RASG-PA
ANNUAL SAFETY REPORT

Collaborating towards achieving the highest level of safety in the Pan American Region

- RASG - PA vision

2024

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The RASG-PA Annual Safety Report aims to provide an overview of the results of the safety data review, the safety initiatives and other activities undertaken by the group during the specified period. It is intended to enhance awareness and promote a culture of safety among its members and other stakeholders.

While every effort has been made to ensure the accuracy and completeness of the information presented in this report, there may be unintentional errors or omissions.

Safety risks, practices and regulations change over time. The information presented in this report is based on RASG-PA safety practices up until the specified date. Subsequent developments or changes may not be reflected in this report.

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TAKEAWAYS
& RECOMMENDATIONS

“THE POWER OF WORKING TOGETHER

As we reflect on the year’s performance, it’s clear that while significant progress has been made, particularly with the absence of fatalities, there are areas that require sustained attention. Turbulence remains a prevalent issue, and we must remain vigilant in monitoring precursor events to mitigate risks early. The success of collaborative efforts, such as the RASG-PA Safety Partners program, demonstrates the power of working together, but continued commitment is needed to fully leverage these initiatives. As we look ahead, it’s crucial to strengthen State Safety Programs and risk management frameworks to maintain momentum and drive further improvements. The recommendations provided will guide us in addressing these challenges head-on and ensuring a safer future for aviation in the region.

Turbulence

Turbulence continues to be the most common cause of accidents in the Pan American region, a trend that has persisted over recent years and is likely exacerbated by the impacts of climate change. As global air traffic continues to grow, it is imperative that we enhance our preparedness to manage these risks effectively. Numerous tools and resources, both within and outside of RASG-PA, are readily available to support this effort. However, the effectiveness of these tools relies heavily on the timely and accurate exchange of information from states and service providers. To design and implement appropriate mitigation measures, it is essential that Civil Aviation Authorities, Air Navigation Service Providers, and Airlines commit to facilitating data sharing on adverse weather conditions with RASG-PA and their local Collaborative Safety Teams. This collaborative approach will enable us to better understand the evolving challenges posed by turbulence and ensure that we can continue to uphold the highest safety standards in an increasingly dynamic environment.

Effective Implementation

Recent years have seen less-than-promising results from the USOAP audits across the region. Of particular concern is the low scoring in the Accident Investigation (AIG) area, both regionally and globally. This issue is critical, as accident investigation serves as a vital tool for uncovering systemic weaknesses that, if left unaddressed, could lead to future accidents. To ensure the safety of the aviation system, it is imperative that States invest in building high-quality accident investigation capabilities, supported by qualified and adequately resourced investigators. Strengthening the AIG area must be a priority, whether through independent national efforts or through regional cooperation mechanisms, to guarantee that every accident and incident is investigated thoroughly and effectively. This commitment will not only enhance safety oversight but will also contribute to preventing future accidents, thereby safeguarding the integrity of the aviation system.

Risk Management & SSP

Despite significant efforts, many States in the region continue to struggle with the implementation of their State Safety Program (SSP), hindering their ability to manage aviation risks effectively. RASG-PA’s ongoing monitoring, as part of the Global Aviation Safety Plan (GASP), reveals that progress has been minimal, with some States facing challenges in executing even basic aviation risk management. This creates vulnerabilities within the aviation system, especially as global traffic is set to increase. To support States in building robust risk management capabilities, there is a pressing need to explore new, simplified approaches that do not require extensive time or resources. Civil Aviation Authorities, with the backing of RASG-PA and ICAO, must rethink current methods and embrace a data-driven, risk-based approach that prioritizes efficiency, simplicity, and measurable outcomes. This approach would empower States to accelerate their progress, ensuring that all have the capacity to manage safety risks and sustain traffic growth effectively.

Collaboration

Collaboration has been a cornerstone of the remarkable safety achievements in the Pan American region throughout 2023. The establishment of new Collaborative Safety Teams (CSTs) has proven to be a highly effective strategy, bringing together regulators and service providers to engage in collaborative risk management. This integrated approach ensures that safety is addressed holistically, leading to promising early results. Additionally, the rapid growth and success of the RASG-PA Safety Partners Program, which facilitates direct collaboration with airlines, has further demonstrated the power of collective effort, producing high-quality safety initiatives from the outset. To sustain and enhance these collaborative efforts, it is crucial that regulators create and maintain a trustworthy and secure environment for data exchange. Without such a foundation, the collaboration that is so vital to continued safety improvements could be significantly impeded.

HOW WE CREATE VALUE

RASG-PA supports improvement of safety in the Pan-America Region through an integrated, data-driven strategy and work programme that supports: implementation of the GASP; development of a positive safety culture; and the proactive management of safety risks in collaboration with States and industry.

Data and Intelligence

Gather and analyze safety data and intelligence.

Safety Initiatives

Design Safety Enhancement Initiatives to reduce fatality risk.

Collaboration

Foster local/regional cooperation between States and industry stakeholders.

Communication

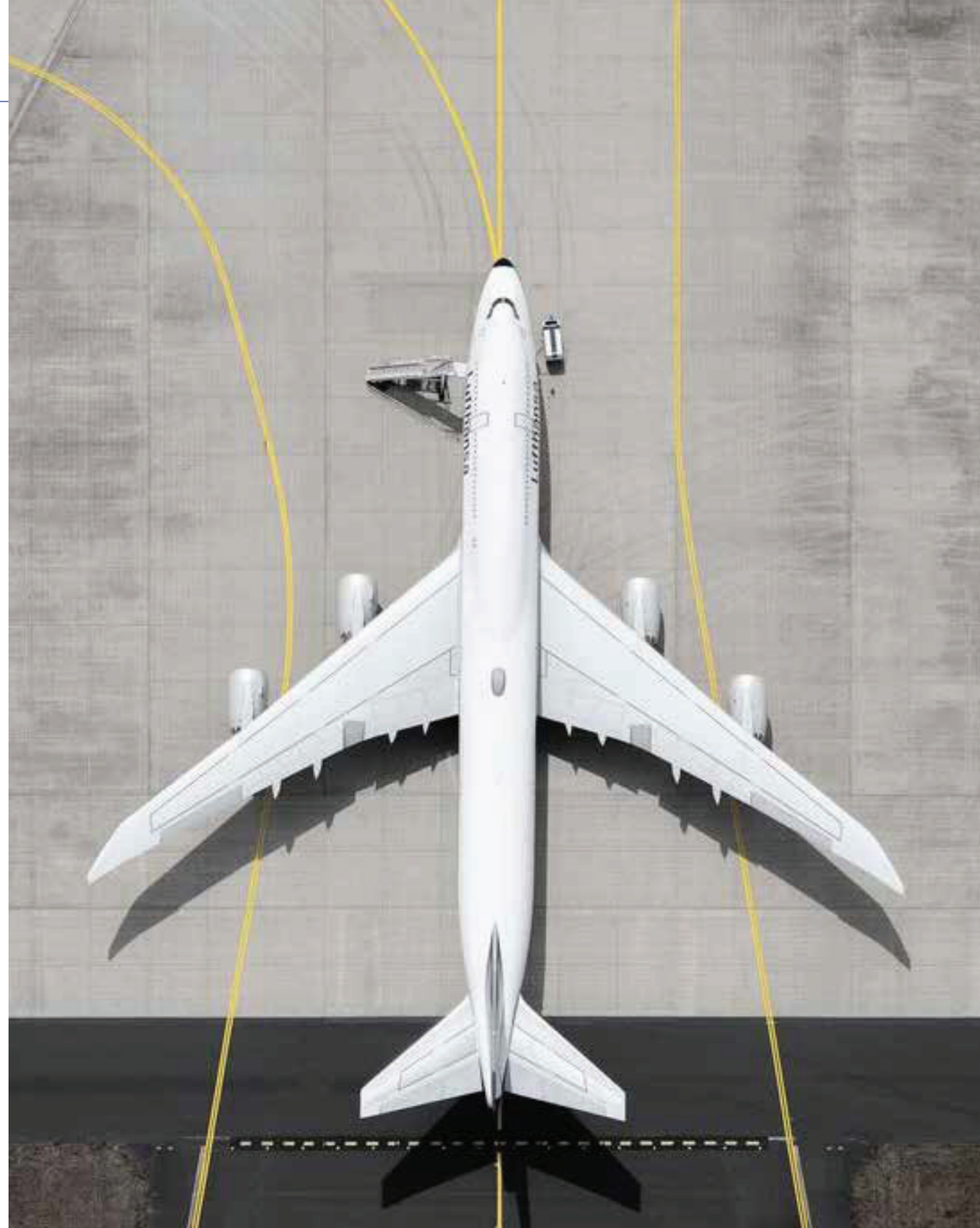
Proactively communicate identified safety issues and mitigations.

Improve Safety

Through collective action, reduce fatality risk in commercial aviation.

Best Practices

Establish partnerships and develop guidance to share best practices.



ALL IN ONE PAGE

These are some of the most relevant product RASG-PA has produced in the last years.

RASG-PA Safety Reports

		2010 →	2011 →	2013 →
2014 →	2015 →	2016 →	2017 →	2018 →
2019 →	2020 →	2021 →	2022 →	2023 →

RASG-PA Safety Alerts

RSIA-01 Wrong Altimeter Setting
Read information →

Turbulence Toolkit

The RASG-PA Turbulence ToolBox
Read information →

RASG-PA Safety Advisories

RSA-06 Key Safety Areas to Watch
Read information →

RSA-07B Mitigations for Controlled Flight Into Terrain
Read information →

RSA-08 Compatibility Issues Between Required Landing Performance and Touchdown Zone Definition
Read information →

RSA-09 Mode Awareness and Energy State Management Aspects of Flight Deck Automation
Read information →

RSA-10 Manual Flight Operations 10B
Read information →

CST Implementation Guidance

Regional Aviation Safety Team - Pan America RASG-PA
Read information →

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https://www.linkedin.com/company/rasg-pa

GERARDO HUETO

> “WE SHOULD CELEBRATE THE CHANGE

CELEBRATING 16 YEARS OF RASG-PA

When asked to write an introduction to the Annual Safety Report about RASG-PA’s sixteenth anniversary, I thought: what should be celebrated after sixteen years?

Reading the first edition (2010) of the Annual Safety Report I found a count of fatal accidents and fatalities in the region for the period 2000-2009. It is sobering. In that ten-year period more than one thousand passengers had lost their lives in commercial aviation accidents in Pan America.

This report shows that today’s Pan America’s commercial aviation system has reached a zero-fatality rate and has been stable near zero for the past five years. For a system as complex, dynamic, and diverse that has gone through a stressful period of change during the pandemic the change is nothing short of tectonic.

The answer to the question, then, is that we should celebrate the change. There are millions of passengers that now use the system every year enjoying an unprecedented level of safety.

But that begs another question: what caused the change?

Two years after RASG-PA started it was evident that a yearly meeting at high level would not be sufficient to manage risk and influence change at regional level. A working group of subject matter experts, the Pan American Regional Aviation Safety Team (PA-RAST) was formed and met for the first time in 2010. The objective of this new group was to analyse data, turn it into information, and use the information to design system interventions with the objective of improving the level of regional safety. At the beginning the data consisted mostly of accident reports, unfortunately most of them fatal. A RASG-PA objective of reducing fatality risk was consequently adopted.

Today PA-RAST does not use fatal accident data. There isn’t any. The group has access to flight information from its airline partners, the US CAST, and IATA and meets quarterly for a rigorous review of system performance. It also invites airlines to share safety information about undesired events and accident precursors in a protected, deidentified environment. Based on the analysis PA-RAST proposes system interventions, such as RASG-PA Safety Advisories and Safety Enhancement Initiatives to the Executive Steering Committee of RASG-PA. If approved, the interventions are deployed at regional level and PA-RAST periodically surveys system stakeholders to determine their level of implementation and effectiveness.

This is the answer to my second question. I have no doubt that without the many interventions generated and deployed by PA-RAST the region wouldn’t have experienced such improvement in safety performance. The Pan American aviation system level of safety that we enjoy today is unprecedented. But this is not the time to take safety for granted. The system is still producing accidents and undesired events which need to be used as inputs for the RASG-PA process to mitigate the risks they pose. Let’s not relent.

I am writing this in August of 2024, PA-RAST will meet for the sixty fourth time this month. The process continues and it is kept alive by the support from ICAO, States, Industry, and other system stakeholders. I would like to extend my most sincere appreciation for their continued work and dedication to improve aviation safety. If you work in aviation safety and have not yet joined PA-RAST please consider doing so. It has been one of the most rewarding experiences of my career.

Thank you for reading this, hope to see you at one of our upcoming meetings.

RODOLFO QUEVEDO

> “THINK OUTSIDE OF THE BOX

REFLECTING ON 16 YEARS OF COLLABORATION

The Regional Aviation Safety Group-Pan America (RASG-PA) was established in 2008 to leverage the framework of the Global Aviation Safety Plan (GASP) and the Global Aviation Safety Roadmap (GASR) to support the establishment and operation of a performance based aviation safety system in the Pan-American Region.

The ICAO activities targeting the implementation of Standards and Recommended Practices (SARPs) as a means to drive aviation oversight capabilities are still valid as a means of ensuring the capabilities of States to manage safety at a State level. However, since 2008 the collaboration between stakeholders in the Pan-American region has yielded safety beyond compliance, where the focus has evolved beyond compliance with regulations to effective identification and mitigation of operational risk through data-driven activities.

Since its first meeting in November of 2008 RASG-PA has been an effective “disruptor” in how various stakeholders collaborate to effectively manage risk in regional civil aviation. As such, RASG-PA has effectively changed the traditional “Tom and Jerry” relationship between authorities and industry. A key enabler of this evolution has been the transition from a compliance and enforcement focus to one of safety and accident prevention. The evolution has been a long path of fear, conflict, disagreement, and frustration to where today it is one of trust, consensus, and collaboration to manage conflict.

If I am asked what was the deciding factor that moved things forward with the Group, I can say that it was the professionalism and personalities of the individuals involved. A willingness to exchange ideas respectfully and treating each other as equals, not as regulators and industry, as was the case in the traditional hierarchical approach.

Since the first meeting RASG-PA adopted a structure for governance and defined a data-driven approach. Setting the reduction of fatality risk in the region as the main objective of the group and adopting processes for how the safety information would be managed were pillars which allowed the Group to produce actionable intelligence based on analysis of shared data and information.

The sharing of sensitive data and information was a main source of conflict in the early years, as there were many uncertainties about was how to openly share safety information to gain insights on areas of vulnerability and how to ensure the proper use of the intelligence to focus on safety and accident prevention versus oversight and compliance roles, which was the default position of the regulatory agencies.

It was important to think outside the box to settle the concerns of many in industry that allowed us to find a way to move forward with sharing openly. Learning from the valuable lessons of some national programs and recognizing that a “cut and paste” approach would not work was one key success.

There was no better example of thinking outside the box than my friend Carlos Pellegrino, may he rest in peace. He recognized that the national legal structure at the time in his home nation was such that having access to the information by service providers led to legal jeopardy and concerns about the protection of the information against punitive uses.

His innovative idea to establish a way to learn from visibility to the risks without actually “having the information” paved the way forward for continuation of the activities in RASG-PA and eventually led to establishing a Collaborative Safety Team in Brazil, known today as the BCAST.

Over the 16 years of RASG-PA there were many other heroes whose efforts I wish to recognize. I will choose to not name them, as I am sure that I will leave some names out. Aviation and the traveling public will forever be in your debt.

In operational safety it is difficult to quantify the impact of the work we do. There are statistics, but it is difficult to correlate the improvement in safety as being directly attributable to the work and activities of specific groups. However, what is measurable is the achievement of the goals set by RASG-PA, which was to achieve a reduction in fatality risk in the region of 50% by 2020. This was achieved in 2017 and today RASG-PA continues to strive towards its vision, which is to remain ahead of any risks to commercial aviation, and to collaborate towards achieving the highest level of safety in the Pan American Region. The facts speak for themselves. RASG-PA has been a contributor to a safer aviation industry in the Americas.

Godspeed!

OSCAR QUESADA

ICAO Deputy Regional Director SAM

"In the heart of Pan-American aviation, a group of visionaries decided to face frustration with courage, transforming despair into a steadfast commitment to safety. This is the story of that transformation

REGIONAL TRANSFORMATION

Transforming things for the benefit of society is one of the most rewarding activities in the work of an international public official. Besides exercising creativity and innovation, it gives us a sense of purpose in our professional lives. It also requires a high dose of patience, perseverance, and consistency to understand the dynamics of a regional transformation from what was the reality of regional aviation safety at the end of the first decade of the 2000s, where our accident rate was the second most concerning in the world, to becoming a leading region with zero fatality rates.

What was done in nearly 15 years to achieve these levels of aviation operational safety? Probably many things by many different aviation actors contributed to this effort.

"Frustration is the first symptom of improvement," Gerardo Hueto told us at the beginning of the transformational process to improve operational safety in the Pan-American region at the start of the 21st century. And we were certainly very frustrated in 2008.

The 2008 model, with a strictly regulation and supervision-based approach to achieve operational safety improvements, clearly showed its limitations for improvement. Although this model continues to be in force, it presents significant limitations and reaches a point where it is not enough to manage the exponential growth of civil aviation. This forced us to seek a different and transformative approach.

A more collaborative approach was needed to exchange information, identify and mitigate risks, and generate regional leadership jointly with regulators and service providers, all genuinely interested in change but from very different interests. Reconciling interests without anyone disrupting the process to analyze information and turn it into operational safety intelligence for everyone's benefit is where a United Nations Specialized Agency like ICAO finds its reason to exist and its responsibility to generate transformative leadership.

The RASG-PA Safety Management process is very simple: all actors together in a forum sharing their information to generate a common insight that shows the way to focus our efforts on risk mitigation. All based on collaboration, cooperation, and coordination. Easy, right? However, the history of RASG-PA showed us how difficult it is to reconcile diverse interests, understand the human nature of people and their organizations, lower our defenses to receive feedback that causes pain in our personal or corporate egos. Nevertheless, RASG-PA achieved the change, and 16 years since its creation, its results are more than evident.

One of RASG-PA's first projects was the anonymous sharing of Flight Data Monitoring (FDM) program information between a Civil Aviation Authority and a commercial air operator. Although there were initially doubts about the maturity level of both the operator and the Authority to handle this information, the project achieved spectacular results by identifying and mitigating several operational safety risks.

The RASG-PA Annual Safety Report that you, the reader, are reading is also the result of a collaborative process and no less complex to produce.

RASG-PA has been visionary in identifying future operational safety risks, such as turbulence, which entered RASG-PA's agenda over four years ago. Additionally, the RASG-PA process has influenced globally with a proposed amendment for 2024 that it presented in 2016 and materialized in Amendment 49 of Annex 6, benefiting a fleet of aircraft that previously only required it for aircraft over 27,000 kg MTOW.

The RASG-PA process has left me with many lessons learned, such as the risk of transparency in information that can be used opportunistically to generate headlines, the importance of communicating what is done understanding that what is not communicated does not exist, and even more enlightening, understanding as aviation technicians the human complexity in collaborative processes and their benefits. The value of small achievements to keep many different actors committed to a process that takes decades to show results. The importance of preserving institutional memory but also incorporating new elements that bring different ideas and challenge the status quo.

Moving from the frustration of the 2008 accident rates to becoming a leading region in operational safety makes us look back and conclude that all the effort was worth it. The legacy remains to continue evolving with more collaborative processes, the use of new technologies, and always with humility to understand that at some point something could go really wrong. Therefore, we must never lower our guard; only with the efficient use of available information and collaboration can we anticipate and generate valuable insight to focus our resources where they generate the greatest impact for the benefit of society.

"Transformation does not end here; it is a continuous journey that requires our constant commitment so that every flight in the Pan-American sky is a testament to our effort and dedication."

THE POWER OF COLLABORATION

In conclusion, the power of collaboration is both inspiring and indispensable

CSTs are vital in ensuring that every State achieves the highest safety standards, demonstrating the incredible potential unlocked when we come together as equals. By fostering an environment of trust, respect, and shared purpose, CSTs empower States and industry to join hands and leverage their collective strengths. Let us continue to embrace this collaborative spirit and work towards a brighter, safer future in aviation. Together, we can soar to new heights.

Ensuring Aviation Safety Through Collaborative Safety Team

In the rapidly evolving world of aviation, the stakes are incredibly high, and safety is our shared responsibility. The Regional Aviation Safety Group of Pan America (RASG-PA) understands this deeply and has taken a pioneering step by fostering, supporting and working along Collaborative Safety Teams (CSTs) across the region. These CSTs embody a transformative approach to aviation safety, built on the principles of collaboration, trust, and shared vision between state organizations and industry stakeholders.

A Shared Vision for Decision Making

Within a CST, there is no hierarchy. This egalitarian structure encourages open dialogue and innovative thinking, paving the way for effective safety measures. The strength of collaboration lies in the variety of voices and experiences that come together, each contributing unique insights and ideas. By working hand in hand, States and industry stakeholders can forge strategies that are adaptable and resilient in the face of ever-changing aviation challenges.

The Transformative Power of Collaboration

Working in isolation can only take us so far. States and industry must recognize that collaboration is the catalyst for growth and safety enhancement. By pooling resources, knowledge, and expertise, CSTs can achieve breakthroughs that would be impossible individually. Collaboration allows for the inclusion of diverse perspectives, enriching the decision-making process and fostering a sense of collective responsibility and accomplishment.

Building Trust Through Voluntary Collaboration

At the core of Collaborative Safety Teams is a commitment to voluntary collaboration, grounded in trust. CSTs provide a platform where State organizations and industry representatives come together as equals, fostering a spirit of openness and mutual respect. In these forums, the State pledges to create a safe environment where information shared is used not for punishment, but for the greater good of enhancing safety measures. This assurance is vital, as it empowers industry participants to share crucial safety data without fear, knowing it will contribute to a safer aviation landscape for all.

Creating a Safe and Equal Environment

For CSTs to succeed, it's essential that all members feel they are equal partners in the process. The CST is not owned by the state or the industry; it is a team of equals working towards a common goal. When industry stakeholders feel safe and valued, they are more inclined to participate actively and share insights that drive meaningful safety improvements. This commitment to equality and security cultivates an atmosphere where collaboration can flourish, resulting in comprehensive safety strategies that benefit everyone involved.

United for a Safer Future

The remarkable safety record of Pan America is not a matter of chance; it is the result of steadfast collaboration and shared dedication to a common cause. By joining forces and setting a shared course, we can achieve extraordinary results in aviation safety. The power of collaboration makes us more efficient, effective, and united in our mission to create the safest airspace possible.

2023 SAFETY DATA

2023 IN REVIEW

	PAN AMERICAN DOMICILED AIRLINES	TRAFFIC TO/FROM PAN AMERICAN
TOTAL DEPARTURES	11,654,062	12,551,870
PASSENGER LOAD FACTOR	80.3%	80.5%
TOTAL SEAT CAPACITY	1,627,802,942	1,829,309,875
TOTAL PASSENGERS	1,307,999,603	1,472,953,418
DOMESTIC PASSENGERS	1,056,248,817	1,105,655,560
INTERNATIONAL PASSENGERS	251,750,786	367,297,858
YEAR-ON-YEAR TOTAL PASSENGER GROWTH	+9%	+13%
AIRLINES	236	255
CITY PAIRS	6,060	6,992
PAX RECOVERY FROM COVID	-0.03%	-0.2%
SHARE OF GLOBAL TRAFFIC	38%	33.5%
TOTAL FLEET (IN SERVICE & IN STORAGE)	13,031	-
SCHEDULE DELIVERIES BY 2030	+3,000	-

Most CFIT accidents occur in the approach and landing phase of flight.

- SKYbrary. CIFT Definition

Controlled Flight Into Terrain (CFIT)

Controlled Flight Into Terrain is defined as an in-flight collision or near collision with terrain, water, or obstacle without indication of loss of control, in other words, the aircraft is inadvertently flown into terrain or an obstacle. These accidents are generally characterized by the flight crew's loss of situational awareness in the approach and landing phase of flights.

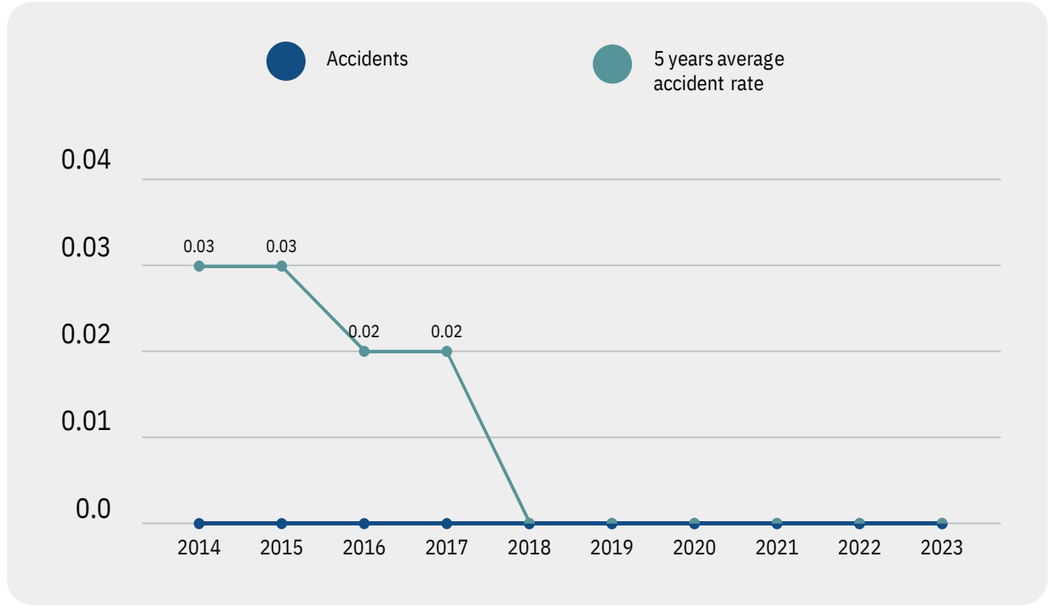
ZERO ACCIDENTS
IN THE LAST YEARS

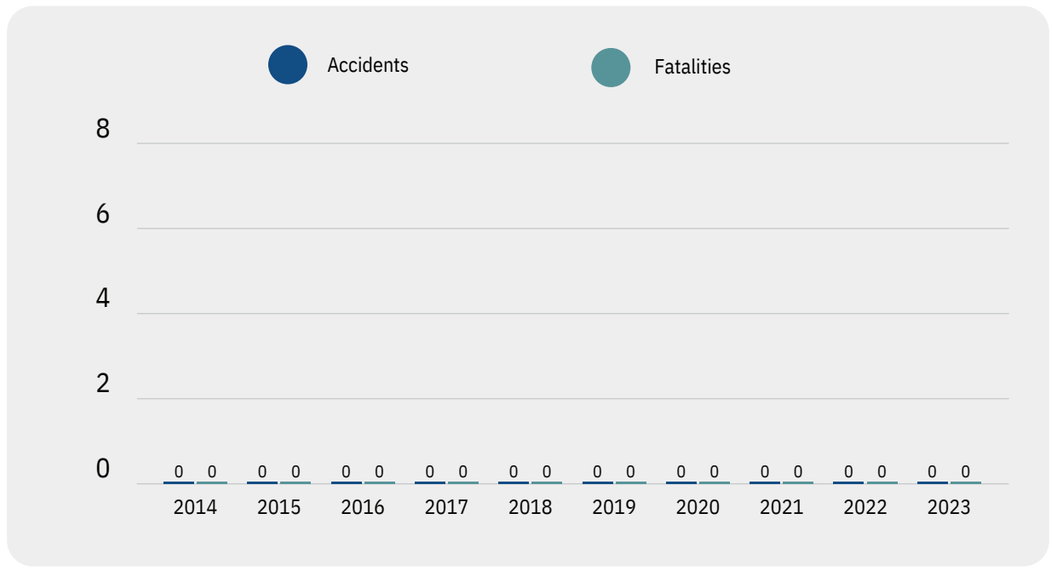
0 **ACCIDENTS**
on the last 10 years

0 **ACCIDENT RATE**
since 2018 until today

0 **FATALITIES ON BOARD**
on the last 10 years

0 **5 YEAR AVERAGE ACCIDENT RATE**
since 2018 until today





It is one of the most complex accident categories, involving numerous contributing factors.

- IATA

Loss of Control In-flight (LOC-I)

Accidents categorized as LOC-I often have catastrophic results with very few, if any, survivors. In order to demonstrate that, the industry numbers show the LOC-I category representing only 7%of all accidents during the last 10 years (2013-2022), however it resulted in the highest percentage of fatal accidents (49%) and fatalities (57%). Therefore, there is a high fatality risk associated with these events.

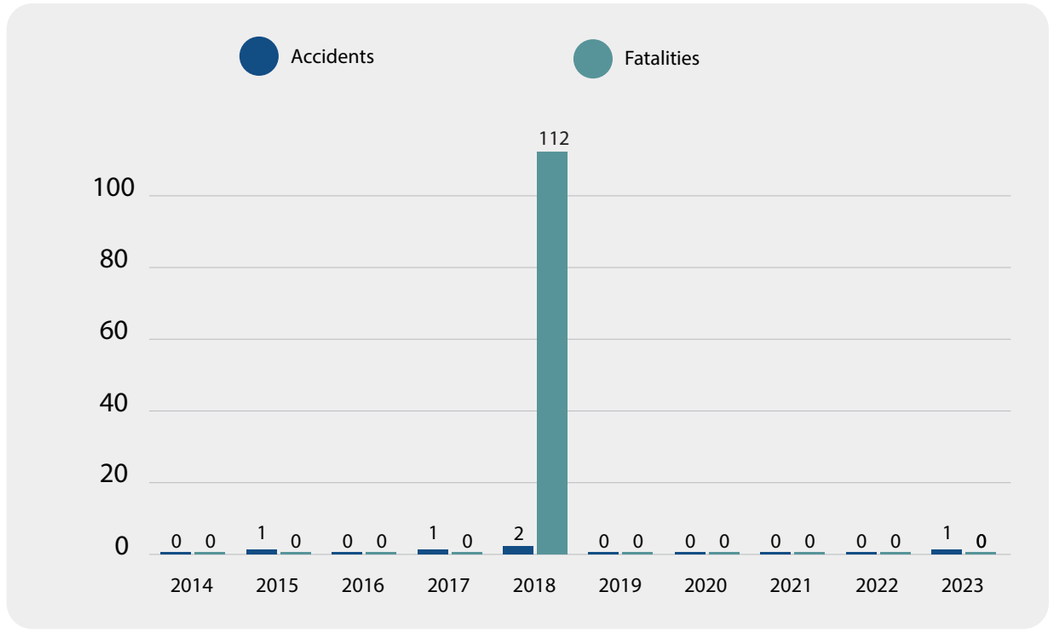
5 YEARS AVERAGE ACCIDENT RATE IS
0.02
IN 2023

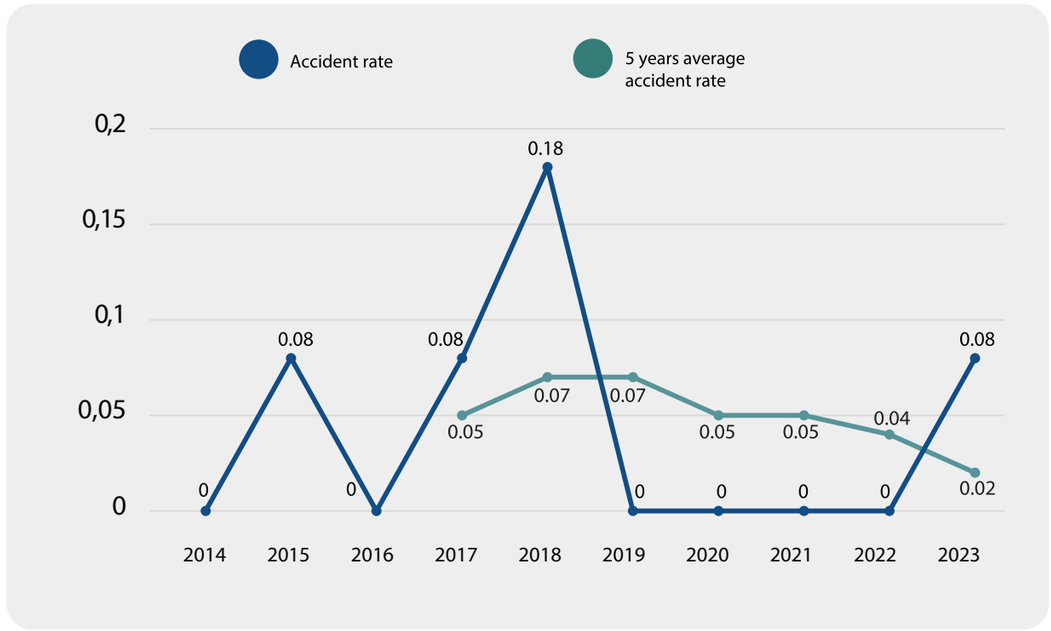
1.0 **ACCIDENT**
in the last 5 years

0.18 **ACCIDENT RATE**
was the highest on 2018

0.0 **FATALITIES**
in the last 5 years

0.08 **ACCIDENT RATE**
in 2023





One of the most hazardous consequences of a loss of separarion between aircraft, including as a result of a level bust, is a mid-air collision.

- SKYbrary

Mid-air Collision (MAC)

A Mid-Air Collision is an accident where two aircraft encounter each other while both are in flight.

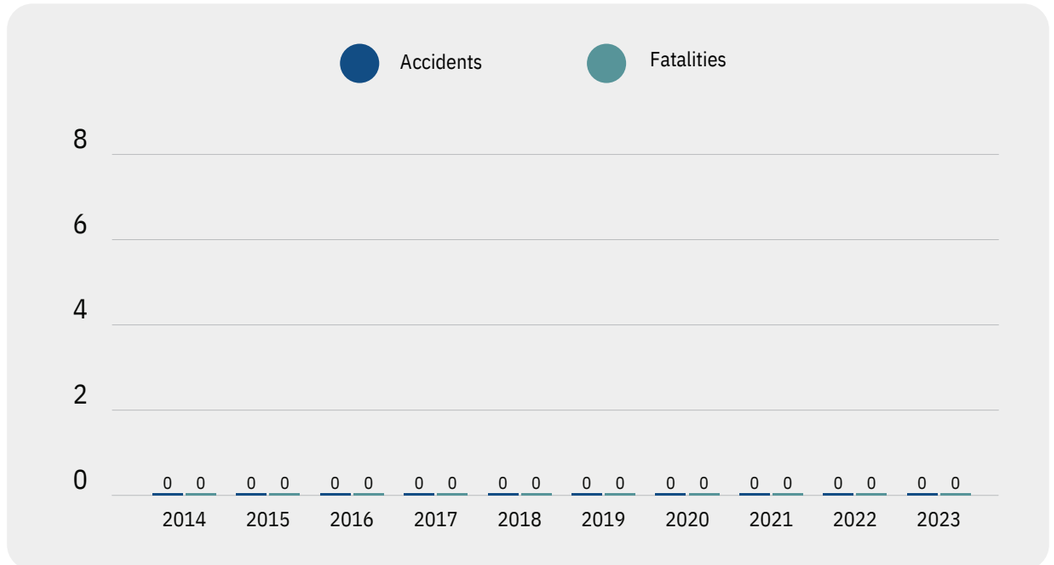
THE ACCIDENTS
REMAIN IN ZERO
IN THE LAST TEN YEARS

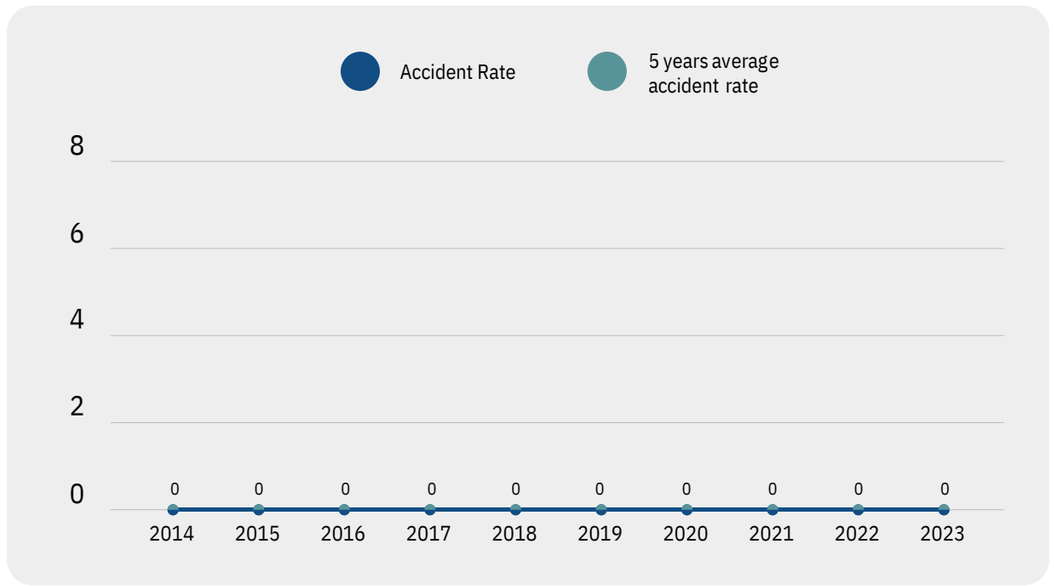
0 **ACCIDENTS**
registered since 2014

0 **ACCIDENT RATE**
registered since 2014

0 **FATALITIES ON BOARD**
registered since 2014

0 **5 YEAR AVERAGE ACCIDENT RATE**
registered since 2014





An incident where the aircraft leaves the runway surface in an inappropriate way.

- SKYbrary

Runway Excursion (RE)

A veer off or overrun off the runway surface- A runway excursion occurs when an aircraft departs the runway in use during the take-off or landing run. The incursion may be intentional or unintentional.

THE ACCIDENT RATE

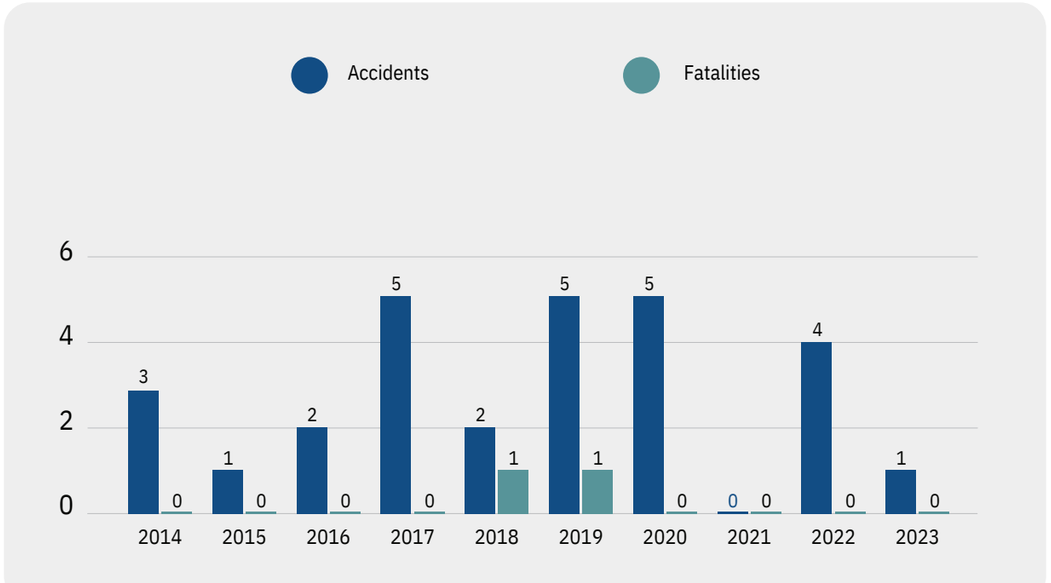
DECREASED TO 0.08

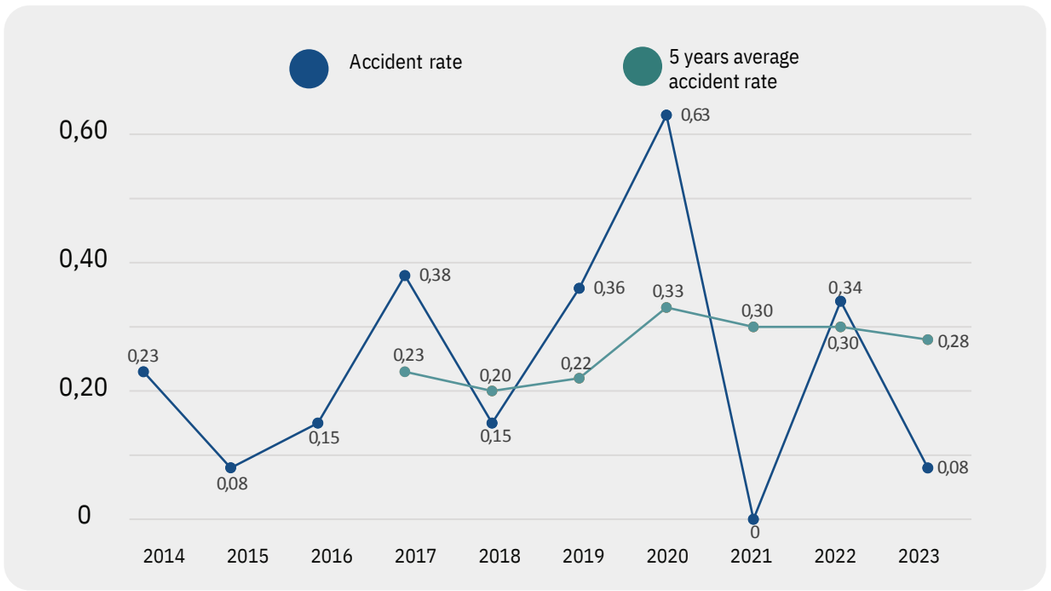
IN THE LAST YEAR

26 **ACCIDENTS** registered since 2014

1 **FATALITLY** registered in the last 5 years

0.28 **AVERAGE ACCIDENT RATE** registered in 2023





2023 SAFETY DATA CHARTS

2023 Accident Data

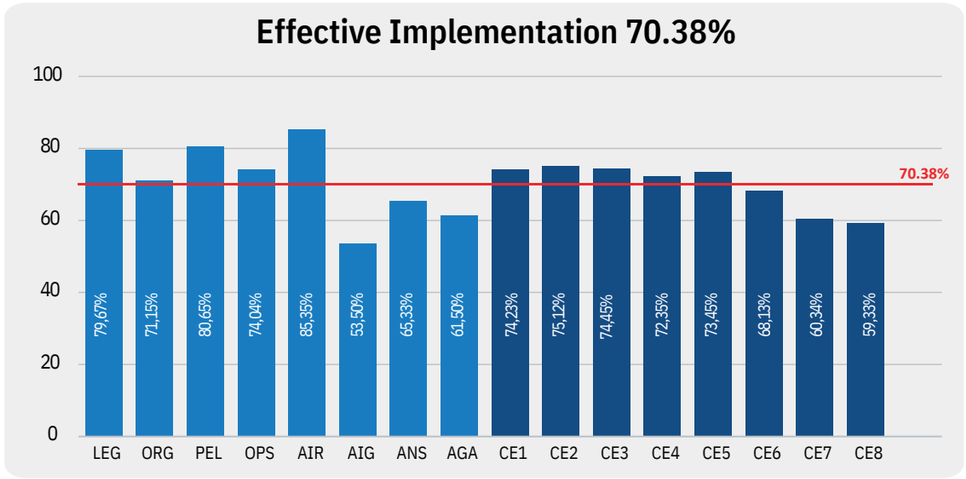
35
ACCIDENTS

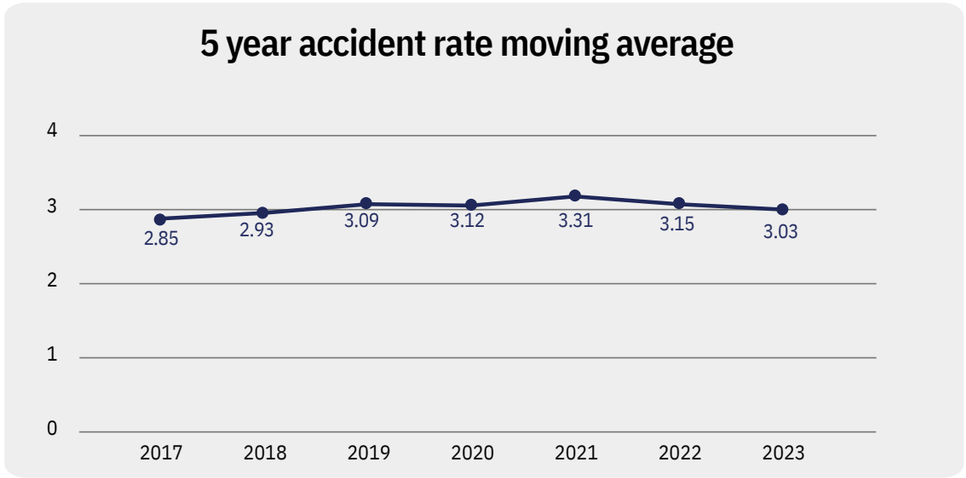
0
FATALITIES AND FATAL ACCIDENTS

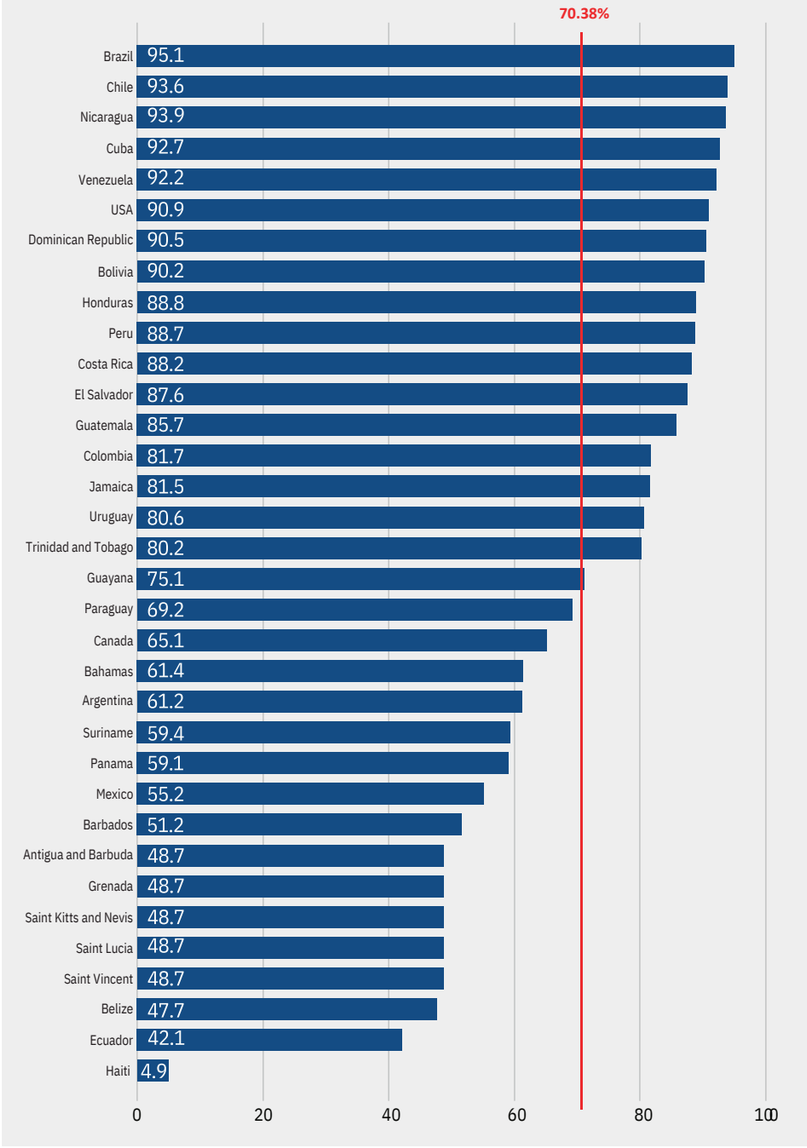
2.82
ACCIDENT RATE

1.87
GLOBAL ACCIDENT RATE

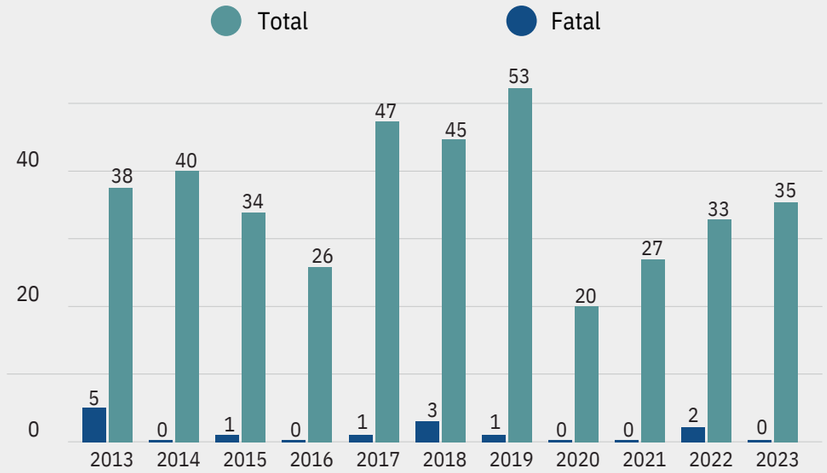
The “Rate” of the values 2.82 and 1.87 is per 1 million departures



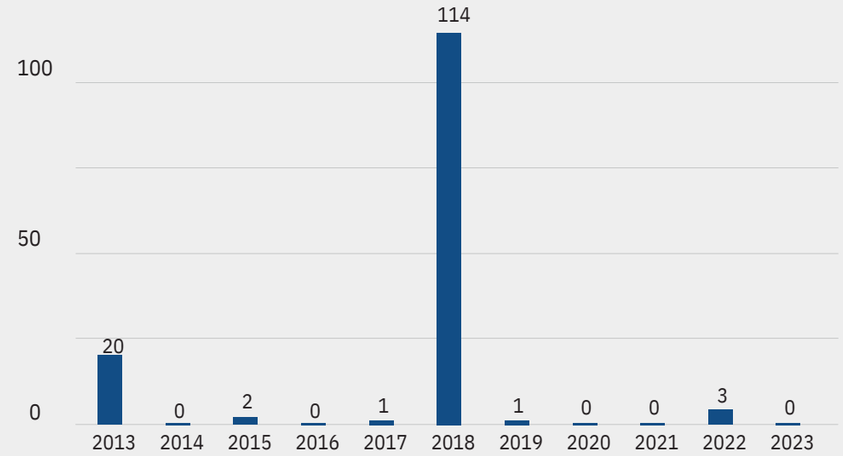




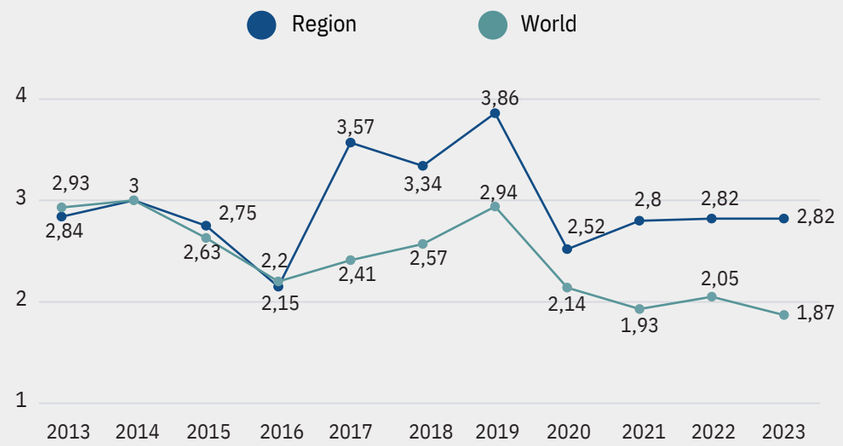
RASG-PA Accidents by year



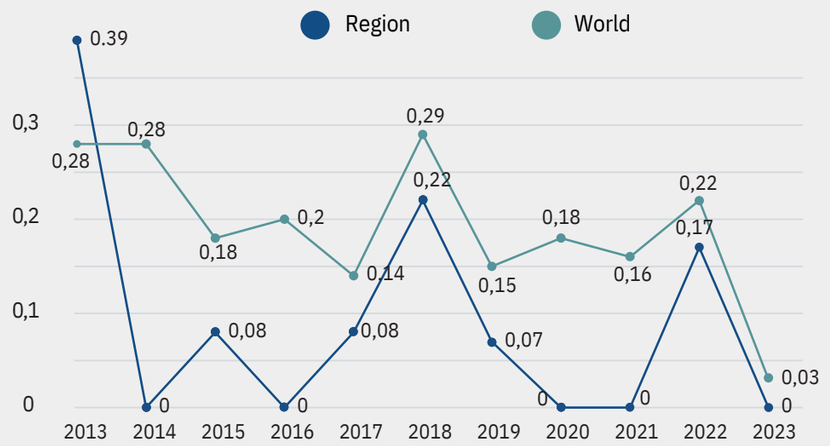
RASG-PA Fatalities by year

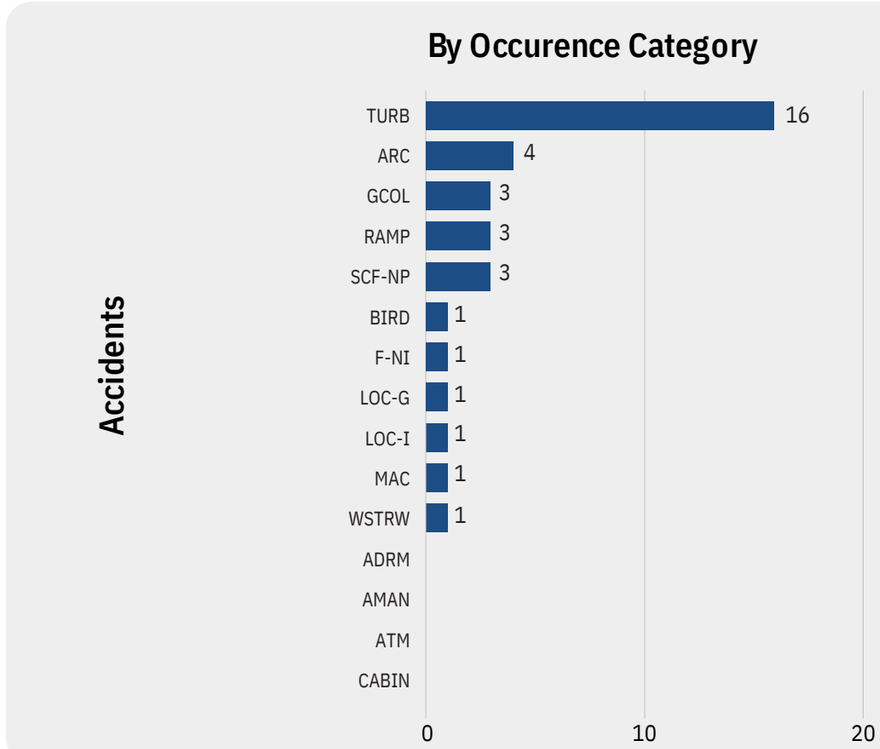


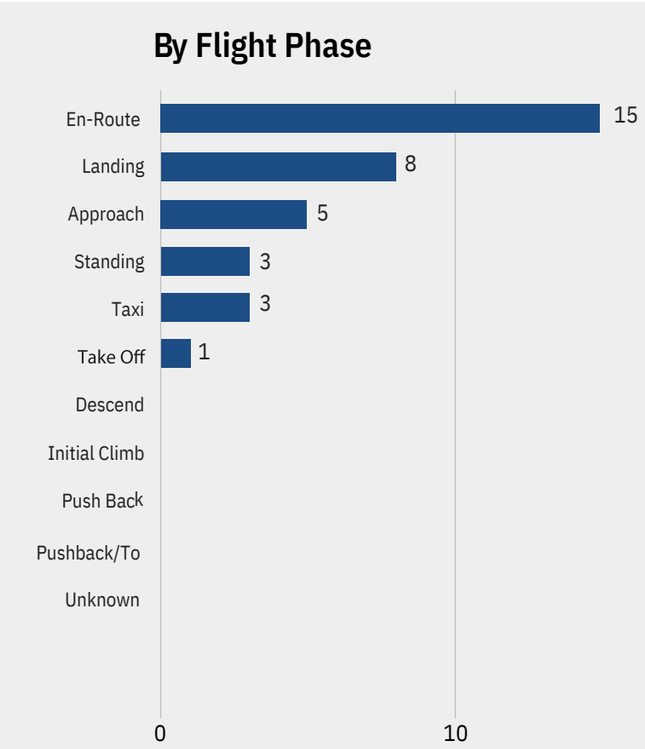
RASG-PA Accident rate by year

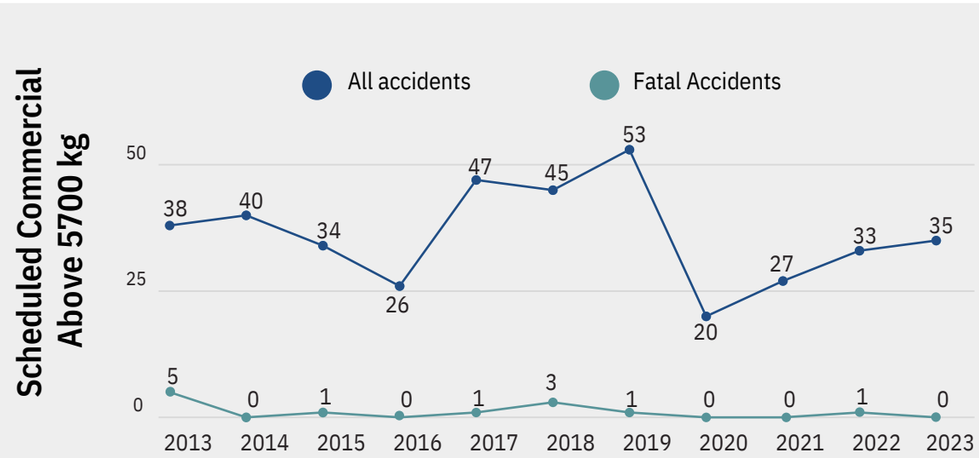


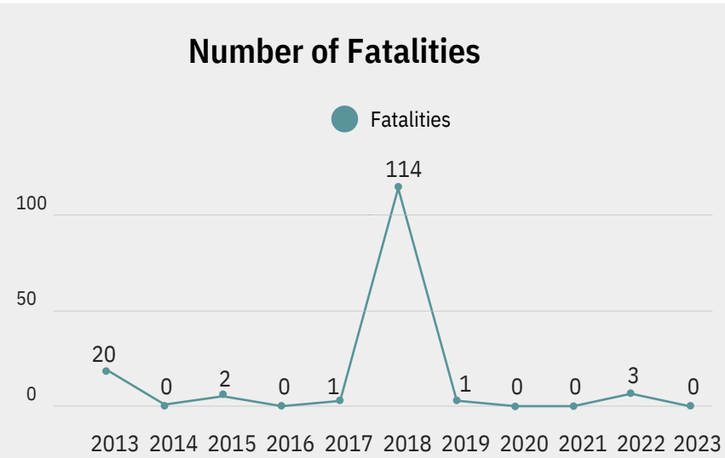
RASG-PA Fatal Accident rate by year




By Occurence Category
Accidents
TURB 16
ARC 4
GCOL 3
RAMP 3
SCF-NP 3
BIRD 1
F-NI 1
LOC-G 1
LOC-I 1
MAC 1
WSTRW 1
ADRM
AMAN
ATM
CABIN
0
10
20


By Flight Phase
En-Route 15
Landing 8
Approach 5
Standing 3
Taxi 3
Take Off 1
Descend
Initial Climb
Push Back
Pushback/To
Unknown
0
10


Scheduled Commercial Above 5700 kg
All accidents
Fatal Accidents
50
25
0
38 40 34 26 47 45 53 20 27 33 35
5 0 1 0 1 3 1 0 0 1 0
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023


Number of Fatalities
Fatalities
100
50
0
20 0 2 0 1 114 1 0 0 3 0
2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

2023 SAFETY DELIVERABLES

Establishment of the RASG-PA Safety Partner Program

The RASG-PA Safety Allies Program is a collaborative effort between RASG-PA and Industry, with the objective of strenghthening the aviation risk idetification process carried out by PA-RAST and the development of mitigation measures effective.

Safety Issue Alert RASG-PA 01 – Incorrect Altimeter Configuration

This is the first RASG-PA Safety Issue Alert, and includes recommendations for airlines and air navigation service providers to mitigate the risk of using an incorrect barometric altimeter setting.

Learn mo re > >

Establishment of the Peruvian Collaborative Aviation Safety Team

PA-RAST worked for two years together with local aviation service providers and State agencies to establish the P-CAST, as a collaborative forum for exchanging safety information and prioritizing mitigation actions.

Learn more > >

RASG - PA Sa fety D ay 2023

As part of the RASG-PA Plenary Meeting in 2023, PA-RAST organized the RASG-PA Safety Day dedicated to turbulence, which brought together the world's leading experts on the subject. The initiative was very well received by attendees and served as the basis for the creation of the working group on Adverse Meteorology in PA-RAST.

New Terms of reference of PA-RAST

Updated terms of reference of PA-RAST to adequately reflect its current way of working and include the procedure for electing its co-chairs. The new Terms of Reference are reflected as part of the RASG-PA Procedures Manual.

Learn mo re > >

RASG-PA Safety Advisory 07B – Mitigations for Controlled Impact into Terrain

A review and upda te of the original document encouraging States and operators to implement strategies and technology to mitigate the risk of CFIT.

Learn more > >

RASG - PA Safety Advisory 10B - Manual Flight Operations

A revision of the original document, which contains guidance and recommended practices to promote manual flight operations (MFO) with appropriate policies, procedures and operational criterial.

Learn mo re > >

Implementation of LinkedIn communication strategy

During 2023, RASG-PA has established an official communication channel through LinkedIn, which already has more than 1,600 followers from 40 countries, and which allows its products and activities to be socialized.

Learn mo re > >

"Collaborate towards achieving the highest level of safety in the Pan American Region

- RASG-PA vision

ACTIVE AND FUTURE PROJECTS

RASG-PA Safety Advisory on Runway Veer-Offs

Estimated publication date: July 2024

RASG-PA Safety Advisory on the use of TCAS

Estimated publication date: August 2024

Video on preventing turbulence - related injuries

Estimated publication date: August 2024

Workshop on Upset Prevention and Recovery Training (UPRT)

Delivery date: October 2024

RASG-PA SAFETY DAY 2024

Delivery Date: November 2024

Availability of all RASG-PA documents in English and Spanish

Delivery Date: December 2024

Project on the study of the causes of the low implementation of the SSP

Estimated Dellivery dates; TDB

NOV 19

LIMA PERU

RASG-PA SAFETY DAY 2024

PREVENTING
MID-AIR COLISSION

We're excited to announce the RASG-PA Safety Day 2024, a premier event dedicated to exploring critical topics in aviation safety. This year, we're focusing on "Preventing Mid-air Collisions," a crucial subject that demands attention and expertise.

This one-day event brings together the world's leading experts to dive deep into the factors affecting mid-air collision prevention.

OUR AGENDA WILL COVER

- ACAS-X The future of ACAS
- Responses to TCAS-RA and its consequences
- ATC perspective on ACAS events
- Human Factors issues related to ACAS events
- Terminal maneuvering area redesign
- Data sharing for prevention
- Case Studies

Don't miss this unique opportunity to learn from top industry experts, engage in insightful discussions, and expand your professional network. Whether you are involved in air traffic control, flight operations, or aviation technology, this event is designed to provide valuable insights and strategies.

Contact rasg-pa@icao.int for more information.

SAFETY PARTNERS PROGRAM

The RASG-PA Safety Partners Program is a collaborative effort between the RASG-PA and the Industry, with the objective of strengthening PA-RAST aviation risk identification process, and the development of effective mitigation measures. This voluntary program will enrich RASG-PA data analysis and risk identification process and define appropriate mitigation measures, for the benefit of aviation safety in the region.

The RASG-PA Safety Partners Program have the following work areas:

1. Risk identification: Industry partners collaborate with RASG-PA in identifying and proposing areas of work, based on safety priorities identified through their own safety programs and daily operations.

2. Information sharing.: RASG-PA and industry partners identify opportunities to share, in a timely and voluntary manner, relevant safety information such as best practices, safety priorities newsletters, safety alerts, and other products, whose dissemination would be beneficial to strengthen aviation safety in the region.

3. Product evaluation and validation: Industry partners, to the extent possible, review, validate, and provide feedback on safety products developed by RASG-PA, to assist in making them more robust, effective, and applicable to operational context.

4. Communication and networking: RASG-PA offers members of the RASG-PA Safety Partners Program access to a network of contacts that includes 35 States, 14 Territories and 14 International Aviation Organizations, as well as invitation and access to its meetings.

5. Safety Conferences and Events: RASG-PA and its Industry partners offer each other the opportunity to participate in relevant safety events and conferences, as applicable. Terms of that participation will be determined on a case-by-case basis.

How does RASG-PA benefit?

RASG-PA has a mature safety data analysis process, which includes some of the largest aviation safety databases available, however, the frontline experience of industry members offers safety knowledge that might not be captured in a database. The RASG-PA is always open to new sources of information, which allow it to develop products that are fit for purpose, for the benefit of the Region. RASG-PA will also benefit from valuable product feedback provided by its Industry Partners.

How do Industry members benefit?

Working together for aviation safety will always be a win-win situation. RASG-PA brings together all the Civil Aviation Authorities of the American continent, and all major International Aviation Organizations in the world, offering a unique and unparalleled network of partners. The meetings and events of the RASG-PA and its members represent unbeatable scenarios for the exchange of information, access to knowledge and networking available in the region.

The RASG-PA Safety Partners program will allow RASG-PA to better understand regional operational safety priorities, and fine tune its products to efficiently and timely address the most important mitigation needs, to make our region even safer.

“WE ARE BETTER TOGETHER

Current Safety Partners

AeroMexico
LATAM Airlines
Copa Airlines
JetSMART
SKY
Viva Aerobus
Air Canada
Delta

THE ROLE OF ICAO

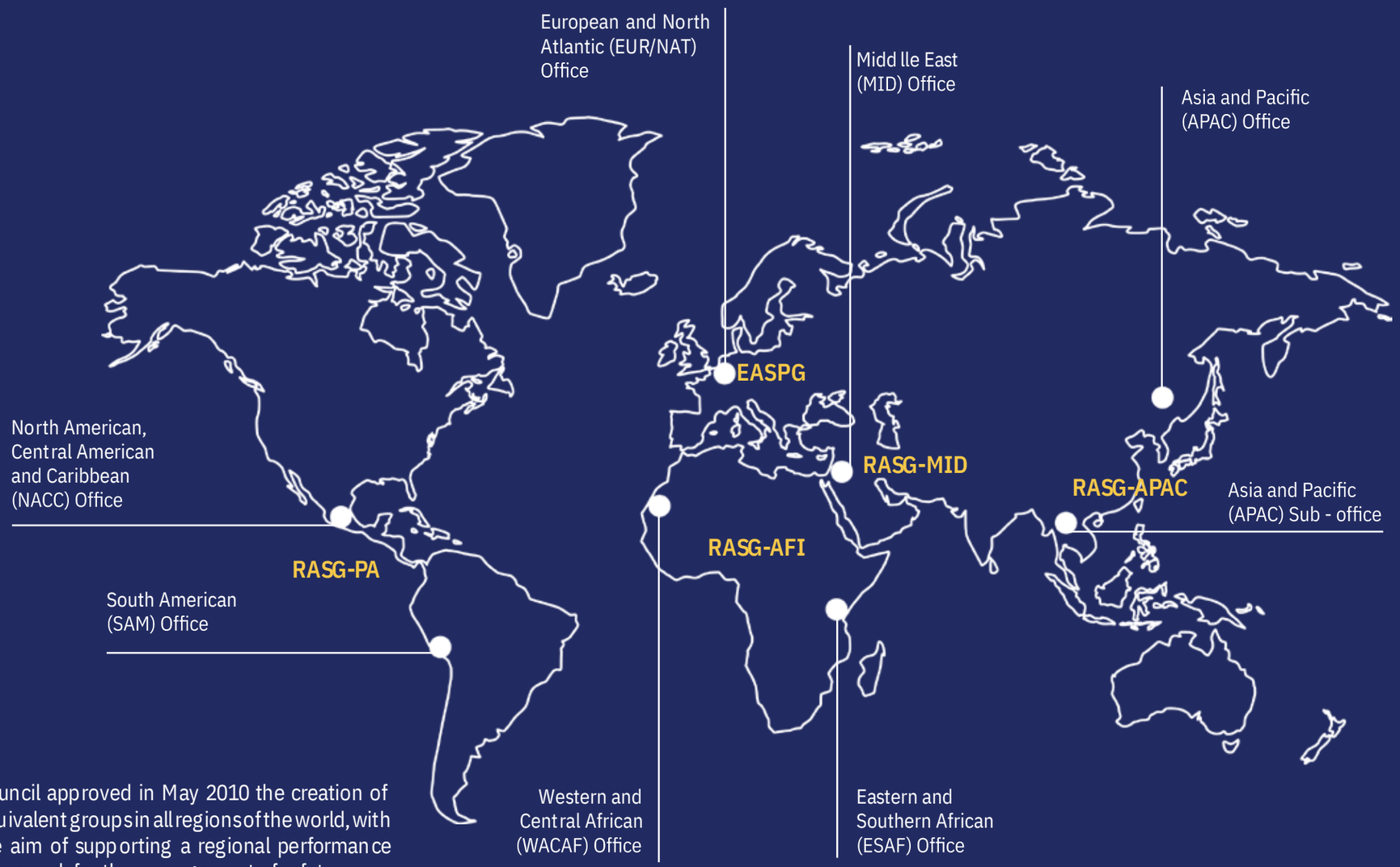
ICAO plays a crucial role in ensuring the safe, orderly, efficient, and sustainable development of international civil aviation by establishing global standards, facilitating cooperation, and assisting member States in implementing effective aviation practices.

ICAO Assembly Resolution A36-7 relative to Global Planning for Safety and Efficiency, recognizes the importance of regional and national plans and initiatives based on the global framework for effective implementation; and that further progress in improving global safety and efficiency of civil aviation is best achieved through a cooperative, collaborative and coordinated approach in partnership with all stakeholders under the leadership of ICAO.

Under this mandate, the Regional Aviation Safety Group - Pan America (RASG-PA) was created in May 2008, with the objective of developing initiatives for aviation safety, to reduce aviation risks in the Region, promote its implementation by all stakeholders and improve the harmonization and coordination of efforts.

Following the example of RASG-PA, the ICAO Council approved in May 2010 the creation of equivalent groups in all regions of the world, with the aim of supporting a regional performance framework for the management of safety.

In this context, the ICAO NACC and SAM Regional Offices play a key role of coordination, communication and neutrality among all RASG-PA members and stakeholders, as well as with ICAO Headquarters and the other RASGs.



RASG-PA MEMBER STATES

Antigua and Barbuda

Argentina

Bahamas

Barbados

Belize

Bolivia

Brasil

Canada

Chile

Colombia

Costa Rica

Cuba

Dominica

Dominican Republic

El Salvador

Ecuador

Grenada

Guatemala

Guyana

Haiti

Honduras

Jamaica

México

Nicaragua

Panamá

Paraguay

Peru

Saint Kitts and Nevis

Saint Lucia

Saint Vincent and the Grenadines

Surinam

Trinidad and Tobago

United States of America

Uruguay

Venezuela

RASG-PA MEMBER TERRITORIES

ANGUILLA

ARUBA

BERMUDA

BONAIRE

CAYMAN ISLANDS

FRENCH ANTILLES

SINT MAARTEN

CURACAO

TURKS & CAICOS ISLANDS

MONTSERRAT

PUERTO RICO

SABA

SINT EUSTATIUS

VIRGIN ISLANDS

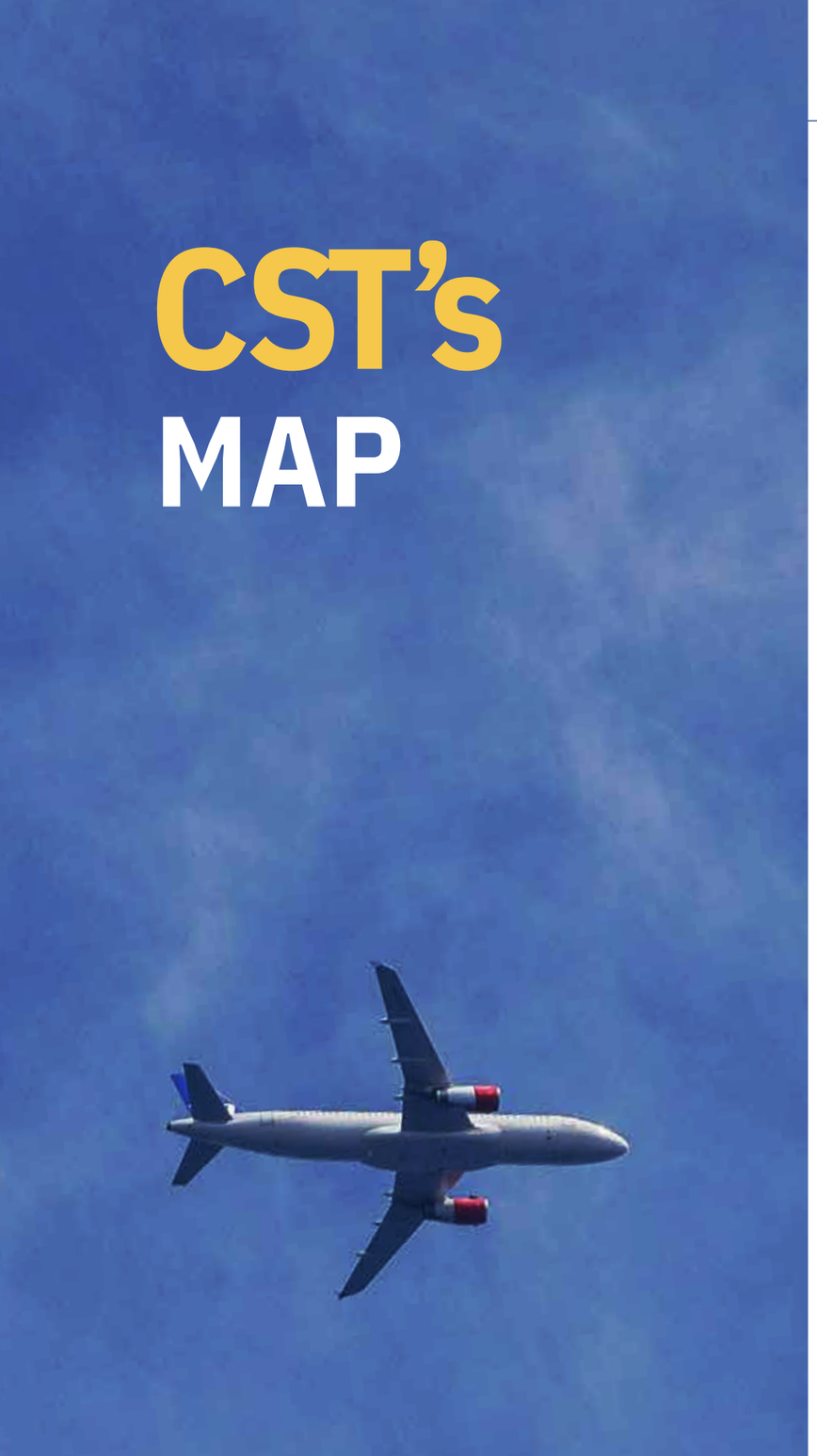
ORGANIZATIONS & INDUSTRY

RASG-PA Safety Partners

Collaborating CSTs

Brazil BCAST
Canada CAG
Peru PCAST
US CAST

CST's MAP



USA CAST
1997

Canada CAG
2020

Mexico
Chile
Argentina

Peru PCAST
2023

Brazil BCAST
2013

- Actively collaborating with RASG-PA
- In the process of formation, or expected to collaborate with RASG-PA in 2025

GASP Implementation Evolution in Pan America

GASP Goals	RASG-PA Indicator	Value 2021	Value 2022	**Value 2023**
Continue with the downward trend in the accident rate.	Accident rate for the last 5 years	3.21	3.09	**2.99**
	Accident rate	2.8	2.97	**2.82**
	Number of fatal accidents	0	2	**0**
	Fatal Accident Rate	0	0.17	**0**
	Risk of fatality	0.23	0.11	**0**
Effective implementation (EI) of States reaches 75% by 2024	Effective implementation	72.16	71.7	**70.37**
	Percentage of States with effective implementation greater than 75%	72.2	65.56	**52.94**
By 2023, all States establish the foundation for an SSP.	Average of implementation of the SSP foundation	70.44	79.6	**74.8**
	SSP Establishment Average	31.73	28.55	**54.8**
By 2024, all States publish a National Aviation Safety Plan (NASP).	Percentage of States that have published their National Safety Plan	43.32	75.53	**73.53**
Keep a growing trend in the industry's contribution to States and regions in terms of safety information exchange networks	Number of IOSA operators	81	78	**77**
By 2025, maintain an increasing trend of States with air navigation and aerodrome infrastructure that meets relevant ICAO standards.	Effective Implementation in AGA	63.89	64.38	**61.5**
	Effective implementation in ANS	67.68	66.96	**65.33**
	Percentage of certified aerodromes	53.14	58.85	**60.43**
	Percentage of aerodromes with Runway Safety Team (RST)	46.54	45.67	**54.15**

LIST OF ACCIDENTS 2023

Local date	Flight Phase	Manufacturer/Model	State/ Area	Occ Category	Highest Damage	Injury Level	Fatalities
2023-01-01	Standing	BOEING 737-8 Max	Canada	RAMP	Substantial	Minor	0
2023-01-02	Taxi	BOMBARDIER CL-600-2D24; AIRBUS A330	USA	GCOL	Substantial	None	0
2023-02-10	En-route	BOEING 737-800	USA	TURB	None	Serious	0
2023-02-16	En-route	AIRBUS A319-132	USA	TURB	None	Serious	0
2023-02-24	Standing	EMBRAER ERJ 190-100 IGW	USA	RAMP	None	Serious	0
2023-03-02	Approach	AIRBUS A320-200	USA	TURB	None	Serious	0
2023-03-15	Approach	AIRBUS A319-100	Colombia	TURB	None	Serious	0
2023-03-21	En-route	BOEING 777-200	USA	TURB	None	Serious	0
2023-03-22	Landing	AIRBUS A320-200	USA	ARC	Substantial	None	0
2023-03-31	Standing	AIRBUS A320-200	Mexico	RAMP	Substantial	None	0
2023-04-16	Landing	SAAB SF340A	Guatemala	LOC-G; RE	Substantial	None	0
2023-04-22	En-route	BOEING 777-200	USA	TURB	None	Serious	0
2023-05-05	Landing	AIRBUS A321-200	USA	ARC	Substantial	None	0
2023-06-01	En-route	BOEING 737-900	USA	TURB	None	Serious	0
2023-06-01	En-route	AIRBUS A320-200	USA	TURB	None	Serious	0
2023-06-05	Taxi	BOEING 737-800	Canada	GCOL	Substantial	None	0
2023-06-28	Landing	BOEING 717-200	USA	SCF-NP; ARC	Substantial	None	0
2023-07-12	En-route	AIRBUS A320-200	USA	TURB	None	Serious	0
2023-07-20	En-route	AIRBUS A321-200	Canada	WSTRW	Substantial	None	0
2023-07-23	En-route	AIRBUS A320-200	USA	MAC; ATM; AMAN	None	Serious	0
2023-07-24	Approach	BOEING 737-700	USA	TURB	None	Serious	0
2023-07-28	En-route	BOEING 737-900	USA	TURB	None	Serious	0
2023-07-29	Landing	BOEING 767-300	USA	ARC	Substantial	None	0
2023-08-03	Landing	BOEING 767-300	USA	SCF-NP	Substantial	None	0
2023-08-09	Taxi	BOEING 737-700	Canada	GCOL	Substantial	None	0
2023-08-14	En-route	EMBRAER ERJ 170-100 SE	USA	TURB	None	Serious	0
2023-08-18	En-route	BOEING 777-200	USA	TURB	None	Serious	0
2023-08-20	Landing	BOEING 737-800	USA	SCF-NP	Substantial	None	0
2023-08-29	Approach	AIRBUS SAS A350-900	USA	TURB	None	Serious	0
2023-08-30	Landing	AIRBUS A321-200	USA	ARC	Substantial	None	0
2023-09-07	Approach	FAIRCHILD SA227-DC	Canada	LOC-I	Substantial	Minor	0
2023-09-07	En-route	BOEING 737-9 Max	USA	TURB	None	Serious	0
2023-09-28	En-route	BOEING 787-8	USA	TURB	None	Serious	0
2023-09-30	Take off	BOEING 737-9 Max	USA	F-NI	Substantial	None	0
2023-12-19	En-route	BOEING 737-800	USA	BIRD	Substantial	None	0

EDITION 2024

RASG - PA
ANNUAL SAFETY REPORT