengthen the AIG group • A short term the mechanism shall be defined. • In the medium-long term, the legislations for each country to be defined.
<i>References:</i>	<ul style="list-style-type: none"> • Minutes of the Teleconference Establishment of CASSOS Regional AIG organization (CARAIO)(7 June 2016) • NACC/DCA/6 RAIO discussion matters • ICAO Document 9946- Manual on Regional Accident and Incident Investigation Organization (RAIO) • Working Paper A39-WP/ TE/13/05/16 • NACC/DCA/6/4

1. INTRODUCTION

1.1 Under Presentation NACC/DCA/6/4-Agenda item 4, the Secretariat commented on the lack or low level of Effective Implementation (EI) observed in the Caribbean States and particular CASSOS. Similarly the Meeting recalled that CASSOS has requested ICAO and other related entities like COCESNA/GRIAA to provide assistance for a regional solution on improving AIG oversight and investigations. In this regard a teleconference was convened to discuss the feasibility of the formation of a CASSOS Regional AIG (CARAIO), with the vision of improving the effective implementation (EI) of its States and to support the decrease of aircrafts accidents and incidents rate in the CASSOS Region.

1.2 The establishment the CARAIO for CASSOS member states will be accomplished by by providing economies of scale through the sharing of the necessary financial and human resources under the NACC “No Country Left Behind. It was agreed that the Region consider the following:

- a) Conduct a feasibility study for the establishment of the RAIIO in coordination with ICAO HQ AIG Section, COCESNA/ACSA, and other accident investigation agencies
- b) Conduct study to determine existing capabilities (both human and material) of individual States to carry out their investigation responsibilities, such as number of qualified personnel, research and analysis institutions, and facilities to carry out flight data recorder readout and analysis
- c) Develop a regional training programme in coordination with ICAO GAT, NAM/ CAR Training Centers, etc.
- d) Develop an action plan for improving AIG area under USOAP-CMA
- e) Develop an action plan for effective implementation of a RAIIO

2. CARAIO ESTABLISHMENT AND MANAGEMENT

2.1 To establish the CARAIO the incumbent Group members will hold a series of virtual meetings with decisions made as to the number of face to face meetings to be conducted. The Group will develop the plan utilising ICAO document 9946 as the guide.

2.2 The following points emanating from the NACC/DCA /6 and the CASSOS 18th DCA meeting first need to be addressed:

2.2.1 Conduct a feasibility study for the establishment of the RAIIO in coordination with ICAO HQ AIG Section, COCESNA/ACSA, and other accident investigation agencies. The CASSOS AIG group will undertake to seek assistance with and accomplish this task over a four (4) month period to be completed by November 30th 2016.

2.2.2 Conduct study to determine existing capabilities (both human and material) of individual States to carry out their investigation responsibilities, such as number of qualified personnel, research and analysis institutions, and facilities to carry out flight data recorder readout and

analysis. The CASSOS AIG group agreed to undertake the study of their state capabilities. However it was the consensus of the group that some data analysis and the Flight Data recorder read out and analysis would have to be extra regional. This action is to be completed by July 30th2016.

2.2.3 Develop a regional training program: in coordination with ICAO, GAT, NAM/CAR...the CASSOS AIG group agreed that this would be discussed separately.

2.2.4 Develop an Action plan for improving AIG under USOAP –CMA: The CASSOS AIG group will discuss this at the next teleconference meeting August 3rd 2016 Guyana representative reported that Guyana had now ratified a separate Accident Investigation Unit, however at this point it was still being developed and was at the time of the meeting supported by the local CAA.

2.3 Develop for review a Draft Agreement between the CASSOS Group of States for the Establishment and Management of a Regional Accident and Investigation Organisation (CASSOS RAIO).

2.3.1 A Draft Agreement was developed utilizing the (document outline in Document 9946). The document was then circulated to the members for review by their Directors General. Some positive comments have been garnered. Interim approval of the document has been requested by each member of the group.

2.3.2. Further steps in developing the CARAIO:

- a) Group meeting to present current situation in the individual Authorities and agree on strategic plan to conform to the CARAIO.(February2017)
- b) AIG Group meet to formally establish the CARAIO with the necessary legislation and guidance materials for the AIG mechanism (December 2018)
- c) AIG Authorities meet to sign multinational technical cooperation agreement to facilitate the cooperation within the states. This would be the implementing mechanism for the sharing of knowledge and resources.(January /February2019)

2.3.3 During the stages of the process, States will have to agree on the benefits that can be obtained with the implementation of the mechanism, considering also that this could be the solution for States having difficulties in attending their international commitments in matter of accidents investigation.

2.3.4 The CARAIO participation is open to the AIG Authorities of States of the Region, as well as to State and/or private entities that, interested in accidents and incidents investigation, express their will to be part of the CARAIO as special observers.

3. MILESTONES

3.1. Regulations and documents: a set of regulations and documents is to be developed in accordance with ICAO documents guidelines, in order that the investigation organizations of the Region adopt or harmonise it. This will allow standardised procedures for carrying out accidents and incidents investigations in the region within a common and harmonised framework.

3.2. Data: a safety data collection and processing system (SDCPS) shall be established 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.

3.3 Assistance: a mechanism is to be developed to provide assistance is to those CASSOS states with low AIG effective implementation (EI) in particular for the revision of AIG protocol questions (PQ).

3.4 Website: the potential for developing a CARAIO website should be investigated. This would enhance the availability and distribution of information within the group.

3.5 Training: the potential for immediate recurrent training for incumbent Investigators and long-term training for new inspectors is to be actively pursued.

4. CONCLUSION

4.1 The CASSOS AIG (CARAIO) of the CASSOS group of States when established will be, without any doubt, a fundamental tool for the safety of aviation and the improvement of its member States and of the Region.

— END —