



NOTA DE ESTUDIO

RASG-PA/9 — NE/07
24/05/16

Novena Reunión Plenaria del Grupo Regional de Seguridad Operacional de la Aviación - Panamérica (RASG-PA/9)

Ciudad de Panamá, Panamá, 23 de junio de 2016

Cuestión 8 del
Orden del Día:

Asamblea de la OACI - 39º Periodo de Sesiones (A39)

NOTAS DE ESTUDIO DE ESTADOS UNIDOS PARA LA 39A ASAMBLEA DE LA OACI

(Presentada por Estados Unidos)

RESUMEN EJECUTIVO

A Estados Unidos le gustaría promover el conocimiento de sus objetivos para el próximo 39º Periodo de Sesiones de la Asamblea de la OACI (A39) compartiendo las Notas de Estudio con el Grupo Regional de Seguridad Operacional de la Aviación - Panamérica (RASG-PA). Las tres (3) notas adjuntas están dirigidas a los ensayos operacionales llevados a cabo en espacio aéreo oceánico, actualizaciones al Plan Global de Seguridad Operacional de la OACI (GASP), y el desarrollo de normas internacionales.

Acción:	Revisar las Notas de Estudio de US adjuntas.
<i>Objetivos Estratégicos:</i>	<ul style="list-style-type: none">• Seguridad Operacional
<i>Referencias:</i>	<ul style="list-style-type: none">• RASG-PA/9 — NE/07 — Notas adjuntas

1. Introducción

1.1 Estados Unidos insta a los Estados Miembros de RASG-PA revisar las notas adjuntas y considerar el apoyo a las acciones propuestas durante las discusiones de la 39A Asamblea de la OACI.

1.2 Se invita a los Estados Miembros de RASG-PA a compartir sus contribuciones en el contenido propuesto y recomendaciones contenidas en las notas adjuntas, y compartir sus objetivos para la 39A Asamblea de la OACI



International Civil Aviation Organization

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ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 35: Aviation safety and air navigation standardization

STANDARDIZATION OF OPERATIONAL TRIALS IN OCEANIC AIRSPACE

(Presented by the United States)

EXECUTIVE SUMMARY

Well-designed operational trials are critical to the successful implementation of new Air Traffic Management (ATM) procedures. They are used to demonstrate a practice, to acquire operational performance data, to expose participants to potential changes in operation, and to test the viability of one or more sub-systems that are critical to a new ATM procedure. Trials conducted over oceanic/high seas airspace have produced measurable gains in capacity and efficiency. However, operational trials are also associated with elevated risk and generally involve special training, software and equipment. At any one time, multiple trials may be ongoing in oceanic airspace around the globe. A single aircraft can be subject to more than one trial in a single journey, but there is no ICAO guidance to govern their conduct. To ensure that primary safety considerations are addressed in the design and execution of operational trials, ICAO and States should develop guidance to standardize the planning and implementation of operational trials in oceanic airspace.

Action: The Assembly is invited to:

- a) Note the potential capacity and efficiency benefits to be gained from the introduction of new ATM initiatives and/or systems;
- b) Acknowledge that safety considerations must be documented and addressed prior to conducting operational trials of new ATM initiatives and/or systems in shared oceanic airspace;
- c) Recognize the importance of sharing information regarding the status of trials that affect the aviation community; and
- d) Recommend that ICAO develop guidance material regarding the design and execution of operational trials in oceanic airspace.

<i>Strategic Objectives:</i>	This working paper relates to the Safety and Air Navigation Capacity and Efficiency Strategic Objectives.
<i>Financial implications:</i>	It is expected the triennium program budget contains planned activity for ATM initiatives. Interested States and stakeholders may also contribute resources to assist ICAO in developing guidance material to support the standardization of operational trials conducted in oceanic airspace.
<i>References:</i>	

INTRODUCTION

1.1 Well-designed operational trials are critical to the successful implementation of new ATM procedures. They are used to demonstrate a practice, to acquire operational performance data, to expose participants to potential changes in operation, and to test the viability of one or more sub-systems that are critical to a new ATM procedure. However, the experimental nature of these trials means that participants and passengers may be exposed to risks not otherwise present in the use of established procedures.

1.2 Amendments to several Annexes to the Convention on International Civil Aviation, applicable since November 2009, introduced harmonized requirements for the implementation of Safety Management Systems (SMS) by aviation service providers. Accordingly, aircraft operators and other aviation service provider organizations must establish and apply a formal risk management process within the framework of the organizational SMS to ensure that risks are systematically analysed (in terms of probability of occurrence and severity of hazard effects), assessed (in terms of tolerability) and controlled to an acceptable level (by implementation of mitigation measures).

1.3 Trials conducted over oceanic/high seas airspace have produced measurable gains in capacity and efficiency. Nevertheless, it is important to ensure that primary safety considerations are addressed in the design and execution of operational trials; the trials are well-documented and procedures are clear to participants; and regional agreement regarding the scope of the trials is established as necessary. Therefore, ICAO and States should develop guidance to standardize the planning and implementation of operational trials in oceanic airspace.

DISCUSSION

2.1 Operational trials occurring over the high seas may involve operators from multiple States, as well as airspace assigned to and managed by multiple States. Therefore, regional agreement is appropriate in such circumstances. Working groups within the ICAO regional structure, such as the Planning and Implementation Regional Groups and the Regional Aviation Safety Groups, should be aware of and engaged in the implementation and oversight of operational trials conducted in oceanic airspace.

2.2 Operational trials are used to demonstrate a practice, to acquire operational performance data, to expose participants to changes in operation, and to test the viability of one or more sub-systems that are critical to a new ATM procedure. It is important to both conduct and document a safety risk assessment for the benefit of all stakeholders – such as air navigation service providers, air operators, and State regulators – prior to implementing an operational trial. Primary consideration should be given to the safety of non-participants in the surrounding environment, as well as to the participants operating in the trial environment.

2.3 At any one time, multiple trials may be ongoing in oceanic airspace around the globe. A single aircraft can be subject to more than one trial in a single journey. However, there is no ICAO guidance to govern their conduct, nor is there a centralized coordination arrangement to ensure that trials will not cause confusion to a flight crew traversing airspace in which more than one trial may be ongoing. For this reason, trials in oceanic airspace should be considered within the global framework. A centralized coordination arrangement for all trials in oceanic airspace and access to this information would allow users to make more informed decisions regarding their flight planning in or around such trials.

2.4 This paper recommends the development of common requirements or guidelines regarding operational trials according to the following principles:

2.5 At a minimum, plans for an operational trial should describe the scope and objective of the trial; the data that will be collected; notification procedures for commencement, termination, and suspension; the timeframe and duration of the trial; and the parameters for the success or failure of the trial. Furthermore, the plan should be accompanied by a reasonable safety assessment that is available to all stakeholders.

2.6 Operational trials should be of limited scope and/or duration. They should be long enough or extensive enough to obtain the information or quantifiable basis for extending operational practice, but they should not be extended beyond the minimum duration required to collect the necessary data.

CONCLUSION

3.1 The United States supports the development of guidance material to standardize the planning and implementation of operational trials in oceanic airspace. Furthermore, the United States supports a centralized coordination arrangement to ensure that users can make informed decisions regarding their flight planning in or around such trials.

ACTION BY THE ASSEMBLY

4.1 Note the potential capacity and efficiency benefits to be gained from the introduction of new ATM initiatives and/or systems;

4.2 Acknowledge that safety considerations must be documented and addressed prior to conducting operational trials of new ATM initiatives and/or systems in shared oceanic airspace;

4.3 Recognize the importance of sharing information regarding the status of trials that affect the aviation community; and

4.4 Recommend that ICAO develop guidance material regarding the design and execution of operational trials in oceanic airspace.



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ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 34: Aviation safety and air navigation policy

UPDATING THE GLOBAL AVIATION SAFETY PLAN

(Presented by the United States)

EXECUTIVE SUMMARY

The United States supports the ICAO Global Aviation Safety Plan (GASP) and efforts to strengthen aviation safety through a high level policy framework for Member States and stakeholders to reference as they evolve their aviation safety organizations. Revisions to the current GASP attempts to integrate state safety oversight systems and evolving State Safety Programme and Safety Management efforts. The United States urges ICAO to maintain priority on reducing the global accident risk and to work with Member States and stakeholders to simplify future updates to the GASP, in order to provide better guidance on balancing the management of global safety priorities as States continue to improve their safety oversight. The updated GASP should be introduced during the annual Regional Aviation Safety Group (RASG) sessions in 2018 with adoption of a revised GASP to be completed at the 40th session of the Assembly in September 2019.

Action: The Assembly is invited to:

- a) Agree that participation in the development of the next revision to the GASP should include representation from regulators and industry from Member States that range in Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) scores, international operating complexities, and resources, as well as representatives from all RASGs.
- b) Agree that the updated GASP should be introduced during the annual RASG sessions in 2018 and adopted at the 40th session of the Assembly in September 2019.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	It is expected the triennium program budget contains planned activity for ongoing GASP initiatives, however ICAO may need to consider additional resources for regional offices (as explained in step one of the GASP Roadmap for 2017-2019).
<i>References:</i>	<ul style="list-style-type: none"> • Doc 9734, Safety Oversight Manual, Part A and Appendix 1 to Annex 19, Safety Management • 2007 Global Aviation Safety Plan • 2017-2019 Global Aviation Safety Plan • HLSC/15-WP/6, Updating the 2014-2016 GASP, Presented by the ICAO Secretariat

INTRODUCTION

1.1 The United States supports the ICAO Global Aviation Safety Plan (GASP) and efforts to strengthen aviation safety through a high level policy framework for Member States and stakeholders to reference as they evolve their aviation safety organizations.

1.2 Recent revisions to the GASP have added complexity in the form of new objectives in an effort to align with those of the ICAO Global Air Navigation Plan. The revised GASP also includes a focus on a States' oversight systems as a prerequisite for implementing a State Safety Programme (SSP) and Safety Management System (SMS). The advent of a new Annex for safety management and requirements for an SSP understandably necessitates that the GASP incorporate objectives to help guide States towards effective implementation of the ICAO critical elements for basic oversight¹, as a way to ensure that States are working to build effective oversight capabilities to maintain and sustain safety. However, Annex 19 for Safety Management is in the process of implementation among many States and each will implement these requirements at a different pace. These fairly new global policy objectives require realistic and individual timeframes for implementation for States and stakeholders, and the GASP needs to recognize the work well underway.

1.3 Additionally, prescriptive requirements to meet GASP targets should account for the varying levels of complexity stemming from differences in aviation traffic volume, capacity, etc. As a result, it is necessary to ensure that further updates to the GASP include closer coordination with Member States and stakeholders on achievable outcomes and expectations dependent on the unique elements of each region.

1.4 The United States strongly supports the desire for all Member States to implement effective oversight capabilities and adopt globally-recognized standards and best practices for the interest of sustaining improvements to safety. However, the United States urges ICAO to maintain priority on reducing the global accident risk.

1.5 In this regard, the United States proposes that the next update to the GASP establish an improved connection for accomplishing these two elements of effective oversight while performing safety management. The next edition of the GASP should take into account various options to meet safety oversight and safety management responsibilities in alignment with the complexity of each State's operating environment; this should include options for authorized delegations of authority. It is important that ICAO recognize the pressing need for allocating proper resources to regions and States that are identified as requiring additional support.

¹ Doc 9734, Safety Oversight Manual, Part A and Appendix 1 to Annex 19, Safety Management

DISCUSSION

Evolution of the GASP

2.1 The ICAO GASP was created in 1997 to guide and prioritize the technical work programme for ICAO and to provide a common frame of reference for Member States and stakeholders to coordinate and guide safety policies and initiatives to reduce the global accident risk to commercial aviation.² In 2007, ICAO set safety targets to reduce the number of fatal accidents and fatalities, as well as regional accident rates. It strived to have no ICAO region with an accident rate more than twice the worldwide rate by 2011.

Global Safety Priorities

2.2 Regions are still reporting that the high-risk accident categories are runway safety events, controlled flight into terrain (CFIT), and loss of control-in flight (LOC-I).³ These identified risks continue to identify precursors consistent with Attachment C of Annex 13, List of examples of serious incidents, and as recognized by ICAO through regional safety reports. Work to develop safety enhancements targeted at these risk areas is underway in several regions. Regions are continuing to learn the importance of regional safety reporting for collection and analysis of data in order to handle safety improvements to the regional operating environment. Work remains to ensure regions evolve this philosophy in a more coordinated manner.

2.3 Better guidance to assist Member States and regions is required to balance priorities in safety enhancements and safety oversight systems without waiting to address safety risks effectively as discussed in Section 1.3.2 in the 2017–2019 GASP. One of the fundamental roles of the Regional Aviation Safety Groups (RASG) is to foster a collaborative forum for government and industry to form safety partnerships to address safety risk areas by encouraging regional sharing of information in order to perform studies and analyses for safety enhancement development, and ultimate risk mitigation and monitoring⁴. The RASGs provide States and stakeholders the ability to leverage knowledge and resources, and build strong safety partnerships. Together, the RASGs could work towards greater harmonization of global safety advancements and the RASGs can help identify regional priorities.

The Current GASP

2.4 The 38th Session of the Assembly endorsed the first revision to the GASP to provide a global strategic direction for safety, and resolved that the GASP would be kept current in close cooperation and coordination with all concerned stakeholders. ICAO has recently completed the task of updating the GASP for the 2017–2019 triennium. Since its release and in anticipation of the 2017–2019 GASP Roadmap, opportunities are identified where ICAO, Member States, and stakeholders can develop a strategy to help States obtain an effective oversight system, while maintaining focus on the reduction of risks to safety in real-time day-to-day operations.

2.5 As discussed at the Second High-Level Safety Conference in 2015, the 2017–2019 GASP objectives and targets will be amended with gradual, evolutionary updates rather than a significant

² 2007 Global Aviation Safety Plan

³ 2017-2019 GASP

⁴ Provided that the information shared does not violate any governing policies around established safety programs, with any authority or entity. Additionally, that information is protected from disclosure outside the regional group, and not used for any purpose other than safety risk mitigation.

rewrite.⁵ These updates include the addition of a supporting roadmap designed to assist States and stakeholders in maintaining focus on the global safety priorities and in achieving the GASP safety objectives.

2017–2019 and the GASP Roadmap Group

2.6 Following the Second High-Level Safety Conference, and in response to concerns raised on how to build effective oversight while performing basic safety management, ICAO convened a team of experts (hereinafter, the Roadmap Group) to assist in developing safety roadmaps as a guide to implementation of the 2014–2016 GASP (GASP Appendix A). The Roadmap Group consisted of a cross cut of representatives, but did not have the benefit of representatives from each of the RASGs, nor did it have representation from States with differing levels of aviation system complexities, such as size or volume of air traffic, airports or other aviation services. The United States proposes that updates and further refinements of the GASP include active consultation from a full representative group of Member States and stakeholders impacted by the GASP.

2.7 The United States recognizes that the Roadmap Group created recommendations for implementation of GASP objectives for effective oversight while incorporating elements to maintain efforts already underway in performing safety management of identified risks to current operating environments. This working group could be the basis for ICAO to further work on establishing a balance between building effective oversight capabilities for States and encouraging the continued path towards regional coordination in developing and implementing risk mitigation strategies to reduce the overall global risk to aviation accidents.

CONCLUSION

3.1 The United States supports an ICAO Global Aviation Safety Plan that maintains a high-level policy framework for Member States and stakeholders to use in development of safety improvements to the aviation operating environment. The United States encourages ICAO to keep the GASP in a format that is easy for stakeholders to comprehend and follow, and that it takes into account individual States' and regions' unique characteristics and timeframes for implementation.

4. ACTION BY THE ASSEMBLY

4.1 The Assembly is invited to:

4.2 Agree that the 2020-2022 update to the GASP should emphasize a stronger relationship between building effective oversight among ICAO Member States and performing operational safety risk management.

4.3 Agree that development of the next edition of the GASP should include participation by regulators and industry from Member States that range in USOAP EI scores, international operating complexities, and resources, as well as representatives from all RASGs.

4.4 Agree that the updated GASP should be introduced during the annual RASG sessions in 2018 and adopted at the 40th session of the Assembly in September 2019.

⁵ HLSC/15-WP/6, Updating the 2014-2016 GASP, Presented by the ICAO Secretariat

4.5 The Assembly is also invited to recognize the additional resources and support ICAO regional offices will need to manage implementation of GASP objectives and continue coordination with other regional groups.



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ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 25: Increasing the Efficiency and Effectiveness of ICAO

Agenda Item 35: Aviation Safety and Air Navigation Standardization

ENHANCING THE IMPLEMENTATION OF INTERNATIONAL AVIATION PROVISIONS

(Presented by the United States)

EXECUTIVE SUMMARY

Since the inception of the International Civil Aviation Organization (ICAO) in 1947, the safe and orderly expansion of international aviation has in large part been built upon a standardized approach to the promulgation of national regulations. As directed by Article 37 of the Convention on International Civil Aviation, ICAO is empowered to develop Standards and Recommended Practices (SARPs) for the purpose of obtaining the highest practicable degree of uniformity in aviation worldwide. This is a critical function, and as the scope and complexity of the aviation system increases, the process by which these SARPs are created must be continuously scrutinized and adapted to accommodate future needs.

Action: The Assembly is invited to:

- a) Direct the Council to consider SARP development and review process revisions that promote transparency and enhance coordination across relevant disciplines, and to include an assessment of potential pre- and post- implementation issues. Consideration should also be given to improving the Procedures for Air Navigation Services (PANS) development and review processes, provided their impact on global harmonization and interoperability.
- b) Urge States to respond to ICAO State letters regarding proposed Annex and PANS amendments especially those that relate to concepts or technologies not previously mandated at a national or regional level. Review of such proposals should include a cross-disciplinary perspective, as appropriate, provide input regarding the anticipated economic impact to the State and industry, and incorporate the views of relevant industry stakeholders.
- c) Direct ICAO Regional Offices to take an active role in encouraging responses to State letters regarding amendment proposals. ICAO Regional Offices should also monitor State responses and provide assistance where needed to determine the impact of implementation in a regional context.
- d) Adopt the proposed amendments to Assembly Resolution 38/11, as described in the attachment to this Working Paper.

Strategic Objectives:

This working paper relates to the ICAO Strategic Objective for Safety.

<i>Financial implications:</i>	This working paper has no significant financial implications.
<i>References:</i>	

INTRODUCTION

1.1 Over the last triennium, aviation has continued to improve upon an impressive safety record due in large part to the increasing reliance on risk-based decision-making, as well as greater partnership between stakeholders. This progress should be applauded; however the international aviation community must remain mindful that future challenges will require an even greater degree of cooperation and collaboration to address global safety issues.

1.2 An effective approach will require increased implementation of SARPs. Traditionally, SARP development has been primarily undertaken by experts with knowledge or experience in a particular discipline. However, as new technologies and challenges enter into the modern aviation system, more robust cross-disciplinary development and review processes are required to identify operational implications across all relevant disciplines, to create a holistic account of actual impact on the global air transportation system.

1.3 Successful implementation of a Standard across 191 States is no easy feat; complex political, economic, and geographic factors must be satisfactorily addressed in order to develop a universally implementable standard. In years past, the Assembly and other high-level ICAO forums have addressed the need for an efficient and effective SARP development process, the efforts of which have greatly contributed to the efficiency of the process. Nonetheless, the need for harmonized and effective SARPs has become ever more critical due to the increasing complexity of the global air transportation system. Therefore, this Working Paper recommends that the existing SARP development and review processes in place at ICAO be amended and enhanced to better evaluate impact and feasibility of implementation on a global scale. These processes should more actively involve the aviation industry (especially operational personnel) to ensure that SARPs will achieve the desired impact and can be implemented as intended. In addition to SARPs, consideration in this matter should also be given to Procedures for Air Navigation Services (PANS). PANS play a critical role in harmonization and interoperability, and therefore should incorporate an enhanced comprehensive and cross-disciplinary review process.

DISCUSSION

2.1 Establishment of effective SARPs, those that are technically sound and capable of worldwide implementation, requires an approach that encompasses a thorough evaluation of the associated regulatory, economic, operational, and safety aspects. When the need for new SARPs is identified, the development process should be expeditious, while allowing for a comprehensive review process to assess implications and likelihood of being implemented on a global scale.

2.2 Aviation is a complex enterprise. Any change to operational procedures or aviation infrastructure will have a profound effect on the entire system. To fully understand the degree of change that a new SARP may present to the system as a whole, there needs to be a comprehensive review process to mitigate potential unintended consequences.

2.3 In considering adoption of a new SARP, analyses of safety, economic, and operational factors are required to determine the broad-reaching changes across the global air transportation system. Throughout the initial assessment and documentation phases of this consideration, such analyses will require human and financial resources. If the desired change is determined to be viable and necessary, approaches to implementation by all stakeholders must be developed and documented. Following this, actual implementation calls for additional resources by all stakeholders to update procedures, processes, and related documents.

2.4 A post-implementation assessment should be made to determine if the intended benefits have been successfully achieved without any unintended consequences or degradation to safety. The range of stakeholders can include groups as diverse as regulators, operators, air navigation service providers, and manufacturers. Often these groups are non-homogenous and contain numerous sub-groups whose inputs are relevant to the change.

2.5 The development of a robust implementation plan that outlines the strategic approach for managing the change that a new SARP entails will support an effective outcome at the national, regional, and global levels. Therefore, the SARP development process should consider such implementation planning. For SARPs proposing a major change to the status quo, ICAO should direct the development of a transition and communication strategy throughout planning and implementation phases, which should include outreach to stakeholder groups. Even for seemingly minor changes, resource demands for management of the transition should not be discounted, and a comprehensive assessment of anticipated resource demands is critical.

2.6 At each stage in the SARP development and review processes, there must be a committed effort to include a cross-disciplinary assessment of the proposed change. This extends to the internal ICAO processes, as well as to States providing feedback on the proposed change. For those States directly contributing resources to the ICAO SARP development process, whether that be as a panel member or other resource contribution, States should endeavour to ensure that their review and disposition of a new SARP extends beyond the scope of the specific individual who provided expert feedback in the initial phases of the development. As the impact of SARPs frequently crosses over multiple technical areas, the review of such impact must cross over multiple perspectives.

CONCLUSION

3.1 As the international aviation community identifies priorities based on new technologies, or in response to aircraft accidents or incidents, ICAO provides the leadership for Member States to collaborate on how best to proceed. For example, much attention has been and will continue to be focused on the concept of global tracking and the integration of unmanned aircraft systems at the ICAO level. Both of these subject matters are extremely complex in nature, involve a wide range of technical issues, are on the forefront of public attention, and have not yet been widely regulated at the national or regional level. The development of SARPs, and the lessons learned from those SARPs already developed, in these two areas is therefore extremely critical, and demonstrate the importance of SARP development that is governed through an improved, cross-disciplinary, and comprehensive assessment process.

3.2 Ultimately, for ICAO to adopt effective SARPs, it relies heavily on the experience and expertise of States and international organizations submitting replies to ICAO State letters. The comments received from this review process provide valuable insight into a State's experience or anticipated approach to implementation of the SARP. As a matter of priority, States should endeavour to provide responses to State letters proposing new or amended SARPs. Such responses should include input beyond those individuals directly involved in the development of the related provisions.

3.3 To account for regional impacts of a proposed change, ICAO Regional Offices should play a greater role in encouraging Member States to comment on proposed SARPs. ICAO Regional Offices are uniquely situated to facilitate analysis regarding the impact of a SARP to their respective regions. As stated above, PANS are also an integral part of regional harmonization, and increasing ICAO Regional Office involvement in the PANS development process would also prove greatly beneficial.

3.4 SARPs are an integral part of the international aviation system; through adherence to these SARPs, States have achieved an exceptional degree of standardization and interoperability that would never have been possible without the work of ICAO. To ensure that future SARPs are capable of effectively supporting expansion of this system, the focus of SARP development and review efforts must be on promoting greater cross-disciplinary review, more actively involving industry in the process, and accounting for the pre- and post- implementation aspects and resource demands a new SARP brings forth.

ACTIONS

4.1 In light of the above, the United States proposes the following recommendations for consideration by the 39th Assembly;

- a) Direct the Council to consider SARP development and review process revisions that promote transparency and enhance coordination across relevant disciplines, and to include an assessment of potential pre- and post- implementation issues. Consideration should also be given to improving the Procedures for Air Navigation Services (PANS) development and review processes, provided their impact on global harmonization and interoperability.
- b) Urge States to respond to ICAO State letters regarding proposed Annex and PANS amendments especially those that relate to concepts or technologies not previously mandated at a national or regional level. Review of such proposals should include a cross-disciplinary perspective, as appropriate, provide input regarding the anticipated economic impact to the State and industry, and incorporate the views of relevant industry stakeholders.
- c) Direct ICAO Regional Offices to take an active role in encouraging responses to State letters regarding amendment proposals. ICAO Regional Offices should also monitor State responses and provide assistance where needed to determine the impact of implementation in a regional context.
- d) Adopt the proposed amendments to Assembly Resolution 38/11, as described in the attachment to this Working Paper.

Attachment: Proposed Assembly Resolution (to supersede AR 38-11)

REFERENCE: A38-11: Formulation and implementation of Standards and Recommended Practices (SARPs) and Procedures for Air Navigation Services (PANS) and notification of differences

- Whereas Article 37 of the Convention on International Civil Aviation requires each Member State to collaborate in securing the highest practicable degree of uniformity in regulations and practices in all matters in which such uniformity will facilitate and improve air navigation;
- Whereas Article 37 of the Convention requires the Organization to adopt and amend international standards and Recommended Practices and procedures and states the purpose of and the matters to be dealt with in that action, and Articles 38, 54, 57 and 90 contain additional relevant provisions;
- Whereas in accordance with Article 38 of the Convention any Member State which finds it impractical to comply in all respects with any international standard or procedure or deems it necessary to adopt regulations or practices differing therefrom is obliged to give immediate notification to ICAO;
- Whereas the Assembly deems it advisable to establish certain policies to be followed in complying with these provisions of the Convention;
- Recognizing the effective implementation of SARPs and PANS promotes safe, secure and sustainable development of international civil aviation;
- Recognizing that making differences information easily available to all stakeholders in a timely manner is important to promote safety, regularity and efficiency in international civil aviation;
- Noting that many Member States experience difficulty in fulfilling their obligations under Articles 37 and 38 of the Convention and keeping pace with frequent amendments to Annexes;
- Recognizing that up-to-date ICAO technical guidance material provides valuable assistance to Member States in the effective implementation of SARPs, PANS and Regional Plans;
- Recognizing that substantial resources are required to develop and maintain all ICAO technical guidance material for SARPs and PANS;
- Noting the increase of the number of notified differences to ICAO; and
- Recognizing that there is a strong need for all available means to be sought and employed in encouraging and assisting Member States in overcoming their difficulties in implementation of SARPs and PANS;
- {PROPOSED NEW TEXT} Recognizing that implementation of a Standard is increased globally through a development process that encourages inclusion of perspectives among all States and relevant industry stakeholders;

The Assembly:

1. Calls on Member States to reaffirm their commitment to abide by the obligations under Articles 37 and 38 of the Convention;
2. Resolves that SARPs and PANS shall be amended as necessary to reflect changing requirements and techniques and thus, inter alia, to provide a sound basis for global and regional planning and implementation;
3. Agrees that subject to the foregoing clause, a high degree of stability in SARPs shall be maintained to enable the Member States to maintain stability in their national regulations. To this end amendments shall be limited to those significant to safety, regularity and efficiency and editorial amendments shall be made only if essential;
4. Reiterates that SARPs and PANS shall be drafted in clear, simple and concise language. SARPs shall consist of broad, mature and stable provisions specifying functional and performance requirements that provide for the requisite levels of safety, regularity and efficiency. Supporting technical specifications, when developed by ICAO, should be translated in all working languages of ICAO in a timely manner and shall be placed in separate documents to the extent possible;
5. Instructs the Council to utilize, to the maximum extent appropriate and subject to the adequacy of a verification and validation process, the work of other recognized standards making organizations in the development of SARPs, PANS and ICAO technical guidance material. Material developed by these other standards-making organizations may be deemed appropriate

- by the Council as meeting ICAO requirements; in this case such material should be referenced in ICAO documentation;
6. Resolves that to the extent consistent with the requirements of safety regularity and efficiency, SARPs specifying the provision of facilities and services shall reflect a proper balance between the operational requirements for such facilities and services and the economic implications of providing them;
 7. Instructs the Council to consult Member States on proposals for the amendment of SARPs and PANS before the Council acts on them, except when the Council may deem urgent action to be necessary. Furthermore, subject to the adequacy of the verification and validation process, technical specifications may be acted upon by the Council without consultation with Member States. Such material shall however be made available to Member States upon request;
 8. Resolves that the applicability dates of amendments to SARPs and PANS shall be so established as to allow Member States sufficient time for their implementation;
 9. Agrees that no Annex or PANS document shall be amended more frequently than once per calendar year;
 10. Reminds Member States of the requirement in Annex 15 to publish any significant differences in their Aeronautical Information Publication (AIP) and to include English text for those parts expressed in plain language;
 11. Encourages Member States to use the Electronic Filing of Differences (EFOD) System when notifying their differences to ICAO;
 12. Instructs the Secretary General to continue improving the EFOD system and assist Member States in transitioning from the paper-based processes to the use of the EFOD system;
 13. Directs the Council to monitor and analyse the differences between the regulations and the practices of Member States and the SARPs and PANS with the aim of encouraging the elimination of those differences that are important for the safety, regularity and efficiency of international air navigation and taking appropriate actions;
 14. Instructs the Council to explore possibilities to make differences information more easily available to all interested stakeholders and assess appropriate mechanism and form in which this information is made available;
 15. Resolves that Member States shall be encouraged and assisted in the implementation of SARPs and PANS by all available means and provided as soon as possible with more guidance in respect of the notification and publication of differences;
 16. Calls on all Member States able to do so to provide requesting States with technical cooperation in the form of financial and technical resources to enable those States to carry out their obligations under Articles 37 and 38 of the Convention;
 17. Instructs ICAO to establish priorities for the continuing updating of the contents of present ICAO technical guidance material and the development of additional guidance material thus ensuring optimum value for Member States in their planning and implementation of SARPs and PANS;
 18. Resolves that the associated practices in this Resolution constitute guidance intended to facilitate and ensure implementation of this Resolution; and
 19. { PROPOSED NEW TEXT } Instructs ICAO to review existing SARP development processes and implement changes intended to encourage the inclusion of inputs from a broader set of stakeholders in the aviation industry.
 20. { PROPOSED NEW TEXT } Direct ICAO to consider the development of a transition and communication strategy throughout planning and implementation phases, which should include outreach to stakeholder groups.
 21. { PROPOSED NEW TEXT } Directs ICAO to enhance the role of its Regional Offices in facilitating and monitoring the SARP amendment review process.
 22. { PROPOSED NEW TEXT } Call upon Member States to respond to ICAO State letters regarding proposed Annex and PANS amendments.
 23. Declares that this resolution supersedes Resolution A37-15, Appendices A, D and E.

Associated practices

1. The Council should ensure that provisions of SARPs and PANS are completely consistent with each other. Furthermore, the Council should endeavour to improve the processing, presentation and usefulness of ICAO documents containing SARPs, PANS and other related provisions, especially for complex systems and their associated applications. To that end the Council should promote the development and upkeep of broad system-level, functional and performance requirements. The Council should continue seeking the most appropriate means of development, translation, processing and dissemination of technical specifications.
2. Member States should comment fully and in detail on the proposals for amendment of SARPs and PANS or at least should express their agreement or disagreement on their substance. They should be allowed at least three months for this purpose. Furthermore, Member States should receive at least 30 days of notification of the intended approval or adoption of detailed material on which they are not consulted.
3. Member States should be allowed a full three months for notifying disapproval of adopted SARPs amendments; in establishing a date for notifying disapproval the Council should take into account the time needed for transmission of the adopted amendments and for receipt of notifications from States.
4. The Council should ensure that, whenever practicable, the interval between successive common applicability dates of amendments to Annexes and PANS is at least six months.
5. The Council, prior to the adoption and approval of amendments to SARPs and PANS, should take into account feasibility of the implementation of SARPs and PANS by the intended applicability dates.
6. The Council, taking into account the definitions of terms “Standard” and “Recommended Practice”, should ensure that new Annex provisions, uniform application of which is recognized as necessary, are adopted as Standards, and that those new provisions, uniform application of which is recognized as desirable, are adopted as Recommended Practices.
7. The Council should urge Member States to notify the Organization of any differences that exist between their national regulations and practices and the provisions of SARPs as well as the date or dates by which they will comply with the SARPs. If a Member State finds itself unable to comply with any SARPs, it should inform ICAO of the reason for non-implementation, including any applicable national regulations and practices which are different in character or in principle.
8. Differences from SARPs received should be promptly made available to Member States.
9. In encouraging and assisting Member States in the implementation of SARPs and PANS, the Council should make use of all existing means of ICAO and strengthen partnerships with entities which provide resources and assistance towards development of international civil aviation.
10. Member States should establish internal processes and procedures by which they give effect to the implementation of provisions of SARPs and PANS.
11. ICAO should update and develop guidance material in accordance with the established priorities to adequately cover all technical fields.
12. { PROPOSED NEW TEXT } ICAO should amend and enhance existing SARP development processes to ensure a robust multidisciplinary approach to, and endeavor to make such coordination as transparent to Member States as possible.