

# REPORT ON THE AIG REGIONAL MEETING

Lima, 18 - 20 March 2014

## 1. Background

This report contains the summary and results of the South American Regional Meeting on air accidents and incidents investigation (AIG), organized by the ICAO South American Office, and held in Lima, Peru, from 18 to 20 March 2014.

## 2. Development of the event

2.1 The event was developed as planned, following the programme presented as **Attachment A** to this report.

2.2 Participants attending the meeting totalled 22 representatives from AIG authorities of SAM States, and 4 industry representatives. The complete participants list, including States and industry representatives, as well as speakers, is being presented in **Attachment B** to this report.

2.3 Mr. Franklin Hoyer, ICAO South American Regional Office Director, opened the meeting, presenting a summary of the issues to be discussed, and with welcome words addressed to the participants inaugurated the meeting.

2.4 Mr. Oscar Quesada, ICAO South American Regional Office Deputy Director, presented the Office AIG vision, analysed the lack of effective implementation (LEI) in the Region in AIG area, and explained the targets agreed upon in the Bogota declaration, among which the target of achieving in December 2016 an 80% average effective implementation (EI) in the SAM Region.

2.5 Continuing with the meeting programme, Mr. Marcus Costa, Chief, ICAO Accident Investigation Section, presented the concept of a Regional accidents and incidents investigation organization (RAIO) and the possible mechanisms for its implementation. On this issue, Mr. Costa commented that a RAIO could be implemented in different way, varying from the simplest, as the conformation of a regional investigators group, to the most complex, which is an independent, institutionalized and completely implemented RAIO. In this regard, Mr. Costa invited the meeting to analyse regional needs in order to determine in what way a RAIO could be applicable in the SAM Region.

2.6 States representatives had the opportunity to share with the meeting information on their capacities, gaps and needs in terms of aviation accidents, as well as their agreement or disagreement regarding the implementation of a RAIO in the region. In this regard, all States expressed in a unanimous way their intention to implement mechanisms of regional cooperation as an initial step for the implementation of a RAIO. In **Attachment C** to this report, a table summarizing AIG capacities of each State is being presented

2.7 Mr. Arturo Martínez, Information and Communication Technology Assistant, ICAO South American Office, delivered a presentation on accidents and incidents information reporting (ADREP) through an AIG organization database.

2.8 Finally, Mr. Marcelo Ureña, Flight Safety Officer, ICAO South American Office, presented the global and regional AIG effective implementation (EI) rate for the SAM region, statistics of accidents occurred in the region during period 2005 – 2012, and the different guidelines for the development of a strategic AIG regional cooperation plan. Regarding the

regional AIG effective implementation (EI) rate, the meeting requested to know regarding the protocol questions presenting least compliance. **Attachment D** to this report presents protocol questions (PQ), grouped by sub-areas, showing least compliance in the region.

2.9 Following the agenda of the meeting, three working groups were conformed to develop an AIG regional cooperation strategic plan, with State and Industry representatives. In these working groups, participants had the opportunity to exchange information and arrive to a consensus regarding a proposal for implementing the first steps of an AIG cooperation plan for the SAM Region.

2.10 Once deliberations were concluded, the groups had the opportunity to present their work and conclusions, exchanging points of view. A synthesis of these agreements is being detailed below in Paragraph 3-Conclusions of the present report.

2.11 Representatives from Airbus, Embraer and Bell Helicopter, delivered presentations on assistance to and coordination with AIG authorities in case of accident. They also presented their different points of view regarding the implementation of a RAIO in the SAM Region.

2.12 Closing the meeting, Mr. Franklin Hoyer, Regional Director of the ICAO South American Office, thanked participants for the work done and pointed out the results obtained in the meeting.

2.13 All the presentations delivered during the meeting have been made available in the following link of the ICAO South American Office webpage:

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

### **3. Conclusions**

3.1 The meeting agreed on the benefits that could be obtained from a RAIO, in any of its forms. Likewise, consensus was reached on the RAIO as a solution for States having difficulties in attending international commitments regarding accidents investigations.

3.2 Also, the meeting recognized that a RAIO could be a long-term complex task, which could present different political and economic obstacles, and though benefits appear to be evident, it would be necessary to show with clear figures the benefits that could be attained as a way to facilitate decision making in the future.

3.3 It was agreed that the correct strategy to go forward with the establishment of a RAIO is the adoption of an implementation process “*by phases*”, identifying concrete objectives for each phase.

3.4 Activities agreed by AIG authorities for the First Phase are as follows:

- a) appointment of a General Coordinator, who preferably will be a representative of the ICAO South American Regional Office;
- b) appointment of focal points for each SAM State with deadline 10 April 2014; and
- c) development of the vision, mission, objectives, activities, results and performance indicators.

This phase is expected to be concluded on 10 September 2014.

3.5 The meeting agreed that in order to be able to proceed with any assessment or work oriented to the creation of a RAIO it would be necessary to count with the necessary human and material resources. In this regard, the ICAO Regional Office informed the meeting on different administrative mechanisms to enable States to provide ICAO with human resources, such as *secondments* or missions under technical cooperation national projects. In this way, the Regional Office could count with one or more AIG specialists appointed to carry out the First Phase of the project leading to the creation of a RAIO in any of its forms.

3.6 Representatives from Brazil, Argentina and Peru expressed their interest in participating of this initiative.

3.7 The meeting agreed, likewise, that the ICAO South American Regional Office issue a letter to SAM States informing on the purpose and benefits of a RAIO, and requesting the necessary resources to initiate the project First Phase.

3.8 Participants also agreed in organizing virtual meetings for follow up of First Phase activities progress. A new face-to-face meeting was tentatively programmed to be held in 6 months.

#### **4. Recommendations**

4.1 The meeting recommended that the ICAO South American Regional Office provides follow up to the compliance of agreements reached by the meeting, and continue providing support to the development and of the AIG activities to be programmed in the future.



Organización de Aviación Civil Internacional  
International Civil Aviation Organization

Oficina para Sudamérica (SAM) / South American Office (SAM)

**Reunión regional sudamericana sobre investigación de accidentes e incidentes aéreos (AIG) /  
South American regional meeting on air accident/incident investigation (AIG)**

Lima, Perú, 18-20 Marzo/March 2014

ATTACHMENT A

**PROGRAMA DE LA REUNIÓN / MEETING PROGRAMME**

**DÍA UNO / DAY ONE**

**Martes 18 de Marzo / Tuesday 18 March 2014**

09:00 – 09:45	Registro / Registration
09:45 – 10:00	Apertura / Opening Bienvenida e introducción por la Oficina Regional / Welcoming and introduction by the Regional Office
10:00 – 10:15	<i>Foto de Grupo / Group Picture</i>
10:15 – 10:45	<i>Pausa para café / Coffee break</i>
10:45 – 10:55	Visión de la Oficina SAM / SAM Office vision <i>Sr. Oscar Quesada – Subdirector / Deputy Director, OACI Oficina Regional Sudamericana / ICAO South American Regional Office</i>
10:55 – 11:40	El concepto de una Organización Regional de Investigación de Accidentes e Incidentes (RAIO) / The concept of a Regional Accidents and Incidents Investigation Organization (RAIO) <i>Sr. Marcus Costa – Jefe de la Sección de Investigación de Accidentes / Chief Accident Investigation Section, OACI / ICAO Montreal</i>
11:40 – 12:20	Realidad regional AIG: Presentación de los Estados / Regional reality: States presentations (Cada Estado dispondrá de 20 minutos, para explicar su organización, capacidades, dificultades y la visión sobre la implantación de una Organización regional de investigación de accidentes e incidentes (RAIO) / Each State will have 20 minutes to explain its organization, facilities, difficulties and the vision regarding a Regional accident and incident investigation organization (RAIO) - Argentina - Bolivia
12:20 – 13:50	<i>Almuerzo / Lunch</i>
13:50 – 15:10	Realidad regional AIG: Presentación de los Estados / Regional reality: States presentations - Brasil / Brazil - Colombia - Chile - Ecuador
15:10 – 15:40	<i>Pausa para café / Coffee break</i>
15:40 – 16:20	Realidad regional AIG: Presentación de los Estados / Regional reality: States presentations - Guyana - Paraguay

**DÍA DOS / DAY TWO**  
**Miércoles 19 de Marzo / Wednesday 19 March 2014**

09:00 – 10:00	Realidad regional AIG: Presentación de los Estados / Regional reality: States presentations - Perú / Peru - Suriname
10:00 – 10:30	<i>Pausa para café / Coffee break</i>
10:30 – 11:00	Base de datos de una organización AIG (ADREP) / AIG organization database (ADREP) <i>Sr. Arturo Martínez, Asistente de Tecnología de la Información y Comunicación / Information and Communication Technology Assistant, OACI / ICAO Lima</i>
11:00 – 11:20	Presentación de las directrices para el desarrollo de un plan estratégico de cooperación regional AIG / Presentation of guidelines for the development of an AIG regional cooperation strategic plan <i>Sr. Marcelo Ureña, Oficial de seguridad operacional / Regional Officer Flight Safety, OACI Oficina Regional Sudamericana / ICAO South American Regional Office</i>
11:20 – 12:20	Trabajo en grupos - Taller sobre la elaboración de un plan estratégico de cooperación regional AIG / Workshop on the elaboration of an AIG regional cooperation strategic plan (Una vez presentadas las directrices, la plenaria se dividirá en 4 grupos / Once presented the guidelines, the plenary will be divided in 4 groups)
12:20 – 13:30	<i>Almuerzo / Lunch</i>
13:30 – 14:45	Continuación del trabajo en grupos / Workshop continuation Taller sobre la elaboración de un plan estratégico de cooperación regional AIG / Workshop on the elaboration of an AIG regional cooperation strategic plan
14:45 – 15:15	<i>Pausa para café / Coffee break</i>
15:15 – 16:40	Continuación del trabajo en grupos / Workshop continuation Preparación de la presentación del plan estratégico / Preparation of the strategic plan presentation

**DÍA TRES / DAY THREE**  
**Jueves 20 de Marzo / Thursday 20 March 2014**

09:00 – 10:20	Presentación del Plan estratégico desarrollado por cada grupo / Presentation of the strategic Plan developed by each group (20 minutos cada grupo / 20 minutes each group)
10:20 – 10:50	<i>Pausa para café / Coffee break</i>
10:50 – 11:30	Presentación de EMBRAER / EMBRAER Presentation (40 minutos / 40 minutes)
11:30 – 12:10	Presentación de AIRBUS / AIRBUS Presentation (40 minutos / 40 minutes)
12:10 – 13:10	<i>Almuerzo / Lunch</i>
13:10 – 13:50	Presentación de Bell Helicopter / Bell Helicopter Presentation (40 minutos / 40 minutes)
14:00 – 14:15	Clausura / Closing

**ATTACHMENT B**  
**Participants List**  
**Regional AIG Meeting, Lima, Peru, 18-20 March 2014**

**Regulators**

	<b>State</b>	<b>Name</b>	<b>Entity</b>	<b>Responsibility</b>	<b>Telephone No.</b>	<b>Email</b>
1	Argentina	Pamela Suárez	JIAAC	Presidente	+5411 4382 8890 / 8891	psuarez@jiaac.gov.ar
2		Daniel Barafani	JIAAC	Jefe Departamento de Investigación Operativa	+5411 4382 8890 / 8891	info@jiaac.gov.ar
3		Hernán Gómez	Subsecretaría de Transporte Aerocomercial	Asesor	+5411 4382 8890 / 8891	info@jiaac.gov.ar
4	Bolivia	Jorge Luis Pardo Bejar	DGAC	Jefe de Unidad AIG	+591 72040547	jpardo@dgac.gob.bo
5		José Manuel Bellido Pérez	DGAC	Investigador de Accidentes e Incidentes	+591 72167086	jbellido@dgac.gob.bo
6	Brasil	Luis Roberto Lourenco	CENIPA	Jefe de CENIPA	+5561 96548872	chefia@cenipa.aer.mil.br
7		Alexandre Gomes da Silva	CENIPA	Asesor para Asuntos Internacionales	+5561 99944192	gomesdasilvaags@cenipa.aer.mil.br
8		Marcondes Fontenele Meneses	Embajada de Brasil en Lima	Agregado Aéreo	+511 446 4703	adiaerperu@terra.com.pe
9	Chile	Alonso Lefno	DGAC	Director Departamento Prevención de Accidentes	+562 2439 2376	alefno@dgac.gob.cl
10		Cesar Araya	DGAC	Jefe Sección Investigación de Aviación	+562 2439 2372	caraya@dgac.gob.cl
11	Colombia	Gustavo Adolfo Iriarte Navas	UAEAC	Jefe Grupo Investigación de Accidentes	+573 3175171027	gustavo.iriarte@aerocivil.gov.co
12		Julian Eduardo Echeverri Valencia	UAEAC	Investigador de Accidentes e Incidentes	+573 3112786485	julian.echeverri@aerocivil.gov.co
13	Ecuador	Jaime Salazar Guzmán	DGAC	Especialista en Seguridad de Vuelo	+5932 2224746	jaime_salazar@aviacioncivil.gob.ec
14		Carlos Segura Villalba	DGAC	Inspector en Seguridad de Vuelo	+5932 2224746	carlos.segura@aviacioncivil.gob.ec
15	Guyana	Ankar Doobay	GCAA	Director, Aviation Safety Regulation (ag.)	+592 2271219	dasr@gcaa-gy.org
16	Paraguay	Emilio Reinaldo Verruck Gerke	DINAC	Gerente del Centro de Investigación y Prevención de Accidentes Aeronáuticos	+595 21 645599	everruck@dinac.gov.py
17	Perú	Pedro Avila y Tello	CIAA, DGAC	Miembro de la Comisión de Investigación de Accidentes de Aviación-Operaciones	+511 6157488	pavila@mintc.gob.pe
18		Augusto Barrantes	CIAA, DGAC	Investigador de la Comisión de Investigación de Accidentes de Aviación-Operaciones	+511 615 7488	abarrantes@mintc.gob.pe
19		Patrik Frykberg	CIAA, DGAC	Miembro de la Comisión de Investigación de Accidentes de Aviación-Aeronavegabilidad	+511 6157 488	pfrykberg@mintc.gob.pe
20		Hugo Torres	CIAA, DGAC	investigador de la Comisión de Investigación de Accidentes de Aviación-Aeronavegabilidad	+511 615 7488	ftorres@mintc.gob.pe
21	Suriname	Brian de Souza	CASAS	Director	+597 434286	bdesouza@casas.sr

	State	Name	Entity	Responsibility	Telephone No.	Email
22	SRVSOP	Javier Puente	SRVSOP	Especialista en Operaciones	+6118686	jpuente@icao.int

**Speakers - Companies**

23	Brasil	Paulo Soares Oliveira Filho	Embraer	Investigation Manager	+5512 3927 7725	paulo.soares@embraer.com.br
24	Francia	Xavier Jolivet	Airbus	Director of Flight Safety	+336 03172570	xavier.jolivet@airbus.com
25	USA	David Zwegers	Airbus	Regional Safety Director	+13056063695	david.zwegers@airbus.com
26	USA	Anthony Randall	Bell Helicopter	Manager, Continued Operational Safety	+18172803836	wrandall@bh.com

**Speakers - ICAO**

27	Sede Montreal	Marcus Costa	OACI	Jefe de la Sección de Investigación de Accidentes	+1514 954-8160	mcosta@icao.int
28	Oficina Lima	Oscar Quesada	OACI	Subdirector Regional	+511 6118686 Ext 102	oquesada@icao.int
29	Oficina Lima	Marcelo Ureña	OACI	Oficial Regional de Seguridad Operacional	+511 6118686 Ext 108	murena@icao.int
30	Oficina Lima	Arturo Martínez	OACI	Instructor ECCAIRS para la Región SAM	+511 6118686 Ext 110	amartinez@icao.int

**ATTACHMENT C**

**Tabulation of the Survey on Air accidents and incidents investigation (AIG) infrastructure  
SAM States**

State	Name of AIG Organization	¿Is it part of the CAA?	Access to Flight Data and Cock Pit Voice Recorders (CVR/FDR)	Equipment	Support agreement with other AIG	Adequate funding	Transportation means	Communications	Personnel number	Capacity to provide instructions	Needs	Support the implementation of a RAIO
									Sufficient number	Where		
<b>Argentina</b>	Junta de Investigación de Accidentes de Aviación Civil (JIAAC)	No	Si	Equipo básico personal (Telefonía, fotografía digital, computadora portátil, elementos de medición y vestimenta)/ Kit de herramientas de investigación / Equipos de laboratorio	Si	OACI Cooperación técnica, Proyecto ARG 10/801  Presupuesto del Gobierno Nacional	Disponibilidad de vehículos en todos los aeropuertos del país	Telefonía celular, Notebooks,	Área operativa: 16, Área técnica:13, Área informática: 2, Asesoría médica: 1, Asesoría jurídica: 2, Asesoría operativa: 1, Asesoría técnica: 1, Asesoría contable: 1, Capacitación: 3, Administración: 6.	Si, JIAAC con apoyo de la Universidad Nacional de La Plata y la Universidad Nacional de Córdoba		Si
<b>Bolivia</b>	Unidad de investigación y prevención de accidentes e incidentes de aviación civil	Si	No	"investigation toolkit" Equipo de protección biológica.	De acuerdo al Anexo 13 de la OACI, hemos tenido la participación inmediata de personal de la NTSB, Cessna, TCM y otros	Si, a través de la DGAC y el POA.	Vehículos y aeronaves de la AAC	Celulares corporativos sin costo de llamadas, handys, teléfonos fijos, internet, fax y video conferencia	2 técnicos, un Jefe Investigador OPS / AIR.  Una Secretaria - Archivos	Si (Curso básico de investigación de accidentes/Prevención de accidentes) a demanda.		Si
<b>Brasil</b>	CENIPA - Centro de Investigación e Prevenção de Acidentes Aeronáuticos.	No	Si	"investigation toolkit"	Brazil has its own qualified staff. When it is necessary, we ask for international support following Annex 13.	Si. Brazilian Federal Budget	Own fleet of cars and pickups (4WD)	Cell Phones to our investigators	Investigator in-Charge /or Operational Area - 44 Human Factors - Psychology - 10 Human Factors - Medical - 08 Engineering - 06 ATC Area - 12	Yes. CENIPA - Aeronautical Accident Investigation and Prevention Center	In Brazil, there still aren't Universities or Training Centers specialized or dedicated to teaching accident investigation matters.	Si

State	Name of AIG Organization	¿Is it part of the	Access to Flight Data and Cock Pit	Equipment	Support agreement with other	Adequate funding	Transportation means	Communications	Personnel number	Capacity to provide instructions	Needs	Support the implementation of a RAIO
Chile	Departamento Prevención de Accidentes	Si	No	Los investigadores cuentan con herramientas y elementos para reunir en el terreno las evidencias que les permitan materializar la investigación	la Junta Investigadora podrá solicitar la participación de especialistas nacionales e incluso internacionales, en cumplimiento a lo establecido en el Anexo 13	Si. Presupuesto anual asignado por la Dirección General de Aeronáutica Civil	Vehículos propios o rentados, medios aéreos institucionales o comerciales	Red institucional, smartphones con disponibilidad de transmisión de voz y data	40 personas, entre las que se incluyen especialistas en prevención de accidentes, psicólogas de aviación especialistas en factores humanos, abogados, especialistas en investigación de accidentes de aviación, tanto del área operativa como técnica	No		Si
									Si			
Colombia	Grupo de investigación de accidentes e incidentes de aviación	Si	Existen convenios con compañías y fuerza aérea.	4 kits de investigación de campo que incluye en cada uno: lupa, ropa protectora, guantes y botas, reglas, decámetro, cámara fotográfica, filmadora, laptop, herramientas para tomar muestras de fluidos	Se cuenta con personal calificado, de todos modos la legislación permite concertar expertos de otras áreas.	No	Vehículo campero Landrover modelo 1998	2 celulares	Orgánicos del grupo hay 4 (1 piloto ala fija, 1 piloto ala rotatoria y 2 ingenieros) Los demás expertos se solicitan a requerimiento.	Si, en el Centro de Estudios de Aeronáuticos-CEA 2 cursos básicos de investigación de accidentes al año para 20 personas cada uno.	Pruebas para la investigación. (fractografía, motores) • Recursos limitados para la investigación de accidentes (realización de exámenes, pruebas, etc) • Falta de capacitación especializada para el personal * falta de personal vs el número de operaciones de vuelo. * Proyecto de	Si
									No			

State	Name of AIG Organization	¿Is it part of the	Access to Flight Data and Cock Pit	Equipment	Support agreement with other	Adequate funding	Transportation means	Communications	Personnel number	Capacity to provide instructions	Needs	Support the implementation of a RAIO
											independencia administrativa y operativa	
<b>Ecuador</b>	Junta Investigadora de Accidentes e Incidentes de Aviación (JIA)	si	no	Cámaras fotográficas digitales, cintas métricas inclinómetros brújulas, GPS grabadoras digitales lupas linternas	no	Asignado por la DGAC, no es suficiente	no se cuenta con vehículo propio	3 walkie talkies de alcance limitado	operaciones de vuelo 2 personas; tránsito aéreo 2 personas; meteorología 2 personas; factores humanos 2 personas; aeronavegabilidad 3 personas; auxiliar de cabina 1 persona No	no	carencia de personal propio • carencia de facilidades para efectuar análisis especiales • carencia de un presupuesto propio	Si
<b>Guyana</b>	Guyana Civil Aviation Authority (GCAA)	Si	Yes, through the US NTSB	No	Yes, with the Caribbean Aviation Safety and Security System (CASSOS)		Transportation is provided	Mobile phones are used whenever practicable	Guyana does not have an AIG office. No	No		
<b>Panamá</b>	Unidad de prevención e investigación de accidentes (UPIA)	Sí	Sí	Equipo de acuerdo a los especificado en el manual de investigación de accidentes: Documentos de identidad, placa acreditativa, brazalete o chaleco de gran visibilidad. La documentación pertinente; equipo topográfico; materiales de señalización; herramientas y materiales para	No. Panamá cuenta con personal propio y debidamente calificado.	Sí, hay presupuesto designado para tal fin.	Transporte terrestre, aéreo y marítimo.	Telefonía celular, computadora portátil	Sí. Nivel de Ingeniería Aeronáutica, inspectores de aeronavegabilidad, inspectores de operaciones de vuelo e inspectores de operaciones de aeropuertos, Medicina aeronáutica, Servicios de Tránsito aéreo y Comunicaciones aeronáuticas.	Sí, en el Instituto Superior de Formación Profesional Aeronáutico (ISFPA)		

State	Name of AIG Organization	¿Is it part of the	Access to Flight Data and Cock Pit	Equipment	Support agreement with other	Adequate funding	Transportation means	Communications	Personnel number	Capacity to provide instructions	Needs	Support the implementation of a RAIO
				pruebas y artículos varios					Cada uno como perito en su área correspondiente.			
Paraguay	Centro de investigación y prevención de accidentes aeronáuticos (CIPAA)	si	no	trajes contra contaminación biológica; kit de herramientas (marca craftsmann); lupa linterna; filmadora con zoon 32 x; cámaras digitales GPS		si. Presupuesto anual de la DINAC	camioneta doble cabina (4x4) equipada con radio VHF y HF  transporte aéreo en coordinación con la DINAC	Radio base VHF; radio base HF; radios portables VHF; radios portables VHF rango aeronáutico	Controlador de tránsito aéreo: 5 (cinco); Piloto aviador: 2 (dos); Abogado: 4 (cuatro); Inspector AIR: 1 (uno); Inspector SAR: 1 (uno); Perito forense: 1 (uno); Despachante de operaciones de vuelo: 4 (cuatro); Mecánico de aviación: 2 (dos); Técnico en aeródromos: 1 (uno); coordinador SAR 2 (dos)  Si	No		Si
Perú	Comisión de Investigación de Accidentes de Aviación - CIAA	No	No	Cámaras digitales con GPS integrados; equipos portátiles de GPS; laptop, traje de protección personal	A requerimiento de personal adicional, este se gestiona mediante un memo de solicitud	Si. Presupuesto anual variable proveniente de Recursos Ordinarios (Ministerio de Economía y Finanzas- MEF) Parte de la financiación suplementaria para la investigación de accidentes o incidentes	transporte se coordina con la DGAC	Radio portátiles, teléfonos celulares provistos por la CIAA	03 Investigadores, uno de operaciones (aviones) y dos de aeronavegabilidad.  Si	No	Establecimiento de un laboratorio de CVR y DFDR y lugares de almacenamiento para los restos de las aeronaves involucradas en investigaciones.	Si

State	Name of AIG Organization	¿Is it part of the	Access to Flight Data and Cock Pit	Equipment	Support agreement with other	Adequate funding	Transportation means	Communications	Personnel number	Capacity to provide instructions	Needs	Support the implementation of a RAIO
						graves, se logra mediante la ejecución de la cláusula AVN76 de la póliza de seguros de los operadores						
Suriname	Civil Aviation Safety Authority Suriname (henceforth CASAS).		No	investigation field kit contents: 1) one set of combination spanners (open & box end) standard & metric sizes 2) 2 (two) adjustable spanners 3) 2 (two) socket sets (1 standard & 1 metric) 4) one mallet 5) one crow bar (small) 6) one set of flat screw drivers 7) one set of philips screwdrivers 8) two wire cutters 9) one hacksaw with 2 (two) spare blades 10) 2 (two) stanley knives 11) 2 (two) swivel head inspection mirrors 12) one inclinometer 13) sample plastic containers with screw top	There are no MOU's or arrangements with other States. CASSOS, technical experts are available.	Yes. Funded out of our own funds which are primarily generated out of the passenger safety fee	4 x 4 vehicles and aircraft can be chartered if needed	Cell phones	1 Flight ops and 2 Airworthiness Inspectors who have received formal Accident & Incident Investigation Training	No	The establishment of an Independent* Investigation Board consisting of members who have received formal training and who have gained experience in the field of Aircraft Accident Investigation	Si

State	Name of AIG Organization	¿Is it part of the	Access to Flight Data and Cock Pit	Equipment	Support agreement with other	Adequate funding	Transportation means	Communications	Personnel number	Capacity to provide instructions	Needs	Support the implementation of a RAIO
				14) tape measure (long) 15) ruler (preferably metallic) 16) magnifying glass (10x) 17) 3 (three) torches with spare batteries (alkaline) 18) digital photographic camera (with spare battery) 19) calculator 20) magnetic compass 21) marking labels/tags 22) string 23) marking pens (preferably "sharp by markal") 24) plastic bags 25) sealing tape 26) gps 27) set of hand gloves (leather) (one for each investigator) 28) set of latex surgical hand gloves 29) tape or digital recorder (spare batteries & cassettes) 30) appropriate carrying case								
<b>Uruguay</b>	Dirección Nacional de Aviación Civil de infraestructura Aeronáutica	Si	No	Herramientas genéricas de tarea	No		Vehículo 4x4	Equipos de comunicación portátiles , teléfonos celulares	Personal permanente: 1 Jefe coordinador; 2 investigadores formados en la NTSB; 1 Mecánico	No		

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									aeronáutico en caso de necesidad se forma una comisión colaboradora con otro miembros aportantes			
									No			
Venezuela	Dirección General para la Prevención e Investigación de Accidentes Aéreos (DGPIAAE)	No	No	Binoculares; filmadora; cámara fotográfica; baterías; braga de protección; Chaleco; chaquetas; mascarillas con filtro; jeringas; linternas resistentes al agua; GPS; cava mediana; cantimploras; envase para combustible/evidencia; navaja Multiuso; bolsas plásticas para transporte de muestras; guantes protectores; Cuerda; nylon; botas de protección; repelente de Insectos.	No	Si, dispone de presupuesto asignado por el Ministerio del Poder Popular de Transporte Acuático y Aéreo de la Republica Bolivariana de Venezuela	La DGPIAAE dispone de 4 vehículos rancheros (Camioneta) para transportarse al lugar del incidente/accidente. Se solicita apoyo institucional/voluntario para traslado aéreo.		13 investigadores activos: ingenieros aeronáuticos, controladores de tránsito aéreo, pilotos, mecánicos aeronáuticos, ingenieros en materiales, Técnicos en electrónica, ingenieros de sistemas, ingenieros Industrial, abogado			No
									Si			

## ATTACHMENT D

### Accidents and incidents investigation (AIG)

#### SAM Region Status

#### Unsatisfactory protocol questions (PQ), grouped by sub-areas

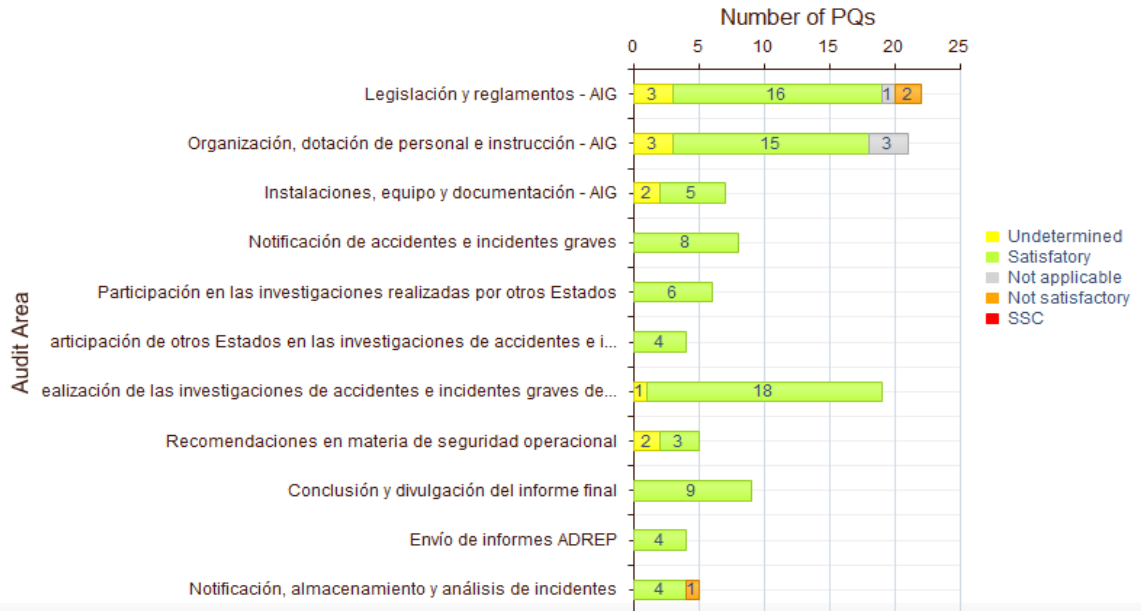


# Unsatisfactory protocol questions (PQ), grouped by sub-areas and by State

## Argentina

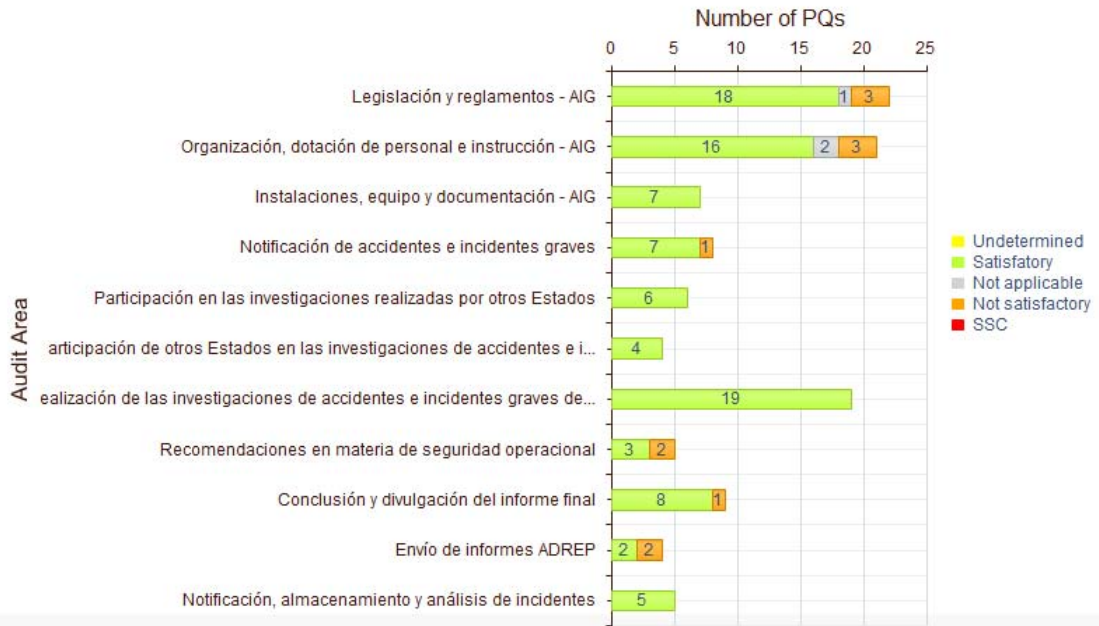
ICAO Coordinated Validation Misión from 20 March 2012 to 27 March 2012

Number of Protocol Questions (PQs) in AIG by Audit sub-group



**Bolivia (Plurinational State of)**  
 CSA Audit from 14 October 2013 to 23 October 2013

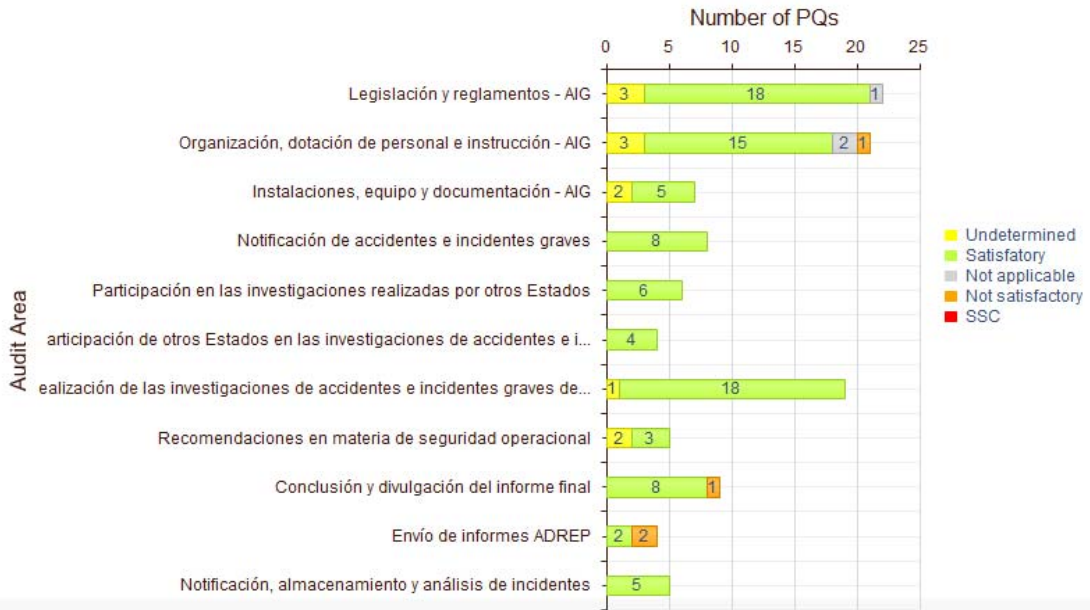
Number of Protocol Questions (PQs) in AIG by Audit sub-group



# Brazil

CSA Audit from 04 May 2009 to 15 May 2009

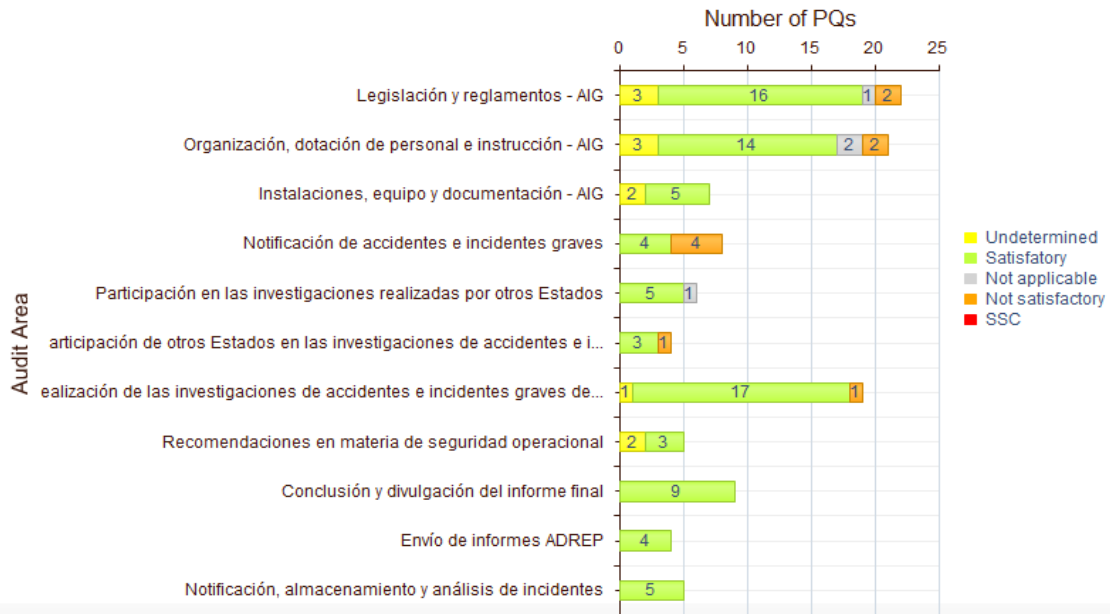
## Number of Protocol Questions (PQs) in AIG by Audit sub-group



# Chile

CSA Audit from 06 May 2008 to 16 May 2008

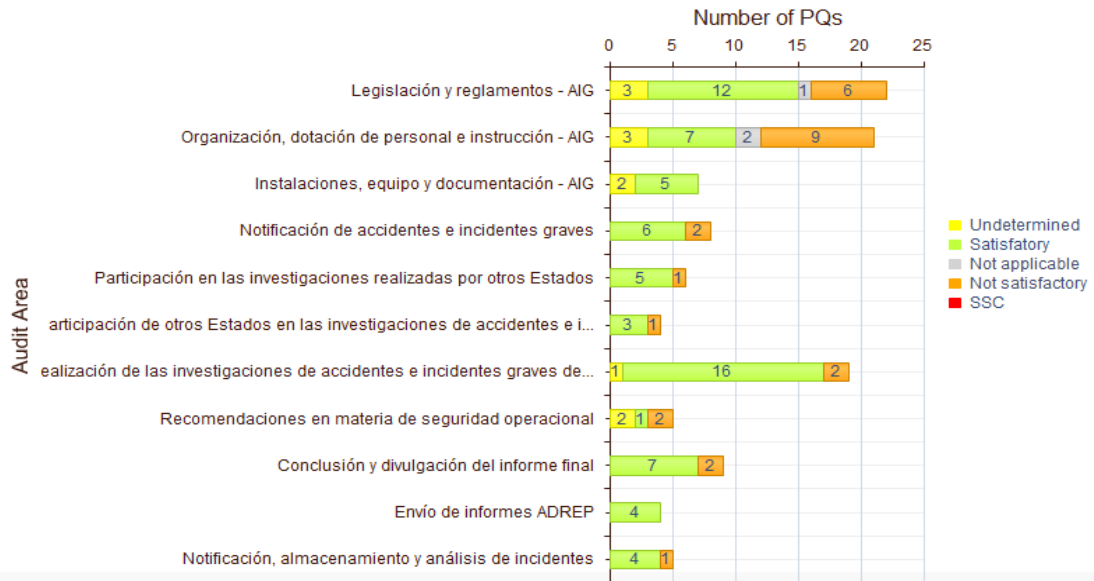
Number of Protocol Questions (PQs) in AIG by Audit sub-group



## Colombia

ICAO Coordinated Validation Mission from 14 November 2011 to 18 November 2011

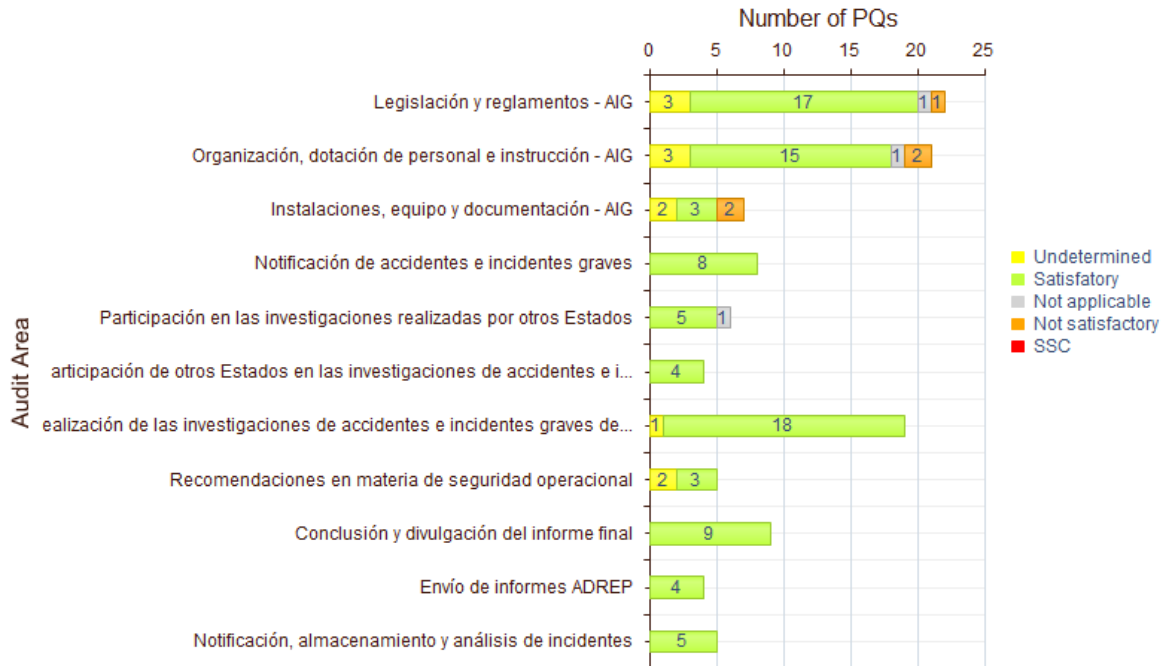
### Number of Protocol Questions (PQs) in AIG by Audit sub-group



## Ecuador

Off-site Monitoring Activity from 18 February 2014 to 18 February 2014

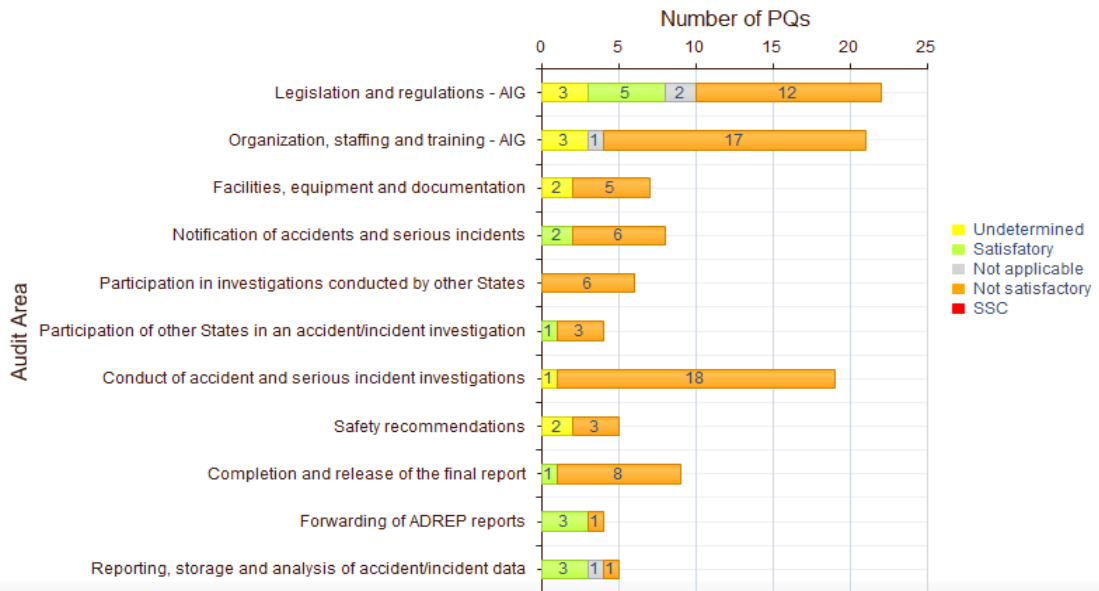
### Number of Protocol Questions (PQs) in AIG by Audit sub-group



# Guyana

CSA Audit from 12 February 2007 to 21 February 2007

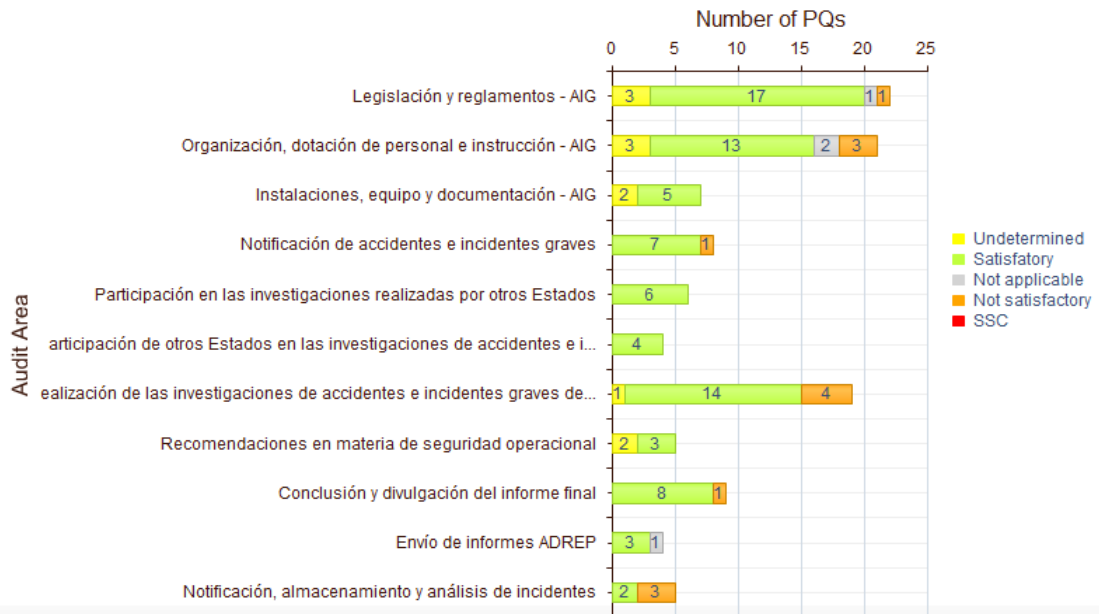
## Number of Protocol Questions (PQs) in AIG by Audit sub-group



## Panama

CSA Audit from 18 October 2005 to 27 October 2005

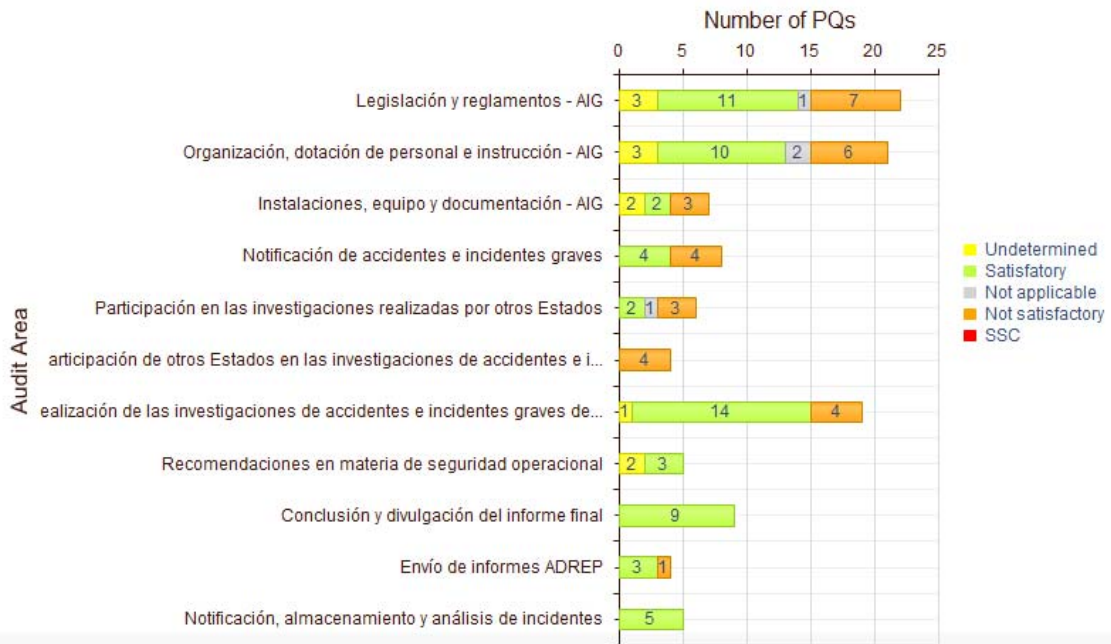
### Number of Protocol Questions (PQs) in AIG by Audit sub-group



## Paraguay

CSA Audit from 18 May 2009 to 27 May 2009

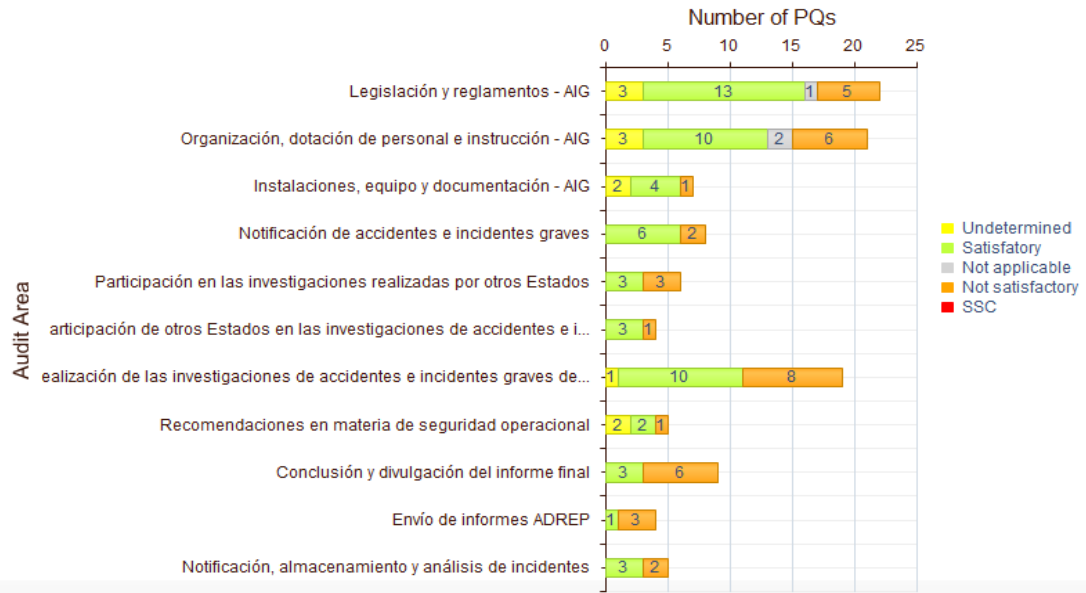
### Number of Protocol Questions (PQs) in AIG by Audit sub-group



**Peru**

CSA Audit from 15 May 2007 to 24 May 2007

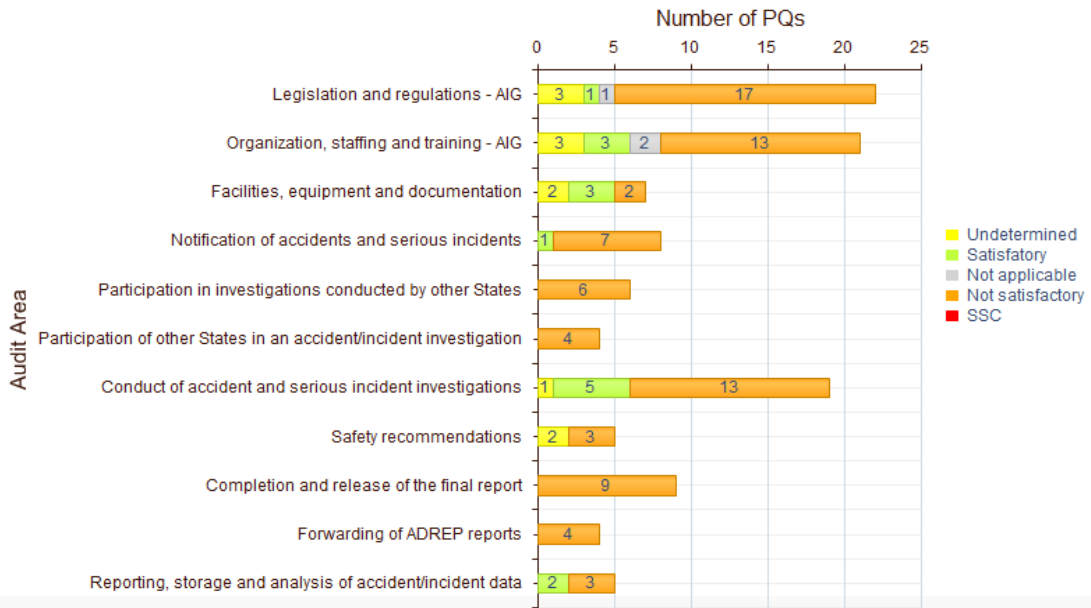
Number of Protocol Questions (PQs) in AIG by Audit sub-group



## Suriname

ICAO Coordinated Validation Mission from 21 November 2012 to 27 November 2012

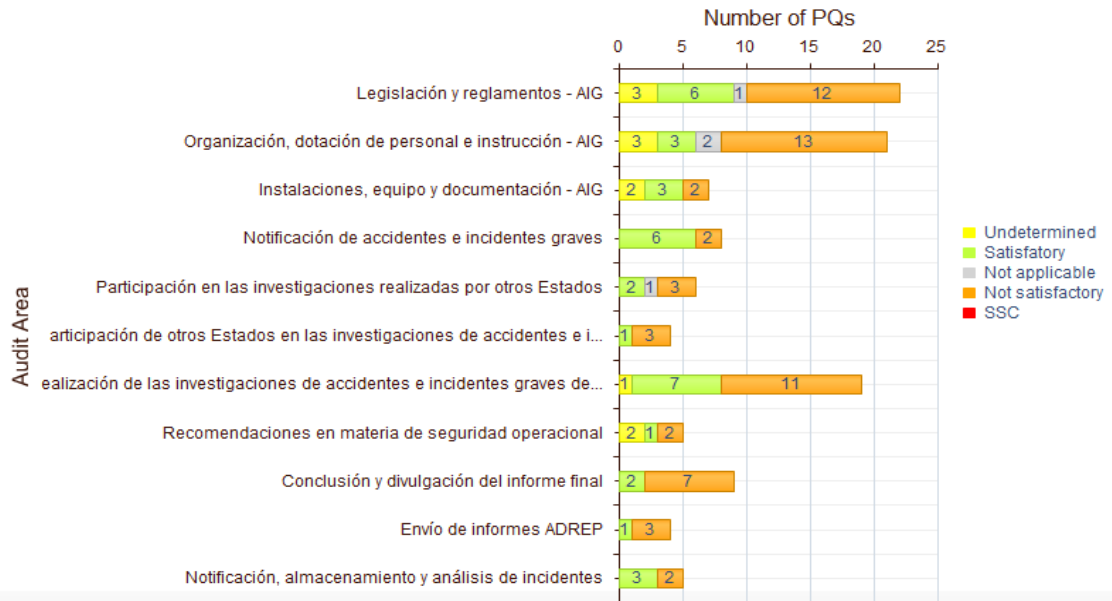
### Number of Protocol Questions (PQs) in AIG by Audit sub-group



# Uruguay

CSA Audit from 08 December 2008 to 17 December 2008

## Number of Protocol Questions (PQs) in AIG by Audit sub-group



**Venezuela (Bolivarian Republic of)**  
 ICAO Coordinated Validation Mission from 22 May 2013 to 28 May 2013

Number of Protocol Questions (PQs) in AIG by Audit sub-group

