



INTERNATIONAL CIVIL AVIATION ORGANIZATION
South American Regional Office
AIG Regional Cooperation Mechanism (ARCM) of South America
Second Meeting of AIG Authorities of South America
(Buenos Aires, Argentina, 09 to 11 June 2015)

Agenda item 2: Establishment and management of the ARCM

- Proposal for the establishment and management of the ARCM of South America

(Working paper presented by Mr. Daniel Barafani)

Summary

This working paper submits to the Second Meeting of AIG Authorities a proposal for the establishment and management of the AIG Regional Cooperation Mechanism (ARCM) of South America.

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.
- Doc 9946 – Manual on Regional Accident and Incident Investigation Organizations (RAIO).

1. Introduction

1.1 In order to analyse 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, from 18 to 20 March 2014.

1.2 In this meeting was 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.

1.3 Following, the AIG-SAM/1 Meeting formed three groups of work that presented each of them, a strategic plan of AIG regional cooperation. Once the presentations were over, the Meeting commented that before the implementation of a form of a RAIO, it was necessary to provide in a more clear way the benefits of its implementation. In this sense, the Meeting agreed on moving forward through the adoption of an implementation process in phases and established the following activities for the first phase:

- ✓ appointment of a **General Coordinator**, preferably a representative from the ICAO South American Regional Office;
- ✓ nomination of **Focal Points** in each State of the SAM Region up to 10 April 2014; and
- ✓ development of the **vision, mission, objectives, activities, results and performance indicators**.

In **Attachment A** of this working paper the report of the First Meeting of AIG Authorities is introduced.

1.4 In order to analyze the AIG situation of the Region and develop the activities of the first phase, the SAM Office had the participation of a specialist from the Civil Aviation Accident Investigation Board (JIAAC) of Argentina, who, during the month of November 2014, performed a detailed analysis of the AIG situation of the SAM Region and of the benefits that would be obtained with the creation of a form of a RAIO.

1.5 The work of the JIAAC specialist was presented in the Second Virtual Meeting of AIG Authorities (27 November 2014), where it was reported that the AIG area was one of the areas with less effective implementation (EI) and that the following subgroups had the highest number of unsatisfactory Protocol Questions (PQs): investigation policies and procedures; development, completion and release of the final report; organization, staffing and training of the staff; elaboration, release and registry of recommendations and Accident/Incident Data Reporting (ADREP).

1.6 In this Meeting the establishment of an AIG Regional Cooperation Mechanism (ARCM) in South America as a form of a RAIO and the development of five tasks to be presented in the Second Virtual Meeting of AIG Authorities (Buenos Aires, 09 to 11 June 2015) for the establishment and management of the ARCM were proposed. In **Attachment B** of this working paper the report of the Second Virtual Meeting of AIG Authorities is introduced.

2. Analysis of the current AIG situation in South America

2.1 The AIG area together with ANS and AGA are the areas with less effective implementation (EI) in the SAM Region, thus it is necessary to address this area to improve the EI and be able to achieve the goal of the 80 % established in the Declaration of Bogota. In **Attachment C** the AIG EI averages of the SAM Region are introduced.

2.2 Although the South American Region has made efforts to reduce the accident rate in the last years, it has slightly increased in 2014 in relation to the 2013 rate. In this sense the Region needs to

know the precursors or deviations that caused the accidents to be able to reduce them. In **Attachment D** information about the accident rate of the SAM Region up to the year 2014 is introduced.

2.3 The AIG survey conducted to the SAM States in 2013 and the last results of the USOAP audits indicate that several States do not have the necessary resources to investigate the full range of aviation accidents and incidents or to conduct a comprehensive analysis of the data on accidents and incidents that are received. For these States, the establishment of an AIG Regional Cooperation Mechanism (ARCM) could mean the only solution to achieve the implementation of an effective accident and incident investigation system.

2.4 The lack of harmonized AIG regulations, regional cooperation activities and management of economies of scale can be an obstacle that prevents the SAM Region from solving its AIG problems from a collaborative and standardized point of view.

3. Need of establishing and managing an ARCM in South America

3.1 The safe and orderly development of the international civil aviation requires that the States actively collaborate to achieve the standardization and harmonization of the regulations, requirements, procedures, methods and the best practices of the industry. The AIG area and South American States require a joint effort to improve their effective implementation (EI) and to significantly contribute to reducing accidents at the regional level.

3.2 The establishment of an ARCM in South American would significantly contribute to achieving the following main objectives:

- ✓ the standardization and implementation of requirements, recommendations, procedures, methods and the best practices of the industry in the AIG area;
- ✓ to comply with the Bogota Declaration that establishes the following regional goals:
 - *To achieve the 80% of effective implementation (EI) in the SAM Region;*
 - *To reduce the gap of the accident rate of the SAM Region in 50% in relation to the global accident rate; and*
 - *To reduce in 20% the runway excursion rate in relation to the average rate of the Region (2007 – 2012).*
- ✓ to start AIG cooperation activities among its States that would benefit the States that have more difficulty in establishing an efficient and effective AIG system; and
- ✓ to support the SAM States in the solution of the verifications left by the Comprehensive Systems Approach (CSA) and by the activities under the new USOAP Continuous Monitoring Approach (CMA).

3.3 In order to be able to establish and manage an ARCM, a multinational organization is needed to be able to articulate this mechanism among the SAM States; thus, as an intermediate measure of ARCM institutionalization, it is suggested that the ICAO South American Regional Office be the ARCM facilitator in South America and the SAM AIG Meeting act as ARCM Executive Committee.

3.4 For the above mentioned, the adoption of the following conclusion is proposed to the Meeting:

AIG-SAM/02-01 CONCLUSION

Establishment and management of the ARCM of South America

- a) Establishing the ARCM of South America among the participating States of the Second Meeting of AIG Authorities of the SAM Region, held in Buenos Aires, Argentina, 09 to 11 June 2015, whose main mission will be to support the States that request in the issues related to aircraft accident and incident investigation in a regional cooperation environment;
- b) Inviting the South American States that did not participate in the Second Meeting of AIG Authorities to integrate the ARCM of South America;
- c) Appointing the SAM AIG Meeting so that it acts as the ARCM Executive Committee of South America;
- d) Requesting the ICAO South American Regional Office to act as the facilitator of the ARCM, coordinating the administrative affairs among the AIG Authorities of the SAM Region; and
- e) Approving the manual of organization and functions of the ARCM that is introduced in the **Attachment E** of this working paper. This manual is a first draft and therefore is it subject to be improved in its content.

4. **Suggested actions**

4.1 The Second Meeting of AIG Authorities of the SAM Region is invited to:

- a) Note about the information provided in this working paper and Attachments A, B, C, D and E; and
- b) Adopt the **AIG-SAM/02-01 Conclusion** for the establishment and management of the ARCM of South America, with the changes it may deem appropriate.

APPENDIX A
(In Spanish only)

**INFORME SOBRE LA PRIMERA REUNION DE AUTORIDADES AIG DE LA
REGIÓN SAM**

Lima, 18 - 20 de marzo de 2014

1. Antecedentes

Este informe contiene el resumen y los resultados de la Primera Reunión regional AIG, organizada por la Oficina Sudamericana de la OACI en la ciudad de Lima, del 18 al 20 de marzo.

2. Desarrollo del evento

2.1 El evento se desarrolló de acuerdo a lo planificado, según el programa descrito en el **Adjunto A** al presente informe.

2.2 Asistieron un total de 22 representantes de las autoridades AIG de los Estados de la Región SAM, y 4 representantes de la industria. La lista completa de los representantes de los Estados, representantes de la industria y expositores, se encuentran en el **Adjunto B** a este informe.

2.3 El Sr. Franklin Hoyer, Director de la Oficina Regional Sudamericana de la OACI, hizo uso de la palabra resumiendo el contenido de los temas a tratarse y dio la bienvenida a todos los asistentes declarando inaugurada la reunión

2.4 El Sr. Oscar Quesada, Subdirector de la Oficina Regional Sudamericana de la OACI, presentó la visión de la Oficina, realizó un análisis de la falta de aplicación eficaz (LEI) en el área AIG de la región, y expuso las metas acordadas en la declaración de Bogotá, entre ellas, la meta de alcanzar en diciembre de 2016, el 80% de aplicación eficaz promedio en la Región SAM.

2.5 A continuación, el Sr. Marcus Costa, Jefe de la Sección de Investigación de Accidentes de la OACI, presentó el concepto de una Organización regional de investigación de accidentes e incidentes (RAIO) y los posibles mecanismos para su implementación. Sobre este tema, el Sr. Costa comentó que una RAIO puede ser implementada de varias formas, desde la más simple como es la formación de un grupo de investigadores regionales hasta una más compleja como es una RAIO completamente implementada, independiente e institucionalizada. En este sentido el Sr. Costa invitó a la reunión a efectuar un análisis sobre las necesidades regionales para poder determinar qué forma de una RAIO podría ser aplicable en la Región SAM.

2.6 Los representantes de los Estados tuvieron a continuación la oportunidad de compartir con el auditorio sus capacidades, carencias y necesidades relacionadas con la investigación de accidentes de aviación, y su acuerdo o desacuerdo con una eventual implantación de una RAIO en la región, al respecto todos los Estados manifestaron de manera unánime la intención de avanzar en la implementación de mecanismos de cooperación regional como pasos iniciales a la conformación de una RAIO. El **Adjunto C** a este informe, contiene una tabla que resume las capacidades de cada Estado.

2.7 El Sr. Arturo Martínez, Asistente de tecnología de la información y comunicación de la Oficina Sudamericana de la OACI, efectuó una exposición sobre el reporte de información de accidentes e incidentes (ADREP) a través de un base de datos de una organización AIG.

2.8 Finalmente, el Sr. Marcelo Ureña, Oficial de seguridad operacional de la Oficina Regional Sudamericana de la OACI, presentó el porcentaje de aplicación eficaz (EI) AIG mundial y de la Región SAM, las estadísticas de los accidentes ocurridos en la región durante el período 2005 – 2012 y las directrices para el desarrollo de un plan estratégico de cooperación regional AIG. Con respecto al porcentaje de aplicación eficaz (EI) AIG de la regional, la reunión solicitó conocer acerca de las preguntas del protocolo con menor cumplimiento. En el **Adjunto D** se presenta las preguntas del protocolo (PQ) agrupadas por sub-áreas que tienen el menor cumplimiento en la región.

2.9 Siguiendo con la agenda de la reunión, se conformaron tres grupos de trabajo entre los representantes de los Estados y la industria para el desarrollo de un plan estratégico de cooperación regional AIG. En este taller de grupos, los asistentes tuvieron la oportunidad de intercambiar criterios, y consensuar una propuesta relacionada con los primeros pasos para la implantación de un plan de cooperación AIG para la Región SAM.

2.10 Una vez concluidas las deliberaciones, los grupos tuvieron la oportunidad de presentar sus trabajos y conclusiones e intercambiar criterios y puntos de vista. Una síntesis de estos acuerdos se detalla en el Punto 3. "**Conclusiones**" del presente informe.

2.11 Los representantes de Airbus, Embraer y Bell Helicopter, ofrecieron presentaciones sobre la asistencia y coordinación con las Autoridades AIG en caso de un accidente, y sobre sus apreciaciones relacionadas con la implantación de un RAIO en la Región SAM.

2.12 Como acto final de la reunión, El Sr. Franklin Hoyer, Director de la Oficina Regional Sudamericana de la OACI, agradeció a los participantes por el trabajo realizado y resaltó los resultados obtenidos.

2.13 Todas las presentaciones expuestas en la reunión se encuentran disponibles en la siguiente dirección electrónica:

<http://www.icao.int/SAM/Pages/MeetingsDocumentation.aspx?m=2014-AIG>

3. Conclusiones

3.1 La Reunión concordó en los beneficios que podrían obtenerse con la implantación de una de las formas de la RAIO y que ésta podría ser la solución para los Estados que tienen dificultades en atender sus obligaciones internacionales en materia de investigación de accidentes.

3.2 Asimismo la Reunión reconoció que la constitución de un RAIO podría ser una tarea compleja y de largo aliento, que presentaría diversos obstáculos políticos y económicos y que a pesar que los beneficios aparentan ser bastante evidentes, sería necesario mostrar con datos más claros los beneficios que se lograrían como una forma de poder facilitar la toma de decisiones en el futuro.

3.3 Se acordó que la estrategia correcta para avanzar en el establecimiento de una RAIO, es adoptar un proceso de implantación por "fases", identificando objetivos concretos para cada una de ellas.

3.4 Las actividades acordadas por las autoridades AIG para la Primera fase se componen de las siguientes actividades:

- a) designación de un Coordinador General, de preferencia un representante de la Oficina Regional Sudamericana de la OACI;
- b) designación de puntos focales en cada Estado de la Región SAM hasta el 10 de abril de 2014; y
- c) desarrollo de la visión, misión, objetivos, actividades, resultados e indicadores de desempeño.

Se espera que esta fase finalice el 10 de septiembre de 2014.

3.5 La Reunión reconoció que para poder llevar adelante cualquier estudio o trabajo orientado a la creación de una RAIIO, era necesario contar con recursos humanos y materiales. En este sentido la Oficina Regional de la OACI informó sobre varios mecanismos administrativos para que los Estados puedan proporcionar a la OACI recursos humanos ya sea bajo la figura de especialistas adscritos (*secondments*) o por medio de misiones de proyectos nacionales de cooperación técnica. De esta manera, la Oficina Regional podría contar con uno o varios especialistas AIG adscritos para realizar la primera fase del proyecto que facilite la creación de una de las formas de una RAIIO.

3.6 Los representantes de Brasil, Argentina y Perú expresaron su interés en participar en esta iniciativa.

3.7 La reunión acordó también que la Oficina Regional SAM de la OACI, remita a sus Estados, un oficio informativo sobre los propósitos y beneficios de un RAIIO, y que se solicite la asignación de recursos para iniciar la Primera fase del proyecto.

3.8 Los asistentes también coincidieron en organizar reuniones virtuales para hacer el seguimiento al avance de las actividades de la Primera fase, y fijaron tentativamente una nueva reunión presencial para dentro de 6 meses.

4. Recomendaciones

4.1 La reunión recomendó que la Oficina Regional Sudamericana de la OACI realice un seguimiento al cumplimiento de los acuerdos logrados por la Reunión, y continuar brindando apoyo al desarrollo de las actividades AIG que se programen en un futuro.

APPENDIX B
(In Spanish only)

INFORME SOBRE LA SEGUNDA REUNION VIRTUAL DE AUTORIDADES AIG

Lima, 27 de noviembre de 2014

Diagnóstico AIG y primeros pasos para la creación del mecanismo regional de cooperación AIG (ARCM) de la Región SAM

1. Antecedentes

El día 27 de noviembre de 2014 se celebró la Segunda reunión virtual de autoridades AIG de la Región SAM para presentar los resultados del trabajo realizado por el señor Daniel Barafani, funcionario de la Junta de Investigación de Accidentes de Aviación Civil (JIAAC) de la Argentina, en misión AIG en la Oficina Sudamericana de la OACI.

2. Desarrollo de las reuniones

2.1 Se llevaron a cabo dos reuniones virtuales, una en español, de 08:30 a 10:30 am., y otra en inglés de 10:30 a 11:45 a.m.

2.2 Las dos reuniones virtuales fueron desarrolladas de acuerdo con la siguiente agenda:

- ✓ Resultados del análisis realizado a las preguntas del protocolo (PQ) AIG;
- ✓ Resultados de la evaluación realizada a las encuestas actualizadas AIG;
- ✓ Resultados del análisis efectuado al número de accidentes ocurridos en la Región SAM;
- ✓ Actividades propuestas para dar los primeros pasos en el establecimiento del mecanismo regional de cooperación AIG (ARCM) de la Región SAM;
- ✓ Asignación de tareas a los puntos focales AIG para la elaboración de notas de estudio (NE) que serán presentadas en la Segunda reunión AIG SAM (AIG-SAM/2) en Buenos Aires, Argentina del 09 al 11 de Junio de 2015.
- ✓ Confirmación de apoyo a la nota de estudio (NE) AIG que será presentada en la 2da HLSC 2015 en Montreal, Canadá, remitida el 11 de noviembre de 2014; y
- ✓ Otros asuntos

2.3 Participantes:

Argentina	Sr. Daniel Barafani
Bolivia	Sr. Javier Delgadillo
Brasil	Sr. Alexandre Gomes da Silva
	Sr. Márcio Antonio Abreu Jorge Teixeira
Chile	Sr. Alonso Lefno
Colombia	Sr. Gustavo Iriarte
	Sr. Julián Echeverri
Ecuador	Sr. Armando Durán
	Sr. Jaime Salazar
	Sr. Douglas Zurita
Guyana	Sr. Ankar Doobay
	Sra. Paula McAdam

Paraguay	Sr. Emilio Verruck
Surinam	Sr. Brian de Souza
Uruguay	Sr. Rubén Villagra
Venezuela	Sr. Kyhumel Ponte Soteldo
	Sr. Federico Almenar
OACI	Sr. Oscar Quesada
	Sr. Marcelo Ureña
	Sr. Arturo Martínez
	Sra. Deborah Coriat
SRVSOP	Sr. Javier Puente

Estados ausentes: Panamá y Perú

3. Reunión con Argentina, Bolivia, Brasil, Chile, Colombia, Ecuador, Paraguay, Uruguay y Venezuela

3.1 El señor Barafani hizo tres presentaciones sobre los resultados del trabajo realizado durante su misión a la Oficina Regional Sudamericana de la OACI.

3.2 En la primera presentación hizo un análisis de las cifras AIG que presenta la región, tomando como referencia las preguntas del protocolo (PQs) de las auditorías USOAP de la OACI que se refieren a AIG. Presentó un paralelo entre la actual situación de las PQs AIG, comparándolas con la meta establecida en la Declaración de Bogotá referida a alcanzar un 80% de aplicación eficaz (EI), señalando los siguientes subgrupos críticos que requieren atención inmediata:

- ✓ políticas y procedimientos para la investigación; elaboración, finalización y divulgación del informe final;
- ✓ organización, dotación e instrucción del personal;
- ✓ elaboración, divulgación y registro de recomendaciones; y
- ✓ notificación de datos sobre accidentes e incidentes (ADREP).

3.3 Se indicó, igualmente, una acción recomendada para cada una de las acciones inmediatas. El detalle de estas acciones se encuentran en presentación Power Point realizada y que ha sido entregada a cada Estado.

3.4 En la segunda presentación, el señor Barafani desarrolló un análisis FODA sobre el establecimiento de un mecanismo de cooperación AIG en la región sudamericana, al que propuso nombrarlo como ARCM (AIG Regional Cooperation Mechanism), del que derivó los beneficios que brindaría la creación de este mecanismo a los Estados de la región.

3.5 Destacó que a pesar que la Oficina SAM de la OACI no tiene un personal específico para AIG, ha conformado un equipo de apoyo, encabezado por el Oficial Regional de Seguridad Operacional, para el apoyo a los expertos de los Estados que serán destacados a la Oficina SAM de la OACI para trabajar en el desarrollo del proyecto ARCM.

3.6 La tercera presentación del señor Barafani estuvo dirigida a las actividades a desarrollar para ser presentadas en la Segunda Reunión Regional AIG, a ser llevada a cabo en Buenos Aires, Argentina, del 09 al 11 de junio de 2015, en la que los grupos de trabajo designados presentarán las propuestas de las siguientes tareas, a través de las notas de estudio correspondientes:

T1	Desarrollo de un Memorando de acuerdo (MOU)	Argentina y Brasil
T2	Reglamento AIG/SAM armonizado	Argentina, Ecuador, Uruguay, Venezuela y Guyana
T3	Procedimientos AIG/SAM armonizados	Argentina, Brasil, Ecuador, Venezuela y Guyana
T4	Programa de instrucción AIG/SAM armonizado	Argentina, Brasil, Colombia y Venezuela
T5	establecimiento de una base de datos AIG/SAM	Argentina, Chile y Colombia

3.7 En principio se haría una ronda de consultas la primera semana de marzo, para presentar las notas de estudio en la 2da. Reunión AIG de junio en Buenos Aires.

3.8 Para la elaboración de las notas de estudio, la Oficina Regional Sudamericana de la OACI remitirá a más tardar el día viernes 5 de diciembre las tareas respectivas, que contendrán las indicaciones concretas para el desarrollo de las notas de estudio referidas, incluyendo plazos y fechas de entrega.

3.9 El señor Barafani agradeció cualquier retroalimentación que los Estados estén interesados en enviarle para enriquecer la propuesta de proyecto del ARCM.

3.10 Chile resaltó el hecho que es necesario contar con apoyo jurídico en el tratamiento de las notas de estudio que contienen las propuestas de las tareas a desarrollar para la implantación del ARCM de la Región SAM. Consideró que es una iniciativa muy buena, y que hay que hacer participar a la parte legal desde el principio para que la puesta en práctica sea rápida y no cuente con trabas legales. La reunión comentó que con este mecanismo AIG se genera una oportunidad que hay que aprovechar. Su implementación debe ser rápida y no a largo plazo, por eso es importante incorporar a los expertos jurídicos desde un principio.

3.11 La secretaría explicó que la armonización se refería al aspecto técnico, y no al legal y que al ser un mecanismo de cooperación estaría dirigido a ser utilizado como herramienta reglamentaria más que jurídica. Sobre este aspecto, la secretaria puso como ejemplo el SRVSOP donde existen 10 años de experiencia con la armonización de la reglamentación LAR en la que cada Estado mantienen sus propias leyes y lo que se busca es armonizar reglamentaciones genéricas. Finalmente señaló que el ARCM no implica un compromiso en armonizar legislación, sino buscar y crear un lenguaje común para poder compartir recursos entre todos los Estados.

3.12 Aprobación de la NE AIG para la 2da. HLSC 2015

3.12.1 A continuación la reunión comentó sobre el borrador de la nota de estudio AIG que será presentada en la Segunda reunión de alto nivel sobre seguridad operacional (HLSC), en Montreal, Canadá, del 2 al 5 de febrero de 2015.

3.12.2 Un Estado de la Región solicitó modificar el Apéndice A y acortar la nota de estudio a máximo 4 páginas incluidos el Apéndice A.

3.12.3 Colombia también expuso algunas sugerencias que marcará en la nota de estudio con control de cambios y enviará la propuesta a la Oficina Regional.

3.12.4 El equipo de trabajo AIG conformado, incorporará los cambios sugeridos y volverá a circular la nota para acuerdo final.

3.12.5 Todos los Estados participantes aceptaron apoyar la NE a ser presentada en la HLSC. En el momento de dar la aprobación, Bolivia no estuvo presente, por lo tanto se le solicitará su opinión vía email, lo mismo se hará con los Estados que no participaron en la reunión, Panamá y Perú.

3.12.6 Brasil solicitó que la Oficina Regional haga la presentación de la NE en la HLSC, ya que era una nota de todos los Estados y no sólo de Argentina. Sin embargo, secretaría aclaró que corresponde a los Estados su presentación, y que sólo un Estado puede ser el que haga llegar la NE a la Secretaría de la HLSC vía email, y eso lo haría Argentina y que al momento de la presentación en Montreal durante la Conferencia, habría que coordinar este tema para que un solo Estado sea el que haga la presentación y que cualquier otro Estado que tenga interés de apoyar la NE, lo haga después de su presentación.

4. Reunión con Guyana y Surinam

4.1 El Oficial Regional de Seguridad Operacional de la Oficina SAM, estuvo a cargo de esta reunión que se realizó en idioma inglés.

4.2 En esta reunión se hicieron las mismas presentaciones realizadas en la reunión anterior.

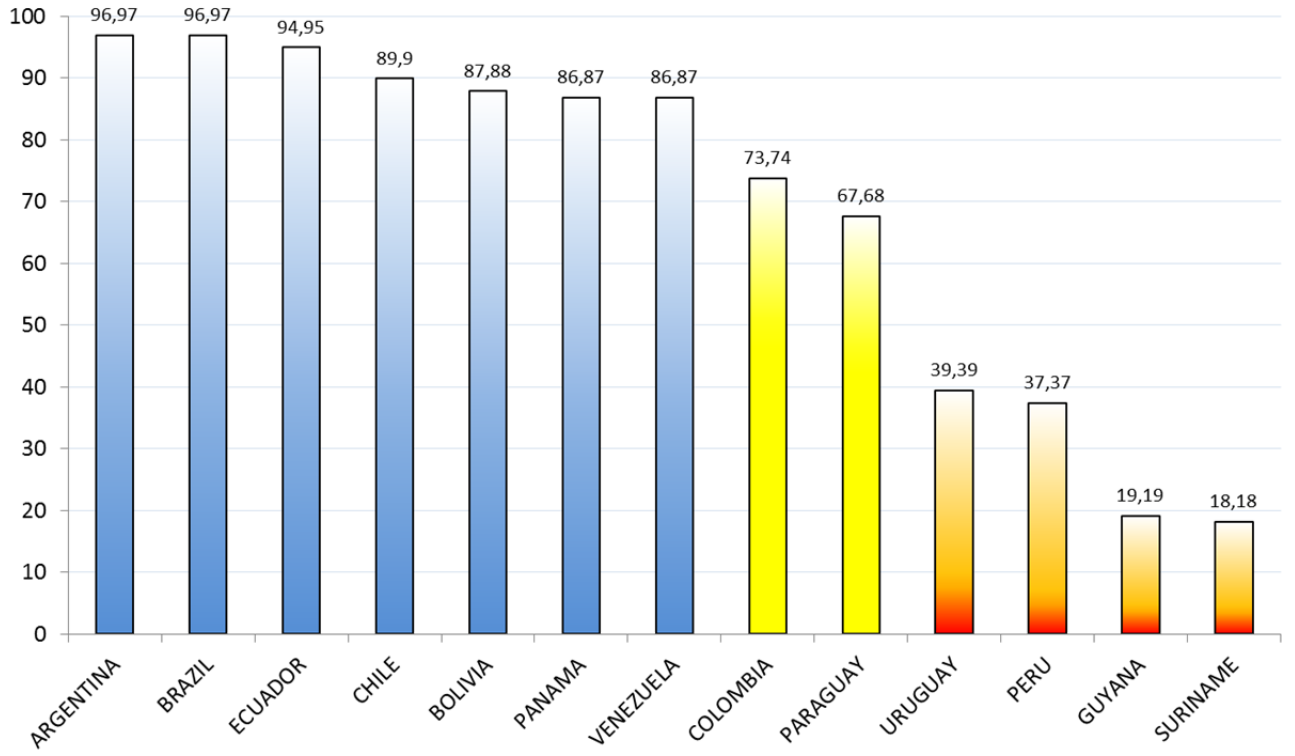
4.3 Guyana y Surinam manifestaron su apoyo unánime a la conformación del ARCM en virtud que ambos Estados podrán utilizar este mecanismo para resolver varias constataciones que tienen en el área AIG, tales como, la falta de investigadores y de procedimientos para la investigación de accidentes e incidentes de aviación.

4.4 Con respecto al desarrollo de las tareas que producirán las notas de estudio que serán tratadas en la Segunda reunión de autoridades AIG de la Región SAM, Guyana apoyará en las Tareas 2 y 3. Por su parte Surinam manifestó que consultaría con la Autoridad respectiva para poder participar en todas las tareas identificadas.

4.5 Finalmente, ambos Estados solicitaron que se traduzca al idioma Inglés toda documentación que desarrolle el ARCM.

APPENDIX C (In Spanish only)

Promedio de aplicación eficaz (EI) AIG de la Región SAM



APPENDIX D

Accidents SAM 2014, aircrafts above 5 700 kg, commercial air transport, regular operations

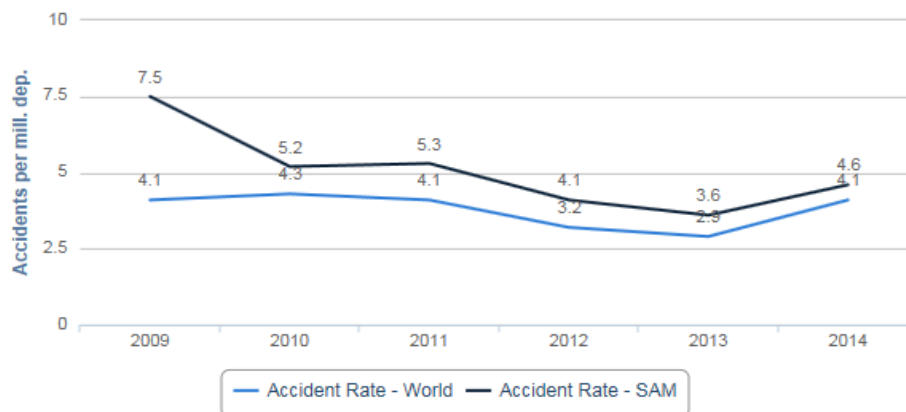
List of Accidents(9) in 2014 as of Saturday, 30 de May de 2015

When	Where	Who	What	Risk Cat.	Fat.
2014-12-14	Bahia Solano Colombia	BAE JETSTREAM3100 3100 HK-4548 Aerolíneas De Antioquia S.A. (Ada) Colombia	Landing Accident	RS	
2014-11-03	Bolivia (Plurinational State of)	Fairchild (Swearingen) Metro CP-2459 Amazonas Bolivia (Plurinational State of)	Approach Accident	RS	0
2014-10-11	Venezuela (Bolivarian Republic of)	Boeing (McDonnell-Douglas) MD-80 YV2971 Aserca Airlines Venezuela (Bolivarian Republic of)	Landing Accident	RS	0
2014-10-03	EnRoute Argentina	BOEING 777 200 N772AN American Airlines Inc. United States of America	En route Accident	TURB	0
2014-08-07	San Jose del Guaviare Colombia	ANTONOV AN26 B HK-4730 Colombia Aer Caribe Colombia	Landing Accident	SCF	0
2014-05-09	Panama City Panama	BOEING 737 400 YV-2946 Aviones De Oriente, C.A. Venezuela (Bolivarian Republic of)	Take-off Accident	SCF	
2014-03-28	Brasilia Brazil	FOKKER100 PR-OAF United Republic of Tanzania	Landing Accident	SCF	
2014-03-05	SABE Argentina	AIRBUS A320 200 LV-BET Argentina LAN Argentina Argentina	Taxi Accident	RS	0
2014-02-10	Rio de Janeiro Brazil	BOEINGF 747 400 N-901AR United States Centurion Air Cargo United States of America	Manoeuvring Accident	RS	0

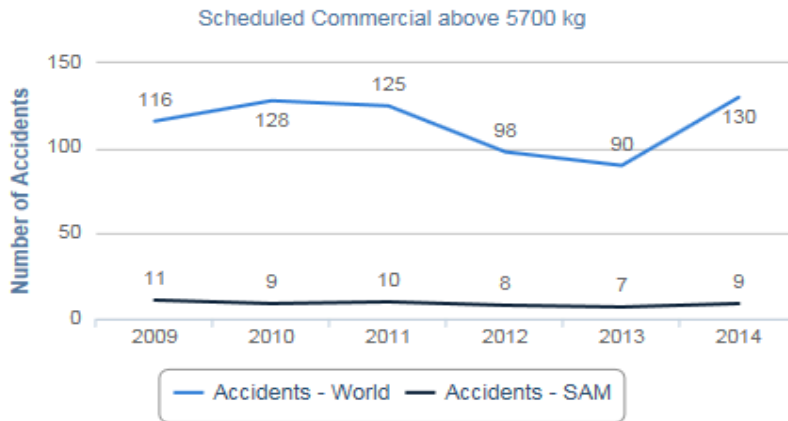
Total accidents

Accident Rate

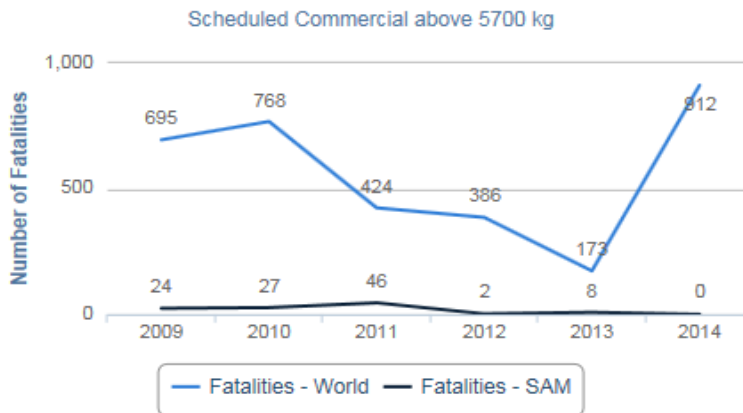
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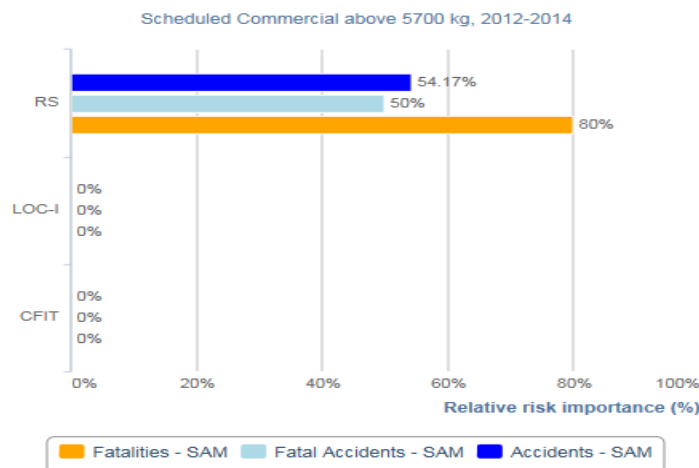
Accidents



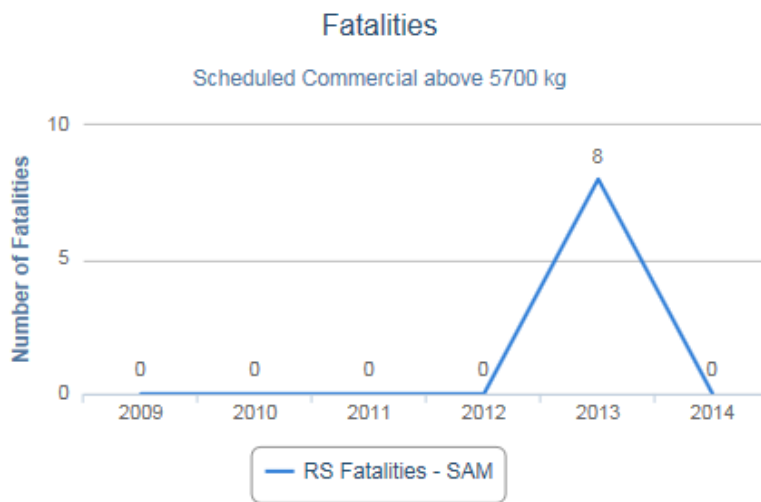
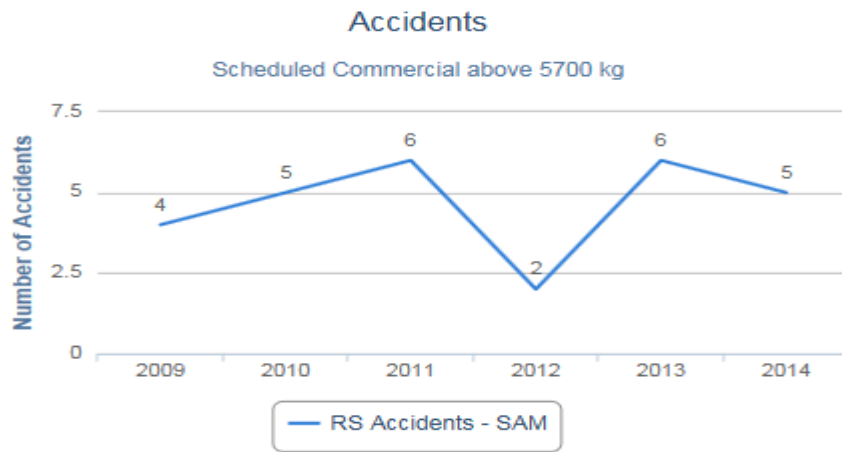
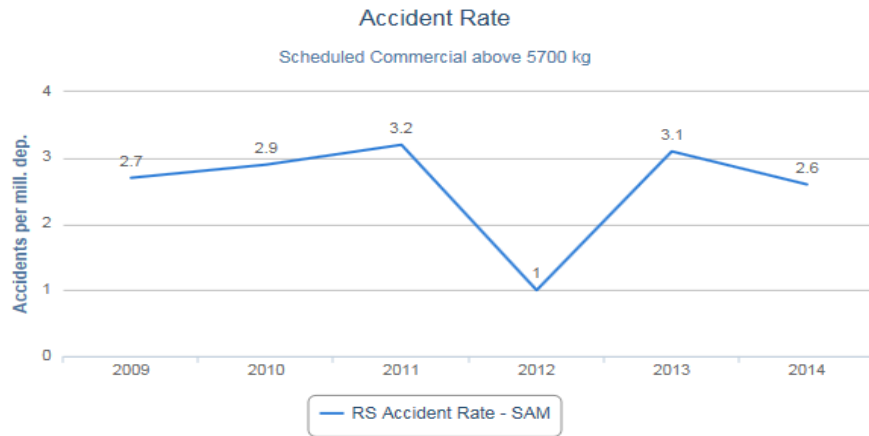
Fatalities



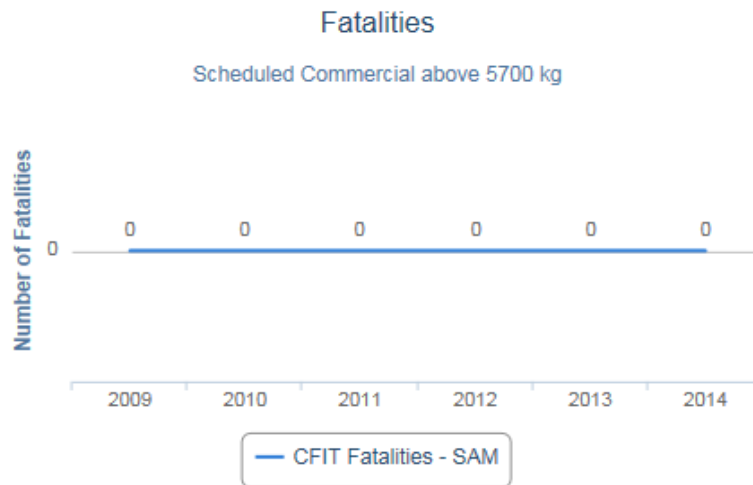
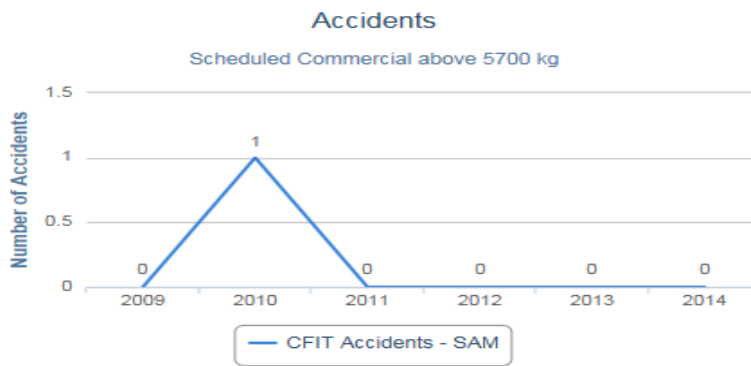
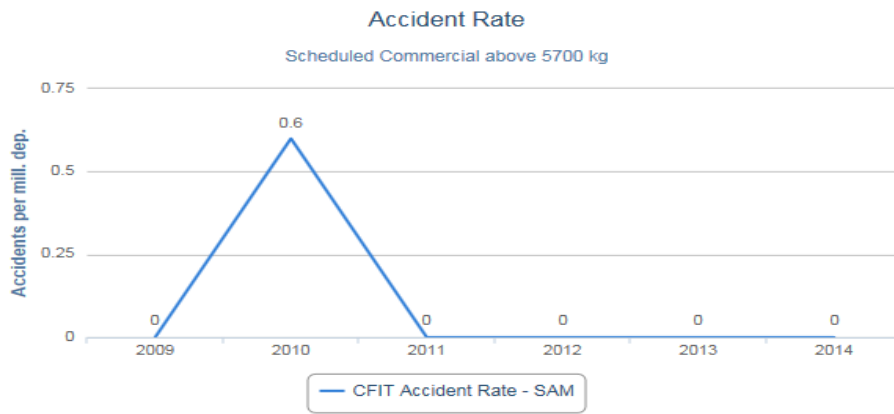
Risk Distribution



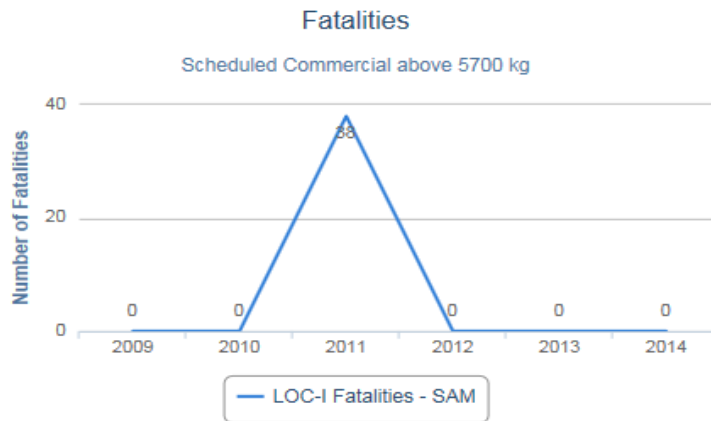
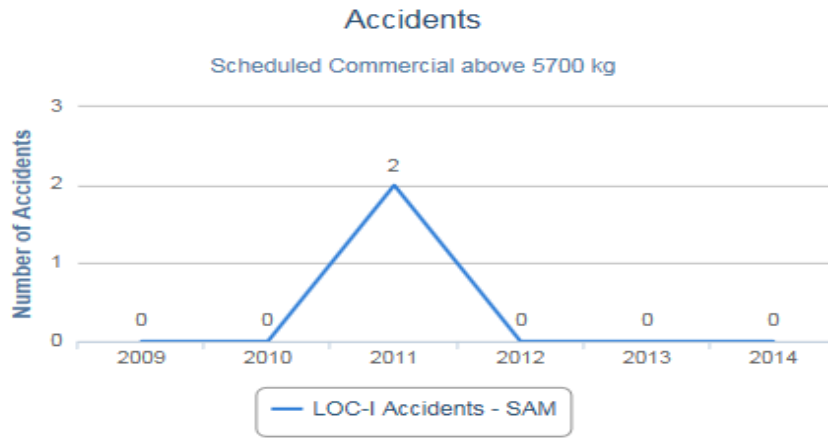
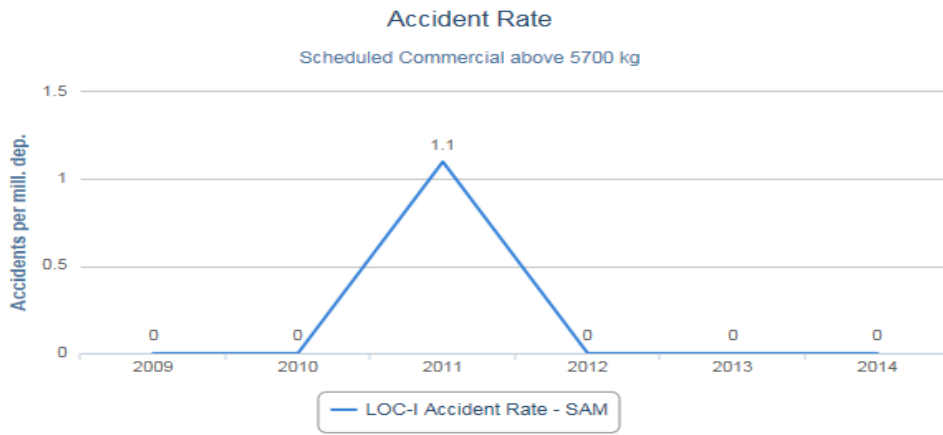
Runway safety (RS) related accidents



CFIT related accidents



LOC-I related accidents



APPENDIX E

International Civil Aviation Organization
South American AIG Regional Cooperation Mechanism (ARCM)

ARCM organization and functions manual

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FOREWORD

The present manual establishes the organization and functions of the ARCM.

This manual will be amended periodically as new investigation techniques are developed and updated information becomes available.

Readers are invited to submit material for possible inclusion in subsequent editions of this manual. This material should be addressed to:

General Coordinator
ICAO South American Regional Office
Av. Víctor Andrés Belaúnde N° 147
Vía Principal N° 102
Edificio Real 4, Piso 4
Centro Empresarial Real
San Isidro – Lima 15073, Peru

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Article 1 DEFINITIONS

For the purposes of this manual, unless otherwise stated, terms have the following meaning:

Accident designates any occurrence associated with the operation of an aircraft as defined in the current edition of ICAO Annex 13 — *Aircraft accident and incident investigation*.

AIG authority designates the body responsible for accident and incident investigation in the State and that is party of the ARCM.

AIG Technical Committee (AIG TC) designates the AIG experts and, if so required, other experts in areas related to accident and incident investigation, such as safety, the ADREP/ECCAIRS system, risk management analysis, etc., requested by the Chairperson to the General Board and assigned by their respective State. In order to fulfil the assigned AIG functions, the designated experts may work at ARCM headquarters, in their own State or in other ARCM States, as agreed between the General Coordinator, the Chairperson of the General Board, the General Board, and ARCM States.

Chicago Convention designates the Convention on International Civil Aviation signed in Chicago on 7 December 1944.

Executive Committee designates to the ARCM AIG meeting.

General Coordinator of the ARCM designates the Regional Director of the ICAO South American Office, headquarters of the ARCM, who will be in charge of general coordination of the ARCM and will have the support of the AIG Technical Committee (TC) as needed.

AIG specialist / expert designates the specialist or expert in a specific area related to aircraft accident investigation who is available for the assignment of a specific activity (for example, development of AIG requirements or procedures) when so requested by a member State.

Member State designates an ARCM member State.

GASP designates the ICAO Global Aviation Safety Plan.

GASR designates the Global Aviation Safety Roadmap prepared by the Safety Strategy Group and approved by the ICAO Council on 15 June 2006.

Incident designates any occurrence, other than an accident, associated to the operation of an aircraft, as defined in the current edition of ICAO Annex 13 — *Aircraft accident and incident investigation*.

Serious incident designates an incident involving circumstances indicating that an accident nearly occurred, as defined in the current edition of ICAO Annex 13 — *Aircraft accident and incident investigation*.

Investigation designates the process conducted for the purpose of accident prevention, which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and/or contributing factors and, when appropriate, the making of safety recommendations.

ARCM investigator designates the aircraft accident and incident investigator who is available for the assignment of an accident or incident investigation, when so requested by a member State.

ARCM investigator in charge designates the person who, because of his/her qualifications, is responsible for the organisation, conduction and control of an investigation.

ARCM General Board designates the General Board established by virtue of Article 9 of this manual, consisting of the AIG Authorities of ARCM member States.

ICAO designates the International Civil Aviation Organization.

South American AIG Regional Cooperation Mechanism (ARCM) hereinafter called ARCM, designates the South American AIG Regional Cooperation Mechanism made up by the States which agreed to be part of the ARCM at The Second Meeting of AIG Authorities and those entering later.

Chairperson of the General Board designates the Chairperson of the General Board, made up by the ARCM AIG authorities, to be elected among its members for a period of three years and who may be re-elected for equal and successive terms.

ARCM Focal Points designates the AIG specialists appointed by the AIG authorities of ARCM member States with the purpose of establishing an agile communication link with the AIG Technical Committee and for promoting and coordinating ARCM activities within the Authority.

Article 2 VISION OF THE ARCM

Become an AIG Regional Cooperation Mechanism that ensures the highest standards in aircraft accident and incident investigation processes conducted by South American AIG Authorities, and be recognised in the regional aeronautical environment for its contribution to safety.

Article 3 MISSION

The South American AIG Regional Cooperation Mechanism, hereinafter ARCM, has the mission of supporting States that so require on aspects related to aircraft accident and incident investigation in a regional cooperation environment that enables improved effective implementation in the AIG area and contribute in the reduction of the rate of aircraft accidents and incidents in the SAM Region to a level below the global rate in all segments of aviation.

Article 4 HEADQUARTERS AND DURATION

The ARCM will have its headquarters at the ICAO South American Regional Office in Lima, Peru, will be governed by the procedures of this manual, and will have an indefinite duration.

Article 5 PARTICIPANTS

Participation in the ARCM is open to SAM member States and to State-owned and/or private entities that, being interested in accident and incident investigation, express their will to join the ARCM as special observers, and are accepted in the ARCM.

Article 6 ARCM OBJECTIVES

The main objectives of the ARCM will be:

- a) establish, in accordance with the Global aviation safety plan (GASP), the ARCM, with trained, independent and impartial professionals in charge of aircraft accident and incident investigation in the SAM Region.
- b) to increase cooperation and collaboration among ARCM member States with respect to aircraft accident and incident investigation;
- c) to increase cooperation within the ARCM and at international level with respect to the exchange of information on accidents and incidents;
- d) to ensure that all aircraft accidents and incidents that occur in the ARCM member States, upon request, are subject to an investigation that strictly complies with the provisions of Annex 13 to the Convention on International Civil Aviation – Aircraft accident and incident investigation, taking into account the harmonised documents of the region concerning accident/incident investigation, particularly the SAM AIG Regulations and the ARCM accident and incident investigation procedural handbook, and supported to that end by ICAO documentation.
- e) to help ensure that all aircraft accident and incident investigations carried out in ARCM member States are free of any political or other type of interference or pressure;
- f) Coordinate so that member States may have adequate resources, including equipment and qualified personnel, for conducting one or all investigations;
- g) to foster the use by all member States of a common set of regulations that are consistent with the provisions of Annex 13 – Aircraft accident and incident investigation, including regulations for the protection of information obtained through safety data collection and processing systems (SDCPS) as set forth in Attachment E to Annex 13;
- h) to foster the use by all member States of common guidelines, investigation procedural handbooks and guides;

- i) to promote the use of harmonised AIG regulations for all member States;
- j) to promote the implementation of a harmonized AIG training programme for investigators of all member States;
- k) to encourage the implementation of a SAM AIG database in order to facilitate, through the risk management process, the effective analysis of information obtained on accidents, serious incidents, incidents and latent conditions, so as to mitigate risks and establish performance indicators, targets and the corresponding alerts in the SAM Region;
- l) to promote the use of best practices concerning accident prevention; and
- m) to cooperate to increase the qualifications and experience of accident investigators in all member States.

Article 7 **ARCM FUNCTIONS**

ARCM functions are:

- a) to strengthen cooperation and collaboration among member States concerning the investigation of aircraft accidents and serious incidents;
- b) to develop common regulations, investigator's guidelines and guides, manuals and checklists that are consistent with the provisions of Annex 13 – Aircraft accident and incident investigation, for use in accident and incident investigations requested from the ARCM;
- c) to keep the regulations, investigator's guidelines and guides, manuals and checklists up to date in accordance with the latest amendments to ICAO documentation;
- d) to develop and apply procedures for the exchange of information on accidents and incidents within the ARCM and at international level, making sure that the data system is compatible with the ICAO ADREP/ECCAIRS system;
- e) to develop and apply procedures aimed at furthering the relationship between investigators and available investigation teams and local authorities in the State of Occurrence within the ARCM, in order to expedite an obstacle-free accident and incident investigation;
- f) to coordinate accident and incident investigation activities among member States within the ARCM;
- g) to support accident and incident prevention initiatives of member States and the region upon request;
- h) to cooperate and supervise, when so required, the accident and incident investigation activities of member States to make sure they are consistent with ICAO objectives and plans;

- j) cooperate with and provide information on the formulation of ICAO SARPs in the area of accident and incident investigation;
- k) to keep a registry of qualified ARCM investigators of the SAM Region, in accordance with the requirements established in the SAM ARCM investigator registration document.
- l) to establish duly equipped and trained accident and incident investigator teams;
- m) to request States the participation of their ARCM investigators in the aircraft accident and incident investigation teams when so required by another State. The participation of the investigators of a State will be conditioned to that State having harmonised the ARCM regulations and procedures.
- n) to conduct, in whole or in part, an aircraft accident or incident investigation when the State of Occurrence requests the participation of the ARCM and delegates such power to the mechanism, by mutual agreement and consent between the State of Occurrence and the ARCM;
- o) to raise and request technical and financial resources from external sources for the purpose of accident and incident investigation in those States that so request it;
- p) to promote the provision of updated and harmonised technical and practical on-the-job (OJT) training to accident and incident investigators of ARCM member States; and
- q) using ARCM database information, to conduct a risk management process to identify trends and propose mitigation measures at regional level in order to contribute in the reduction of the rate of accidents and incidents in the SAM Region and maintain an acceptable level of safety performance.

Article 8

ARCM ORGANIC STRUCTURE

The ARCM consists of:

- a) a General Board;
- b) a Chairperson of the General Board;
- c) the General Coordinator;
- d) ARCM Executive Committee;
- e) the Technical Committee;
- f) the Focal Points; and
- g) the Panels

Article 9
THE ARCM GENERAL BOARD

1. The ARCM General Board is made up by the AIG Authorities of each ARCM member State or by representatives designated by these Authorities. The General Board will have a Chairperson, who will be elected from its members for a period of three years.
2. The Chairperson of the General Board will preside over General Board sessions and, in his/her absence, will delegate the chairing function to one of the members of the General Board.
3. If a member of the General Board cannot attend a session of the General Board, that member may designate another representative to attend the session on his/her behalf.
4. For the purpose of that General Board session, the designated representative will have all the powers, obligations and responsibilities of the General Board member on behalf of whom he/she is acting.
5. The functions of the General Board will consist of advising on ARCM operation and matters, and providing general guidance on the performance and achievement of ARCM objectives and functions.
6. Aside from the Chairperson, General Board members:
 - h) shall preferably have at least five years of experience in a safety-related technical position in the aeronautical sector; and
 - i) must have been designated as investigators or investigators in charge in the respective member State.
7. Without limiting the general nature of that stipulated in Paragraph 5 of this section, the General Board will have the following functions:
 - a) review the reports submitted by the investigators in charge of investigating an aircraft accident or incident in case it has been conducted by an ARCM investigation team, prior to its presentation to the State of Occurrence of the accident/incident;
 - b) consider all the other reports submitted by the General Coordinator for review;
 - c) analyse safety recommendations resulting from accident and incident investigations and promote their implementation by all member States involved or determine the reasons for non-implementation;
 - d) review regulations concerning accident and incident investigation drafted by the Chairperson's office prior to their approval and adoption for use by member States;

- e) review accident and incident investigation guidelines and procedures drafted by the Chairperson's office for use by member States and the General Board;
- f) review the annual programme of activities for its approval;
- g) review the annual report on ARCM activities for its submission to member States;
- h) provide assistance to participating States that so request, in the fulfilment of their obligations concerning aircraft accident and incident investigation;
- i) establish the number of experts that will participate in the ARCM Technical Committee and approve the terms and conditions for such assignments;
- j) propose amendments to the ARCM regulations, as necessary;
- k) agree on the exit from the ARCM of one or more States on the basis of the analysis conducted by the Technical Committee in these cases; and
- l) exercise other powers and functions granted by member States and required for proper implementation of the Agreement.

Article 10 **ARCM GENERAL BOARD SESSIONS**

1. The General Board will meet at least once a year, and may hold extraordinary sessions as needed, especially for reviewing and adopting safety reports and recommendations on accident and incident investigation. General Board meetings can be face-to-face or virtual, as it may agree.
2. Virtual meetings will be scheduled as needed, and conclusions or decisions may be approved through express communications addressed to the Chairperson of the General Board.
3. General Board sessions will be held at the office of the General Coordinator in Lima, Peru, or at some other location determined by the Chairperson through the General Coordinator.
4. A simple majority of members of the General Board will constitute quorum for the sessions of that body.
5. Conclusions and decisions of the General Board will be reached by simple majority of votes of voting members attending the session.
6. Subject to that provided in this Article, the General Board will determine its own internal regulations, including the holding of sessions and the conduction of meetings and the recording of its decisions and minutes.

Article 11
THE CHAIRPERSON OF THE GENERAL BOARD

1. Member States will appoint the Chairperson, among the AIG Authorities, preferably for a period of three years, with the powers that the member States may determine, including the possibility of renewing the appointment for additional three-year terms.
2. The Chairperson will have a minimum of two years in the management of the AIG organization of his State.
3. Subject to the policy guidelines of member States, the Chairperson will perform the following functions:
 - a) convene the sessions of the ARCM General Board and Executive Committee through the General Coordinator;
 - b) supervise and coordinate the work of his/her office regarding the drafting of common regulations on accident and incident investigation for their adoption and use by member States;
 - c) supervise and coordinate the work of his/her office regarding the drafting of common guidelines, investigator's manuals and checklists for use by member States in the investigations;
 - d) through the General Coordinator, coordinate the deployment of ARCM AIG investigators with member States for the conduction of aircraft accident and incident investigations, on behalf of the State of Occurrence and when so requested by the latter;
 - e) through the General Coordinator, supervise and coordinate the establishment and maintenance of an aircraft accident and incident database that is compatible with the ICAO ADREP/ECCAIRS system;
 - f) through the General Coordinator, supervise and coordinate the establishment and maintenance of a list of aircraft accident investigators available to participate, as members, in the investigation teams of ARCM States, when so requested by the latter;
 - g) supervise the development and implementation of a training programme for accident and incident investigators;
 - h) supervise the exchange of information on accidents and incidents with member States and relevant organisations;
 - i) manage the provision of technical support to member States in the area of accident and incident investigation;

- j) prepare an annual programme of activities for the ARCM and implement it upon approval by member States;
 - k) prepare an annual report of ARCM activities that includes information on the activities of AIG investigators requested by ARCM States;
 - l) provide services at General Board sessions and provide its support to the General Board;
 - m) assess and approve the requests for assistance submitted by States other than ARCM States; and
 - n) perform other functions assigned by member States.
4. The Chairperson will be the main spokesperson of the ARCM and the main link between member States and the ARCM.
 5. The Chairperson will be accountable to member States.

Article 12 THE GENERAL COORDINATOR

1. The Regional Director of the ICAO South American Regional Office will occupy the position of General Coordinator.
2. The General Coordinator will support the Chairperson on ARCM administrative matters, coordinating the activities approved by the General Board.

Article 13 GENERAL COORDINATOR'S OFFICE

1. The seat of the ARCM will be the General Coordinator's office at the ICAO South American Regional Office in Lima, Peru.
2. The General Coordinator's office will consist of the General Coordinator and any other officer that the General Board considers necessary to assist the General Coordinator in the fulfilment of his administrative functions.
3. All staff will be appointed by the General Coordinator, prior approval by the Chairperson and the General Board, and with the powers proposed by the latter.
4. When appointing professional staff, consideration will be first given to candidates from member States who are duly qualified and have the required experience, before considering other candidates.

Article 14
ARCM EXECUTIVE COMMITTEE

1. The ARCM Executive Committee shall be comprised with the members of the AIG SAM meeting.
2. The Executive Committee will meet at least once a year, and may hold extraordinary sessions as needed, especially for reviewing and approving the ARCM documents. Executive Committee meetings can be face-to-face or virtual, as it may agree.
3. The Executive Committee shall prepare and present the ARCM work programme to the president of the General Board.

Article 15
AIG TECHNICAL COMMITTEE

The Technical Committee (TC) will consist of one or more AIG specialists assigned to the ICAO South American Regional Office and, if so required, other specialists, duly qualified, in areas related to aircraft accident and incident investigation, as requested by the Chairperson of the General Board and assigned by their respective States. The main functions of the AIG TC of the ARCM will be:

- a) Advise the General Coordinator on administrative functions concerning AIG and on the establishment and management of the ARCM;
- b) Coordinate with Focal Points the face-to-face and virtual meetings to discuss issues inherent to the operation and activities of the ARCM;
- c) Under the direction of the Chairperson of the General Board, execute the annual work programme approved by the ARCM General Board;
- d) Plan and develop a technical cooperation programme at the request of the States;
- e) Propose the required regulations and procedures concerning aircraft accident and incident investigation for their harmonisation and/or adoption by the participating States, and review and amend them as necessary, establishing working groups to that end;
- f) Provide advice to ARCM member States on the proper implementation of harmonised regulations and procedures;
- g) Recommend the participating States to harmonise and/or adopt the standard ARCM regulations and procedures;
- h) Encourage the dissemination of all harmonised AIG documents.
- i) Identify the assistance requirements of AIG Authorities in terms of aircraft accident and incident investigation;

- j) Prepare and submit to the Chairperson and the General Board, on an annual basis, the draft programme of activities for its approval;
- k) Review the reports of the AIG panel and express opinion over matters submitted to its consideration by such panel.
- l) Review the reports on quarterly and annual trends related to accidents, serious incidents, incidents and latent conditions emerging from investigations, and recommend appropriate mitigation measures to the Chairperson and the General Board;
- m) Express its opinion on amendments to ARCM regulations when so requested by the Chairperson and the General Board; and
- n) Analyse the repercussions of the exit of one or more States from the ARCM and report accordingly to the General Coordinator and the Chairperson;

Article 16 **ARCM FOCAL POINTS**

Focal Points are officials of the States in the area of aircraft accident and incident investigation appointed with the purpose of establishing a fast communication link with the ARCM Technical Committee, and promoting and coordinating ARCM activities within their Administration.

Article 17 **FUNCTIONS OF ARCM FOCAL POINTS**

ARCM Focal Points have the following functions:

- a) act as a liaison between their State and the ARCM;
- b) be aware of the agreements and documents concerning the ARCM and disseminate them in their State;
- c) receive documentation sent by the Technical Committee through email or other appropriate means;
- d) distribute to the corresponding working groups the information sent by the Technical Committee for assessment and comments;
- e) follow-up on the tasks of the working groups of his/her State concerning the assessment of the documentation sent by the Technical Committee; and ensure timely response to communications sent by the Technical Committee; and
- f) conduct annual meetings to assess progress of the ARCM work programme and propose new initiatives.

Article 18

AIG PANELS

1. Experts Panels will be established at the request of the General Board, prior coordination and appointment by member States.
2. Experts Panels will operate in accordance with the work instructions of the experts panels of the South American ARCM.

Article 19

RELATIONSHIP BETWEEN THE ARCM AND MEMBER STATES

1. At the end of each year, the ARCM will prepare an annual report on the performance of its functions during that year for submission to member States.
2. Member States can provide general policy guidance to the ARCM regarding the performance of ARCM functions, provided such guidance is consistent with the procedures of this manual.

Article 20

FUNCTIONS OF MEMBER STATES

Member States will:

- a) implement the safety recommendations received as a result of accident and incident investigations in cases deemed necessary;
- b) consider the use of common regulations prepared by the ARCM on accident and incident investigation that are consistent with the provisions of Annex 13 to the Convention on International Civil Aviation – *Aircraft accident and incident investigation*;
- c) participate in ARCM activities aimed at assisting other member States in the area of accident and incident investigation;
- d) support the ARCM by offering the services of investigators for conducting an aircraft accident or incident investigation, when so requested by member States. Travel costs and per diems will be covered by the States requesting such services.
- e) adopt and support training measures and programmes for accident and incident investigators and other technical staff.

Article 21
ARCM COOPERATION PROVISIONS

Cooperation:

- a) the ARCM will operate on the basis of cooperation as agreed among member States, through expert missions, the organisation and conduction of different activities as required for the training of investigation personnel of the region, and follow-up of issues to be addressed; and
- b) through donations, subsidies in order to meet the objectives of the ARCM.

Article 22
RIGHTS AND ENTITLEMENTS

Each State will grant ARCM investigators and/or experts rights and entitlements required for the attainment of their objectives and the performance of their functions in accident investigations, when required by another.

Article 23
CONFLICT RESOLUTION

In case of conflict between a member State and the ARCM, the member State involved and/or the ARCM will first try to reach a solution through negotiation and conciliation before submitting the case to the consideration of member States.

Article 24
ARBITRATION

When a member State and/or the ARCM are not able to resolve a dispute, it will submit for consideration of the General Board which will decide by simple majority whose decision will be binding.

Article 25
AMENDMENTS

1. Any State may propose amendments to this manual.
2. Any proposed amendment will require the approval of all the States before entering into force.

Article 26
ENTRY INTO FORCE

This manual will enter into force after formal approval by the Second Meeting of AIG Authorities.
