



Thirty Seventh Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting (ESC/37)

The Regional Aviation Safety Group - Pan America (RASG-PA)

REQUEST OF FUNDS TO NACC AIG TURNKEY PROJECT

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
<p>This Working Paper presents the NACC AIG Turnkey Project as a tool to assist Central American and Caribbean States, and Mexico in implementing requirements relating to the investigation of aviation accidents and incidents. The Project is structured in four phases, in order to cover all the requirements established by the ICAO's USOAP audit program and already has the sponsorship of the Federal Aviation Administration (FAA) and the RLA 09801 MCAAP Project, seeking with the RASG-PA only to top up the required funds.</p>	
Suggested action:	The Meeting is invited to:
<i>Strategic Objective:</i>	<ul style="list-style-type: none"> • Safety
<i>References:</i>	<ul style="list-style-type: none"> • Conclusion RASG-PA11/C3/2021, Strengthening of AIG Implementation • ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA)

1. Introduction

1.1 In the context of the NACC regions, available data indicate some important deficiencies in the area of accident and incident investigation (AIG), notably in Central America and the Caribbean (CAR). The first deficiency concerns the lack of independence. Only five States in the NACC regions have a fully independent authority and are in a position to institute investigations without interference. Currently, there are nineteen States whose civil aviation authority (CAA) holds the responsibility for investigating accidents and incidents.

1.2 This type of structure ends up prejudicing the investigation activity, affecting significantly its efficiency, which is not always perceived. In addition to generating potential conflicts of interest, it leads to a gradual demobilization of the AIG sector, since the CAA tends to prioritize regulatory and supervisory activities, to the detriment of investigation tasks that are considered by those same CAA as "subsidiary". This scenario was greatly reinforced with the advent of the pandemic, which significantly weakened the economy of the states in the region and, consequently, their authorities and aviation systems.

1.3 Another concern is closely related to the previous one and refers to the organization and staffing. Unfortunately, only a few States in the region allocate adequate staff (in quantity and quality) to meet AIG requirements. In the majority of the cases, being under the CAA is a great contributor, since the investigation activity is usually not seen as a CAA priority for allocation of resources when disputing to other areas of the authority.

1.4 The third major concern is related to the conduction of the investigation and is mostly based on the lack of appropriate implemented documentation (e.g. procedures, guidance material, policies, etc.). As a result, the CAR region presents a significant gap between the desirable and the existing investigation services.

1.5 Although proactive and predictive safety management strategies are constantly evolving, accident investigation remains as an essential tool for aviation accident prevention, functioning as a safeguard when these strategies fail. As an example, we have seen relevant design issues being captured in investigations recently (e.g. Boeing 737-max).

1.6 In addition, the investigation has proven to be very efficient in identifying certain types of shortcomings in the development of aeronautical authority functions (particularly in oversight processes), since the investigator is able to look at the aeronautical system from the outside.

1.7 Furthermore, investigation is a relevant source of data for the management of safety, contributing with the State Safety Programmes (SSP). In particular, in Central America and the Caribbean, where none of the States have even finish the implementation of level 3 of the SSP, investigations continue to be a very important source of information on safety deficiencies.

1.8 As a consequence, the current level of weakness in AIG activity in most Central American and Caribbean States, and Mexico significantly affects the ability to identify hazards and devise timely mitigation strategies.

1.9 With this in mind, and considering that aviation safety is independent of borders, it is essential to seek the improvement of national accident investigation systems, as a way of maintaining high levels of regional and global aviation safety.

1.10 The AIG Turnkey Project will definitely contribute to improve the efficiency of the investigation processes carried out by participant States, thus improving safety management.

2. Characteristics of the Project

2.1 As a way of mitigating these deficiencies, the AIG Turnkey Project aims to prepare States to understand and implement the requirements for the establishment of an efficient accident investigation service.

2.2 The project consists of a set of face-to-face assistance sessions covering the full spectrum of requirements reflected in the ICAO's Universal Safety Oversight Audit Programme (USOAP) protocol questions (PQs), particularly: primary aviation legislation, operational regulations, AIG processes, AIG systems, means and support measures investigation, specific procedures, training program and training records.

2.3 In each of the assistance sessions, participants will have the opportunity to study the requirements against their own civil aviation system, thus identifying the aspects they need better and, with the guidance of the instructor, developing the appropriate corrections to be proposed and/ or established and implemented.

2.4 Unlike other types of assistance, the project aims to provide the necessary knowledge and tools to participants so that each one can develop customized solutions for their own aviation systems.

3 Expected results

3.1 Since the project will cover all the requirements related to AIG, in an ideal scenario (i.e. will the participation of all concerned States and the political will to implement the necessary changes, especially in the primary legislation), we could expect those States to raise their effective implementation (EI) to 100%.

3.2 However, in a more realistic scenario and considering all the challenges associated with implementing many of those requirements, an average increase of at least 12% in AIG EI in the region can be expected within 18 months from the completion of the Project's Phase 4. An additional 8% increase can also be expected for the subsequent 12 months.

4 The required support from RASG-PA

4.1 As explained above, having AIG under the CAA invariably leads to a lack of prioritization in the allocation of resources for investigative services in the State. Therefore, any assistance initiative needs to consider the difficulties for the effective engagement of the authorities.

4.2 In other words, if the area of accident investigation has not been a priority in most states in the region, it would be unrealistic to expect states to prioritize financial resources for training their personnel in AIG. Thus, the aim of the project budget is to ensure the participation of a professional from each State in the assistance sessions to be provided. Therefore, the funds will be applied to the purchase of tickets and daily subsistence of the participants.

4.3 It is important to note that the project already has funds provided by the United States (USD 70,000 from the FAA) and by the Project RLA09801 — Multi-Regional Civil Aviation Assistance Programme - MCAAP (USD 90,000). What is being requested here is that RASG-PA only complements the estimated missing amount (USD 25,000).

5. Conclusions

5.1 The Meeting is invited to:

- a) Take note of the content of this document; and
- b) Approve the following Decision:

DECISION	
RASG-PA ESC/37/XX	NACC AIG Turnkey Project
<p>What:</p> <ul style="list-style-type: none"> • To support the participation of States from Central America and the Caribbean in the assistance sessions of the AIG Turnkey Project, aimed at building national capacity in AIG and pave the way for the future adoption of a regional approach <hr/> <p>How much:</p> <ul style="list-style-type: none"> • US \$ 25,000 to be used to complement air tickets purchase and per diem needs, in order to ensure the participation of States from CAR region 	<p>Expected impact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political/Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Tech.
<p>Why: The implementation of the Project will provide States with knowledge and tools to address the identified non-compliances, directly contributing to the improvement AIG national and regional EI, and consequently to reduce the operational safety risks. In addition, the project will contribute to the future adoption of a regional approach to AIG, promoting regional cooperation.</p>	
<p>When: <i>The Project is expected to be fully implemented by December 2022</i></p>	<p>Status: Valid</p>
<p>Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input checked="" type="checkbox"/> Other: COCESNA-GRIAA</p>	<p><i>Responsible: Fernando Camargo, NACC RO</i></p>

APPENDIX A – SUMMARY OF THE PROJECT

1. Name of the project, activity or initiative
NACC AIG Turnkey Project
2. Description of the project, activity or initiative
<i>The NACC AIG Turnkey Project consists of a series of sessions to provide "holding-hand" assistance in understanding and implementing international requirements for the establishment of an efficient and compliant accident investigation authority.</i>
3. Identification of the problem to be solved
<i>In the context of the NACC regions, available data indicate some important deficiencies in the AIG area, notably in Central America and the Caribbean (CAR), mainly related to the lack of:</i> - independence of the investigation authority and the investigation process; - appropriate organization and staffing; and - appropriate implemented documentation (e.g. regulation, policies, procedures, guidance material, etc.) <i>As a result, the CAR region presents a significant gap between the desirable and the existing investigation services.</i>
4. Project/Activity objectives
<i>The project aims at providing participant States with the necessary theoretical and practical knowledge to implement the relevant actions to comply with all international requirements related to AIG</i>
5. Expected benefits of the implementation of the solution, including the expected effect on one or more SPIs of the RASG-PA
<i>After the deployment of the project, it is expected that each of the participant State will:</i> 1- Improve the level of effective implementation in AIG (SPI: Overall Regional EI score), being able to: - Take action to amend their primary aviation legislation and operating regulation as applicable - Build the systems required for the AIG activity - Develop and establish the processes required in AIG - Develop and adopt the measures required in AIG - Obtain the means required for AIG - Establish and implement all the required procedures for the AIG activity - Establish and implement an AIG training programme 2- Achieve a reduction of operational safety risks, through an efficient accident and incident investigation process that can identify present and potential risks and propose safety recommendations to address those risks (SPI: Regional Accident rate) 3- Promote regional collaboration as a way of consolidating the knowledge acquired and ensuring its proper implementation with maximum use of available resources (Number of States contributing information on safety risks to RASGs and RO)
6. Description of the deliverables and deadlines for each deliverable
Phase 1 Deliverable: a) Draft proposal for amendment of primary aviation legislation tailored for each participating State to address the requirements of USOAP protocol questions (PQs) 1.001, 1.005, 6.003, 6.004, 6.021, 6.023, 6.025, 6.027, 6.029, and 6.031 b) Draft proposal for amendment of AIG regulation tailored for each participating State to address the requirements of USOAP PQs 6.006, 6.010, 6.007, 6.001, 6.033, 6.367, 6.371, 6.011, 6.035, and 6.401 Deadline: 21 May 2022
Phase 2: Deliverable: a) Draft proposal for the establishment, adoption and implementation of processes and measures required for AIG to comply with the requirements of the PQs 6.105, 6.113, 6.133, 6.135, 6.316, 6.343, 6.345, and 6.417 b) Draft proposal for the structuring and implementation of systems required for AIG to comply with the requirements of the PQs 6.103, 6.315, 6.383, 6.501, and 6.507 c) Draft proposal for the establishment or acquisition of facilities required for AIG to comply with the requirements of the PQs 6.010, 6.209, 6.210, 6.211, 6.311, and 6.359 Deadline: 24 June 2022
Phase 3

Deliverable:	<i>a) Draft proposal of procedures required for AIG tailored for each participating State to address the requirements of the PQs 6.015, 6.017, 6.316, 6.317, 6.319, 6.325, 6.327, 6.329, 6.347, 6.349, 6.361, 6.373, 6.381, 6.391, 6.395, 6.397, 6.405, 6.407, 6.409, 6.411, 6.413, 6.425, 6.427, 6.429, and 6.431</i>
Deadline:	<i>30 September 2022</i>
Phase 4:	
Deliverable:	<i>a) Draft proposal of an AIG training programme tailored for each participating State to address the requirements of the PQs 6.123, 6.125, and 6.129</i>
Deadline:	<i>2 December 2022</i>
7. Name of the ESC member that will champion the project, activity or initiative	
<i>Javier Vanegas</i>	
8. Name of the person responsible for its execution	
<i>Fernando Camargo (NACC RO)</i>	
9. Composition of the team that will work on the project, activity or initiative	
<i>Fernando Camargo (NACC RO), Oliver Lopez (NACC RO) y Claudia Lopez (NACC RO)</i>	
10. Amount of resources requested from RASG-PA, and the specific way in which they will be used	
<i>Funding requested: USD 25,000, to be used in support of the participation of the representative of the States (tickets and per diem)</i>	
<i>The amount requested aims to complement the funds already provided by US-FAA (USD 70,000) and from the Regional Project RLA09801 MCAAP (USD 90,000)</i>	

APPENDIX B – PROPOSED BUDGET

Phase	Activity	Location	Human Resources		Function	Duration (w/d)	Costs (USD)	Total per Phase
			Qty	Source				
1- Primary legislation and regulation	Preparation for the assistance session	NACC RO (Mexico City)	2	ICAO	Prepare the assistance sessions, including logistics, presentation and training materials	20	N/A	\$ 48,160
	Assistance session	Miami - USA (sponsored by FAA)	2	ICAO	Carry out assistance session	5	\$ 8,152	
			6	Mexico and CA States	Investigators/Trainees		FAA (CAP)	
			10	Caribbean States	Investigators/Trainees		\$ 40,008	
			1	GRIAA	Observer		FAA (CAP)	
Follow-up with participants	Virtual	2	ICAO	Follow-up teleconferences with participant States	5	N/A		
2 - Processes, Measures, Systems and Means	Preparation for the assistance session	NACC RO (Mexico City)	2	ICAO	Prepare the assistance sessions, including logistics, presentation and training materials	20	N/A	\$ 48,160
	Assistance session	Miami - USA (sponsored by FAA)	2	ICAO	Carry out assistance session	5	\$ 8,152	
			6	Mexico and CA States	Investigators/Trainees		FAA (CAP)	
			10	Caribbean States	Investigators/Trainees		\$ 40,008	
			1	GRIAA	Observer		FAA (CAP)	
Follow-up with participants	Virtual	2	ICAO	Follow-up teleconferences with participant States	5	N/A		
Phase 3 - Procedures	Preparation for the assistance session	NACC RO (Mexico City)	2	ICAO	Prepare the assistance sessions, including logistics, presentation and training materials	20	N/A	\$ 48,160
	Assistance session	Miami - USA (sponsored by FAA)	2	ICAO	Carry out assistance session	5	\$ 8,152	
			6	Mexico and CA States	Investigators/Trainees		FAA (CAP)	
			10	Caribbean States	Investigators/Trainees		\$ 40,008	
			1	GRIAA	Observer		FAA (CAP)	
Follow-up with participants	Virtual	2	ICAO	Follow-up teleconferences with participant States	5	N/A		
Phase 4 - AIG Training Requirements	Preparation for the assistance session	NACC RO (Mexico City)	2	ICAO	Prepare the assistance sessions, including logistics, presentation and training materials	20	N/A	\$ 40,336
	Assistance session	Miami - USA (sponsored by FAA)	2	ICAO	Carry out assistance session	3	\$ 6,843	
			6	Mexico and CA States	Investigators/Trainees		FAA (CAP)	
			10	Caribbean States	Investigators/Trainees		\$ 33,488	
			1	GRIAA	Observer		FAA (CAP)	
Follow-up with participants	Virtual	2	ICAO	Follow-up teleconferences with participant States	5	N/A		
TOTAL							\$ 184,816	

SOURCES OF FUNDING	
Project RLA09801 MCAAP	\$ 90,000
FAA (direct contribution)	\$ 70,000
RASG-PA*	\$ 25,000
TOTAL	\$ 185,000
<i>* To be requested</i>	