



Guide for the preparation of the Strategic Exercise SAM 2035

(Presented by the Secretariat)

1. Introduction

The Seventeenth Meeting of Civil Aviation Authorities of the SAM Region (RAAC/17), will be held at the National Aeronautical and Space Museum (*Museo Nacional de Aeronáutica y del Espacio*), in the city of Santiago, Chile, from 10 to 14 April 2023.

Under Agenda item 2B, the Secretariat will organize with the Directors General of Civil Aviation (DGCA) and the Organizations invited, an Exercise on Air Transport Strategic Planning for the SAM Region Exercise, with the purpose of discussing in the light of the [Declaration to promote Connectivity through the Development and Sustainability of Air Transport in the Pan-American Region – Vision 2020-2035](#), the following topics:

- Competitiveness
- Innovation
- Effectiveness of the national, regional and global civil aviation plans
- Governance of governmental civil aviation institutions
- Adequate and sufficient human resources for the future of civil aviation
- Environmental sustainability (SAF)¹

2. Strategic Planning Exercise

The main objective of the exercise, is to obtain goals and an action plan, with the support of the Regional Office for the next 5, 10 and 15 years that would be embodied in a Declaration consistent with the *Vision 2020-2035* agreed upon by the Pan American States under the *Declaration to promote Connectivity through the Development and Sustainability of Air Transport in the Pan American Region*, with an approach more in line with the needs and opportunities of the SAM Region, considering the lessons learned from the health crisis, new technologies and the challenges of human resources and the environment.

3. Benefits of the Strategic Planning Exercise

Among the benefits expected from the exercise, the following are considered:

- To learn from firsthand the vision of the Member States in relation to the sustainable growth of air transport, both nationally and regionally.
- To learn about the main barriers and gaps (internal and external) encountered in implementing this vision.
- Validate the goals and activities of the ICAO Regional Office.
- Identify mechanisms for ICAO and its partners to support the achievement of this regional vision.

¹ A tratarse bajo el asunto 3B

4. **Method**

The topics will be introduced to the audience through presentations or case studies for discussion. Guidelines for the exercises by topic are attached.

The Directors will be distributed in working tables, where together with representatives of the invited international organizations and Secretariat staff, will discuss the different topics and then provide the audience with a summary of the discussions and proposed actions for 5, 10 and 15 years.

It is expected that this dialogue can contribute to the Meeting on how each State's individual vision can contribute to seek a regional alignment in order to identify the needs to reach this vision. The Secretariat would compile the results of the discussions in order to present a proposal of regional declaration.

5. **Preparation for the session**

It is recommended that the Directors General of Civil Aviation be prepared to comment on the vision of their national aviation system, the interfaces of this system with the regional and global system, and the challenges and opportunities identified in the implementation of this vision, including lessons learned in the implementation period.

It is recommended to read the Attachments to this information paper, as well as the Statement on Connectivity referenced in Section 1.

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Strategic Exercise SAM 2035 – Working guide #1

Competitiveness of Air Transport in the SAM Region

Air transport has a significant impact on the productivity and efficiency of the business sector, helps connect people and ideas, drives regional and local development, and is a relevant leading mean of national and international integration to boost tourism and services, to transport valuable inputs and perishables, as well as to assist in times of need such as during pandemics.

Although the SAM Region's usual pre-pandemic traffic levels have not yet been exceeded, traffic in the Region has been gradually recovering from the severe decline at the beginning of the health crisis. Even the Latin America Region as a whole is the region of the world with the best recovery among all with some countries already surpassing 2019 numbers.

On the other hand, it is known that the growth of air transport is sensitive to the economic conditions of the country or region and for the year 2023 it continues to face important challenges such as the slowdown of economic growth impacted by inflation due to the effects of the COVID-19 pandemic and the war in Ukraine and an increase in interest rates of central banks. In addition, the inflation rate forecast for the SAM Region according to the International Monetary Fund (IMF) is around 32%, reaching the 3-digit mark in some countries.

According to the Economic Commission for Latin America and the Caribbean (ECLAC), estimates for 2023 are that the slowdown in economic growth will deepen and reach a rate of 1% in South America. However, although facing global economic problems and challenges that have a strong impact on the competitiveness of civil aviation, it is important to note that the air transport trend in the SAM Region continues to be positive.

To bring some numbers to the discussion, in terms of passengers carried, the South American Region in 2022 reached 85% of its 2019 levels and a growth of about 43% compared to 2021 and also the domestic passenger numbers are recovering more robustly than international passengers due to some economic constraints and challenges the Region is facing.

On the other hand, in terms departure numbers, the SAM Region is ahead in recovery compared to the world, demonstrating the resilience of the South American civil aviation, being that the SAM Region is below by -7% and the world air transport is below by -24% referring to 2019 under ICAO statistics.

Task

Despite the consistent recovery and positive numbers in the post-pandemic recovery, the SAM Region represents about 5% of international air transport with low growth rates in recent years due to the current economic context of the world and also to the great challenges of the Region that impact the competitiveness of civil aviation in the Region compared to other regions of the world. We can consider some challenges and points of attention such as, for example:

- Infrastructure investment
- Market liberalization policies
- Taxes and rates
- Improved connectivity
- Investment incentives

Thus, taking into account the ICAO **Long-Term Vision for the Liberalization of International Air Transport**¹ adopted during the Sixth World Air Transport Conference (ATConf/6) and the **Declaration to Promote Connectivity through the Development and Sustainability of Air Transport in the Pan American Region - Vision 2020-2035** adopted during the Fourth ICAO World Aviation Forum (IWAF/4) and its principles and objectives, as part of the strategic planning exercise, its task is to exchange ideas on the issue of international air transport competitiveness of the SAM Region and what can be done to increase it, and to propose actions and goals for 5, 10 and 15 years.

Here are some questions to guide the discussion:

- What are the main deficiencies in South America's airport infrastructure and how could they be addressed?
- What steps could be taken to reduce airline operating costs in South America?
- How could competition among airlines in South America be encouraged and monopolistic practices avoided?
- What measures could be taken to improve connectivity and market access between South American countries and promote the entry of new companies into the market?
- What actions could be implemented to improve air transport safety in South America and reduce associated risks?

Use the following color coding of actions and goals

- Yellow 5 years
- Pink 10 years
- Green 15 years

Assign a rapporteur to present the results of your discussions and the proposed actions and goals. Turn in the material of your work to the Secretary.

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¹ *We, the Member States of the International Civil Aviation Organization, resolve to actively promote the continued liberalization of international air transport for the benefit of all stakeholders and the economy as a whole. We shall be guided by the need to ensure the highest standards of safety and aviation protection and the principle of loyalty and equality of opportunity for all States and their stakeholders.*



Strategic Exercise SAM 2035 – Working guide #2

Innovation in Aviation

Technological advances are creating a radical change in today's regulatory environment, presenting significant challenges for the Civil Aviation Authorities (CAA) in their effort to maintain a balance between fostering innovation, protecting consumers, and addressing the possible unintended consequences of disruption.

We have entered an era where machines teach themselves; autonomous vehicles communicate with each other and with transportation infrastructure; and smart devices respond to and anticipate consumer needs.

As a result of these developments, States are facing a key challenge: **how best to protect citizens, ensure fair markets, and enforce regulations while allowing these new technologies and businesses to flourish?**

The assumption that regulations can be prepared slowly and deliberately, and then remain in place, without changes, for long periods of time, no longer has room in the current context.

Existing regulatory structures are often slow to adapt to the changing social and economic circumstances, and regulatory bodies are generally adverse to risk. Rapid adaptation to emerging technology, therefore, raises significant obstacles and, in turn, to technology industries, where change occurs at an accelerating pace.

Ultimately, the existing regulatory approach will cease to work, if the volume and pace of digital transformation remains constant.

The gap between technological advances and the mechanisms intended to regulate them is widening day by day. There is a disconnection between the speed, continuous development and ubiquitous and connected nature of technologies, and the existing regulatory structures and processes.

Given this situation, what is the right regulatory approach?

Policymakers have a great number of reasons to regulate, but in general, they are trying to protect citizens, promote competition and/or to internalize the externalities. So, what is the best regulatory model to use? There is a wide range of potential possibilities between strict, prescriptive regulation at one end of the spectrum, and little or no regulation at the other end.

Considering the concept above:

How can Civil Aviation Authorities in the Region prepare themselves to adequately and efficiently regulate emerging technologies, ensuring the protection of users, without becoming an obstacle to the introduction of innovation?

What preparedness measures should States be taking to ensure a safety management and oversight system in accordance with the challenges presented by innovation?

What potential benefits, and implementation possibilities, could the creation of a Civil Aviation Innovation Office bring to a CAA?

Task:

As part of the strategic planning exercise, your task is to exchange ideas on the topic of innovation in aviation, and the regulatory challenge of CAAs, and propose 5, 10 and 15 year actions and goals.

Use the following color coding of actions and goals

- Yellow 5 years
- Pink 10 years
- Green 15 years

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Strategic Exercise SAM 2035 – Working guide #3

Effectiveness of Global, Regional and National Plans

The Declaration on Connectivity of the Pan American Region indicates that the agenda of the States recognizes the importance of the ICAO Global Air Navigation Plans (GANP), Safety (GASP) and Aviation Security (GASeP), and that one of the objectives is to be a Region where the growth of air operations is sustainable and reduces the contribution of carbon emissions to the environment.

To achieve this, Member States, with the support of ICAO, prepare Regional Plans based on the global plans, which in turn will serve as a reference framework for the preparation of national plans that are aligned with regional objectives, taking into account the operational and technical requirements and the national environment.

Still, there are challenges in integrating specific civil aviation plans to the various development plans present in a State, such as tourism development plans, market growth, environmental protection and supported by public policies that frame civil aviation as a fundamental instrument for the social and economic development of this State. On the other hand, the relation between the various instruments of technical planning and governance of civil aviation can support a State in outlining its strategy for the sustainable growth of civil aviation and how the system contributes to the other development plans of a country.

One of the ways in which such planning integration can be pursued is through instruments that consolidate the roadmap for future airport growth and development, airspace management, manufacturing and oversight responsibilities, including safety, security and economic regulation. Such instruments, derived from a civil aviation policy, and managed by the Civil Aviation Authorities, are known as Civil Aviation Master Plans, or CAMPs.

For a manager, one could assume that having a CAMP and the corresponding national safety plans, air navigation, aviation security, environmental sustainability of the aviation system; would be valuable tools that conduct the management in a strategic way by these plans and the country vision.

However, given the difficulties presented in reality, the following questions arise:

How effective are these plans in the day-to-day management?

Do the day-to-day challenges put strategic management and effective execution of the plans on a second place?

Task:

As part of the strategic planning exercise, your task will be ***to assess the effectiveness of national, regional and global civil aviation plans in managing aviation in South American countries.***

We encourage participants to discuss whether they use these plans in their daily management or whether they simply prepare to comply with ICAO requirements. Encourage them to discuss the reasons behind their answers.

We ask them to share their experiences on the effectiveness of national, regional and global plans in managing civil aviation in their countries.

- Have these plans helped to achieve an orderly, safe and sustainable development?
- Have they helped to approach civil aviation management in a strategic manner?
- Or do they simply react to the needs of aviation?
- Do they use key performance indicators (KPIs) effectively to measure progress toward the objectives of national, regional and global civil aviation plans?
- How do they measure success in implementing these plans?

Following this analysis, we ask you to share ideas and best practices on how the effectiveness and implementation of national, regional and global civil aviation plans can be improved by answering the following questions:

- How can these plans be more effective in managing civil aviation and achieving strategic objectives?
- What actions, when and by whom should be taken to implement this action plan?

Use the following color coding of actions and goals

- Yellow 5 years
- Pink 10 years
- Green 15 years

Assign a rapporteur to present the results of the discussions and the proposed actions and goals. Turn in the material of your work to the Secretary.

As aide-memoire, information about ICAO plans is attached.

Attachment to Task 3

About CAMP

The primary objective of a National Civil Aviation Plan, or CAMP, is to establish a long-term strategic plan for the comprehensive and sustainable development of a State's civil aviation system in a way that is aligned with the general economic and social development objectives of the State.

More specifically, CAMP provides a roadmap for the future growth and development of airports, airspace management, manufacturing, ANS provision and oversight responsibilities, including safety, security and economic regulation.

Its purposes include:

- **To provide management with a strategic and coherent planning tool** for the development of an integrated aviation system: CAA-airports-airports-airlines-air navigation service providers.
- **Provide a platform for stakeholder engagement** to ensure everyone is aligned and working towards a shared vision and framework for future growth.
- Establish **connections** with other transport plans (road-rail-ship) and socio-economic activities (trade and tourism) in the National Development Plan.
- **Facilitate coordinated funding and investments** across the aviation system.

The CAMP is a dynamic long-term strategic planning document that provides the framework for the future growth of civil aviation in the State.

The CAMP enhances a State's ability to use aviation as an effective means to achieve economic development, in particular, to increase accessibility to funding and financing for aviation infrastructure development and investment in air connectivity.

About GANP, RANP and NANP

ICAO is responsible for setting global standards for safe and efficient air navigation. One of ICAO's key functions is to develop a Global Air Navigation Plan (GANP) that sets out a roadmap for the evolution of the global air navigation system over the next 15-20 years.

The GANP is a high-level strategic plan that defines the overall vision and objectives for the global air navigation system. It provides a framework for the development of regional air navigation plans that are adjusted to the specific needs and priorities of different regions of the world.

The GANP is based on the concept of a global airspace system that is interoperable, seamless and integrated. It aims to promote the harmonization of air traffic management (ATM) systems and procedures, the adoption of new technologies and best practices, and improved communication and collaboration among all aviation industry stakeholders.

The GANP is updated every three years to ensure that it remains relevant and responsive to the changing needs of the aviation industry. The latest version of the GANP was published in 2019 and covers the period from 2020 to 2035.

In addition to the GANP, ICAO also develops Regional Air Navigation Plans (RANPs) that are tailored to the specific needs and priorities of the different regions of the world. These plans are developed in

consultation with Member States and stakeholders in each region and are based on the principles and objectives of the GANP.

The RANPs provide a more detailed roadmap for the development of the air navigation system in each region, taking into account the specific geographic, operational and technical characteristics of each region. They also provide a framework for the development of regional air traffic management (ATM) systems and the implementation of new technologies and procedures.

In conclusion, the ICAO Global Air Navigation Plan (GANP) is a strategic plan that defines the overall vision and objectives for the global air navigation system. It provides a framework for the development of regional air navigation plans (RANPs) that are adjusted to the specific needs and priorities of different regions of the world. These plans aim to promote the harmonization of air traffic management (ATM) systems and procedures, the adoption of new technologies and best practices, and the improvement of communication and collaboration among all aviation industry stakeholders.

How do GANP and RANP relate to the National Air Navigation Plan?

The Global Air Navigation Plan (GANP) and the Regional Air Navigation Plans (RANPs) developed by the International Civil Aviation Organization (ICAO) provide a global and regional framework for the development of the air navigation system. However, the implementation of these plans at the national level is the responsibility of each Member State.

The National Air Navigation Plan (NANP) is a plan developed by each Member State that describes the specific measures and activities that will be implemented to achieve the objectives of the GANP and RANPs at the national level. The NANP takes into account the specific operational and technical requirements of each Member State and describes the steps that will be taken to improve the efficiency and safety of the air navigation system within the country.

The NANP is developed in consultation with aviation industry stakeholders, including air navigation service providers, airlines, airport operators and other organizations involved in the provision of air traffic management services. The NANP is also subject to periodic review to ensure that it remains aligned with the objectives of the GANP and RANPs and takes into account new technologies and best practices.

In summary, the GANP and RANPs developed by ICAO provide a global and regional framework for air navigation system development. The NANP developed by each Member State describes the specific measures and activities to be implemented to achieve the objectives of the GANP and RANPs at the national level. The NANP is developed in consultation with aviation industry stakeholders and is subject to periodic review to ensure that it remains aligned with the objectives of the GANP and RANPs.

The Global Aviation Safety Plan (GASP) and its implementation at regional and national levels

On the other hand, the Global Aviation Safety Plan of the International Civil Aviation Organization (ICAO) is a global plan to improve aviation safety worldwide. The GASP is based on a risk management strategy to identify and mitigate safety risks in the aviation sector.

At the regional level, the Regional Aviation Safety Group - Pan American (RASG-PA) and the Latin American Regional Safety Oversight Cooperation System (SRVSOP), as well as the Regional Office work to implement the GASP in the SAM Region.

The SAM Regional Safety Plan (SAMSP) is a regional safety framework developed by the SAM States in coordination with the SAM Regional Office and adopted by the States. The objective of the SAMSP is to improve aviation safety in the South American Region.

The SAMSP establishes requirements and recommended practices to improve safety in different areas, such as safety management, accident and incident investigation, risk management, air navigation safety, ground safety and personnel training. In addition, the plan promotes cooperation and exchange of information among Member States and other relevant agencies in the Region to improve aviation safety.

The implementation of the SAMSP at the national level is the responsibility of each State, which must develop its own safety plans based on the requirements and recommended practices set out in the regional plan. Member States are also required to report regularly on their progress in implementing the SAMSP to ICAO.

At the national level, each ICAO Member State is responsible for implementing the SAMSP in its own country. Each country must develop a National Safety Program (PNSO) that is aligned with the objectives of the GASP and takes into account the specific operational and technical requirements of the country. The PNSO should involve all relevant aviation stakeholders, including civil aviation authorities, aviation companies and air navigation service providers.

In summary, ICAO's GASP is a global plan to improve aviation safety. It is implemented at the regional level through ORSOs and at the national level through PNSOs, with the objective of reducing safety risks worldwide.

The Global Aviation Security Plan GAsEP

The International Civil Aviation Organization (ICAO) has developed a Global Aviation Security Plan (GAsEP) to improve the security of the global aviation network. The GAsEP provides a framework for all countries and stakeholders to work together to address evolving security threats.

The GAsEP establishes a risk-based approach to aviation security that focuses on identifying and addressing the most significant threats to aviation. It also provides guidance on how to implement security measures that are effective, efficient and sustainable.

To achieve the objectives of GAsEP, it is essential that all stakeholders, including governments, airlines, airports and industry partners, collaborate and coordinate their efforts. The GAsEP encourages the sharing of information and best practices among all stakeholders to promote a collective understanding of the security risks and challenges.

The GAsEP also emphasizes the importance of innovation and the use of advanced technologies in improving aviation security. It encourages the adoption of modern security systems and technologies, such as biometrics, artificial intelligence and big data analysis, to improve the efficiency and effectiveness of aviation security measures.

In summary, the GAsEP is a comprehensive plan that provides a roadmap to improve aviation security globally. It promotes a risk-based approach to security, encourages collaboration and exchange of information among all stakeholders, and emphasizes the use of innovative technologies to improve security measures. By implementing GAsEP, decision makers can help ensure the security of the global aviation network.



SAM 2035 Strategic Exercise – Work Guide #4

Civil Aviation Authorities Governance

“Strong governance supports a regulatory authority’s legitimacy and integrity, and is crucial for ensuring that they make technical, evidence-based and objective decisions without conflict of interest, bias or improper influence”.

Source: <https://doi.org/10.1787/e8bdf362-en>

The OECD recommends good governance practices for regulators, which serve as a reference for the civil aviation authority operation. Among the good practices, the following stand out:

- **Avoid undue influence and maintain trust** – It is important that regulation, decisions and functions are carried out with the highest integrity, to ensure that there is trust in the established regulatory regime.
- **Decision and governance structure to ensure independent regulators** – Regulators require governance arrangements that ensure their effective operation, preserve their regulatory integrity, and meet the regulatory objectives of their mandates.
- **Accountability and transparency** – Businesses and citizens expect the delivery of regulatory results from the government and regulatory bodies and the appropriate use of authority and public resources to achieve them.
- **Engagement** - Good regulators have established stakeholder engagement mechanisms as part of achieving their objectives.
- **Funding** - The amount and source of funding for a regulator will be determined by your organization and operations.
- **Performance evaluation** – It is important that regulators are aware of the impacts of their regulatory actions and decisions.

Among other impacts, the limitations in the exercise of civil aviation authorities’ functions can result in difficulties in complying with international standards, also affecting regional assistance and development processes.

The effective implementation levels in the region, which are measured by the ICAO Audit Programs (USOAP and USAP) follow an oscillating behavior, which also affects ICAO assistance programs:

- a) Regional Offices and Regional Safety Organizations (RSOOs) make multiple and costly efforts to help States improve their level of effective implementation;
- b) through this aid, the States develop internal capacities, hire and train the required technical personnel, develop guide material, and carry out certification and surveillance activities;

- c) thanks to the activities described in (b), the States achieve improvements in their levels of effective implementation;
- d) however, for various reasons, the capabilities developed generally begin to be lost in a management change cycle or even sooner.

Some of the factors that could be the cause of these capacity losses would be:

- i. High turnover of authorities,
- ii. continuous changes in middle management,
- iii. internal structures multiple modifications,
- iv. human resource planning gaps,
- v. adaptation to new technologies and profiles necessary for proper management,
- vi. lack of sensitivity regarding the loss of talent and safety impact,
- vii. decisions to reduce the State apparatus that impact the AACs to renew technical cadres,
- viii. legal or institutional difficulties of establishing modern regulations, which promote norms compliance beyond merely establishing a punitive framework.

These capacity losses make the States return to the starting point, where they need to request external support again to recover their capacities.

The cycle repeats itself continuously, causing fluctuations in profits and losses of effective application, at a very high financial cost for the States. It causes an inefficiency in the use of public resources that negatively affects the States capacities, raising the risk level.

These capacity losses impact is not only in safety, but also in all the different ICAO strategic objectives that seek the sustainable growth of civil aviation in the world.

Attached we present the result of an OECD study on the governance of the CAR and SAM region States Civil Aviation Authorities. This study can identify a regulator results in three good governance practices essential components:

- 1) Scope of action,
- 2) independence and
- 3) accountability¹.

Exercise:

As part of the strategic planning exercise, their task is to exchange ideas on the CAAs governance issue, and propose actions and goals for 5, 10 and 15 years.

Use the following color code for the actions and goals:

- Yellow 5 years
- Pink 10 years
- Green 15 years

¹ The OECD Best Practice Principles on the Regulators Governance recognize that regulators who are efficient, effective and supported by high-quality regulatory management tools are best placed to administer and enforce regulations (OECD, 2014 [1]). The OECD views regulators good governance as a building block at the base of high-quality regulatory environments, which ultimately aim to contribute to positive outcomes for markets and consumers. Strong governance supports the regulatory authority with legitimacy and integrity, and is crucial to ensure that objective decisions are made based on technical evidence and without conflict of interest, bias or improper influence.

Appoint a rapporteur to present the results of your discussions and the proposed actions and goals.
Deliver your work material to Secretariat.

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SAM 2035 Strategic Exercise – Work Guide #5

Adequate and sufficient human resources for civil aviation future

The civil aviation sector is one with many needs for highly qualified and competent personnel to carry out the tasks necessary for the safe and efficient aircraft operation aircraft.

However, the Region, with the exception of a few States, is very weak in offering an attractive offer to recruit talent. In other cases, the jobs may be attractive, but adequate planning has not been achieved to provide for talent entering retirement age replacement.

In repeated cases, when the problem is perceived, it is too late because the generation of competences takes several years and it is not possible to find staff “off-the-shelf” as in many other professions, which means that the generation of competitions have to be carried out by the AAC, ANSP or AIG.

The processes for defining and controlling competencies are in some cases weak. Technical personnel are sometimes subject to removal for various reasons outside the technical field, such as political aspects.

Exercise:

As part of the strategic planning exercise, the task will be based on your experiences, to identify those barriers to have adequate and sufficient personnel for the future of regional aviation and find practical solutions to improve the human resources situation in civil aviation in South America.

To do this, below are some questions to help the discussion:

- In your opinion, what are the factors that contribute to the lack of an attractive offer, the lack of adequate planning to anticipate talent replacement, the weak processes for defining and controlling competencies, and technical personnel removal?
- What realistic solutions could be proposed to make the offer more attractive, carry out adequate planning to anticipate talent replacement, improve the competences definition and control processes and reduce the technical personnel removal?

Points to consider:

- How to improve working conditions and incentives to attract talent in civil aviation.
- How to improve planning to anticipate talent replacement and reduce reliance on retiring technical staff.
- How to improve the processes for defining and controlling competencies to ensure technical personnel quality and continuity.

- How to reduce technical personnel removal and guarantee their job stability.

Use the following color code for the actions and goals:

- Yellow 5 years
- Pink 10 years
- Green 15 years

Appoint a rapporteur to present the results of your discussions and the proposed actions and goals.
Deliver your work material to Secretariat.

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SAM 2035 Strategic Exercise – Work Guide #6

Environmental sustainability in the SAM region civil aviation system

The Pan American States Declaration on Connectivity, endorsed in Fortaleza, Brazil in 2018, aspires to achieve a Region where the air operations growth is sustainable, stable and reduces carbon emissions contribution to the environment. As part of the actions to reduce CO₂ emissions in aviation, ICAO has urged States to develop Aviation Emissions Reduction Action Plans. These plans pillars are the implementation of the CO₂ Emissions Reduction and Compensation scheme (CORSIA) and the production and adoption of Sustainable Aviation Fuels (SAF) as the main measure to achieve the ambitious long-term objectives of reducing CO₂ emissions (LTAG).

Exercise:

At the workshop, discuss the feasibility of producing and using Sustainable Aviation Fuels and how to increase adherence to CORSIA in the voluntary phase. Here are some questions to help the discussion:

Regarding accession to CORSIA

- 1) What difficulties have you encountered in your States to adhere to the CORSIA scheme?
- 2) How clear are the benefits that States could derive from joining CORSIA?
- 3) Please share your experiences regarding the expectation of various stakeholders from industry and government sectors in your States when expressing their willingness to join CORSIA:
 - Have all interested parties been identified?
 - Have the comments and positions of each interested party been obtained?
 - What risks do stakeholders identify to maintain a cautious stance on accession?
 - How could these risks be mitigated to achieve greater adherence?
 - What benefits have agreed stakeholders identified?
 - Are there any specific barriers that prevent the civil aviation authority from adhering to CORSIA in its voluntary phase?

Regarding the Sustainable Aviation Fuel (SAF):

What level of maturity has been achieved for a SAF production industry installation plan development? On topics like:

- Legislation and public policies for SAF production;
- incentives for the SAF production industry establishment;
- research on SAF use and its impacts on the Environment;
- establishment of public-private tables to encourage discussion of the production and use of SAF;
- airport infrastructures preparation for SAF use;
- necessary investments in both the private and public spheres for SAF production and distribution; and;
- raw material or biomass existence for SAF production in South America.

Share ideas and good practices on how to prepare a roadmap to address all issues related to SAF production and use.

Appoint a rapporteur to present the results of your discussions and the proposed actions and goals.
Deliver your work material to Secretariat.

Task 6 Attachment References

CO₂ Emissions Reduction Action Plan

ICAO, through Resolution A37-19, had requested States the voluntary preparation of Action Plans to reduce CO₂ emissions from international civil aviation. This Plan should indicate the measures that the State would implement in order to reduce CO₂ emissions, and must be reviewed and, if necessary, updated every three years. This request has been revalidated by Resolutions A38-18, A39-2, A40-18 and A41-21.

CORSIA

Assembly 39, through Resolution A39-3 established the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA for its acronym in English).

In 2019, Annex 16, Vol. IV – CORSIA was approved.

Sessions 40 and 41 ratified the CORSIA scheme, through Resolutions A40-19 and A41-22. However, the ICAO Assembly 41st session approved slight modifications to the scheme.

LTAG

Assembly 41, through Resolution A41-21, approved the long-term ambitious objectives (LTAG), which seek the aviation sector de-carbonization, by 2050.

The Environmental Protection Committee, in its report on the feasibility of implementing some LTAG, had identified sectoral measures such as technology, operational improvements and sustainable aviation fuels (SAF) as elements that can help de-carbonization. The report highlights that, although the integrated scenarios show that there is potential to substantially reduce CO₂ emissions, none of them achieve zero CO₂ emissions with sectoral measures. However, it also highlights that direct replacement fuels have the greatest impact on residual CO₂ emissions, driving global reductions by 2050.