



# ICAO

International Civil Aviation Organization  
North American, Central American and Caribbean Office

INFORMATION PAPER

RAIO/CAR/01 — IP/02  
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**Meeting for RAIO implementation in the CAR Region (RAIO/CAR/01)**  
Mexico City, Mexico, 12 to 14 November 2018

**Agenda Item 5: Other Business**

**RECOMMENDATIONS ON AIG/SAFETY MANAGEMENT MATTERS RESULTING  
FROM THE ICAO 13TH AIR NAVIGATION CONFERENCE**

(Presented by the Secretariat)

| EXECUTIVE SUMMARY  |  |
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| This information Paper present the recent recommendations resulted from the 13th Air Navigation Conference, pertaining to Safety Management and AIG matters. |  |
| <i>Strategic Objectives:</i>   | <ul style="list-style-type: none"><li>• Safety</li></ul>                                     |
| <i>References:</i>   | <ul style="list-style-type: none"><li>• 13th AnConf yellow-covered recommendations</li></ul> |

**1. Introduction**

1.1 The Thirteenth meeting of the Air Navigation Conference (AN-Conf/13) was held from 9 to 19 October 2018 in the Assembly Hall of the Headquarters of the International Civil Aviation Organization (ICAO) in Montréal, Canada. This Thirteenth Air Navigation Conference was preceded by the Second Global Air Navigation Industry Symposium (GANIS/2), and the Safety and Air Navigation Implementation Symposium (SANIS) held back to back in 2017. The main purpose of these GANIS and SANIS events were to gather advance industry viewpoints on the evolution of global air navigation system and to develop insights into any new or existing implementation challenges respective of ICAO's proposed updates to our Global Air Navigation Plan (GANP) and Global Aviation Safety Plan (GASP).

1.2 The Conference was attended by 1,213 members and observers nominated by 116 Member States and 37 international organizations, as well as by advisers and others. The Conference's theme was "From Development to Implementation"

**2. Discussion**

2.1 Through the ASBUs and the consensus-based targets and objectives set-out in the GANP and GASP, ICAO has provided the tools State need to accelerate this transition and to realize the performance capabilities which will keep our sector vital, efficient and fully responsive to the needs and expectations of modern businesses and societies.

2.2 At the regional level, this will be supported by the planning and implementation regional groups (PIRGs) and regional aviation safety groups (RASGs) which help guarantee the alignment of procedures and interoperability of systems. RAIO development is a regional effort to continue developing. The outcomes of this Conference will provide critical inputs to the development of the 2020-2022 ICAO Business Plan.

2.3 The organization and work of the Conference was conducted with the establishment of two committees, Committee A and Committee B. The Committee A carried out the discussions for Agenda Items 1, 2, 3, 4 and 5 and Committee B the discussions for Agenda Items 6, 7 and 8:

- Agenda Item 1: Air navigation global strategy
- Agenda Item 2: Enabling the global air navigation system
- Agenda Item 3: Enhancing the global air navigation system
- Agenda Item 4: Implementing the global air navigation system and the role of planning and implementation regional groups (PIRGs)
- Agenda Item 5: Emerging issues
- Agenda Item 6: Organizational safety issues
- Agenda Item 7: Operational safety risks
- Agenda Item 8: Emerging safety issues

2.4 The relevant recommendations on Safety Management and AIG Matters has been listed in the Appendix to this paper.

### **3. Conclusion**

3.1 The recommendations provided by the 13th Air Navigation Conference are the ones defining the future work of ICAO and States and aviation in general. These recommendations into the RAIO, RASG and PIRGs work programmes are suggested.

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## APPENDIX

### **Recommendation 6.1/1 — Draft 2020-2022 Edition of the Global Aviation Safety Plan (Doc 10004, GASP)**

That States:

a) agree in principle with the draft 2020-2022 edition of the *Global Aviation Safety Plan* (GASP, Doc 10004), with the inclusion of GASP goals and targets; and

That ICAO:

b) take into consideration input from the Conference, the questionnaire and the future work of the GASP Study Group for subsequent endorsement of the 2020-2022 edition of the GASP at the 40th Session of the ICAO Assembly.

### **Recommendation 6.1.3/1 — The global aviation safety oversight system (GASOS)**

That States:

a) support the development of a global aviation safety oversight system (GASOS);

That ICAO:

b) continue developing an ICAO GASOS comprised of voluntary and standardized competency assessments of safety oversight organizations for recognition of safety oversight functions provided to States, including its legal framework and assessment mechanisms while ensuring those States maintain their obligations and responsibilities under the *Convention on International Civil Aviation* (Doc 7300);

c) develop appropriate guidance for States to support the delegation of safety oversight functions and monitoring of safety oversight organizations accepting delegations;

d) design adequate interfaces between GASOS and other ICAO programmes and to avoid duplication of activities between GASOS and the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA);

e) 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 Committee have been addressed; and

f) encourage safety oversight organizations, including regional safety oversight organizations (RSOOs), State civil aviation authorities (CAAs) and other regional State-based mechanisms, to participate in GASOS in order to expand and enhance the safety oversight support provided to States.

### **Recommendation 6.2/1 — Supporting Effective Safety Management Implementation**

That States and international organizations:

a) identify focal points for the submission of practical examples and tools to be reviewed, validated and posted on the ICAO safety management implementation (SMI) website as a means of sharing successful experiences with the aviation community;

b) support the ICAO SMI website by providing practical examples of their respective safety management practices, methodologies and tools for the purpose of sharing with other Member States;

That ICAO:

c) commit to the ongoing development, promotion and maintenance of the safety management implementation (SMI) website in order to ensure active use of the tool and relevance of content to the aviation community;

d) devise strategies to support the submission and validation of practical examples for the SMI website in the six ICAO working languages (English, Arabic, Chinese, French, Spanish, and Russian ) and ensure the translation of the content posted on the website into the six ICAO working languages;

e) develop initiatives tailored to each region with inputs from the regional aviation safety groups (RASGs) in support of the goals and targets of the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP) with a focus on the effective implementation of State safety programmes (SSPs) and safety management

systems (SMSs) at the State and service provider levels, respectively, including the development of the required safety management competencies and/or the delegation to States, regional safety oversight organizations (RSOOs) and regional accident and incident investigation organizations (RAIOs);

f) further support the development of appropriate harmonized safety performance indicators (SPIs) at the regional, State and service provider levels and explore the development of means to monitor the effectiveness of SSP and SMS on a more real-time basis;

g) in collaboration with States, RSOOs and industry explore more powerful methods of identifying hazards and managing risk, suitable for complex socio-technical systems such as aviation and adaptable, regardless of the type of risk;

h) in collaboration with States, RSOOs and industry explore the benefits of a unified framework for integrated risk management (safety, security, environment, etc...) taking into account the evolution of ISO management standards; and

i) update, for adoption by the 40th Session of the ICAO Assembly, Assembly Resolutions related to safety management to reflect Amendment 1 to Annex 19 — *Safety Management*, as well as Amendment 15 to Annex 13 — *Aircraft Accident and Incident Investigation*, with consideration given to an overarching safety management Assembly Resolution to complement Assembly Resolution A39-12, Appendices A and B, related to the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP) in order to focus the attention of States on key aspects of achieving effective SSP implementation.

#### **Recommendation 6.2.1/1 — State safety programmes (SSPs)**

That States:

a) identify and address the need to build capacity at the State level for the management of change; and

b) share their experiences in civil-military cooperation for State safety programmes (SSPs) implementation in conferences, meetings and/or on the safety management implementation (SMI) website;

That ICAO:

c) review the acceptable level of safety performance (ALoSP) concept taking into consideration the experience of States;

d) review the need for additional guidance on the management of change at the State level; and

e) ensure that appropriate emphasis is placed on safety management in the update of Appendix I, Coordination and cooperation of civil and military air traffic, of Assembly Resolution A38/12, *Consolidated Statement of continuing ICAO policies and associated practices related specifically to air navigation*.

**Recommendation 6.2.3/1 — Developing safety intelligence**

That States and international organizations:

a) collaborate for the development of trust sharing networks and adhere to the protective provisions as provided in Amendment 1 to Annex 19 — Safety Management; and

That ICAO:

b) support States with right-to-know laws in addressing the provisions for the protection of safety data, safety information and related sources in Amendment 1 to Annex 19.

**Recommendation 6.3/1 — Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA)**

That States:

a) continue to engage fully in the Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA);

b) complete their self-assessments of the USOAP Protocol Questions (PQs) in a detailed and reliable manner and keep them up-to-date as needed;

c) enhance cooperation and sharing of experiences in the implementation of USOAP CMA, in particular at regional level;

That ICAO:

d) continue to evolve the USOAP CMA methodology, processes and tools;

e) as a matter of priority, implement the recommendations and observations of the Group of Experts for USOAP CMA Structured Review (GEUSR) and, in particular, make available to States the set of indicators forming part of the State safety risk profile;

f) ensure that pertinent information is not lost when reducing the total number of USOAP CMA PQs, especially with respect to PQs not directly related to safety oversight, which should be included in the appropriate ICAO audit mechanism;

g) implement as a matter of priority the GEUSR recommendations regarding the structured revision of the PQs (Group A recommendations) and the identification of ‘Priority PQs’ (Group B recommendations);

h) ensure the continuous monitoring of the States remains robust, relevant and up-to-date; and

i) establish a study group before the 40th Session of the ICAO Assembly for the further evolution of the USOAP CMA, beyond the GEUSR recommendations, to address means to avoid duplication of efforts and find synergies to enhance the efficiency of the USOAP CMA while maintaining safeguards to guarantee the independence, universality, standardization and global acceptance in the implementation of the programme.

**Recommendation 7.1/1 — Data-driven decision-making**

That States:

- a) implement data-driven decision-making processes, taking into account the ICAO safety and air navigation indicators, within their safety and air navigation activities and to build data analysis capacity;
- b) consider using ICAO's air navigation analysis solutions, especially during the initial development of their State safety programmes (SSPs), and joining the ICAO Safety Information Monitoring System (SIMS) project to better utilize their stored data;
- c) exchange safety and air navigation information with other Member States through data analysis tools such as SIMS in support of safety risk management;
- d) continue joint development of safety risk assessment models that support and enable baseline risk quantification, safety risk assessment and forecasting to support risk-based decision making, accident and incident modeling, barrier analysis, sensitivity, and "what if?" analyses to ensure that primary safety considerations are addressed within the integrated safety risk assessment models;
- e) together with industry stakeholders, support regional mechanisms and platforms for greater data sharing and alignment of safety priorities;

That ICAO:

- f) further develop and promote iSTARS and SIMS and other analysis solutions, and conduct regular iSTARS User Group Meetings so as to continually adapt to the changing safety environment;
- g) encourage activities that facilitate global reporting of safety events and vulnerabilities to assure that the necessary safety data is available;
- h) review and develop guidance to further facilitate the sharing of safety data between operators and those responsible for the type design and manufacture of aircraft;
- i) raise awareness in States on the importance of initiating SSP and SMS implementation with simple processes that optimize resources to demonstrate benefits and develop momentum required to achieve the needed change in the organizational culture;
- j) take action to foster the creation of uniform processes in States that promote the sharing of safety data;
- k) encourage States to use the ICAO Safety Management Implementation website as an information sharing platform to facilitate the exchange of experience in regional data sharing among regional groups; and
- l) support regional mechanisms and platforms that enable States and industry stakeholders to share and align safety priorities in support of the RASGs.

**Recommendation 7.1/2 — Standardized risk-based decision making policies and best practices for validation of foreign products**

That States:

- a) support ICAO's work, through the appropriate group of experts to determine the need for developing new materials to support further reduction in duplicated certification activity, by conducting a feasibility study for developing common standards and recommended best practices for recognizing the capabilities of SoD certification systems (including design approvals/design organization recognition);
- b) support the development of ICAO Standards and Recommended Practices (SARPs), guidance material and manuals that Member States use to issue certificates for products, and complement them with guidance for best practices in conducting validation activities;

That ICAO:

- c) continue to encourage the reduction of duplicate certification action conducted by Member States that offers no commensurate increase in safety; and
- d) review and develop materials for inclusion in the *Airworthiness Manual* (Doc 9760), *Safety Management Manual (SMM)* (Doc 9859), Annex 8 — *Airworthiness of Aircraft*, and/or Annex 19 — *Safety Management*, for States of Registry (SoR) to determine the appropriate level of involvement in validation/recognition principles for States of Design (SoD) approvals.

**Recommendation 7.2/1 – Strengthening RSOOs**

That States:

- a) further support the strengthening of regional safety oversight organizations (RSOOs) by engaging actively in the development of their RSOO, by securing adequate and

sustainable RSOO funding mechanisms, and, as appropriate, by further delegating safety oversight functions to the RSOO;

That ICAO:

- b) recognize that RSOOs have an important role to play in carrying out safety oversight functions on behalf of their Member States and, within the Global Aviation Safety Plan (GASP) framework, in addressing safety issues at the regional level;
- c) support better alignment and harmonization between PIRGs and RASGs while maintaining the safety framework of the RASGs through consultation with Member States;
- d) further support the strengthening of RSOOs and their recognition within the ICAO safety system by facilitating access to technical support, facilitating the sharing of experience and knowledge between RSOOs through the RSOO Cooperative Platform, establishing the proposed Global Aviation Safety Oversight System (GASOS) and by reinforcing direct cooperation between ICAO and RSOOs in the framework of the GASP; and

That RSOOs:

- e) continue to engage in the RSOO Cooperative Platform and engage actively in the establishment of the proposed GASOS by supporting its implementation and, where applicable, by taking steps towards recognition and in strengthening their safety oversight capabilities.

**Recommendation 7.2/2 — ICAO Runway Safety Programme — Global Runway Safety Action Plan**

That States:

- a) recognise that runway safety-related accident categories, particularly runway excursions and incursions, continue to be a global safety priority for aviation stakeholders as determined by a risk-based analysis;
- b) urge runway safety stakeholders, including aircraft operators, air navigation service providers, aerodrome operators, aerospace industry, and regional aviation safety groups, to implement the actions in the GRSAP to reduce the global rate of runway excursions and runway incursions;
- c) continue to establish requirements and activities aimed at improving runway safety through State runway safety programmes;
- d) encourage aerodrome operators to establish effective runway safety teams and encourage all runway safety stakeholders to actively participate in established runway safety teams; and

That ICAO:

- e) continue to lead and coordinate the runway safety programme with its partner organizations to work together to mitigate runway safety-related risks.

**Recommendation 7.3/1 — ICAO implementation strategies**

That ICAO:

- a) strengthen the linkage between the Global Air Navigation Plan (GANP), the Global Aviation Safety Plan (GASP) and the Global Aviation Security Plan (GASeP) to achieve an integrated implementation approach;
- b) take into account implementation support needs when developing provisions;
- c) further improve the planning and implementation regional group (PIRG) and regional aviation safety group (RASG) mechanisms to enhance the coordination and alignment of implementation between regions;
- d) consider the development of a global collaboration mechanism to facilitate interregional alignment, harmonization, and sharing of best practices and lessons learned;
- e) support the development of a flexible, progressive and risk-based strategy to improve global implementation of Standards and Recommended Practices (SARPs);
- f) request an appropriate group of experts to further review and explore a process that would facilitate short-term (successive) aircraft interchange operations; and
- g) further develop risk management capabilities and facilitate implementation of multilateral arrangements for the sharing of risk information and (regional) contingency planning related with civil aircraft operations over or near conflict zones.

**Recommendation 7.3/2 — Aviation Safety Implementation Assistance Partnership (ASIAP)**

That ICAO:

- a) continue to develop the prioritization of States and areas of technical assistance criteria in order to achieve appropriate and transparent prioritization;



That ASIAP Partners:

b) strive for greater commitment to, and participation in, the Aviation Safety Implementation Assistance Partnership (ASIAP) Programme, and invite other States and international organisations that can provide technical assistance to States to join ASIAP;

c) and other stakeholders providing technical assistance (including States, regional safety oversight organisations (RSOOs), international organisations, industry and financial institutions) coordinate their technical assistance activities and make use of the online Project Database (<https://www.icao.int/safety/ASIAP/Pages/Tools.aspx>) in order to reduce duplication of activities and effort;

d) apply the Project Outcome Indicators (POIs) to their projects and review the measurable results in coordination with each other; and

e) including ICAO, States, international organizations, industry and financial institutions provide funding to support technical assistance activities.

### **Recommendation 7.3/3 — State national planning framework**

That States:

a) reaffirm support for the fundamental roles and responsibilities of Contracting States, Council and the Air Navigation Commission, as provided in the *Convention on International Civil Aviation* (Doc 7300), for the development of quality and timely Standards and Recommended Practices (SARPs);

b) enhance their involvement in all stages of the provision development process and encourage RSOOs and other aviation stakeholders to do the same;

c) support the ICAO Next Generation of Aviation Professionals (NGAP) Programme in light of the international need to address the existing aviation personnel shortages and to ensure a competent workforce capable of meeting the needs and challenges of the global aviation community into the future; and

d) share best practices on applied strategies to promote more productive recruitment, training and education, development and retention programmes.

### **Recommendation 8.1/1: Measures to proactively address emerging issues**

That ICAO:

a) raise awareness and inform States of existing guidance on identifying and addressing emerging safety issues, including mitigation actions and balancing the integrated management of distinct risks (existing/emerging);

b) urge the regional aviation safety groups (RASGs) or other regional organizations, including regional safety oversight organizations (RSOOs), to institute a process for addressing emerging safety issues based on a data-driven analysis;

c) urge States, regional entities and industry to participate actively in regional and sub-regional studies on emerging safety issues conducted by the RASGs;

d) urge States, regional entities and industry to share information on emerging safety issues with other States and ICAO through the dedicated website;

e) systematically collect information from States and regional organizations, for the purpose of assessing and monitoring their global safety impact, on the following: new concepts of operations and new technologies; new risk management concepts and methods coping with the dynamics and complexity of the aviation system; as well as the initial implementation of such new concepts, methods and technologies;

f) establish a holistic, performance-based process for the development of ICAO provisions in response to these emerging issues and risks to assess if the established provisions achieve the objectives for which they were designed;

g) provide guidance for the implementation of risk and performance-based assessment and oversight at both State and regional levels;

h) provide a global, inclusive civil-military cooperation mechanism to move from a reactive situation to a proactive one by applying predictive, holistic risk management to emerging issues; and

i) based on data from regional aviation safety groups, develop a study on the subject of objects falling from aeroplanes and guidance material on preventive measures.