International Civil Aviation Organization

Regional Aviation Safety Group - Middle East

Fifth Meeting (RASG-MID/5)
(Doha, Qatar, 22-24 May 2016)

Agenda Item 7: Any Other Business

U.S. WORKING PAPERS FOR THE 39TH ASSEMBLY

(Presented by the United States)

SUMMARY

The United States would like to promote awareness of the U.S. objectives for the upcoming 39th Session of the ICAO Assembly (A39) by sharing U.S. Working Papers with the Regional Aviation Safety Group, Middle East. The two (2) attached papers address operational trials conducted in oceanic airspace and updates to the Global Aviation Safety Plan.

Action by the meeting is at paragraph 2.

REFERENCES

- RASG-MID/5-WP/26 - Areas of Interest to the United States at the 39th ICAO Assembly

Strategic Objectives:	• Safety

1. INTRODUCTION

1.1 The United States encourages RASG-MID members to review the attached papers and consider supporting the actions proposed therein during the A39 discussions.

1.2 RASG-MID members are invited to share their input on the proposed content and recommendations contained in **Appendices A** and **B**, and to share their A39 objectives.

2. ACTION BY THE MEETING

2.1 The meeting is invited to note the information in this information paper.

APPENDIX A

International Civil Aviation Organization

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WORKING PAPER

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.

Strategic Objectives:	This working paper relates to the Safety and Air Navigation Capacity and Efficiency Strategic Objectives.
Financial implications:	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.
References:	

1. 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.

2. 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.

3. 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.

4. 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.

APPENDIX B

International Civil Aviation Organization

WORKING PAPER

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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 so that this document will provide better guidance for Member States and stakeholders on how to balance management of global safety priorities as they 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 USOAP Effective Implementation 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.

Strategic Objectives:	This working paper relates to the Safety Strategic Objective.
Financial implications:	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).

References:	• 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

1. INTRODUCTION

2.1 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.

2.2 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 oversight[1], 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.

2.3 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 includes closer coordination with Member States and stakeholders on achievable outcomes and expectations dependent on the unique elements of each region.

2.4 The United States strongly supports the desire for all Member States to implement effective oversight capabilities and adopt 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.

2.5 In this regard, the United States proposes that the next update to the GASP better establish a 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

2. 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 monitoring. 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 this release and in anticipation of the 2017–2019 GASP, 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 2015, the 2017–2019 GASP objectives and targets will be amended with gradual, evolutionary updates rather than a significant rewrite.[4] 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.

[2] 2007 Global Aviation Safety Plan
[3] 2017-2019 GASP
[4] HLSC/15-WP/6, Updating the 2014-2016 GASP, Presented by the ICAO Secretariat

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. 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.

3. 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:

a) 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.

b) 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.

c) 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.

d) 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.

- END-