



WORKING PAPER

ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 29: Aviation Safety and Air Navigation Regional Implementation Coordination Mechanisms

THE GLOBAL AVIATION SAFETY OVERSIGHT SYSTEM (GASOS)

(Presented by the Council of ICAO)

EXECUTIVE SUMMARY

The Global Aviation Safety Oversight System (GASOS) is a voluntary, standardized assessment and recognition mechanism for safety oversight organizations (SOOs) and accident and incident investigation organizations (AIOs) that facilitates the provision of safety functions and activities and ultimately strengthens State safety oversight capabilities. During its 217th Session, the Council approved the implementation of GASOS.

Action: The Assembly is invited to:

- a) note the work accomplished in the development and implementation of GASOS;
- b) note the approval of GASOS by the Council for the strengthening and assessment of RSOOs and RAIOS to enable them to provide Levels 1 and 2 support to their Member States;
- c) support continued implementation of GASOS Levels 1 and 2 by the Secretariat as indicated in paragraph b) above; and
- d) adopt the proposed revision to Assembly Resolution A40-xx as presented in the appendix.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	The activities referred to in this paper will be undertaken subject to the resources available in the 2020-2022 Regular Programme Budget and/or from extra budgetary contributions.
<i>References:</i>	Annex 13 Annex 19 Doc 10115, <i>Report of the Thirteenth Air Navigation Conference (AN-Conf/13)</i> , Corrigenda Nos. 1 and 2, and Supplement No. 1 Doc 10075, <i>Assembly Resolutions in Force (as of 6 October 2016)</i> Doc 10046, <i>Report of the Second High-level Safety Conference (2015)</i> Doc 10004, <i>Global Aviation Safety Plan 2017-2019</i> Doc 9946, <i>Manual on Regional Accident and Incident Investigation Organization</i> Doc 9734, <i>Safety Oversight Manual, Part B — The Establishment and Management of a Regional Safety Oversight System</i> Report on the Forum on RSOOs for Global Aviation Safety GASOS Concept of Operations

1. INTRODUCTION

1.1 The Global Aviation Safety Oversight System (GASOS) is designed to be a voluntary, standardized assessment and recognition mechanism for safety oversight organizations (SOOs) and accident and incident investigation organizations (AIOs) on a cost-recovery basis. For the purpose of this paper, an SOO is an RSOO or any other intergovernmental regional or subregional aviation safety oversight body that supports a State or group of States in carrying out their safety functions and activities. In this context, an SOO expressly does not include private entities. Similarly, an AIO is an intergovernmental regional accident and incident investigation organization (RAIO). The assessment criteria and processes designed for GASOS are derived from the Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) methodology. While GASOS uses similar methodologies to USOAP CMA, the programmes remain independent from one another.

1.2 Regional safety oversight collaboration has improved global aviation safety with the help of regional safety oversight organizations (RSOOs) and other regional mechanisms, such as regional accident and incident investigation organizations (RAIOs). Cooperative development of operational safety and continuing airworthiness programmes (COSCAPs) are another example of regional cooperation and provide tangible improvements through their support to States. Despite the continuous development of regional collaboration, many of these regional organizations still face some specific challenges that do not allow them to deliver the expected results. In the global context, GASOS presents a standardized set of criteria on which regional organizations can be measured and improved upon. These criteria will directly benefit Member States by helping increase oversight capacity and assistance with carrying out the State's safety oversight responsibilities.

1.3 Moreover, GASOS will strengthen a State's safety oversight, safety management and accident investigation capabilities by facilitating the provision of safety functions and activities, where needed, for States by capable and qualified SOOs and AIOs. This is achieved by providing a qualification assessment and recognition mechanism for SOOs and AIOs, which may encourage States to call upon these recognized organizations for specific safety functions and activities.

2. BACKGROUND

2.1 Resolution A39-14, *Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets* and Recommendation 3/1 of the Second High-level Safety Conference 2015 (HLSC 2015) both encourage the strengthening and furtherance of regional aviation safety and safety oversight mechanisms, including RSOOs.

2.2 In March 2017, the Forum on Regional Safety Oversight Organizations (RSOOs) for global aviation safety supported the proposed development of GASOS as part of the ICAO global strategy and action plan for the improvement of RSOOs, and the establishment of a global system for the provision of safety oversight.

2.3 Also in 2017, the GASOS concept was presented at meetings of Directors General of Civil Aviation and of regional aviation safety groups (RASGs), receiving support in all ICAO regions. The GASOS concept was also presented at the first Safety and Air Navigation Implementation Symposium (SANIS/1) in December 2017, where further development was encouraged.

2.4 In October 2018, the Thirteenth Air Navigation Conference (AN-Conf/13) recommended that ICAO present GASOS for endorsement at the 40th Session of the ICAO Assembly if the liability, governance and cost-benefit analysis issues and other concerns raised by the Conference have been addressed.

2.5 During its 217th Session, the Council approved the implementation of GASOS for the provision of Levels 1 and 2 functions and activities by RSOOs and RAIOS on behalf of their Member States. GASOS is further described in the *Global Aviation Safety Oversight System (GASOS) Concept of Operations* (available at <https://www.icao.int/gasos>) that details the mechanisms and processes used.

3. PROGRESS ON GASOS

3.1 Since March 2017, ICAO has been developing GASOS with the goal of launching the system in early 2020. ICAO, along with the GASOS Study Group of experts, composed of members from States and other stakeholders, has completed the planning work and documented the necessary processes and procedures to meet this goal. Furthermore, ICAO has conducted three pilot assessments, which have been instrumental for testing and enhancing the GASOS assessment mechanisms. Additional pilot assessments are planned for 2019 to further refine the assessment mechanisms prior to launching the programme.

3.2 The GASOS pilot assessments have already yielded tangible improvements for the SOOs assessed, such as approval of regional harmonized regulations by States; an increase in financial and technical support; a thorough review and upgrade to internal procedures; and support from other international organizations for technical projects.

3.3 In November 2018, ICAO completed a survey of States to determine interest in GASOS. The survey was answered by 64 organizations, including 46 State CAAs, eight RSOOs and ten AIOs. The results of the survey demonstrated support for GASOS. States indicated that they would be willing to seek the provision of safety functions and activities from ICAO-recognized SOOs or AIOs.

3.4 To review and address legal concerns raised at the AN-Conf/13, the ICAO Legal Affairs and External Relations Bureau (LEB) conducted a legal analysis of GASOS with input from an external ad hoc legal advisory group. As a result of the legal analysis, ICAO concluded that GASOS assessment and recognition of RSOOs and RAIOS to perform Level 1 and 2 safety functions and activities can be implemented consistent with the Chicago Convention and that identified measures addressed or otherwise mitigated the liability risks of ICAO. The GASOS Levels are defined in Appendix B of the GASOS CONOPS.

3.5 To resolve potential governance issues raised during the AN-Conf/13, ICAO, with support from the GASOS Study Group, undertook a review of the issues. The group identified appropriate mitigation actions to resolve the potential issues, which were mainly related to State and SOO interfaces. A chapter related to governance aspects was included in the new *GASOS Manual*. A table of potential governance issues and the GASOS Study Group's recommended mitigation actions are found in Appendix F of the GASOS Concept of Operations.

3.6 As recommended by the AN-Conf/13, ICAO has undertaken a cost-benefit analysis (CBA) to identify and quantify costs and benefits of GASOS for RSOOs and States related to safety, capacity, efficiency, and economic benefit. As already identified through the pilot GASOS assessments, States and regional organizations will benefit from an ICAO GASOS assessment and recognition which is an enabler for the effective implementation of ICAO SARPs. The CBA shows positive results and may be found in Appendix G of the GASOS Concept of Operations.

3.7 Therefore, based on the fact that all related concerns raised during the AN-Conf/13 for Levels 1 and 2 have been addressed or otherwise mitigated, ICAO will continue to move forward with GASOS in regard to Level 1 and Level 2, with a focus on strengthening RSOOs and RAIOS to build capacity to support their Member States. Level 1 functions and activities relate to advisory assistance. Level 2 activities, in addition to Level 1 functions and activities, involve advisory assistance as well as, in the case of SOOs, support to States in carrying out their licensing, certification, authorization, approval and surveillance obligations, or, in the case of AIOs, functions and activities to support States in carrying out their accident or incident investigation obligations.

4. ESTABLISHMENT OF GASOS

4.1 The implementation of GASOS Levels 1 and 2 is based on the following key considerations:

- a) an RSOO or RAIOS may perform certain safety functions and activities on behalf of their Member States; however, the ultimate responsibility for safety oversight remains with the State under the Chicago Convention;
- b) GASOS will be managed by ICAO on a cost-recovery basis, i.e. without seeking to make profits; any unutilized revenue will be earmarked for reinvestment in GASOS;
- c) voluntary financial contributions can have a direct impact by reducing the financial requirements for ICAO and allow an increase in the evolution of the programme;
- d) ICAO is developing, in consultation with the GASOS Study Group, guidance for States and RSOOs/RAIOS in the form of an ICAO GASOS manual;
- e) GASOS will be subject to a quality management system; and
- f) GASOS will remain independent from other ICAO programmes, including but not limited to the Technical Cooperation Programme and USOAP CMA; however, appropriate resources such as personnel and IT tools may be shared as best determined so as not to require additional budgetary resources.

5. CONCLUSION

5.1 GASOS is designed to be a voluntary, standardized assessment and recognition mechanism for RSOOs and RAIOS. It will strengthen a State's safety oversight, safety management and accident investigation capabilities by facilitating the provision of safety functions and activities, where needed, for States by their RSOOs and RAIOS. ICAO has developed the necessary processes and procedures for the implementation of GASOS Levels 1 and 2.

APPENDIX

DRAFT RESOLUTION FOR ADOPTION BY THE 40TH SESSION OF THE ASSEMBLY

Resolution A40-xx: Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets

Whereas a primary objective of the Organization continues to be that of ensuring the safety of international civil aviation worldwide;

Whereas ensuring the safety of international civil aviation is also the responsibility of Member States both collectively and individually;

Whereas in accordance with Article 37 of the *Convention on International Civil Aviation* each Member State undertakes to collaborate in securing the highest practicable degree of uniformity in regulation, standards, procedures and organization in relation to aircraft, personnel, airports, airways and auxiliary services in all matters in which uniformity will facilitate and improve air navigation;

Whereas the improvement of the safety of international civil aviation on a worldwide basis requires the active collaboration of all stakeholders;

Whereas the Convention and its Annexes provide the legal and operational framework for Member States to build a civil aviation safety system based on mutual trust and recognition, requiring that all Member States implement the SARPs as far as practicable and adequately perform safety oversight;

Whereas the results of the audits and ICAO Coordinated Validation Missions (ICVMs) conducted under the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP-CMA) indicate that several Member States have not yet been able to establish a satisfactory national safety oversight system and some Member States have been identified as having significant safety concerns (SSCs);

Whereas ICAO plays a leadership role in facilitating the implementation of SARPs and the rectification of safety-related deficiencies by coordinating support and harnessing resources among aviation safety partners;

Recognizing that the ICAO Plans of Action developed for individual Member States serve as platforms to provide, in coordination with other stakeholders, direct assistance and guidance to those States in resolving their SSCs as well as addressing low effective implementation (EI) of critical elements;

Whereas ICAO has a Policy on Regional Cooperation which is committed to render assistance, advice and any other form of support, to the extent possible, in the technical and policy aspects of international civil aviation to Member States in carrying out their responsibilities pertaining to the *Convention on International Civil Aviation* and ICAO Strategic Objectives, inter alia by promoting regional cooperation through close partnerships with regional organizations and regional civil aviation bodies;

Recognizing that not all Member States have the requisite human, technical and financial resources to adequately perform safety oversight;

Recognizing that the establishment of subregional and regional aviation safety and safety oversight bodies, including regional safety oversight organizations (RSOOs), has great potential to assist States in complying with their obligations under the Chicago Convention through economies of scale and harmonization on a larger scale resulting from the collaboration among Member States in establishing and operating a common safety oversight system;

Recalling that Member States are responsible for implementing ICAO Standards and may, in this respect, decide on a voluntary basis to delegate certain functions to RSOOs, and that, when applicable, the word “States” should be read to include RSOOs;

Recalling that the Thirteenth Air Navigation Conference (AN-Conf/13) (2018) recommended that ICAO continue developing GASOS to strengthen RSOOs and to improve their effectiveness and efficiency in supporting States, while addressing the liability, governance and cost-benefit analysis issues and other concerns raised by the Conference;

Acknowledging the recognition given in Annex 19 to RSOOs and their role in discharging delegated State safety management functions on behalf of States;

Recognizing that groups of Member States may decide to establish regional aviation systems, the legal basis of which may be an international Treaty and would encompass common rules and oversight applicable in the participating States;

Recognizing that the assistance available to Member States experiencing difficulties in correcting deficiencies identified through the safety oversight audits, particularly with priority given to those States with SSCs, would be greatly enhanced by coordination amongst all Member States, ICAO and other concerned parties in civil aviation operations; and

Recognizing that established regional aviation safety groups (RASGs) have the objective of establishing objectives, priorities and indicators and the setting of measurable targets to address safety-related deficiencies in each region while ensuring consistency of action and coordination of efforts;

The Assembly:

1. *Directs* the Council, in partnership with all aviation safety partners, to implement a comprehensive assistance programme that will help Member States to correct deficiencies identified through USOAP-CMA, with priority given to the resolution of SSCs;
2. *Directs* the Council to promote the concepts of regional cooperation, including the strengthening of RSOOs and RASGs, as well as the establishment of objectives, priorities and indicators and the setting of measurable targets to address SSCs and safety-related deficiencies;
3. *Directs* the Council to take the appropriate actions to ensure that the specificities of a regional aviation system established by a group of Member States are recognized and integrated in the ICAO framework;
4. *Directs* the Council to support the implementation and further development of the Global Aviation Safety Oversight System (GASOS) regarding the necessary measures to strengthen, assess and support RSOOs or RAIOS to assist their Member States in accomplishing certain

safety oversight, accident and incident investigation and safety management functions and activities, while ensuring those States maintain their obligations and responsibilities under the Chicago Convention;

45. *Directs* the Council to continue to partner with Member States, industry and other aviation safety partners for coordinating and facilitating the provision of financial and technical assistance to States and subregional and regional safety and safety oversight bodies, including RSOOs and RASGs, in order to enhance safety and strengthen safety oversight capabilities;
56. *Directs* the Council to continue the analysis of relevant safety-critical information for determining effective means of providing assistance to States and subregional and regional safety and safety oversight bodies, including RSOOs and RASGs;
67. *Directs* the Secretary General to continue to foster coordination and cooperation between ICAO, RASGs, RSOOs and other organizations with aviation safety-related activities in order to reduce the burden on States caused by repetitive audits or inspections and to decrease the duplication of monitoring activities;
78. *Urges* Member States to give the highest priority to the resolution of SSCs in order to ensure that there are no immediate safety risks to international civil aviation and that the minimum requirements established by the Standards set forth in the ICAO Annexes are met;
89. *Urges* Member States to utilize the Flight Procedures Programme, where available, for PBN implementation;
910. *Urges* Member States to develop and further strengthen regional and subregional cooperation in order to promote the highest degree of aviation safety;
4011. *Calls* upon all Member States and relevant aviation safety partners, wherever possible, to assist requesting States with financial and technical resources to ensure the immediate resolution of identified SSCs and the longer-term sustainability of the State safety oversight system;
412. *Encourages* Member States to establish partnerships with other States, industry, financial institutions and other aviation safety partners to strengthen safety oversight capabilities, in order to better discharge State responsibilities and foster a safer international civil aviation system;
4213. *Encourages* Member States to foster the creation of regional or subregional partnerships to collaborate in the development of solutions to common problems to build State safety oversight capability, and to participate in, or provide tangible support for, the strengthening and furtherance of subregional and regional aviation safety and safety oversight bodies, including RSOOs;
4314. *Requests* the Secretary General to play a leading role in coordinating efforts to assist States to resolve SSCs through the development of ICAO Plans of Action and/or specific project proposals and to assist States to obtain the necessary financial resources to fund such assistance projects;
4415. *Requests* the Council to report to the next ordinary session of the Assembly on the overall implementation of the comprehensive assistance programme; and
4516. *Declares* that this resolution supersedes Resolution A38-5-A39-14.