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THIRTEENTH AIR NAVIGATION CONFERENCE

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COMMITTEE B

- Agenda Item 7: Operational safety risks**
7.2: Operational safety risks at the global, regional and national levels, and the role of RSOOs and RASGs in achieving the GASP goals

ICAO RUNWAY SAFETY PROGRAMME – GLOBAL RUNWAY SAFETY ACTION PLAN

(Presented by the United States on behalf of Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), European Organisation for the Safety of Air Navigation (EUROCONTROL), Flight Safety Foundation (FSF), International Air Transport Association (IATA), International Council of Aircraft Owner and Pilot Associations (IAOPA), International Business Aviation Council (IBAC), International Coordinating Council of Aerospace Industries Associations (ICCAIA), International Federation of Airline Pilots' Associations (IFALPA), International Federation of Air Traffic Controllers' Associations (IFATCA))

REVISION NO. 1

EXECUTIVE SUMMARY

Runway safety events, particularly runway excursions and incursions, remain among civil aviation's top safety risk categories. Since 2011, ICAO and the runway safety programme (RSP) partners have been working together to minimize and mitigate the risks of runway excursions, runway incursions and other events linked to runway safety. This paper discusses the activities of the ICAO-led RSP and the launch of the Global Runway Safety Action Plan (GRSAP).

Action: The Conference is invited to agree to the recommendations in paragraph 6.3.

1. INTRODUCTION

1.1 Runway safety events, particularly runway excursions and incursions, remain among civil aviation's top safety risk categories.

1.2 Since the first ICAO Global Runway Safety Symposium held in May 2011, ICAO and the Runway Safety Programme RSP partners have been working together to minimize and mitigate the risks of runway incursions, runway excursions and other events linked to runway safety. The RSP partners have supported activities such as Runway Safety Go-Team missions and runway safety seminars.

1.3 In January 2017, the RSP partners established a Runway Safety Action Plan Working Group (RSAP-WG) with the aim of reviewing the RSP achievements, objectives and priorities and to develop a global runway safety action plan, which was unveiled at the Second Global Runway Safety Symposium in November 2017. The Global Runway Safety Action Plan (GRSAP) provides recommended actions for all runway safety stakeholders, with the aim of reducing the global rate of runway excursions and incursions.

2. OVERVIEW OF THE GLOBAL RUNWAY SAFETY ACTION PLAN

2.1 The current edition of the *Global Aviation Safety Plan* (Doc 10004, GASP) identifies runway safety as a global safety priority. A statistical analysis of high-risk accidents from 2008 to 2016 by the RSAP-WG shows that runway safety related accidents continue to represent the most significant source of aviation accidents worldwide and remains aviation's number one safety risk category. Runway safety-related events as defined in the GASP and the ICAO Annual Safety Report include the following ICAO accident occurrence categories: abnormal runway contact, bird strike, ground collision, ground handling, runway excursion, runway incursion, loss of control on the ground, collision with obstacle(s) and undershoot/overshoot.

2.2 The GRSAP provides recommended actions for all runway safety stakeholders, including ICAO, the RSP partners, State Civil Aviation Authorities, Regional Safety Oversight Organisations (RSOOs), Regional Aviation Safety Groups (RASGs), aircraft operators, aerodrome operators, air navigation services providers (ANSPs) and aerospace industry.

2.3 Since States and industry may have their own unique challenges, the recommended actions in the GRSAP are not all encompassing. States, regions and industry should conduct their own regular risk analyses to identify their own operational safety risks and appropriate mitigations.

2.4 In a review and analysis of runway safety occurrence data and risk analysis, the RSAP-WG identified runway excursions and runway incursions as the main high-risk occurrence categories. The analysis identified runway excursions as the highest risk category with a total risk weight significantly higher than all other categories.

2.5 ICAO and RSP partners also identified runway incursions as a high-risk category. Although the number of runway incursion accidents reported between 2008 and 2016 is very low, the number of runway incursion incidents remains high. There is a very high fatality risk associated with runway incursion accidents.

2.6 Assembly Resolution A37-6, *Runway safety*, urges States to take measures to enhance runway safety. In accordance with the GRSAP, ICAO will continue to enhance ICAO runway safety related provisions, including guidance, and continue to work with its runway safety partners to assist States in achieving further runway safety improvements.

3. STATE RUNWAY SAFETY PROGRAMS

3.1 State runway safety programs allow States to engage airports and industry in addressing runway safety risks within an aviation system. These programs may vary among different States in format; however, the ICAO RSP recommends that they be based on the principles of safety management systems (SMS) and involve runway safety stakeholders. The GRSAP provides specific recommendations for States in developing State runway safety programs.

3.2 Consistent with the GRSAP recommended actions, the United States Federal Aviation Administration (FAA) leads a national-level runway safety program. Using SMS principles, the FAA's program brings together airports and industry partners to collaborate on the use of data-driven, risk-based decision-making to enhance the safety of American airspace. In addition to supporting local runway safety teams (RSTs) at American airports, the FAA's national runway safety program has enabled the FAA to identify runway safety risks within its aviation system and implement technologies such as runway status lights, airport surface detection equipment, and engineered arresting material systems to mitigate those risks. For additional information, see Surface Safety, Managing Risk of Runway and Taxiway Collision and Runway Excursions, GREPECAS/18 - IP/06.

4. AIRPORT RUNWAY SAFETY TEAMS

4.1 The RSP promotes the establishment of RSTs at airports as an effective means to reduce runway related accidents and incidents. The requirement for airports to establish an RST was one of the main outcomes of the first ICAO Global Runway Safety Symposium held in May 2011. Since then, over 200 international airports worldwide have registered a RST with ICAO resulting in reduced runway safety related risks globally.

4.2 The GRSAP recommends the establishment of multidisciplinary RSTs, which require collaboration among regulatory authorities and stakeholders in the areas of air traffic management and aerodromes, aircraft operators, and design and manufacturing organizations.

4.3 The ICAO Runway Safety Go-Teams can help implement effective RSTs to improve runway safety by providing international technical assistance from ICAO and RSP partner organizations, including training, gap analyses and expert advice.

5. ICAO RUNWAY SAFETY PROGRAMME ACTIVITIES

5.1 Each partner organization takes on their respective responsibility to reduce runway safety risks by leveraging their expertise to contribute to the broader aviation community's efforts and by educating their own membership on how to take an active role.

6. CONCLUSION

6.1 The RSP partners encourage all runway safety stakeholders to implement the recommendations in the GRSAP.

6.2 Resources such as the ICAO Runway Safety Implementation Kit, the Runway Safety Go-Team missions, and the ICAO safety management implementation website are available to assist runway safety stakeholders with implementation of GRSAP recommendations.

6.3 In light of the above, the Conference is invited to agree to the following recommendations:

Recommendation 7.2/x - ICAO Runway Safety Programme – Global Runway Safety Action Plan

That the Conference:

- a) acknowledge that runway safety related accident categories, particularly runway excursions and incursions, continue to be a global safety priority for aviation stakeholders;
- b) urge runway safety stakeholders, including States, aircraft operators, air navigation service providers, aerodrome operators, aerospace industry, and regional aviation safety groups, implement the actions in the GRSAP to reduce the global rate of runway excursions and runway incursions;
- c) request ICAO to continue to lead and coordinate the runway safety program with its partner organizations to work together to mitigate runway safety related risks;
- d) recommend that States continue to establish requirements and activities aimed at improving runway safety through State runway safety programs; and
- e) recommend that aerodrome operators establish effective runway safety teams and that all runway safety stakeholders actively participate in established runway safety teams.

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