



International Civil Aviation Organization
Asia and Pacific Office

Twenty-second Meeting of the Asia Pacific Regional Aviation Safety Team (APRAST/22)

(Bangkok, Thailand, 30 September to 04 October 2024)

Agenda Item 5: Presentations – State / Industry / ICAO

AP-RASP ACTION ITEM A.IV.4 ON REGIONAL DATA SHARING MECHANISM

(Presented by Action Item Working Group comprising members from Australia, Papua New Guinea, Republic of Korea, Singapore, United States, Airports Council International, Flight Safety Foundation and Boeing)

SUMMARY

The Asia Pacific-Regional Aviation Safety Plan (AP-RASP) introduced an action to establish a mechanism for regional aviation safety data collection and sharing. A working group was formed to develop a proposal for this initiative and has proposed two initiatives to enhance aviation safety data sharing: (1) a focused discussion (potentially evolving into a "Safety Day") at APRAST meetings to address key regional safety risks, and (2) enhancing the APAC Aviation Safety Report to incorporate more diverse data/information sources.

These proposals aim to fulfil the AP-RASP's goal of establishing regional safety data collection and sharing mechanisms without the need to build a complex new infrastructure. The initiatives will leverage existing global and regional data-sharing programmes, while encouraging greater participation from States and industry stakeholders to improve overall regional aviation safety.

1. INTRODUCTION

1.1 The exchange of safety data and safety information at the regional level through collaboration between State and industry enables the validation of existing safety risks, detection of emerging hazards and risks, and facilitates effective and timely action. The Global Aviation Safety Plan (GASP) identified safety information sharing and exchange as a safety performance enabler to achieve the GASP objectives. Underlining the importance of safety data usage and its impact on the State safety programme, ICAO Annex 19 emphasises safety data collection, analysis and exchange to support States' safety management activities. Accordingly, the Asia Pacific-Regional Aviation Safety Plan (AP-RASP) in its first edition for 2020-2022 introduced a safety action to **establish a mechanism for regional aviation safety data collection and sharing**, and support States' / Administrations' participation in regional aviation safety data-sharing projects. The safety action was retained in the current edition of AP-RASP 2023-2025.

1.2 Decision APRAST 16/4 called for members to nominate Volunteers/ Champions to accomplish respective actions for the effective implementation of the AP-RASP. To work on this action item, a working group was established at APRAST/17 and further expanded its membership at APRAST/21. The current members are as follows: *Australia, Papua New Guinea, Republic of Korea, Singapore, United States, Airports Council International, Flight Safety Foundation and Boeing*. The working group have held two teleconferences since APRAST/21 to discuss and develop the proposal.

2. DATA SHARING INITIATIVES IN THE APAC REGION

2.1 Globally, there are existing programmes on data and information sharing and analysis to monitor safety risks and identify emerging hazards risks, to facilitate deployment of effective timely safety mitigations. Examples of data sharing programmes are the Aviation Safety Information Analysis and Sharing (ASIAS) programme utilized by the Commercial Aviation Safety Team (CAST) in the United States and the Data4Safety (D4S) programme in Europe. In Asia Pacific, there is the Regional Data Collection, Analysis and Information Sharing for Aviation Safety (AP-SHARE) demonstration project that was launched in 2017. A number of airlines in this region are also part of the International Air Transport Association (IATA)’s Flight Data Exchange (FDX).

2.2 Currently, there are data sharing programmes that exist for sharing information at the regional level. U.S. CAST and IATA entered into an agreement with the RASG Asia Pacific (RASG-APAC) to provide aggregate, de-identified ASIAS and FDX trend information to assist in the creation and evaluation of safety enhancement initiatives within the region. The sharing of such information takes place during the APRAST meetings in a confidential manner. On the other hand, the AP-SHARE has shared the outcomes of its directed studies at previous APRAST and RASG-APAC meetings. The AP-SHARE is currently refining its model for the next phase to be more inclusive, sustainable and to incorporate more safety data such as flight operations quality assurance data. Further updates will be provided when AP-SHARE resumes its activities.

2.3 Building a data sharing programme from scratch could take numerous years and involve significant resources to set up the data infrastructure, establish the governance structure and to operationalise data sharing on a regular basis. After lengthy deliberations, the working group came to the conclusion that it might not be practical to build a programme similar to the ASIAS or D4S in this region. Rather, it would be useful to share information that would help this region better understand its risk picture to develop key safety initiatives. Some examples are sharing information pertaining to key safety risks and/or emerging issues in this region such as severe turbulences and GNSS interferences. To accomplish data and information sharing, the working group has outlined two initiatives as follows:

(1) Focused discussion (Safety Day)

2.4 Currently, States/Administrations and industry organisations can put up working papers of interest at the various regional forums such as APRAST and RASG-APAC. Such working papers are typically presented, discussed and could result into recommendations such as introduction of new Safety Enhancement Initiatives. To better focus on the key safety risks and/or emerging issues in this region, a focused discussion on a specific topic of interest could be conducted as part of the forum agenda. Depending on the complexity and extensiveness of the topic, a standalone workshop could be organised to delve deeper in the areas of interest.

2.5 In the longer term, it is envisioned this focused discussion would evolve into a full-fledged “Safety Day.” For instance, the RASG-Pan America held a full day on the topic of turbulence in its meeting in November 2023. The Safety Day brought speakers from ICAO, International Organisations, airlines as well as academia to address different aspects of turbulence. Some of the discussion during the safety day ranged from academic studies on the effects of climate change, and

discussion on use case studies on turbulence-related incidents. This sharing mechanism was created to reflect the successes of the U.S. “InfoShare.” InfoShare is an annual event that brings together industry and Government safety professionals to discuss safety concerns and best practices, albeit in a protected confidential environment.

2.6 For starters, it is proposed that the APRAST meeting start with a half-day focused discussion based on the prevailing top accident categories in the region. This focused session could be conducted in a hybrid environment to ensure the APAC community can attend the discussion for maximum participation. The focused session could also include speakers from industry and academia based on the topic of interest. For example, the APRAST may base their safety topics on the draft ICAO 2024 APAC Aviation Safety Report (ASR), which includes the top three common accident categories: (1) Turbulence (2) Runway Excursion and (3) Abnormal Runway Contact.

(2) Sharing of information beyond accidents in the APAC ASR

2.7 Currently, the APAC ASR is focused on analysing accident information from three sources viz. ICAO, U.S. CAST and IATA. Additionally, information such as serious incidents in the APAC region include safety trends available from. Flight Safety Foundation. This information from FSF could be inclusive in future editions of the Annual Safety Report. APRAST or RASG-APAC could also request a deep-dive into certain emerging topics using a survey to participants to gather more information. For instance, two surveys were carried out during the COVID pandemic to understand challenges States/Administration and industry faced during a period of reduction in air travel. The safety intelligence of the survey was included in the respective editions of the APAC ASR. The highlighted information could advance safety while being included and disseminated through the APAC website and/or a paper to be put up at either RASG-APAC or the APRAST meetings.

2.8 The WG members propose including information gathered from the focused discussions into the next edition of the APAC ASR.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) Endorse the two initiatives listed in this paper to fulfil the AP-RASP Action Item A.IV.4 - establish a mechanism for regional aviation safety data collection and sharing, and support States’/ Administrations’ participation in regional aviation safety data-sharing projects; and
- b) Encourage the sharing of safety data and information through the various initiatives listed in this paper, by States and industry stakeholders, noting its benefits to improve regional safety.

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