

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
LATIN AMERICAN CIVIL AVIATION COMMISSION**

AIG REGIONAL COOPERATION MECHANISM (ARCM) OF THE SAM REGION

SECOND MEETING OF AIG AUTHORITIES
(Buenos Aires, Argentina, 09 to 11 June 2015)

**TASK AIG-SAM/2-5 – Development of a proposal for the establishment and maintenance of an
AIG regional database**

Summary

This task provides information about the development of a proposal for the establishment and maintenance of an AIG regional database to be used under the framework of the AIG regional cooperation mechanism (ARCM) of the SAM Region.

References

- Report of the First Meeting of AIG Authorities of the SAM Region (AIG-SAM/1), Lima, Peru, 18 to 20 March 2014.
- Report about the Second Virtual Meeting of AIG Authorities - AIG diagnosis of the SAM Region and first steps in the creation of an AIG regional cooperation mechanism (ARCM) among AIG Authorities of the SAM Region, Lima, Peru, 27 November 2014.
- Annex 13 – Aviation Accident and Incident Investigation.
- Annex 19 – Safety Management.
- Doc 9946 – Manual on Regional Accident and Incident Investigation Organizations (RAIO).
- ICAO Accident/Incident Data Reporting (ADREP) system.

Specialists in charge of the task

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Deadline to submit the task

The lecturer assigned to this task shall submit the result to the Safety Officer of the SAM Region, by e-mail, **no later than 27 February 2015**.

1. Introduction

1.1 According to the last outcomes achieved under the framework of the activities of the ICAO Universal Safety Oversight Audit Programme (USOAP), one of the audit areas with less effective

implementation (EI) in relation to the safety oversight capabilities of the SAM States is still aircraft accident and incident investigation with **69.64%** of compliance.

1.2 In this area, it is mainly observed that the subgroups of investigation policies and procedures; development, completion and release of the final report; organization, staffing and training of the accident investigation authority; development, issuance, and recording of safety recommendations and forwarding of Accident/Incident Data Reports (ADREP) procedures are the ones that have the highest number of unsatisfactory Protocol Questions (PQ) as the SAM States general average.

1.3 In order to analyze the AIG situation and agree on a strategic plan with the aim of making the first steps in the creation of one of the forms of a Regional Accident and Incident Investigation Organization (RAIO), the SAM Region conducted the First Meeting of AIG Authorities (AIG-SAM/1) in Lima, Peru, 18 to 20 March 2014.

1.4 In this meeting they discussed the concept of a RAIO and the fact that it can be implemented in different ways: in a very simple one such as the training of a regional group of investigators as well as a more complex one such as a completely implemented, independent and institutionalized RAIO. In this regard, the meeting was invited to perform an analysis of the regional needs to be able to determine what form of a RAIO could be implemented in the SAM Region.

1.5 Following, the guidelines for the development of an AIG regional cooperation strategic plan were introduced and three groups of work among the States representatives and the industry for the development of a strategic plan of the SAM Region were formed. These three groups presented their proposals for the strategic plan; the adoption of an implementation process in phases was agreed upon and concrete objectives for these phases were identified. The report of the AIG-SAM/1 meeting is shown in **Appendix A** of this task.

1.6 To begin with the first phase of the project, the Civil Aviation Accident Investigation Board (JIAAC) of Argentina transferred the services of an AIG specialist to the ICAO South American Regional Office for the month of November 2014 to work in this phase.

1.7 In this regard, two virtual meetings were carried out: the first, on Friday 7 November 2014, to present the assigned specialist's work programme, and the second, on Thursday 27 November 2014, to present the AIG diagnosis of the SAM Region with the aim of making the first steps in the establishment of an AIG regional cooperation mechanism (ARCM). In the Second virtual meeting five (5) tasks were agreed to be developed, whose proposals will be presented through working papers (WP) in the Second meeting of AIG authorities of the SAM Region (AIG-SAM/2) that will be held in Buenos Aires, Argentina, from 09 to 11 June 2015. The report of the Second virtual meeting is shown in **Appendix B** of this task.

2. **Definition of the problem**

2.1 It is possible that several States in the SAM Region do not have the necessary resources to investigate the full range of aviation accidents and incidents and to perform comprehensive analysis of data on accident and incident that are received. For these States, the establishment of an AIG regional

cooperation mechanism (ARCM) among AIG Authorities of the SAM Region could mean the only solution to achieve the implementation of an effective accident and incident investigation system.

2.2 Regarding the database, Paragraph 8.4 of Annex 13 – *Aviation Accident and Incident Investigation* states that a State shall establish and maintain an accident and incident database to facilitate the effective analysis of information on actual or potential safety deficiencies obtained, including that from its incident reporting systems, and to determine any preventive actions requested.

2.3 *Note 2 of the referred paragraph indicates that States are encouraged to foster regional arrangements, as appropriate, when implementing 8.4.*

2.4 In turn, Doc 9946 – *Manual on Regional Accident and Incident Investigation Organizations* in Paragraph 5.5.2 states that a RAIO should also establish policies and procedures for the processing of safety recommendations generated from analyses of the RAIO accident and incident database.

2.5 Finally Paragraph 3 e) of Article 7 of Appendix 1 of Doc 9946 – *Model agreement between a group of States for the establishment and management of a regional accident and incident investigation organization (RAIO)*, requires that the main task of the Chairman of the RAIO be to supervise and coordinate the establishment and maintenance of a database of aircraft accidents and incidents compatible with the ICAO ADREP system;

2.6 In the contemporary world, effective safety management is “based on data”. Solid management of an ARCM database is essential to guarantee a reliable and effective analysis of the safety risks. If there is no data, safety is impossible to manage.

2.7 The establishment and maintenance of a safety database provides a necessary and essential tool so that the ARCM can achieve one of its objectives: making timely and effective recommendations regionally, thus contributing to regional safety.

2.8 According to the significance and complexity of the SAM ARCM, the system requirements can include a range of capabilities to effectively manage the safety data of the States. In general, the system must:

- a) include a simple interface for the user for data entry and queries;
- b) have the capability to transform big amounts of safety data in useful information that support the decision making;
- c) provide the AIG Authorities and safety staff of the SAM States with statistics on the models established by the ARCM and reuse data for other safety studies; and
- d) operate at a low cost.

2.9 In the safety data collection and analysis context, the term “safety database” can include the following types of data or information, among others, that should be used to support the ARCM safety data analyses:

- a) accident investigation data;
- b) mandatory incident investigation data;
- c) voluntary incident data reporting;

d) data on safety of other forms of a RAIO, etc.

2.10 For the development of the task, the work team shall define the instructions, criteria and procedures for the establishment and maintenance of the ARCM database of the SAM Region, based on the ICAO ADREP system. In addition, they will propose the place where this database may be located.

2.11 The database shall be able to collect aviation accident and incident data for aircraft with weights greater than 2250 kg and of 2250 kg or less for the following operations:

- ✓ Scheduled and non-scheduled air comercial transportation;
- ✓ general aviation;
- ✓ corporate aviation;
- ✓ aerial work; and
- ✓ unmanned aircraft (Remotely Piloted Aircraft Systems – RPAS).

3. **Activities and result of the task**

3.1 A study of the reference material mentioned in the summary of this document will be needed to perform this task. In addition, the following criteria shall be used:

3.2 The development of this task shall produce the first draft of the **Working Paper 05 (AIG-SAM/2-WP/05)**, being **the deadline 27 February 2015**. The referred working paper shall contain the results of the studies performed and a concrete proposal for the **establishment and maintenance of an AIG regional database** that will be part of Appendix A of the referred working paper.

3.3 The outlined proposal will be analyzed and evaluated by the AIG Authorities and by the legal entities of the SAM States, from **16 March to 30 April 2015**, using the e-mail resources. During this period, the assigned AIG specialists shall check and amend the working paper with the comments collected, as appropriate.

3.4 The working paper agreed upon by the States will be released on the [ICAO South American Regional Office](#) Web page as of **11 May 2015**.

3.5 The final version of the working paper will be presented by the task team lecturer in the Second meeting of AIG authorities of the SAM Region (AIG-SAM/2) that will be held in Buenos Aires, Argentina, from 09 to 11 June 2015.