



**Thirty First Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting  
(RASG-PA ESC/31)**

Buenos Aires, Argentina 8 to 9 November 2018

**Agenda Item 3: Safety management process within RASG-PA**

**b) Risk mitigation actions/initiatives**

**ALACPA's proposal for supporting RASG-PA activities regarding runway safety initiatives using project based approach**

(Presented by Secretariat and ALACPA)

<b>EXECUTIVE SUMMARY</b>	
<p>This working paper presents a proposal by the Latin American and Caribbean Airports Pavement Association (ALACPA), to maintain the currency of RASGPA's Guidance for Maintaining Runways according to ICAO's Annex 14, in order to support the relevance of this document thru time. This proposal is presented using a Project based approach, that the Meeting is encourage to review in order to discuss the benefits of the propose format to apply it to future RASGPA Projects.</p>	
<b>Action:</b>	Suggested action presented in section 4
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> <li>• Safety</li> </ul>
<i>References:</i>	<ul style="list-style-type: none"> <li>• ICAO Document 10004 Global Aviation Safety Plan (GASP)</li> <li>• RASGPA 2017 Annual Safety Report</li> <li>• ALACPA Directive Council 2018-2020 commitments - Active participation with ICAO thru GREPECAS and RASG-PA.</li> <li>• Decision RASG-PA ESC/11/1</li> <li>• RASGPA Safety Advisory #3 (2014)</li> <li>• Guidance for Maintaining Runways according to ICAO Annex 14 (RASGPA)</li> </ul>

**1. Introduction**

1.1. The Latin American and Caribbean Association of Airport Pavements, maintains its activities since its creation in 2002, and in the various meetings GREPECAS has presented a synthesis of its raison d'être, objectives, mission and vision. ALACPA was created by States and supported by ICAO, the FAA, Boeing and Airbus, among other organizations, as a pavement technical forum from its beginnings.

1.2. The different Directive Councils have developed their mandates, making knowledge transfer in each one of the annual seminars that have been carried out, in which technical issues related to the design,

construction and maintenance of airport pavements have been addressed, maintaining the Association's concern to keep the safety culture in force and strengthened.

1.3. The Seminars have been organized jointly with ICAO, FAA, Civil Aviation Authorities of the host countries and Airport Operators, having achieved the participation of important international professionals with great experience, who have shared their knowledge with all attendees in the panels of Discussion at the end of each session.

1.4. The last seminar was held in Quito, Ecuador, with 150 assistants approximately. The discussion included a lot presentations related of airports pavements maintenance, regulations, design (including an FAA workshop on airport pavement), best practices and safety issues. It is possible find that information in Organization's the web site at <https://www.alacpa.org>.

1.5. ALACPA has a Mutual Cooperation Agreement signed with ACI-LAC to support their activities.

## 2. Background and problem statement

2.1 According to the 2017-2019 version of the Global Aviation Safety Plan (GASP), Runway safety events were identified as one of the main high-risk accident categories. Runway safety related events include the following ICAO accident occurrence categories: abnormal runway contact, bird strikes, ground collision, runway excursion, runway incursion, loss of control on the ground, collision with obstacle(s) and undershoot/overshoot.

2.2 According to 2017 RASGPA's Annual Safety Report, the analysed reactive data highlighted Loss of Control In-flight, Runway Excursion, Controlled Flight into Terrain continue to be the top categories of interest in the Pan American Region.

2.3 According to experts in the matter, the lack of a good pavement conditions of the runway surface, contaminated runways and lack of conspicuous runway signage may be linked as a precursor for runway excursions and FOD related incidents.

2.4 During RASGPA ESC/11, the Meeting agreed on Decision RASG-PA ESC/11/1:

### DECISION

#### RASG-PA ESC/11/1

#### DETAILED IMPLEMENTATION PLAN (DIP) FOR GUIDANCE IN MAINTAINING RUNWAYS IN ACCORDANCE WITH ICAO ANNEX 14

*To mitigate runway condition/maintenance-related accidents and incidents, ACILAC will champion the compilation and development of runway maintenance guidance material for airports in the Pan American region.*

2.5 The work was concluded by ACI-LAC and PA-RAST, and on RASGPA ESC/19, the Meeting acknowledged the publication of the *Guidance for Maintaining Runways in Accordance with ICAO Annex 14 Manual* in English and Spanish by ACI-LAC and decided to publish a RASG-PA Safety Advisory (RSA) promoting the use of this document.

2.6 On May 2014, under State Letter NT-N1 17 — EMX0341, the RASGPA Safety Advisory #3 (RSA 3) was published and States and Industry were encouraging to adopt this document.

2.7 Nevertheless, since its publication on 2014, the document wasn't updated due to lack of resources, and there is no formal mechanism in place to keep the document updated. This affects the applicability and adoption of the document, as it is not up to date with current advances and updates of the referred documentation.

3. **Proposal**

3.1. As part of ALACPA's mission to support safety, thru their technical advice as the main forum for airport pavements and as part of ALACPA's-ACI LAC Mutual Cooperation Agreement, the new ALACPA Directive Council has agreed to offer both ACI-LAC and RASG-PA their support, free of charge, to keep The Guidance for maintaining runways of RASG-PA, according to ICAO's Annex 14 in the three available languages (English, Spanish and Portuguese). It has been identified that although the document is a really useful tool for both States and Operators, it is imperative to keep it updated, as it always refer to constantly changing websites, links, documents, etc.

3.2 The details on how this activity will be carried out, using a Project Management approach proposed by Secretariat, is presented in **Appendix A** of this WP.

3.3 The new ALACPA Directive Council, also wants to give formal invitation to RASG-PA membership to participate in the next ALACPA's seminar in 2019, which will be held in Costa Rica (exact dates and venue in process of confirmation). The results of this activity related to safety efforts will be reported to RASG-PA, if RASG-PA ESC agrees to.

4. **Suggested Action**

4.1 RASG-PA ESC is requested to:

- a) Take note of the information presented in this working paper;
- b) take note of the invitation by ALACPA's Directive council to RASGPA membership to participate on ALACPA's next event (2019);
- c) approve and incorporate the Project Business Case proposal attached in Appendix A of this working paper to RASGPA's Projects Portfolio.

- END -



International Civil Aviation Organization  
Regional Aviation Safety Group - Pan America (RASG-PA)

<b>Project Name:</b>	RASGPA Guidance in Maintaining Runways in Accordance to ICAO Annex 14 Vol. I		
<b>Date:</b>	02/11/2018	<b>Area of interest:</b> RS	Version: 1.0
<b>Author:</b>			
<b>Project Sponsor:</b>	RASG-PA ESC		
<b>Senior User:</b>	PA-RAST		
<b>Client:</b>	Pan American States		
<b>Document ID:</b>	RS-AGA-18-001 (Priority area + Subject + Year + Ref #)		
<b>Document link:</b>			

Note: This document is only valid on the day it was printed

## 1. Executive Summary

According to the 2017-2019 version of the Global Aviation Safety Plan (GASP), Runway safety events were identified as one of the main high-risk accident categories. Runway safety related events include the following ICAO accident occurrence categories: abnormal runway contact, bird strikes, ground collision, runway excursion, runway incursion, loss of control on the ground, collision with obstacle(s) and undershoot/overshoot.

According to 2017 RASGPA's Annual Safety Report, the analysed reactive data highlighted Loss of Control In-flight, Runway Excursion, Controlled Flight into Terrain continue to be the top categories of interest in the Pan American Region.

Among the top contributing factors for Runway Excursions in the Pan American Region, RASGPA identified Contaminated Runway/taxiway, poor braking action, and airport facilities as airport infrastructure related contributing factors for this category. Also, Safety Management and Design, were considered as latent conditions.

Considering this scenario, RASGPA concluded that aerodrome infrastructure must be addressed on a more proactive way. During RASGPA ESC/11, the Meeting agreed on Decision RASG-PA ESC/11/1 which states that: *To mitigate runway condition/maintenance-related accidents and incidents, ACILAC will champion the compilation and development of runway maintenance guidance material for airports in the Pan American region.*

The work was concluded by ACI-LAC and PA-RAST, and on RASGPA ESC/19, the Meeting acknowledged the publication of the Guidance for Maintaining Runways in Accordance with ICAO Annex 14 Manual in English and Spanish by ACI-LAC and decided to publish a RASG-PA Safety Advisory (RSA) promoting the use of this document. On May 2014, under State Letter NT-N1 17 — EMX0341, the RASGPA Safety Advisory #3 (RSA 3) was published and States and Industry were encouraging to adopt this document.



## 2. Problem / Opportunity Statement

Infrastructure related threats regarding runway safety, for both excursions and incursions, is still an important latent condition, especially as traffic continues to grow at the Pan American region international airports. Aerodrome operators and State regulators must ensure that the runways are designed, constructed and maintained following ICAO guidance and industry best practices, which are constantly changing as the results of new analysis, new materials and methods are put in place. There is a need to keep RASGPA guidance material current to the international advancements.

Since its publication on 2014, the *Guidance for Maintaining Runways in Accordance with ICAO Annex 14* hasn't been updated due to lack of resources. Also, there is no formal mechanism in place to keep the document updated.

This affects the applicability and adoption of the document, as it is not up to date with current advances and updates of the referred documentation.

The project proposes that ALACPA, the Latin American and Caribbean Association of Airport Pavements take ownership of the document, in regards to keeping it updated with the latest ICAO SARPS and guidance material amendments, along with other guidance and best practices related to the design, construction, maintenance and runway operations.

As being a forum directly related to pavements, they are on good position to gather all the knowledge required to keep the guide updated.

## 3. Business Options

### 1. Do Nothing:

If not implementing any solution, the guidance material will become obsolete and not serving its purpose. States and industry will still somehow have access to several documentations, but all spread and without any technical assessment.

### 2. Do the minimal - **Give the task to a consultant, third party, State, airport or RASGPA member:**

In this scenario, the guidance may be updated, but without ensuring a continuous commitment to keep the guidance current. Also, given the fact that it will be done by an independent consultant/party, may not get the input from several sources that ALACPA has

### 3. Do something - **ALACPA Project to update the guideline:**

ALACPA offered their resources and technical expertise to update the guideline, including a reporting mechanism to RASGPA in order to ensure the right review by related stakeholders

## 4. Expected Benefits

- Solution to keep the guideline current, without any additional cost or effort for current RASGPA members.
- Technical expertise by the ALACPA organization will benefit the development of the guidance and serve its purpose.
- The project will specify the right mechanism to report the advances of the project and establish a communication plan in order for RASGPA to monitor the development of the guideline.

## Project Charter

Project Name: RASGPA Guidance in Maintaining Runways in Accordance to ICAO Annex 14 Vol. I

- The guideline may increase their reach as it will be published also on ALACPA website and advertised in their annual events.
- The knowledge gather at ALACPA's annual event will benefit the guideline.

### 5. Expected Disbenefits

- There will be an additional effort for the group to access information from sources that may charge for that info.
- No direct participation of States and other related stakeholders.
- One-side story or point of view of the document making

### 6. Project Objectives

To have the Guidance for Maintaining Runways in Accordance with ICAO Annex 14 Manual available and updated each year by the last ESC's meeting at RASGPA's website in English, Spanish and Portuguese so that Airports and States implement the recommended practices in order to ensure good runway conditions to enable safe operations.

### 7. Scope Statement / Project deliverables

- An updated Guidance for Maintaining Runways in Accordance with ICAO Annex 14

### 8. Critical Success Factors

- Support from SME's requested by ALACPA
- Active RASGPA involvement/feedback through participation of control points

### 9. Budget / Costs / Funding

Costs are to be by ALACPA, and may be assigned to the following items:

- Working hours (for document development)
- Graphic design and pictures (copyright, etc.)
- Translation to English and Portuguese

ALACPA on its proposal will assume the costs on the making of the document.

### 10. Stakeholder / Communications Plan

Key Individuals/Organizations:	Specific Needs/Concerns:	Actions/Mean/Frequency of Communication
RASGPA ESC	Get recommendation from PA-RAST on the guideline	WP on ESC meetings
RASGPA Secretariat	Follow up of the project and Quality assurance	Teleconference, emails
PA-RAST	Review the guideline	Teleconferences WP on PA-RAST
ICAO RO's	Ensure the guideline doesn't contradict ICAO	Email from RASGPA Secretariat



## Project Charter

Project Name: RASGPA Guidance in Maintaining Runways in Accordance to ICAO Annex 14 Vol. I

ACI	Review the guideline so it doesn't contradict ACI	Email from RASGPA Secretariat
States	Take the guidance to promote its implementation to airport operators	State letters
Airports	Implement the guidance material	Email from ACI Letter from States

### 11. High Level Milestone/Stages Schedule

#	Major Project Phases / Milestones	Completion Date
1	Drafting of the straw-man document based on previous version. Milestone: Submit to PA-RAST for review	PA-RAST XX
2	Review by PA-RAST Milestone: First Draft document reviewed returned to ALACPA	1 month after Milestone 2
3	Consultation with 3 <sup>rd</sup> party & iterative process to reach final Draft. Milestone: Final version presented to PA-RAST	PA-RAST XX
5	WP presented to ESC for approval. Milestone: ESC approval and publication	RASG-PA ESC XX
6	Publication Milestone: State letter and Updated guide at the portal	1 month after ESC XX

### 12. Quality Plan including Acceptance Criteria

To ensure quality, the project will have a round of consultation with at least one representative from State and from aerodrome operators apart from SME's and RASGPA members.

### 13. Risk Management Plan

#	Major Risks	Assessment	Mitigation
1	Lack of resources to implement and continue the project	H	<i>the detailed business case will demonstrate the benefits of the solution for RASGPA. In case ALACPA has no capability of continue the project, thru the communications strategy of the project RASGPA may take actions to ensure the project continuity</i>
2	Acceptance by CAA's and Industry	M	<i>consultations with SME, RASGPA members and ICAO on the content and level of detail of the guideline and link the guideline to practical cases in order to ensure a better level of acceptance</i>
3	Too many differences between the guideline and implemented measures by States/Industry	L	<i>consider a mechanism to follow up the use an implementation of the guidance material, active consultation (thru a feedback mechanism) with States and airports on the get their feedback of the opportunities of improvement for the guideline.</i>

Project Charter

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4	Low use of the guideline	M	<i>communications plan, including the guide advertisement in regional forums, seminars, and thru email channels, social networks, websites, go-teams, etc.</i>
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14. Project Team Organization

<b>Project Sponsor:</b>	<b>Role:</b>	<b>Responsible for:</b>
RASGPA ESC / PA-RAST	Reviewing/approving the guide	Give on-time feedback and final approval for publication
<b>Program Manager:</b>	<b>Role:</b>	<b>Responsible for:</b>
RASGPA Secretariat	Holds the projects portfolio (Programme). Monitors Project development.	Monitoring the projects within the area’s portfolio
<b>Project Manager:</b>	<b>Role:</b>	<b>Responsible for:</b>
ALACPA	Managing & controlling Ensure QC Publishing	Control the project phases and deliverables Serve as liaison between TM’s and Sponsor Publish the guide on RASGPA portal
<b>Team Member:</b>	<b>Role:</b>	<b>Responsible for:</b>
ALACPA	Research	Gather all the information needed to update the guideline
ALACPA	Compilation	Compile the information gathered, analyse the data and propose changes to the guide
ALACPA / ACI-LAC	Guide creation	Generate the guidance material, considering inputs from other stakeholders
ALACPA / ACI-LAC	Translation	Translate the final draft to the 3 languages

15. Project Control Procedures

Control procedures to be defined by the PM and the RASGPA Secretariat, consisting initially of follow-up teleconferences + Minute of virtual meeting and Milestones follow up.

