



ICAO

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North American, Central American and Caribbean Office

WORKING PAPER

RASG-PA/7 — WP/14  
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**Seventh Regional Aviation Safety Group – Pan America Annual Plenary Meeting (RASG-PA/7)**  
Willemstad, Curaçao, 11 -12 September 2014

**Agenda Item 4: RASG-PA Projects Reports**  
**4.5 Development of metrics to measure the institutional strengths of Civil Aviation Authorities**

**DEVELOPMENT OF METRICS OF INSTITUTIONAL STRENGTHENING OF THE CIVIL AVIATION AUTHORITIES**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
This working paper presents the progress made on the metric developed to measure the institutional strength of CAAs and the results on the survey carried out on this issue.	
<b>Action:</b>	The Meeting is invited to comment on the information provided in this working paper.
<i>Strategic Objective:</i>	<ul style="list-style-type: none"><li>• Safety</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• RASG-PA ESC/19 Meeting (April 2014)</li><li>• RASG-PA ESC/17 Meeting (June 2013)</li><li>• RASG-PA ESC/15 Meeting (October 2012)</li></ul>

**1. Introduction**

1.1 During the Fifteenth Meeting of the Regional Aviation Safety Group – Pan American Executive Steering Committee (RASG-PA ESC/15), held in Santiago, Chile, on 21 October 2012; it was highlighted the importance of CAAs’ institutional strength for safety.

1.2 At this Meeting it was noted that an institution well-funded, with enough flexibility to adapt their regulations to the changing environment of civil aviation, which recruits and retains highly qualified human resources, personnel training and maintain a suitable operational structure, is a fundamental pillar to ensure the safe and orderly development of civil aviation.. However, this is not the common denominator in many of the States in our region, which faced many internal challenges that end up weakening their institutions. The institutional weakness of only one CAA can generate a negative impact in a whole region.

1.3 During the Nineteenth Meeting of the Regional Aviation Safety Group – Pan American Executive Steering Committee (RASG-PA ESC/19), held in Lima, Peru from 8 to 9 April 2014 it was approved the Decision RASG-PA/ESC/19/5 - Development of metrics to measure the institutional strengths of civil aviation authorities; by which the Project started for the development of metrics to measure the institutional strengths of Civil Aviation Authorities.

## 2. Analysis

2.1 Some existing metrics could provide clues on the level of services offered by a Civil Aviation Authority; however, there is still no consensus standard that could measure the institutional strength of a Civil Aviation Authority. Therefore, the development of a metric that covers this need could be a useful tool to the continuous improvement of CAAs and a consequent increase in safety.

2.2 Considering the above premise, a methodology has been identified, which has already been developed and used to measure the strength of a regulator. This methodology is based in a social scientific analysis developed by PhD Fabrizio Gilardi, who makes a trustable diagnosis on independence indices of governmental regulators.

2.3 The methodology developed by Gilardi, argues the delegation of regulatory tasks in favour of independent agencies as a necessary condition for major credibility of governmental regulatory institutions. Therefore, the independence of regulating agencies is measured through the following 5 large variables:

- Status of the Chief of the Agency
- Status of the Management Board
- Relation between Agency, Government and Parliament
- Financial and organizational autonomy
- Regulatory competences

2.4 These variables are displayed in a survey containing 21 questions, whose ponderation and subsequent average create an “independence index” as an organization diagnosis.

2.5. The vision of the RASG-PA project aims to produce for year 2019 a metric that is globally recognized or, at least, regionally recognized, above the institutional strength level of a civil aviation authority, being understood that a stronger institutional strength, will lead to more improvement in safety aviation. Initially, the project will use Gilardi’s methodology to produce a first report, which will be distributed in the Region for corresponding feedback. The identified opportunities for improvement will be incorporated and the process will be repeated until achieving a recognized method to measure the institutional strength of the CAAs.

2.6. In order to start this project in June of the present year with the support of RASG-PA, a specialist on politics science was hired to develop the project (see the work plan included in **Appendix A**).

2.7. Following Gilardi's methodology a survey was prepared and circulated to the Region's States under letters SA314 and EMX0595 on 8 July 2014, which had a deadline for answers on 1 August 2014. The survey is being presented in **Appendix B** to this WP, and 22 States of the 48 conforming regions NAM/CAR and SAM answered it, which represents 86% of NAM/CAR States and 27% of SAM States. (Refer to **Appendix C**).

2.8. On the other hand, comments have been received to consider in the analysis the USOAP audit protocol questions related to institutional strength. These PQs are: 2.009, 2.001, 2.012, 2.051, 2.053, 2.101, 2.103, 2.203, 2.205, 1.103, 1.015, 1.051, which indeed have some relation with the questions included in the survey. In attention to these comments, the first report will include a comparative chart grouping the referred PQs with the corresponding affinity variables (**Appendix D**). This chart will be developed after obtaining the results of surveys answered in its totality.

2.9. Finally, for the development of the metric for institutional strength, it has been considered necessary to complement the analysis with organizational mappings of the most representative Region's CAAs' in order that a diagnosis of the organizations is obtained to be able to compare their level of independence from their institutional structures.

2.10. To apply this methodology and to produce a valid diagnostic, it is necessary to count with all the answers of the survey that has been circulated in the Region and, afterwards, receive comments with respect to the first report. Hence, RASG-PA is requested to consider the adoption of the following conclusion:

#### **CONCLUSION**

#### **RAGS-PA/7 – XX – SURVEY FOR THE METRIC ON INSTITUTIONAL STRENGTH OF CAAs**

To urge States to support this initiative by completing the surveys carried out within the framework of the project on development of an institutional strength metric, and to provide comments to identify possible improvement opportunities.

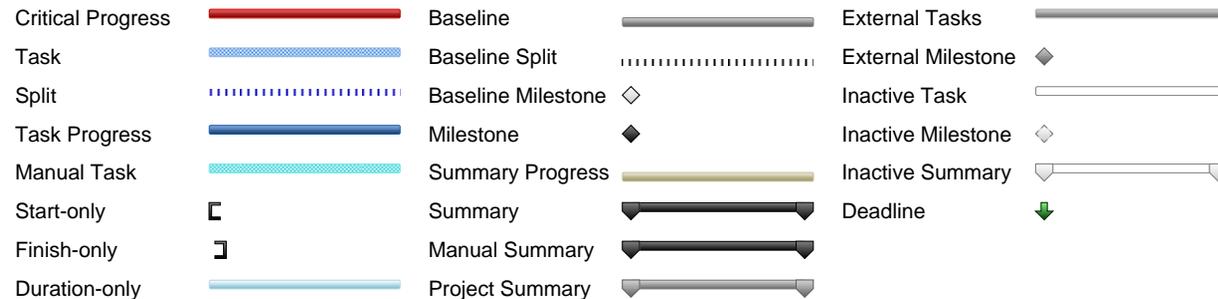
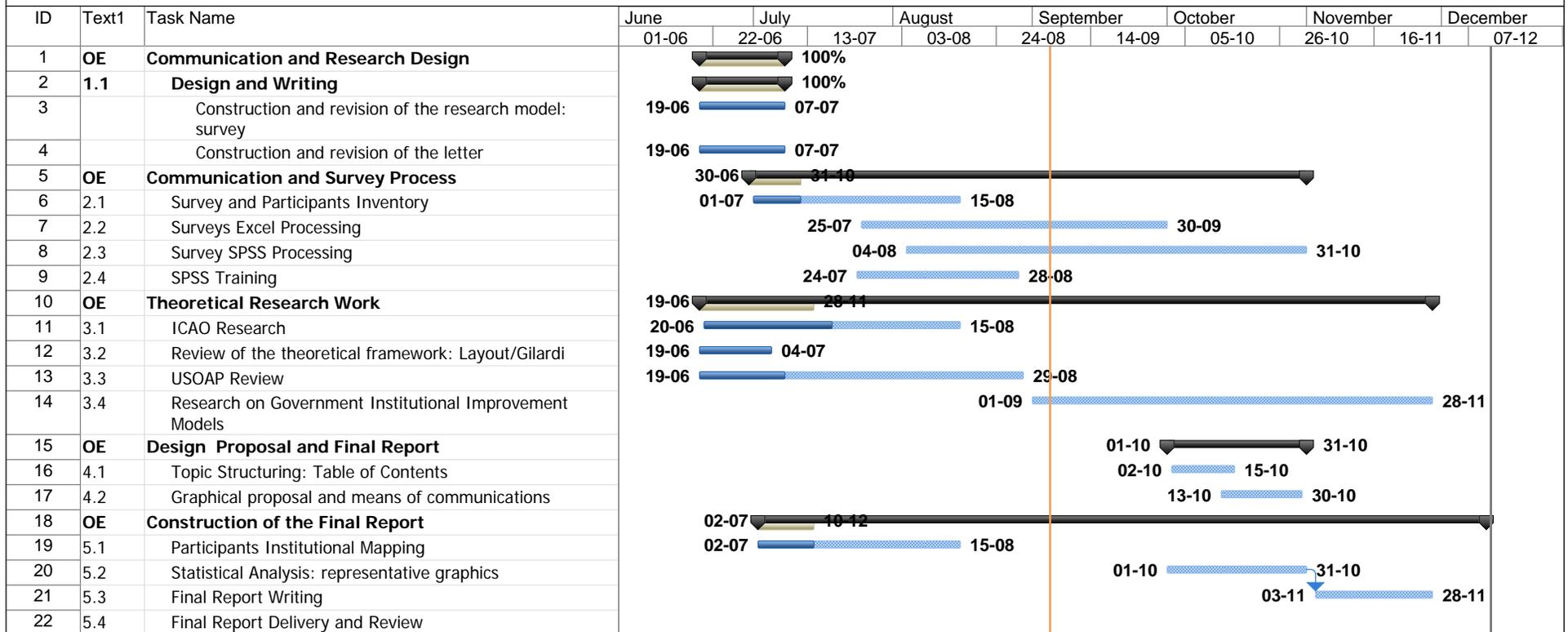
### **3. Conclusions**

3.1. The meeting is invited to:

- a) Take note of the information contained in this working paper;
- b) Analyse the information that is being provided and, if considered appropriate, approve Conclusion RASG-PA/7 – XX above; and
- c) Provide comments and suggestions considered pertinent.

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APPENDIX A  
WORK PLAN



## APPENDIX B

## REGIONAL METRIC ON INSTITUTIONAL STRENGTHENING: SURVEY

Thanks for taking your time to complete this survey. Answers should be marked with an “X” in the blank box next to “OPTIONS”

If you have questions about the survey, please send them through email [icaosam@icao.int](mailto:icaosam@icao.int)

VARIABLE	QUESTIONS	OPTIONS	
<i>Civil Aviation Authority (AAC)<sup>1</sup> head status</i>	<b>1. Term of office</b>	over 8 years	<input type="checkbox"/>
		6 to 8 years	<input type="checkbox"/>
		5 years	<input type="checkbox"/>
		4 years	<input type="checkbox"/>
		fixed term under 4 years or at the discretion of the appointer <sup>2</sup>	<input type="checkbox"/>
	<b>2. Who appoints the management board /administrative council members<sup>3</sup>?</b>	The management board members	<input type="checkbox"/>
		A complex mix of the executive and the legislature	<input type="checkbox"/>
		The legislature	<input type="checkbox"/>
		The executive collectively	<input type="checkbox"/>
		One or two ministers	<input type="checkbox"/>
	<b>3. Dismissal</b>	Dismissal is impossible	<input type="checkbox"/>
		Only for reasons not related to policy	<input type="checkbox"/>
		No specific provisions for dismissal	<input type="checkbox"/>
		At the appointer’s discretion	<input type="checkbox"/>
	<b>4. May the CAA head hold other offices in government?</b>	No	<input type="checkbox"/>
		Only with permission of the executive	<input type="checkbox"/>
		No specific provisions	<input type="checkbox"/>
	<b>5. Is the appointment renewable?</b>	No	<input type="checkbox"/>
		Yes, once	<input type="checkbox"/>
		Yes, more than once	<input type="checkbox"/>
	<b>6. Is independence a formal requirement for the appointment?</b>	Yes	<input type="checkbox"/>
No		<input type="checkbox"/>	
<i>Management board/ administrative council members’ status</i>	<b>7. Term of office</b>	over 8 years	<input type="checkbox"/>
		6 to 8 years	<input type="checkbox"/>
		5 years	<input type="checkbox"/>
		4 years	<input type="checkbox"/>
		fixed term under 4 years at the discretion of the appointer	<input type="checkbox"/>
		no fixed term	<input type="checkbox"/>
	<b>8. Who appoints the management board/administrative council members?</b>	The CAA head	<input type="checkbox"/>
		A complex mix of the executive and the legislature	<input type="checkbox"/>
		The legislature	<input type="checkbox"/>
		The executive collectively	<input type="checkbox"/>
		One or two ministers	<input type="checkbox"/>
	<b>9. Dismissal</b>	Dismissal is impossible	<input type="checkbox"/>
		Only for reasons not related to policy	<input type="checkbox"/>
		No specific provisions for dismissal	<input type="checkbox"/>
		At the appointer’s discretion	<input type="checkbox"/>
<b>10. May management board/administrative council members hold other offices in government?</b>	No	<input type="checkbox"/>	
	Only with permission of the executive	<input type="checkbox"/>	
	No specific provisions	<input type="checkbox"/>	
<b>11. Is the appointment renewable?</b>	No	<input type="checkbox"/>	
	Yes, once	<input type="checkbox"/>	

<sup>1</sup> Referred to the Civil Aviation Authority, i.e., government institutions in charge of regulating and supervising civil aeronautical activities

<sup>2</sup> Authority or institution in charge of the appointment

<sup>3</sup> Management board /administrative council referred to representatives and management of the private and public sector related to the civil aviation industry. In case of not have such Board not mark the variable.

		Yes, more than once	<input type="checkbox"/>
	<b>12. Is independence a formal requirement for the appointment?</b>	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
<b>Relationship with government and parliament</b>	<b>13. Is the independence of the CAA formally stated?</b>	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
	<b>14. Which are the formal obligations of the CAA vis-à-vis the government?</b>	None	<input type="checkbox"/>
Presentation of an annual report for information only		<input type="checkbox"/>	
Presentation of an annual report that must be approved		<input type="checkbox"/>	
	<b>15. Which are the formal obligations of the CAA vis-à-vis the parliament?</b>	None	<input type="checkbox"/>
		Presentation of an annual report for information only	<input type="checkbox"/>
		Presentation of an annual report that must be approved	<input type="checkbox"/>
		The CAA is fully accountable	<input type="checkbox"/>
	<b>16. Who, other than a court, can overturn the CAA's decision where it has exclusive competency??</b>	None	<input type="checkbox"/>
		A specialized body	<input type="checkbox"/>
The government, with qualifications		<input type="checkbox"/>	
<b>Financial and organizational autonomy</b>	<b>17. Which is the source of the CAA's budget?</b>	External funding	<input type="checkbox"/>
		Government and external funding	<input type="checkbox"/>
		Government	<input type="checkbox"/>
	<b>18. How is the budget controlled?</b>	By the CAA	<input type="checkbox"/>
		By the accounting office or court	<input type="checkbox"/>
		By both the government and the CAA	<input type="checkbox"/>
		The government	<input type="checkbox"/>
	<b>19. Who decides on the CAA's internal organization?</b>	The CAA	<input type="checkbox"/>
		Both the CAA and the government	<input type="checkbox"/>
		The government	<input type="checkbox"/>
	<b>20. Who is in charge of the CAA's personnel policy?</b>	The CAA	<input type="checkbox"/>
		Both the CAA and the government	<input type="checkbox"/>
The government		<input type="checkbox"/>	
<b>Regulatory competencies</b>	<b>21. Who is competent for regulation in the sector?</b>	The CAA only	<input type="checkbox"/>
		The CAA and another independent authority	<input type="checkbox"/>
		The CAA and the parliament	<input type="checkbox"/>
		The CAA and the government	<input type="checkbox"/>
		The CAA has only consultative competencies	<input type="checkbox"/>

**ANNEX 1**

This survey is part of the RASG-PA Pilot Project “Regional Metric on Institutional Strength”, intended to develop a methodology to measure and create a comparison standard on the Civil Aviation Authorities institutional strength level of RASG-PA State members. This project is associated to ICAO strategic objective of Safety: *Enhance global civil aviation safety*.

This Project is based in a social research methodology applied to Regulating Institutions<sup>4</sup>, developed by Fabrizio Gilardi<sup>5</sup> who created a “formal Independence rate” evaluated through the 5 variables seen in the present survey in a breakdown of 21 questions

<sup>4</sup>Scientifically tested methodology through correlative levels based on an arithmetic average of the results of the 5 variables based on benefits of Delegation for the creation of Independent Regulating Agencies.

<sup>5</sup> GILARDI, Fabrizio (2011), “Policy Credibility and delegation to independent regulatory agencies: a comparative empirical analysis” en Journal of European Public Policy, 9:6, 873-893, DOI: 10.1080/1350176022000046409. Available at: <http://www.tandfonline.com/doi/abs/10.1080/1350176022000046409#.U7L4Uc5OW-o>

**APPENDIX C  
STATES ANSWERS TO THE SURVEY**

<b>SAM</b>	<b>State</b>		<b>Answer</b>
	1	Argentina	<b>X</b>
	2	Bolivia	<b>X</b>
	3	Brazil	<b>X</b>
	4	Chile	<b>X</b>
	5	Colombia	<b>X</b>
	6	Ecuador	
	7	Guyana	<b>X</b>
	8	French Guyana	<b>X</b>
	9	Panama	<b>X</b>
	10	Paraguay	<b>X</b>
	11	Peru	<b>X</b>
	12	Surinam	<b>X</b>
	13	Uruguay	
	14	Venezuela	<b>X</b>

<b>NACC</b>	<b>State</b>		<b>Answer</b>
	15	Antigua and Barbuda	
	16	Bahamas	
	17	Barbados	
	18	Belize	
	19	Canada	<b>X</b>
	20	Costa Rica	<b>X</b>
	21	Cuba	<b>X</b>
	22	Dominican Republic	
	23	El Salvador	
	24	Granada	
	25	Guatemala	
	26	Haiti	<b>X</b>
	27	Honduras	<b>X</b>
	28	Jamaica	
	29	Mexico	
	30	Nicaragua	
	31	Saint Kitts and Nevis	
	32	Saint Lucia	
	33	Saint Vincent and the Grenadines	
	34	Trinidad and Tobago	<b>X</b>
	35	United States	<b>X</b>
	36	French Antilles	
	37	Aruba	
	38	Curacao	
	39	Sint Maarten	<b>X</b>
	40	Netherlands	<b>X</b>
	41	Anguilla	
	42	Bermuda	<b>X</b>
	43	British Virgin Islands	
	44	Cayman Islands	
	45	Montserrat	
	46	Turks and Caicos Islands	
	47	Puerto Rico	
48	Virgin Islands		

Total States polled	48
Total answers	22

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**APPENDIX D  
COMPARATIVE CHART GROUPING THE USOAP AUDIT PROTOCOL QUESTIONS (PQS) RELATED TO INSTITUTIONAL  
STRENGTH WITH AFFINITY VARIABLES**

GILARDI DIMENSIONS			PQs
<i>Civil Aviation Authority (CAA) head status</i>	Term of office	COMPARACIÓN	1.015: CAA Director Authority
	Who appoints the management board /administrative council members?		
	Dismissal		
	May the CAA head hold other offices in government?		
	Is the appointment renewable?		
	Is independence a formal requirement for the appointment?		
<i>Management board/ administrative council members' status</i>	Term of office		
	Who appoints the management board /administrative council members?		
	Dismissal		
	May the management board / administrative council members hold other offices in government?		
	Is the appointment renewable?		
	Is independence a formal requirement for the appointment?		
<i>Relationship with government and parliament</i>	Is the independence of the CAA formally stated?		
	Which are the formal obligations of the CAA vis-à-vis the government?		
	Which are the formal obligations of the CAA vis-à-vis the parliament?		
	Who, other than a court, can overturn the CAA's decision where it has exclusive competency?		

<i>Financial and organizational autonomy</i>	Which is the source of the CAA’s budget?	COMPARACIÓN	2.051: Sufficient Financial Resources
	How is the budget controlled??		2.053: Sufficient Human Resources
	Who decides on the CAA’s internal organization?		2.101: CAA active role in selection and recruitment of technical personnel
Who is in charge of the CAA’s personnel policy?	2.103: CAA capacity to attract, hire and retain appropriately qualified and experienced personnel		
	2.203: Herramientas y Equipos necesarios para el personal técnico de la AAC		
	2.205: Appropriate installations		
<i>Regulator y competencies</i>	Who is competent for regulation in the sector?		
			2.011: Clearly defined functions and responsibilities
		2.009: Legal basis	
		1.103: CAAs and CEOs dispositions	
		2.012: Responsibilities separation between ANSP and Regulator	
		1.051: Application legal dispositions	