



International Civil Aviation Organization
South American Regional Office
Eleventh Meeting of Civil Aviation Authorities of the South American Region (RAAC/11)
(Santiago, Chile, 6-8 May 2009)

Agenda Item 4: Analysis of the level of safety oversight achieved in the Region

b) Assessment of the progress made by the SRVSOP

(Presented by the Secretariat)

SUMMARY

This paper presents background information on the creation of the Regional System and the progress made since it began its activities in 2002.

References:

- Report of the Fifth Meeting of Civil Aviation Authorities;
- Memorandum of Understanding between LACAC and ICAO;
- ICAO Assembly Resolutions A 36-2 and A-29-13;
- Declaration of the Conference of Directors General of Aviation on a global safety strategy (DGAC/06); and
- ICAO Global Aviation Safety Plan (GASP).

Strategic Objective A: Safety — Enhance global civil aviation safety

5. Assist States to resolve deficiencies through regional remedial plans and the establishment of safety oversight organisations at the regional or sub-regional level.
6. Encourage the exchange of information between States to promote mutual confidence in the level of aviation safety between States and accelerate the improvement of safety oversight.
9. Assist States to improve safety through technical cooperation programmes and by making critical needs known to donors and financial organisations.

1. Introduction

1.1 The Fifth Meeting of Civil Aviation Authorities of the South American Region (RAAC/5) (Cuzco, June 1996) foresaw the need to join efforts in the area of safety and efficiency through the creation of two important projects, one for the implementation of the CNS/ATM concept (RLA/98/003) and the other for the creation of a regional multinational safety oversight mechanism (RLA/99/901).

1.2 Several ICAO Assembly resolutions, the Global Meeting, the Declaration by the Conference of Directors General of Aviation on a global safety strategy, and the ICAO Global Safety Plan are an important endorsement to the decisions made by the RAAC/5 meeting more than 12 years ago, back in 1996.

1.3 The Regional Safety Oversight System began its activities in March 2002, when the first steps were taken to meet the objectives of harmonising aeronautical standards and assisting States on safety issues, focusing on Annexes 1, 6, and 8 of the Chicago Convention. The main achievements of the Regional System since its creation are presented below.

2. Discussion

Work Strategy of the Regional System

2.1 The RAAC/5 meeting considered that the harmonisation of standards and procedures was the first step for the establishment of a multinational safety oversight mechanism. For that reason, the by-laws of the Regional System clearly list harmonisation as one of its main objectives.

2.2 Accordingly, a process started in 2002 for the development of Latin American aeronautical standards, known as Latin American Regulations (LARs), with a first version of regulations for the certification of large air operators, called LAR OPS, and regulations for the certification of aircraft maintenance organisations, which was called LAR 145.

2.3 In time, the member States of the Regional System further refined the LAR development process, which is a mechanism similar to the one for international standards in the ICAO Annexes, but simpler.

2.4 The LAR development process and its continuous improvement is the first achievement of the Regional System, since it ensures the sustainability of the results of this important regional integration mechanism.

2.5 The process is based on the search for the consensus required to define the structure of the standard, the text of each requirement, and to ensure 100% compliance with the minimum standards contained in the Annexes to the Chicago Convention.

2.6 The LARs must be developed on the basis of the following principles:

- a) Ensure compliance with the standards contained in ICAO Annexes
- b) Simple language¹
- c) Regulate according to the regional reality and the size of the industry
- d) Balance between the controlling role of the authority and freedom for operators
- e) Avoid copying models from other realities, but without having to re-invent the wheel

Work Programmes of the Regional System

2.7 In order to meet the objectives of the Regional System, the following work programmes were established:

- a) Harmonisation
- b) Multinational certification and oversight activities
- c) Training programme
- d) Meetings
- e) Support to States

¹ See Document 8335 Part I, paragraph 3.4.2

Harmonisation Programme

2.8 Within the harmonisation programme, almost all of the regulatory map required to meet international obligations derived from ICAO Annexes 1, 2, 6, and 8 has been developed. Only LAR 21 on the Identification of aircraft and aircraft components remains pending. **Appendix A** contains the regulatory map made up by 27 regulations.

2.9 To support the implementation of these regulations, the following documents have been developed as guidance material for inspectors and operators:

- a) Airworthiness Inspector Guidance Manual
- b) Operations Inspector Guidance Manual
- c) Guidance Manual for the Certification of Training Centres
- d) Acceptable Means of Compliance and Interpretative and Explanatory Material for LAR 145 (CA 145.001 MAC and MEIs)
- e) Acceptable Means of Compliance and Interpretation and Explanatory Material for LAR 67, Aeronautical Medical Certification
- f) Guidance brochure for conducting audit trials on maintenance organisations
- g) Instructions for the Work of the Panels
- h) Procedural Handbook for Holding Coordination Meetings with SRVSO Focal Points
- i) CA: 6.425-RVSM Requirements and procedures for the approval of operations in airspace designated with Vertical Separation Minima (RVSM)

2.10 The Regional System is currently supporting the implementation of various operations under the Performance-Based Navigation (PBN) concept, developing several advisory circulars that, in turn, are being used by ICAO Headquarters for the development of guidance material for other regions of the world.

2.11 The contribution of the Regional System is fundamental for timely implementation of PBN, which offers important efficiency benefits for air operations and the environment, and safety improvements.

2.12 When developing regional regulations, experts become aware of the purpose of international standards, and eliminate unnecessary national requirements that represent high costs for the industry in the region, as well as interpretation issues that frequently end up in lawsuits.

2.13 The harmonisation process is an important achievement of the Regional System, whose benefits are already being perceived by the States that have started to apply LAR standards, and that will generate a continuous improvement process to strengthen air transport in the region.

Multinational Certification and Oversight Activities

Multinational Certification of Aircraft Maintenance Organisations (AMOs)

2.14 As previously stated, the harmonisation process is just the first step for achieving the final objective of implementing a Regional Safety Oversight Mechanism. Consequently, from the beginning of its activities, the Regional System has incorporated multinational certification and oversight activities in its work programme, starting with an Aircraft Maintenance Organisation (AMO) certification trial programme.

2.15 Aircraft Maintenance Organisations are certified by the State of Registry of the aircraft or the aircraft components to which maintenance is done.

2.16 This situation is derived from the responsibilities of the State of Registry according to the Chicago Convention. However, the Convention also promotes the harmonisation and mutual recognition of certifications.

2.17 In a clearly unnecessary duplication of efforts, the Aircraft Maintenance Organisation is currently the object of up to 2 oversight audits per month in order to maintain the validity of the certifications enabling them to offer their services to different customers of the region and the world.

2.18 In 2004, the Regional System started a successful AMO certification trial programme. The programme is a process in which a team of previously trained inspectors certify an AMO based on LAR 145 as the standard to be implemented. The audit team prepares a report containing evidence of compliance with LAR 145, which is sent to the States so that they can verify that all national requirements are covered in the report of the multinational team and, if so, they issue the corresponding certification. Currently, Semán in Peru, VEM in Brazil, and LAN in Santiago, are the AMOs that maintain the certification of most System member States using this scheme, which represents a significant cost savings for the industry and the State, while ensuring greater transparency in the compliance and application of the corresponding standard. **Appendix B** to this working paper contains a summary of the certificates issued pursuant to the recognition of the LAR 145 certification audit trial.

Pilot Programme for SMS Implementation in AMOs

2.19 Since 2005 in which it became aware of a proposal for amendment to ICAO Annex 6 requiring the implementation of SMS in the AMOs as of 1 January 1009, the Airworthiness Panel of the Regional System requested the General Board to consider holding a seminar on SMS implementation in the AMOs with a view to addressing the challenge of SMS implementation.

2.20 In September 2007, this seminar was held with the participation of Transport Canada, a Canadian aircraft operator that had implemented the SMS, the Nuclear Energy Agency of Brazil, the members of the Airworthiness Panel, and several States that were not members of the System. One of the main teachings of the Canadian experience was the recommendation to begin the implementation with pilot plans, in a joint effort with the industry and the regulators.

2.21 At a feedback meeting with the industry (Lima, April 2008), the main AMOs in Latin America endorsed this pilot plan. The pilot plan was submitted to the Regional Pan American Safety Group (RASG-PA/01), within the framework of GSI 7 on SMS implementation. RASG-PA/01 supported this programme and a request has been made to present the results to the RASG-PA/02 meeting.

2.22 It should be noted that LAR 145 as well as LARs 121 and 135 incorporate the SMS regulatory framework that is being incorporated in Annex 6 through an amendment recently approved by the ICAO Council.

2.23 This shows how the Regional System is supporting the States of the Region with the timely implementation of ICAO international standards.

Programme for the Exchange of Data on Apron Safety Inspections (IDISR)

2.24 Resolution A35-7 “Unified strategy to resolve safety-related deficiencies” encourages contracting States to fully use all the safety information available in the fulfilment of their safety

oversight functions, even during inspections, as foreseen in Article 16 of the Convention, and reminds contracting States of the need to oversee all aircraft operations, including foreign ones within their territory, and to adopt the measures required to protect safety.

2.25 Furthermore, the Resolution recognises that the establishment of regional and sub-regional safety oversight organisations has a great potential for assisting States in the fulfilment of their obligations pursuant to the Chicago Convention, through economies of scale and promoting uniformity at the highest scale; and that seamlessness and the exchange of safety-related information constitute one of the fundamental principles of a safe transportation system. Thus, it urges all contracting States to exchange safety-critical information with the other contracting States.

2.26 Through Conclusion JG 12/09 of the twelfth meeting of the SRVSOP General Board (August 2005) “Proposal for the implementation of an apron safety inspection data exchange programme”, the member States of the system fully comply with Resolution A 35-7, now A 36-2.

2.27 This programme is based on apron safety inspections made on aircraft, and the legal framework for these inspections is Article 16 of the Convention on International Civil Aviation, “Aircraft Inspection”, that states that: “the relevant authorities from each contracting States will be empowered to inspect, without causing unnecessary delays, the aircraft of the other contracting States, upon arrival and departure, and to review the certificates and other documents required by this Convention.”

2.28 In order to develop this programme, a tender took place with software providers, and two servers were purchased for the Regional System, which were installed at the ICAO Regional Office in Lima.

2.29 Through an internet-based software application, the results of an apron inspection carried out by a duly qualified inspector can be fed to a database. The results of these inspections will be analysed to detect trends and to identify hazards to air operations so that mitigation measures can be taken as necessary.

2.30 This programme is perfectly aligned with the objectives of the ICAO Global Aviation Safety Plan (GASP) and the Roadmap. Other Regions in the world are quite interested in its application and in exchanging data at a broader scale.

Participation of the Regional System in the creation of the Global Registry of Commercial Air Operator Certificates (AOC) and their operational specifications

2.31 Amendment 32 to ICAO Annex 6 simplifies the format of operational specifications with a view to creating a global database of AOCs and their operational specifications.

2.32 Through the Aircraft Operations Panel, the Regional System participates together with Australia, Canada, China, EASA, United States, IATA, and ICAO in the implementation of this global database. The work plan and the specifications for the creation of this database were developed in 2008.

2.33 This participation clearly shows the international recognition of the progress made by the Regional System.

Training Programme

2.34 **Appendix C** to this working paper contains a summary of the training activities carried out by the Regional System. It may be noted that training has been provided to 701 experts of the region, which represents approximately 28,040 training hours.

Assistance to the States

2.35 **Appendix D** contains a list of missions carried out to the States. It may be noted that, since beginning its activities, the Regional System has conducted 19 missions to provide support in different areas.

3. Conclusions

3.1 As may be seen, the Regional System has made significant progress in the Latin American region, and is presented as an example worldwide. However, all this effort can be easily wasted if there is no commitment and support to its activities at the highest level.

3.2 There is no simple integration process: Many paradigms and obstacles need to be overcome. The Regional System is an important tool for implementing the objectives of the ICAO Global Aviation Safety Plan (GASP) as well as a mechanism to strengthen air transportation in the region.

4. Suggested Action

4.1 The Meeting is invited to:

- a) take note of the information presented in this working paper regarding the progress made by the Regional Safety Oversight System;
- b) comment on the way to ensure the sustainability of the results; and
- c) continue supporting the activities of the Regional System in a tangible way.

APPENDIX A**LAR REGULATORY MAP**

GEN LARs	
Regulations	
LAR 1	Definitions, abbreviations, and symbols
LAR 11	Rules for the formulation, issuance, and amendment of the LARs
PEL LARs	
Regulations	
LAR 61	Pilot licensing and qualifications
LAR 63	Crew member licensing, excluding pilots
LAR 65	Aeronautical personnel licensing, excluding flight crews
LAR 67	Standards for issuing the aeronautical medical certificate
LAR 141	Civil Aviation Training Centres
LAR 142	Civil Aviation Training Centres
LAR 147	Civil Aviation Training Centres
OPS LARs	
Regulations	
LAR 91	Flight and general operation rules
LAR 119	Certification of air operators
LAR 121	Operation requirements: Domestic and international, scheduled and non-scheduled operations

LAR 135	Operation requirements: Domestic and international, scheduled and non-scheduled operations
AIR LARs	
Regulations	
LAR 21	Aircraft and aircraft component certification procedures
LAR 23	Airworthiness standards for normal, utilitarian, acrobatic, and commuter aircraft
LAR 25	Airworthiness standards for transport aircraft
LAR 27	Airworthiness standards for normal rotorcraft
LAR 29	Airworthiness standards for transport rotorcraft
LAR 31	Airworthiness standards for manned free balloons
LAR 33	Airworthiness standards for aircraft engines
LAR 34	Airworthiness standards for fuel drainage and exhaust gas emissions of aircraft with turbine engines
LAR 35	Airworthiness standards for propellers
LAR 36	Noise standards
LAR 39	Airworthiness directives
LAR 43	Maintenance
LAR 45	Identification of aircraft and aircraft components
LAR 145	Approved maintenance organisations

APPENDIX B

Issuance of Certificates based on Recognition of LAR 145 Certification Audit Trial

Item	Country	SEMAN	AEROPOSTAL	LAN	VEM
1	Argentina	-	-	-	(***)
2	Bolivia	Issued	Issued	Issued	Issued
3	Brazil	Issued	Issued	Issued	Issued
4	Chile	Issued	Issued	Issued	Issued
5	Cuba	Issued	Issued	Issued	Issued
6	Ecuador	Issued	-	Issued	Issued
7	Panama	-	-	Not applicable	Not applicable
8	Paraguay	Issued	(**)	Issued	(**)
9	Peru	Issued	Issued	Issued	Issued
10	Uruguay	Issued	Issued	Issued	Issued
11	Venezuela	Issued	Issued	-	(***)
12	ACSA	-	-	-	-

(**) The AMO did not meet the administrative requirements of the respective CAAs.

(***) Have conducted certificate renewal audits prior to the issuance of the respective approval certificate; likewise, the approved operation specifications do not reflect the list of capabilities assessed by the multinational team of inspectors

APPENDIX C

SUMMARY OF TRAINING ACTIVITIES CARRIED OUT BY THE REGIONAL SYSTEM AS OF 2008

Year	Name of the Course	Venue	Date	Total participants	Scholarships granted	Total hours
2004	ISO 9001:2000 Lead Auditor Course	Lima	24 - 28 May	20	20	40
	ETOPS Course	Montevideo	16 - 20 Aug	23	0	40
	RVSM Seminar	Lima	18 - 22 Oct	63	19	40
	Course on the content and application of LAR 145	Lima	15 - 29 Oct	22	16	40
2005	ISO 9001:2000 Lead Auditor Course	Lima	23 - 27 May	28	25	40
	Course on major repairs and alt. - Module 1 Supplemental Type Certification	Lima	13 - 22 Jun	24	12	80
	Course on major repairs and alt. - Module 2 Delegation Major alterations, and field approval training	Lima	01 - 5 Aug	12	8	40
	Course on major repairs and alt. - Module 3 FAA DERs and other Designees	Lima	29 Aug - 2 Sep	13	8	40
	ETOPS Course	Lima	8 - 11 Nov	15	0	32
2006	ETOPS Course	Caracas	27 al 31 Mar	28	0	40
	Course on the content and application of LAR 145	Lima	24 al 28 Apr	19	14	40
	ISO 9001:2000 Lead Auditor Course	Lima	15 - 19 May	29	25	40
	Course on major repairs and alt. - Electrical/Avionics Systems (Avionics 2) module	Panamá	21 - 30 Aug	22	0	64
	Course on major repairs and alt. - Electrical/Mechanical Systems Case Study (Avionics 3)	Panamá	12 - 14 Sep	15	0	24
	Course on the content and application of LAR 145	Buenos Aires	25 - 29 Sep	14	0	40
	First training course on the CIAC LAR and the PEL LAR	Lima	27 Nov - 2 Dec	27	18	40
2007	Course on major repairs and alt. - Cabin Safety (Structures 4) (DGAC Peru)	Lima	19 – 23 Mar	26	1	40
	Course on approval of Category II and III (CAT II and III) operations	Montevideo	19 - 23 Mar	16	0	40
	Course on major repairs and alt. - Flight Test (General 3)	Lima	26 – 30 Mar	27	0	40
	ISO 9001:2000 Lead Auditor Course	Lima	14 - 18 May	25	21	40
	Course on approval of Category II and III (CAT II and III) operations	Santa Cruz	13 - 17 Aug	35	0	40
	Course on approval of Category II and III (CAT II and III) operations	Lima	5 - 9 Oct	34	0	40
	IDISR Programme Course	Lima	12 - 15 Nov	21	11	32
Seminar on SMS system implementation (AMOs)	Lima	24 - 28 Sep	42	11	40	

Year	Name of the Course	Venue	Date	Total participants	Scholarships granted	Total hours
	Course on the content and application of LAR 145	Lima	10 - 14 Dec	16	13	40
2008	ISO 9001:2000 Lead auditor course	Lima	26 - 30 May	18	17	40
	LAR 67 Course	Lima	18 - 22 Aug	15	10	40
	PEL LAR Course	Lima	25 - 29 Aug	22	16	40
	Basic and advanced course on aeronautical licenses	Montevideo	6 -17 Oct	13	0	80
	IDISR Course	Lima	27 - 31 Oct	17	8	40
TOTAL				701	273	1272
TOTAL TRAINING MAN/HOURS				891,672		

APPENDIX D

Date	Assistance Missions to the States carried out by the Regional System	State/Institution
Jan-03	Advise the CAA on compliance with USOAP recommendations	PANAMA
Nov-03	Advise DINAC on safety in accordance with the USOAP	PARAGUAY
Dec-03	Advise the DGAC on the status of compliance with the plan of safety remedial measures	ECUADOR
Mar-04	Advise INAC on compliance with the plan of remedial measures approved by SOA + visit to air operator	VENEZUELA
May-04	Advise the DGAC on compliance with the plan of remedial measures approved by SOA + visit to air operator	PERU
Aug-04	ETOPS Course for DINACIA personnel	URUGUAY
Sep-04	Advise DGAC on decision-making concerning the new regulatory framework	CHILE
Dec-04	Advise DINACIA on safety in accordance with the USOAP	URUGUAY
Jun-05	Advise the DGAC on compliance with the plan of remedial measures approved by SOA + visit to air operator	PERU
Sep-05	Verification of the status of compliance with international civil aviation standards by the DGAC + visit to the operator TANS	PERU
Nov-05	ETOPS Course for DGAC personnel and domestic operators	PERU
Mar-06	ETOPS Course for DGAC personnel and domestic operators	VENEZUELA
Sep-06	LAR 145 Course for CRA personnel	ARGENTINA
Nov-06	Assistance for E190 pilot certification	PANAMA
Mar-07	CAT II / CAT III Course	URUGUAY
Jul-07	Advise to the DGAC in preparation for USOAP audit	BOLIVIA
Aug-07	CAT II / CAT III Course	BOLIVIA
Nov-07	CAT II / CAT III Course	PERU
Mar-08	Training on special RNAV/RNP operations	PERU