



WORKING PAPER

THIRTEENTH AIR NAVIGATION CONFERENCE

Montréal, Canada, 9 to 19 October 2018

COMMITTEE B

- Agenda Item 8: Emerging safety issues**
8.1: Measures to proactively address emerging issues;
8.2: Emerging safety issues

FUTURE SAFETY ISSUES

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This paper addresses emerging safety issues, as set forth in the *2017-2019 Global Aviation Safety Plan* (GASP) (Doc 10004), which provides safety-related challenges and priorities that are deemed of concern to the international aviation community. Analysis of operational safety risks should include looking at potential future safety issues, which are referred to as emerging safety issues. ICAO works with stakeholders to identify emerging safety issues and supports States, regions, industry and other stakeholders to ensure that the Organization's work programme and its safety strategy address both current and future issues and enable the implementation of the necessary mitigation actions to manage safety and contribute to the achievement of the GASP goals. States should participate in regional and sub-regional studies on emerging safety issues conducted by the regional aviation safety groups (RASGs) and share information on emerging safety issues with other States and with ICAO.

Action: The Conference is invited to agree to Recommendation 8.2/x: Identification of emerging safety issues in paragraph 3.1.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	Impact for the aviation community: The timely identification of emerging safety issues allows States, regions and industry to implement the necessary mitigation actions to manage safety and contribute to the achievement of the GASP goals at the global, regional and national levels. Impact for ICAO (<i>relative to the current Regular Programme Budget resource levels</i>): ICAO focuses on emerging safety issues to ensure that the activities set forth in its work programme and the content of the Safety Strategy, as presented in the GASP, address both current and future safety issues.
<i>References:</i>	Doc 9859, <i>Safety Management Manual (SMM)</i> Doc 10004, <i>2017-2019 Global Aviation Safety Plan</i>

1. INTRODUCTION

1.1 The Global Aviation Safety Plan (GASP) presents the strategy for the prioritization and continuous improvement of aviation safety. Its purpose is to continually reduce fatalities and the risk of fatalities associated with accidents by guiding the harmonized development and implementation of regional and national aviation safety plans. States, regions and industry facilitate the implementation of the GASP through coordinated safety enhancement initiatives.

1.2 The GASP focuses on safety-related challenges and priorities of concern to the international aviation community. Challenges are identified through the analysis of safety data collected from proactive and reactive safety-related activities. Safety data used to identify challenges and define priorities includes, but is not limited to: accident or incident investigations; safety reporting; continuing airworthiness reporting; operational performance monitoring; inspections, audits, surveys; or safety studies and reviews. The challenges identified assist ICAO in defining priorities for global action which then serve as the basis for the development of the GASP goals and targets. The identification of safety-related challenges and the prioritization of areas that require action are key steps in the safety planning process. Aviation is constantly changing; therefore, analysis of operational safety risks should include looking at potential future safety issues, which are referred to as emerging safety issues.

1.3 Emerging safety issues are potential future safety issues that may have not been apparent in the past but that might impact safety in the future. Emerging safety issues can include a possible new technology, a potential public policy issue, or a new concept or idea that, while perhaps an outlier today, could mature and develop into a critical mainstream issue in the future or become a major trend in its own right. Therefore, it is important that the international aviation community remain vigilant regarding emerging safety issues and address them as soon as possible. Failure to address emerging safety issues in a timely manner can result in the absence of regulations, inadequate policies and procedures, and deficient training. These and other factors can affect a State or service provider's ability to mitigate the safety risks associated with the changes that these issues introduce into the aviation system.

1.4 The 2017-2019 Edition of the GASP addresses emerging safety issues and lists the following: global flight tracking, remotely piloted aircraft systems, space transportation and risks arising from conflict zones. These issues have been integrated in ICAO's work programme and are being addressed as part of the Organization's current activities. The list of emerging safety issues included in the 2017-2019 Edition of the GASP was reviewed as part of the update underway for the Plan's 2020-2022 Edition, to determine if it needed to be updated.

2. DISCUSSION

2.1 While many approaches exist for identification of emerging issues, common features include the involvement of subject matter experts and formalized processes drawing on scientific evidence, assessments, and projections. The GASP Study Group (GASP-SG), the group of experts which assists the ICAO Secretariat with the revision of the GASP, was tasked with compiling a list emerging safety issues. The GASP-SG concluded that the draft 2020-2022 Edition of the GASP should not define a limited, set list of emerging safety issues, due to their dynamic nature. The study group proposed that a larger scale consultation with States, regional entities (predominantly the regional aviation safety groups, or RASGs) and industry be carried out as they have a significant role to play in the identification of emerging safety issues.

2.2 A common starting point for identifying emerging safety issues is "scanning" for issues across a range of sources. These issues can emanate equally from the State level, sub-regional level and regional level. States and regions should use existing mechanisms, such as the RASGs, to constantly monitor for the emergence of safety issues. Each RASG is already expected to develop and implement a regional aviation safety plan consistent with the GASP. As part of the regional aviation safety plans, the

RASGs should identify safety risks and issues of priority, and encourage States to initiate action. States should participate in regional and sub-regional studies on emerging safety issues conducted by the RASGs and share information on emerging safety issues with other States and with ICAO.

2.3 For the draft 2020-2022 Edition of the GASP, ICAO will present emerging safety issues on a dedicated webpage (www.icao.int/gasp) that can be updated regularly. Information on emerging safety issues on the webpage will form a key part of ICAO's Safety Strategy. In order to develop a comprehensive, up-to-date list of emerging safety issues, ICAO needs support from all stakeholders to identify issues not currently addressed by the activities set forth in the Organization's work programme or by existing ICAO provisions. The timely identification of emerging safety issues enables the Organization to include activities in its work programme that will support States, regions, industry and other stakeholders to address safety risks associated with these issues.

2.4 To assist with the identification of emerging safety issues, States and RASGs should refer to the *Safety Management Manual (SMM)* (Doc 9859), which provides guidelines for the identification of hazards and the mitigation of risks that can be applied at the national, sub-regional and regional levels.

3. CONCLUSION

3.1 The GASP offers a long-term vision that will assist ICAO, States, regional entities (such as the RASGs) and industry in developing a harmonized safety strategy. The Organization focuses on emerging safety issues to ensure that the activities set forth in its work programme and the content of the Safety Strategy, as presented in the GASP, address both current and future safety issues. This allows for the implementation of necessary mitigation actions to manage safety and contribute to the achievement of the GASP goals.

3.2 In light of the above, the Conference is invited to agree to the following recommendation:

Recommendation 8.2/x: Identification of emerging safety issues

That the Conference:

- a) request ICAO to inform States of existing guidance on identifying and addressing emerging safety issues;
- b) urge the regional aviation safety groups (RASGs) to institute a process to address emerging safety issues;
- c) urge States, regional entities and industry to participate actively in regional and sub-regional studies on emerging safety issues conducted by the RASGs; and
- d) urge States, regional entities and industry to share information on emerging safety issues with other States and ICAO through the dedicated website.