



**WORKING PAPER**

**THIRTEENTH AIR NAVIGATION CONFERENCE**

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**COMMITTEE B**

- Agenda Item 6: Organizational safety issues**  
**6.1 Strategic plan**

**GASP AND DATA-DRIVEN DECISION-MAKING**

(Presented by Austria on behalf of the European Union and its Member States<sup>1</sup>,  
the other Member States of the European Civil Aviation Conference<sup>2</sup>;  
and by EUROCONTROL)

**EXECUTIVE SUMMARY**

This paper reflects on the experience gained in Europe with sharing intelligence and identifying common priorities at the regional level that are documented in a European Plan for Aviation Safety. Many of the lessons learned in Europe can be used to inform future editions of the Global Aviation Safety Plan (GASP).

**Action:** The Conference is invited to agree to the recommendations in paragraph 6.

**1. INTRODUCTION**

1.1 The *Global Aviation Safety Plan* (GASP, Doc 10004) is a high-level, strategic, planning and implementation policy document developed in conjunction with the *Global Air Navigation Plan* (GANP, Doc 9750). Both documents promote coordination of international, regional and national initiatives aimed at delivering a harmonized, safe and efficient international civil aviation system.

1.2 The GASP seeks to assist States and regions in their respective safety policies, planning and implementation by establishing the global safety priorities and objectives; providing a planning framework, timelines and guidance material; and presenting implementation strategies and a Global Aviation Safety Roadmap. The roadmap is an action plan developed to assist the aviation community in achieving the GASP goals. The GASP sets specific priorities at both State and regional levels.

1.3 The GASP is reviewed by ICAO every three years. A study group was set up in 2017 to develop the 2020-2022 edition. This new edition will propose an aspirational goal to achieve zero

<sup>1</sup> Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

<sup>2</sup> Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

fatalities in commercial operations by 2030 and beyond, supported by six specific goals, related targets and indicators. The 2020-2022 edition will recognise the importance of safety risk analysis at national and regional levels, promotes the establishment of cooperative regional safety programmes and values the key role that Regional Safety Oversight Organisations (RSOO) can play in the achievement of the GASP goals.

## **2. ALIGNING GLOBAL STRATEGIES**

2.1 The GASP is an important instrument to achieve further safety improvement at global level to cope with the projected increase in traffic volumes, allow the safe integration of new technologies, and manage related threats and opportunities. ICAO efforts to ensure broad GASP consultation with States and industry organisations are recognised. The attempt to find the right balance between building the capabilities of States and addressing the operational risks to aviation safety is a very positive development. The updated Global Aviation Safety Roadmap, with a series of safety enhancement initiatives (SEIs), is of great added value in supporting States and regions to prepare for the challenges ahead.

2.2 In line with the total system approach to aviation safety, Europe has been striving to ensure a common vision and alignment of objectives for the European Air Traffic Management (ATM) Master Plan and the European Plan for Aviation Safety (EPAS). A consistent and complementary approach to ATM infrastructures and safety related matters, involving all aviation components, is deemed to provide greater efficiency in reaching safety and efficiency goals and may prepare the ground for a unified aviation risk management framework. Europe therefore invites ICAO to initiate an alignment of the GASP and the GANP, starting with the smooth integration of remotely piloted aircraft systems (RPAS) and the mitigation of cyber threats. Furthermore, with the development of the Global Aviation Security Plan (GASeP), alignment is also necessary with global developments in security and the evolution of the threat picture in civil aviation. This will help to assure optimal passenger safety where security and safety aspects of certain hazards could lead to a conflicting approach, e.g. where to carry lithium batteries or personal electronic devices (PEDs), or the closed cockpit doors and the number of persons in the cockpit.

## **3. RISK-BASED DECISION-MAKING**

3.1 Through its Global Aviation Safety Oversight System (GASOS), ICAO communicated the role regional organisations should play. Europe, having gained considerable experience in managing safety and efficiency through regional cooperation and economies of scale, supports ICAO in these endeavours and outlines the added value that RSOOs can bring to their Member States, to industry and how they can support ICAO's initiatives, particularly in the implementation of the GASP vision and mission at the regional level.

3.2 EPAS creates a common focus on regional aviation safety issues as a continuation of the European work to improve aviation safety and to comply with ICAO Standards and Recommended Practices (SARPs). It also creates a common platform for the identification and sharing of positive safety practices. This regional approach complements national efforts offering a more efficient means to manage safety in the European aviation system. The ICAO European (EUR) Office initiated the process to define a Regional Aviation Safety Plan for the European and North Atlantic (EUR/NAT) Region based on the EPAS.

3.3 At the European level, the identification of safety issues and mitigation of associated risks are carried out in coordination with States and industry, being part of one aviation system. The EPAS priorities are aligned with the ones identified in the GASP. At the core of this process is the sharing of safety intelligence at the European level, in order to develop a common understanding of safety risks

and implement a structured approach, combining the risk pictures of European States and industry, to inform decision-making at the European Union level. At a global level, a similar structured approach, combining national and regional risk pictures, is suggested to feed the GASP. Such safety intelligence should not just derive from traditional safety reporting systems, but also from automatic data capturing systems including flight data analysis programmes. In addition, the GASP should provide a common framework for States to deal with emerging issues<sup>3</sup>.

3.4 The main enabler for actionable safety intelligence that will feed the EPAS and the GASP, is data collection and analysis. It is of paramount importance that the aviation community take advantage of new information technologies that make possible the collection and subsequent analysis of the massive amounts of data generated by the aviation industry. It is equally important to ensure that data collection and analysis is done in a collaborative manner while providing the required level of safety data and information protection (just culture principles). RSOOs, Regional Aviation Safety Groups (RASGs) and the advent of regional data collectors (such as the Data4Safety programme in Europe) can be the trusted parties to collect and analyse raw data. The sharing of safety information (not of raw data) and safety intelligence could be supported by dedicated instruments developed by ICAO and could then be organised at an international level, feeding the GASP.

3.5 Finally, the approach proposed in the GASP, whilst promoting the No Country Left Behind (NCLB) initiative, should be more ambitious in driving continual improvement in those States having achieved the near term 2017 objectives set out in the GASP 2017-2019. Such States should be encouraged to achieve goals at a faster pace to generate more short-term and long-term benefits for aviation safety. Moreover, this would yield more advanced systems and processes for aviation safety management, including valuable experiences and lessons learnt that could subsequently be shared with and adopted by other States under the NCLB initiative. More generally, a systematic screening process on identifying and sharing positive safety practices should be an integral part of the GASP.

#### **4. ACCEPTABLE LEVEL OF SAFETY PERFORMANCE**

4.1 The GASP encourages States to implement an efficient and sustainable State Safety Programme (SSP) in line with Annex 19 – *Safety Management* Standards. As part of the SSP implementation, States shall establish the acceptable level of safety performance (ALoSP) to be achieved through their SSP. Notwithstanding the inherently circular definitions of safety performance, safety performance indicators and their associated targets as laid out in Annex 19, experience in Europe shows that States struggle with the ALoSP concept. In particular, the idea of defining an acceptable target rate of safety occurrences might be interpreted as if events involving damage and injury were acceptable. We therefore ask ICAO to work with States to further clarify the expectations on how this Standard should be implemented, in particular how the ALoSP relates to the GASP goals and targets, and how ALoSP can be demonstrated in a regional context, to promote a common understanding of safety performance, its measurement and management, globally.

4.2 In this context we ask ICAO to further develop, in cooperation with States, the safety margin concept. The safety margin should be based on a broader range of safety and exposure data, to provide for a more robust prioritisation of safety actions.

#### **5. A PERFORMANCE-BASED APPROACH TO SARPS DEVELOPMENT**

5.1 Prescriptive rules and the associated oversight have achieved tremendous results in the past. However, as the aviation system becomes increasingly complex in a dynamic marketplace, standards setting and oversight practices must evolve to become increasingly performance-based. This will support

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<sup>3</sup> AN-Conf/13-WP/46 refers

innovation which in turn may improve efficiencies and drive towards meeting or exceeding the GASP safety objectives.

5.2 With the introduction of safety management, competency-based training and fatigue risk management, ICAO is gradually moving towards a more performance-based approach to appropriately complement the existing prescriptive instruments. A system accounting for differences in performance levels and creating incentives for stakeholders to strive towards the highest levels of safety performance will support the implementation of new technologies and foster safety risk and performance management capabilities in States and industry. We therefore invite ICAO to continue the development of SARPs enabling a performance-based approach and adapt the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) accordingly.

## 6. CONCLUSION

6.1 The Conference is invited to agree on the following recommendations:

That the Conference:

- a) acknowledge the work of ICAO in developing the 2020-2022 edition of the *Global Aviation Safety Plan* (GASP, Doc 10004) in coordination with States and industry and highlight the added value that Regional Safety Oversight Organizations (RSOOs) can bring to the Global Aviation Safety Oversight System (GASOS), strengthening regional cooperation to foster States' safety oversight and risk management capabilities;
- b) request ICAO to intensify efforts in establishing a common vision for alignment between the GASP, the *Global Air Navigation Plan* (GANP, Doc 9750) and the newly developed GAsEP as well as to secure GANP and GASP are consistent and complementary, especially in the light of the planned aviation system block upgrade (ASBU) evolution;
- c) call upon ICAO to encourage those States having achieved the near term 2017 objective in the GASP 2017-2019, to continue to verify implementation regularly, keep their safety programmes and plans updated, and strive for continual improvement;
- d) encourage States to share their risk pictures at a global level creating common understanding of risk pictures and implementing a structured approach for combining the national and regional risk pictures at global level;
- e) call upon ICAO to develop instruments enabling new regional data integrators within the RSOOs or Regional Aviation Safety Groups (RASGs) to share safety information and intelligence at global level, to feed GASP priorities in the future;
- f) call upon ICAO to promote a common understanding of safety performance, its measurement and management; and in this context to further develop the safety margin concept introduced in the GASP, in cooperation with States; and
- g) call upon ICAO to gradually move towards a more performance-based approach in terms of Standards and Recommended Practices (SARPs) setting and universal oversight.

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