REPORT OF THE TWENTY SECOND MEETING OF THE ASIA PACIFIC REGIONAL AVIATION SAFETY TEAM (APRAST/22)

Bangkok, Thailand, 30 September – 04 October 2024

The views expressed in this Report should be taken as those of the Meeting and not the Organization

Approved by the Meeting
and published by the ICAO Asia and Pacific Office, Bangkok

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1. Meeting and Registration

1.1 The Twenty Second Meeting of the Asia Pacific Regional Aviation Safety Team (APRAST/22) was held at the ICAO Asia and Pacific Office in Bangkok, Thailand from 30 September to 04 October 2024 and made Five (05) Decisions.

1.2 The APRAST/22 Meeting was attended by 58 participants from 17 States/ Administrations and 06 International Organizations and Industry Partners viz. Australia, Bhutan, Cambodia, China, Macao China, India, Indonesia, Japan, Maldives, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Thailand, United States, Viet Nam, Airbus, Boeing, Civil Air Navigation Services Organization (CANSO), European Union Aviation Safety Agency (EASA), Flight Safety Foundations (FSF), International Air Transport Association (IATA), and COSCAP-South East Asia. The list of participants is at **Appendix A**. A Focused Discussion took place on Day-2 covering the Hard Landings in hybrid mode and 148 participants joined online in addition to the participants at the venue.

1.3 Mr. S M Nazmul Anam, Regional Officer/Flight Safety of ICAO Asia and Pacific Office acted as Secretary to the Meeting supported by Mr. Susantha De Silva, Regional Officer/Safety Implementation.

2. Opening Session

2.1 Mr. S M Nazmul Anam, Regional Officer Flight Safety (RO/FS), ICAO-APAC started the Meeting with his opening remarks and welcomed all participants on behalf of the Regional Director. He thanked all the participants and the Organizations for their participation in face-to-face meeting to ICAO Bangkok Office and those who joined in hybrid mode.

2.2 Mr. Anam urged the APRAST to look into the USOAP EI level, which is below the global average and apprised the audience that only Six States completed 100 per cent of SSP implementation 15 are in progress. He appreciated the progress made by the APAC States to upload their national aviation safety plan (NASP) in the ICAO Portal.

2.3 The RO/FS concluded his remarks with a high note that APRAST has achieved its target in publishing the Annual Safety Report each year on time, implementing the Asia-Pacific Regional Aviation Safety Plan (AP-RASP) 2023-25 Roadmap and developing the right SEIs required for the region. He thanked the outgoing AP-RASP Co-Chair (State), Mr. Burgess Michael of CASA for his significant contributions in implementing the AP-RASP Roadmap Action Items. Finally, he thanked all the Chairs and the Co-chairs of APRAST, AIG, SEI, SRP and AP-RASP Working Groups for their concerted efforts over the years. He encouraged States/Administrations to make good use of all the information and guidance materials developed by those Groups to further enhance safety and handed over the Meeting to APRAST Co-Chairs.

2.4 Mr. Alan Foo, APRAST Co-Chair (States) in his Opening Remarks, welcomed all delegates to the Meeting. He commended the various WG Co-Chairs for the progress made since the last APRAST Meeting, expressing appreciation for Michael Burgess (AP-RASP WG Co-Chair (States)) who would be stepping down. Recalling the Governance Framework for Cross-Border Data Sharing which was endorsed at APRAST/20, he informed the meeting that a group of APAC States (Indonesia, Malaysia, Philippines, Singapore and Thailand) would be trialing a data-sharing mechanism, and invited more States to join once efforts had stabilized after the signing of an MOU at the upcoming DGCA Conference. Mr. Foo also highlighted some new developments for APRAST, including the introduction of focused discussion on selected safety issues (with this meetings' topic being hard landings) to drive substantive and scoped discussions on emerging trends beyond existing SEIs.

The APRAST WG Co-Chairs were also hoping to develop a coordination mechanism between various RASGs to facilitate the exchange of best practices and learning points with other Regional Aviation Safety Groups and Teams.

2.5 Mr. S M Nazmul Anam, RO/FS ICAO APAC acted on behalf of the Secretariat and conducted the APRAST/22 Meeting effectively and successfully with a group of 58 participants joining in-person.

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REPORT ON AGENDA ITEMS

1. AGENDA ITEM 1: PLENARY SESSION – ADOPTION OF AGENDA

1.1 Adoption of the Provisional Agenda – WP/1

1.1.1 The Secretariat presented the Provisional Agenda, which was adopted by the Meeting.

2. AGENDA ITEM 2: Election of AP-RASP WG Co-Chair (State)

2.1 Election of Co-Chair (State) for the Asia Pacific Regional Aviation Safety Plan (AP-RASP) Working Group – WP/2

2.1.1 The Meeting was invited to nominate/elect the AP-RASP WG Co-Chair (State) of the vacant position as Mr. Michael Burgess, Manager Safety Systems with the Civil Aviation Safety Authority of Australia who was elected as the AP-RASP WG Co-Chair (State) during APRAST/20 (August 2023) and now he would like to leave the position considering his new deployment position.

2.1.2 Australia proposed Mr. Maneesh Kumar for the role of AP-RASP WG Co-Chair (State). Cambodia, Bhutan and Hong Kong, China seconded the proposal of Australia for Mr. Maneesh Kumar. The Meeting elected Mr. Maneesh Kumar as the APRAST Regional Aviation Safety Plan Working Group (AP-RASP WG) Co-Chair (State), who is the Joint Director General in DGCA India. Mr. Maneesh expressed his gratitude for being elected and committed to supporting the group to his best.

3. AGENDA ITEM 3: UPDATE, DISCUSS AND REVIEW OF PROGRESS OF APRAST ACTIVITIES

3.1 Update of APRAST/21 Decisions and Conclusions – WP/3

2.1.1 The Secretariat presented the progress of outstanding Decisions and Conclusions adopted at APRAST/21. The Meeting noted and accepted the updates provided by the Secretariat which can be found in **Appendix B**.

4. AGENDA ITEM 4: UPDATE OF RASG-APAC/13 DECISIONS / CONCLUSIONS AND WORK PROGRAMME

4.1 Progress update of the RASG-APAC/13 Decisions and Conclusions – WP/4

4.1.1 The Secretariat presented the progress update of the RASG-APAC/13 Decisions and Conclusions. The Meeting discussed the progress, and Secretariat updated the status accordingly as reflected at **Appendix C**.

4.2 Update of RASG-APAC/13 Annual & Standing Work Programme 2023/2024 – WP/5

4.2.1 The Secretariat presented the progress of RASG-APAC 2023/2024 Work Programme which was approved at RASG-APAC/13 in December 2023. The Meeting discussed the progress, and Secretariat updated the status accordingly as reflected at **Appendix D**.

5. AGENDA ITEM 5: PRESENTATIONS – STATE / INDUSTRY / ICAO

5.1 Monitoring and Reporting Progress of Implementation of AP-RASP 2023-25 and the Road Map; Goals and Targets – WP/6

5.1.1 The meetings urged all to note that AP-RASP 23-25 Edition with OPS and ORG Road Maps are in the process of implementation by all stake holders and the implementation scope of three years is nearing completion. The meeting further supported the objectives of Target *T10* [*Target T10*, is, States to progressively enhance safety oversight capability to achieve at least 75% EI in USOAP CMA, and to achieve an APAC average overall USOAP EI score higher or equal to the global average by 2024*] on Improvements to safety oversight and compliance of Regional Goal II.

5.1.2 Following decision was assumed by the Meeting:

<table>
<tr><td colspan="2">Decision APRAST 22/1 : Monitoring and Reporting Progress of Implementation of AP-RASP 2023-25 and the Road Map; Goals and Targets – WP/6</td></tr>
<tr><td>That, APAC RO to disseminate a State Letter,
a) Encouraging States, International Organizations and Industry Partners to continue support to ICAO APAC initiative of CAT Mission by providing resources; and
b) sharing information on details of methodology on how to proceed volunteering for CATMs to sponsor for other states or for self-sponsorship.</td><td>Expected impact:
☒ Achievement of global and regional aviation safety priorities and targets
☐ Enhancement of USOAP Effective Implementation
☐ Monitoring and Administration
☒ Capacity Building and Sharing of Information
☐ Inter-Regional</td></tr>
<tr><td colspan="2">Why: Achieving Target T 10 of APAC RASP 23-25.</td></tr>
<tr><td>When: Immediate</td><td>Status: In Progress</td></tr>
<tr><td colspan="2">Who: ☒APRAST ☐ APAC-AIG ☐ SRP WG ☐ SEI WG ☐ AP-RASP WG
☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☐ Other: Industry</td></tr>
</table>

5.2 Findings of a Survey on Runway Safety Team Update – WP/7

5.2.1 CANSO and ACI presented WP/7 sharing the findings of a survey on the challenges for aerodrome operators and ANSPs in the establishment and implementation of runway safety teams (RST), and in upkeeping runway safety during runway maintenance works, in view of promoting runway safety.

5.2.2 The Meeting noted the challenges in the setup and running of RST and encouraged aerodrome operators, ANSPs, Air Operators, and regulators to utilize survey findings contained in the paper when developing or reviewing runway enhancement plans.

5.3 Establishing a Mechanism for Addressing Global High-Risk Categories under Runway Safety – WP/8

5.3.1 SEI WG presented WP/8 to identify new methodologies to better understand the region's safety enhancement implementation challenges. The meeting agreed to follow the recommendations in the Global Action Plan for the Prevention of Runway Incursions, or GAPPRI, which were categorized by feasibility and input into a tracking sheet. The meeting urged States/Administrations to complete the tracking sheet so the APRAST can determine areas needing concentration.

5.3.2 Singapore and CANSO appreciated the paper. The meeting noted the progress of the SEI WG in developing a prioritization and implementation of the tracking mechanism as agreed during APRAST/21 and consider the implementation tracking template for the GAPPRI recommendations by adopting the proposed mechanism for future SEI topics.

5.3.3 The plenary agreed that a finalized version of the implementation tracking sheet would be sent via a State Letter along with guidance to complete the tracking sheet. The SEI WG co-chairs will share a draft State Letter with the ICAO Secretariat by the end of October 2024. A five-month timeline was agreed as a reasonable timeline to receive inputs from States.

5.3.4 The Meeting decided the following:

<table>
<tr><td colspan="2">Decision APRAST 22/2: Establishing a Mechanism for Addressing Global High-Risk Categories under Runway Safety – WP/8</td></tr>
<tr><td>That,

a) SEI WG will finalize a draft on the GAPPRI implementation tracker and draft a State Letter by the end of October 2024 for ICAO APAC RO’s consideration.

b) ICAO APAC RO will send the State Letter to share the GAPPRI implementation tracker and associated guidance material with States/Administrations.</td><td>Expected impact:
☒ Achievement of global and regional aviation safety priorities and targets
☐ Enhancement of USOAP Effective Implementation
☐ Monitoring and Administration
☒ Capacity Building and Sharing of Information
☐ Inter-Regional</td></tr>
<tr><td colspan="2">Why: Addressing HRC Runway Safety in APAC Region.</td></tr>
<tr><td>When: APRAST/23</td><td>Status: In Progress</td></tr>
<tr><td colspan="2">Who: ☒APRAST ☐ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG
☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry</td></tr>
</table>

5.4 Focused Discussion: Safety Culture and the Adverse Impacts of Hardline Organizational Policy – WP/9

5.4.1 The SEI WG introduced the idea of a “focused discussion” during the APRAST plenary to facilitate active participation by members and partners. It was intended to emphasize the SEI WG’s ongoing effort to share safety information with States/Industry via multiple communication mediums that don’t require the full process of SEI development.

5.4.2 This focused discussion addressed the impacts of safety culture in relation to a recent OEM analysis on the difference between hard landings and firm landings and highlight the unintended safety hazards stemming from hardline organizational policies that put an overemphasis on preventing them. Subsequently, pilots are being penalized by the data being collected. This excessive focus, coupled with the fear of punitive action, has led to longer landing distances and a heightened risk of abnormal runway contact and runway excursion.

5.4.3 Boeing presented its analysis on hard landings versus firm landings and the SEI WG Industry co-chair presented on ‘just and fair culture.’ The Meeting along with 148 online participants actively engaged in the half-day focused discussion to ask questions and exchanged ideas on the aforementioned concepts and risks with the goal of enhancing aviation safety in the region; Shared their perspectives, and views on the impact of a safety culture to mitigate a hard landing that may lead to runway excursion risk or abnormal runway contact.

5.4.4 The Meeting agreed to have such focused discussion in future APRAST Meetings plenary session to highlight specific safety topics and encourage open discussion. The States and the working groups are requested to suggest topics for future focused discussions and the ICAO Secretariat may choose to have the discussion during the plenary session or individual working group sessions.

5.5 Flight Safety Foundation (FSF) Safety Project Activities 2024 – WP/10

5.5.1 FSF presented WP/10 to share on three specific projects that were identified as high priorities in the APAC Region by FSF; Airworthiness Needs Analysis Study, Upset Prevention and Recovery Training and Flight Path Management Training and Procedures and updated the initial progress and results to date, including target dates for the completion of all three projects which will be presented during future ICAO regional meetings.

5.5.2 Boeing supported the projects in the paper. The Meeting noted the information prescribed in the paper encouraging ICAO, States and industry to continue supporting the FSF efforts in advancing the projects including participating in the projects' surveys, discussions and workshops; and further requested FSF to present its ongoing progress and final results and recommendations.

5.6 AP-RASP Action Item A.IV.4 on Regional Data Sharing Mechanism – WP/11

5.6.1 The Meeting noted the information provided in this paper 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.

5.6.2 The Meeting endorsed the Working Group's proposal to fulfil the AP-RASP's goal of establishing a regional safety data collection and sharing mechanism through focused discussions, which may evolve into a "Safety Day" in future, and widening the scope of information to be covered in the APAC Annual Safety Report. This would enhance sharing of data and information regionally without the need to build a complex new infrastructure.

5.7 Safety Enhancement Initiative (SEI) Output Revision for Consideration and Approval – WP/12

5.7.1 SEI WG presented the paper highlighting Runway Safety (RS) is a high-risk category of occurrence identified in the Global Aviation Safety Plan and the Asia Pacific Regional Aviation Safety Plan. The Meeting was informed that RASG-APAC/4 endorsed guidance material and training for aerodrome operators to mitigate the risk of RS in commercial aviation such as runway excursions (RE).

5.7.2 The SEI outputs are continuously reviewed for currency and validity by APRAST's SEI WG. The SEI WG has completed its review of RE/7, *Guidance material and training program for runway pavement, maintenance and operations from aerodrome operator's perspective,* and proposes the attached revision of the SEI output be approved by the APRAST.

5.7.3 The meeting Approved the proposed RE/7 output revision attached in this Working Paper and updated the safety tools section on the ICAO APAC website accordingly.

5.7.4 The Meeting endorsed the following Decision:

Decision APRAST 22/3: Safety Enhancement Initiative (SEI) Output Revision for Consideration and Approval – WP/12	
That, SEI WG Co-Chair to share with APAC RO the approved RE-7 for onward action to upload in the Monitoring Tools and ICAO APAC Website.	***Expected impact***: ☒ Achievement of global and regional aviation safety priorities and targets ☐ Enhancement of USOAP Effective Implementation ☒ Monitoring and Administration ☐ Capacity Building and Sharing of Information ☐ Inter-Regional
Why: SEI Output Review and update	
When: By APRAST/23	**Status**: In Progress
Who: ☒ APRAST ☐ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG ☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry	

5.8 **Establishment of a RASG-APAC Safety Advisory – WP/13**

5.8.1 SEI WG presented the WP/13 to consider adopting a new communication mechanism to complement existing SEI safety tools and allow for timely dissemination of critical safety information and/or highlight specific mitigations found in existing SEI guidance.

5.8.2 Singapore and the United States supported the initiative. The Meeting agreed in principle and approved the concept of a RASG-APAC Safety Advisory to help meet the need to disseminate safety information in a timely manner or highlight existing guidance following template used by RASG-PA to be adapted by the SEI WG.

5.8.3 The ICAO Secretariate recommended that the relevant ToRs be updated to reflect this new communication mechanism. The SEI WG Co-chairs agreed to draft the language during the SEI WG breakout.

5.8.4 The Meeting endorsed the following Decision:

Decision APRAST 22/4: Establishment of a RASG-APAC Safety Advisory – WP/13	
That, SEI WG to adapt the template of the RASG-PA Safety Issue Alert to disseminate safety information in a timely manner and discuss with APAC RO for any ToR to be amended in RASG Procedural Handbook for RASG-APAC/14 Approval.	***Expected impact***: ☒ Achievement of global and regional aviation safety priorities and targets ☐ Enhancement of USOAP Effective Implementation ☒ Monitoring and Administration ☐ Capacity Building and Sharing of Information ☐ Inter-Regional
Why: SEI Output Review and update	
When: By APRAST/23	**Status**: In Progress
Who: ☒ APRAST ☐ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG ☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry	

6. AGENDA ITEM 6 & 7: BREAK OUT SESSIONS AND UPDATES

6.1 Breakout Sessions – SEI WG

6.1.1 A Focused Discussion took place on Day 2 during the morning of the plenary convened by SEI WG. The topics delivered are shown in **Attachment 1** to this Report.

6.1.2 The SEI WG updates are attached as **Attachment-2** to this Report. The SEI WG Point of Contact list was updated to reflect current members. The SEI WG request that States share the working group invites with relevant professional stakeholders to be a part of the discussions in the SEI WG monthly meetings.

6.1.3 Out of 41 States/Administration, 16 responded to the UPRT survey. The SEI WG Co-chairs shared the results and noted that 50% of the respondents have fully implemented UPRT into their regulatory system. The other 50% are in various stages of implementation.

6.1.4 The SEI WG requested the States to update their UPRT implementation status and resubmit. And the States that have not yet responded are encouraged to give their inputs at the earliest. The intention of collecting this information is to understand the level of implementation within the region so further action can be decided. The meeting recalled that FSF is in the process of surveying airlines and pilots in the region concerning the implementation of UPRT. FSF offered to share the results of its survey with the SEI. The SEI WG also agreed to share de-identified UPRT implementation data from the results of its continuing survey with States.

6.1.5 The U.S CAST APAC representative provided a presentation on one method to determine SEI effectiveness. The presentation was well received, and the SEI WG agreed to pursue similar strategies in the near future.

6.1.6 By request of the ICAO Secretariat to APRAST/22 WP/13, the SEI WG drafted language concerning the RASG-APAC Safety Advisory (RSA) into the relevant sections of the RASG-APAC Procedural Handbook. The ICAO Secretariat, in coordination with the APRAST Co-chairs, will determine if the language is sufficient. The SEI WG reviewed several options for a RASG-APAC logo. The SEI WG agreed to the following to be considered by the APRAST:

6.1.7 For the GAPPRI recommendations implementation tracking sheet, it was agreed that guidance will be necessary to accompany the State Letter. The State Letter must reflect that data being shared with the various working groups/ICAO RO will not be used against the State during an audit and will only be used in a de-identified manner to enhance safety. Also, a “Notes/Remarks” column will be added to the sheet to allow States to explain their input. The status of the GAPPRI recommendation implementation tracking sheet will be discussed at the next APRAST. The following members volunteered to be “Implementation Champions” to assist States (if needed) with any questions related to the tracking sheet:

- Air Operator: Capt. Paul Martin (Singapore) and Capt. Dhruv Rebbapragada (Airbus)

- Regulator: Mr. HN Mishra (India) and Mr. Chad Brewer (U.S.)
- ANSP: Ms. Duangtawan (Wan) Pinpimai (CANSO) and Mr. Shayne Campbell (U.S.)
- Aerodrome: Mr. Hammad Ur Rahman Khan (Pakistan)

Periodic Review of SEI Outputs

6.1.8 During the SEI WG breakout, CANSO provided revisions to the SEI output of RE/2, *Guidance material on Unstablized Approach*, for consideration by the SEI WG. Based on the feedback from the SEI WG members, the output of RE/2 is still considered current and valid for implementation. At the same time, SEI WG also received several observations and suggestions from members to further enhance this SEI output.

6.1.9 The SEI WG noted that original guidance material has been updated and additional material is available to address the safety risk. It was agreed that the following should be pursued during Friday's plenary session for the APRAST's consideration:

- Approve the proposed RE/2 output revision as empowered by the APRAST; and
- Inform the RASG-APAC members of the SEI revision for their implementation and update the safety tools section on the ICAO APAC website.

6.1.10 The Meeting endorsed the following Decision:

<table>
<tr><td colspan="2">Decision APRAST 22/5 – SEI WG Breakout Session</td></tr>
<tr><td>That,

SEI WG Co-Chair to share the provisionally approved RE-2 by APRAST/22 with all APAC States/Administration for onward action to upload in the Monitoring Tools and ICAO APAC Website by RO after the feedback from APAC States/Administrations.</td><td>Expected impact:
☒ Achievement of global and regional aviation safety priorities and targets
☐ Enhancement of USOAP Effective Implementation
☒ Monitoring and Administration
☐ Capacity Building and Sharing of Information
☐ Inter-Regional</td></tr>
<tr><td colspan="2">Why: SEI Output Review and update</td></tr>
<tr><td>When: APRAST/23</td><td>Status: In Progress</td></tr>
<tr><td colspan="2">Who: ☒APRAST ☒ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG
☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry</td></tr>
</table>

6.2 **Breakout Session - SRP WG**

6.2.1 The SRP Working Group noted that the APAC Annual Safety report for 2024 has been drafted, with a proof now finalised and a copy provided to the Secretariat. The document will be available to be published before the agreed required date of October, 10.

6.2.2 The report has been streamlined this year to support enhanced readability. At APRAST 21, SRP Co-Chair requested that where members were aware of or had recently identified safety issues in their respective domains that a safety case be put forward at the SRP meeting for discussion and progression through SEI WG (or otherwise) if deemed necessary.

6.2.3 Using the existing Safety Issue Prioritisation Flow Chart Tool developed at the last APRAST (21), and further extensive analysis of relevant data Large Height Deviations (LHD's)were identified as representing a significant issue in the APAC region.

6.2.4 Recommend that this work is presented to the plenary at APRAST 23 to ensure that an appropriate amount of time is provided to present the information garnered from the extensive analysis that has been undertaken on this item.

6.2.5 US CAST representative provided a presentation on US ASIAS data for the APAC Region.

6.3 **Breakout Session – AP-RASP Standing Working Group (AP-RASP WG)**

6.3.1 The AP-RASP WG session was conducted in plenary style with all attendees of APRAST/22 invited to attend both face-to-face and virtually. With the known absence of the incumbent AP-RASP WG Co-Chair (Industry) and the most recent election of the Co-Chair (State), Mr. Michael Burgess, as acting Co-Chair (State) facilitated this AP-RASP WG session at APRAST/22. The working group session opened with congratulating Mr. Maneesh Kumar, Joint Director General of DGCA India, on his election as the new AP-RASP WG Co-Chair (State).

6.3.2 An update on the progress of the AP-RASP WG was presented by the acting Co-Chair (State), which included briefs from each of the AP-RASP Action Item Custodians (AICs) on the progress of their respective action, their plan moving forward, and assistance required from APRAST, the Regional Office (RO) or ICAO Headquarters (HQ).

6.3.3 Assistance requests from the Action Item Teams were as follows:

a) Action Item *A.I.20 - Develop an inspector competency building framework (ICBF), and any new RASG-APAC/ APRAST SEIs for urgent risks.*
   - Request feedback from the ICBF Manual by APRAST/23.
   - Assistance with the coordination and consolidation meeting to set up the tangible plan.

b) Action Item *A.II.1 - Conduct workshops and courses to promote effective implementation of SARPs, especially in the technical areas of ANS, AIG, and AGA.*
   - Need to focus on sharing the safety message when attending or conducting workshops.

c) Action Item *A.IV.1 - Establish a mechanism to collect and analyze SSP SPI data from APAC States and common industry indicators.*
   - Based on discussions during attendance at APRAST/22 there are no outstanding actions or requests at this time.

d) 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.*
   - Review WP xx tabled at APRAST/22 and provide feedback.

e) Action Item *A.V.4 - Establish a means for States/ Administrations to informally share information and coordinate on operational issues in the USOAP Audit Areas of OPS, ANS, and AGA.*
   - Identifying a new host of the A.V.4 SharePoint by Dec 2024, failing which ACI would be happy to continue to host it until end of 2025.

- Nominees for the Custodian role is requested to reach out to the AP-RASP WG Co-Chairs.
- https://aciasiapac.sharepoint.com/sites/RASPAV4USOAPSharing
- Creating a new platform e.g. hosted and run by ICAO and migrating the current content to the new platform

f) Action Item *A.III.1 - Support the robust implementation and continuous improvement of SMS and SSP*.

- Acknowledge the ongoing efforts from 16 States/Administrations and 9 organizations in supporting ICAO in the design of a 3-day interactive Safety Management Seminar from 3-5 Feb 2025, and commitments in providing speakers and virtual meeting hosting services.
- Colleagues with Moderator experience are welcome to approach Co-Chairs and volunteer their services.

6.3.4 The Secretariat reminded the AP-RASP WG of the need to keep in mind all the Action Items contained within the AP-RASP Organizational Roadmap and their associated metrics. Once the metric has been achieved for an action item, the WG should shift their focus onto open action items to ensure all action items have been addressed during the life of the Regional Aviation Safety Plan. The status of the action items will be reported accordingly in the close-out report for AP-RASP 2023-2025. The Secretariat also advised the AP-RASP WG that the drafting of the 2026-2028 AP-RASP will need to soon commence.

6.3.5 Attendees at the AP-RASP WG Session also provided constructive feedback in relation to the work undertaken by the Action Item Teams. All AP-RASP Action Item teams will continue to advance their good work under the leadership of their custodians. The next AP-RASP Co-Chairs and Action Item Custodians virtual meeting is scheduled to occur in December 2024.

7. AGENDA ITEM 8: ANY OTHER BUSINESS

7.1 ICAO-FSF Safety Management Seminar

7.2 **The ICAO APAC Safety Management Seminar (ICAO AP-SM Seminar) in collaboration with Flight Safety Foundation** is planned from 3-5 February 2025 in ICAO APAC Office at Bangkok, Thailand with the Theme "**Addressing the challenges of Annex 19 implementation together and promoting a positive Safety Culture**" for CAA, ANSPs, Service Providers and Safety Practitioners. 16 States/Administrations and 9 organizations joined forces in supporting the ICAO in the design of this interactive programme and provide speakers/moderators to facilitate exchange of SSP/SMS implementation experiences. States/Administrations are requested to participate in engagement exercises through pre-seminar surveys in nearer time [ICAO State Letter to be sent out by Nov 2024].

7.3 Mr. Alan Foo, APRAST Co-Chair (States), raised a proposal for APRAST to develop a coordination mechanism between Regional Aviation Safety Groups (RASGs) or Regional Aviation Safety Teams (RASTs), to encourage the cross-pollination of ideas and exchange of best practices. The idea was previously raised at the APRAST/21 meeting, following a useful sharing from the Pan American Regional Aviation Safety Team (PA-RAST). The mechanism could be trialed initially, and if successful, can be formalized in the RASG-APAC Procedural Handbook. The proposed mechanism includes three components: a sharing process for safety alerts and advisories, routine virtual meetings between Co-Chairs of different RASGs/RASTs, and a discussion forum for members from various Regions.

8. AGENDA ITEM 9: PRESENTATION OF APRAST/22 DRAFT REPORT

8.1 The Meeting reviewed and discussed the Draft APRAST/22 Report and adopted Five (05) Decisions. A list of APRAST/22 Decisions and Conclusions can be found at **Appendix E** to this Report.

9. AGENDA ITEM 10: DATE AND VENUE OF NEXT MEETING

9.1 The Meeting noted that APRAST/23 Meeting would be tentatively scheduled from 07 to 11 April 2025 in Bangkok, Thailand depending on the Conference Hall Availability confirmation.

9.2 The APRAST Co-chairs thanked the ICAO Asia and Pacific Office for hosting this Meeting as Secretariat and specially thanked all the delegates for their active participation and contribution.

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Total registered participants = 58
Total number of States / Administration = 17
Int'l Organization / Industry Partners = 6

	States / Administrations / International Organizations / Industry Partners	No. of participants
1.	Australia	2
2.	Bhutan	2
3.	Cambodia	1
4.	China	2
5.	Macao, China	2
6.	India	2
7.	Indonesia	2
8.	Japan	1
9.	Maldives	1
10.	Pakistan	3
11.	Papua New Guinea	1
12.	Philippines	1
13.	Republic of Korea	2
14.	Singapore	4

	States / Administrations / International Organizations / Industry Partners	No. of participants
15.	Thailand	9
16.	United States	4
17.	Viet Nam	5
	Int'l Org / Industry Partners	
1.	Airbus	2
2.	Boeing	4
3.	CANSO	1
4.	EASA	2
5.	FSF	1
6.	IATA	1
	ICAO APAC	5
	COSCAP-SEA	1
Total		

State / Name			Designation / Organization	E-mail
1.	**Australia**			
	1.	Mr. Richard Gregor	Manager Safety Intelligence and Analysis Air Navigation Transformation and Risk Division / Safety Risk and Intelligence Branch / Safety Systems Civil Aviation Safety Authority	richard.gregor@casa.gov.au;
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	4.	Mr. Samten Dorjee	Dy. Chief Flight Safety Officer Bhutan Civil Aviation Authority	sdorjee@bcaa.gov.bt;
3.	**Cambodia**			
	5.	Mr. TAN Sophondarith	Director of Department Security-Safety Management and Quality Assurance Department State Secretariat of Civil Aviation	sophondarith-tan@ssca.gov.kh; tansophondarith@gmail.com;
4.	**China**			
	6.	Ms. Xiuting Zhou	Research Associate China Academy of Civil Aviation Science and Technology (CAST)	zhouxt@mail.castc.org.cn;

State / Name			Designation / Organization	E-mail
	7.	Mr. Yubin Zhu	Chief Civil Aviation Administration of China	yb_zhu@caac.gov.cn;
5.	**Macao, China**			
	8.	Mr. TSE Wai Pong (Vincent)	Acting Department Head (Flight Standards) Flight Standards and Licensing Civil Aviation Authority of Macao	vincenttse@aacm.gov.mo; aacm@aacm.gov.mo;
	9.	Mr. LI Hang	General Manager – Aviation Safety Air Macau	lihang@airmacau.com.mo;
6.	**India**			
	10.	Mr. Rahul Agarwal	Assistant Director Air safety Air Safety Directorate Directorate General of Civil Aviation	rahul.dgca@nic.in;
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	12.	Mr. Alfin Bastian Firdaus	Flight Operation Inspector DGCA INDONESIA Directorate of Airworthiness and Aircraft Operation	alfin_bastian@kemenhub.go.id;
	13.	Ms. GRADITHASARI	Data Analyst SSP Task Force/ International Cooperation Officer DGCA Indonesia	graditha@gmail.com; gradithasari@kemenhub.go.id;
8.	**Japan**			
	14.	Mr. Yoshikazu Matsushige	(advisor)Chief of International Planning and Coordination Office, Aviation Safety and Security Department MLIT Japan Civil Aviation Bureau	matsushige-y46z8@mlit.go.jp;
9.	**Maldives**			
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10.	**Pakistan**			
	16.	Mr. Asif Farooqi	Deputy Director SSP Pakistan Civil Aviation Authority	asfaroq@gmail.com; asif.farooqui@caapakistan.com.pk;
	17.	Mr. M Hammad-ur-Rahman Khan	Joint Director Flight Standards Pakistan Civil Aviation Authority	hammad.rehman@caapakistan.com.pk;
	18.	Mr. Muzaffar Naeem	SENIOR ASSISTANT DIRECTOR (SSP) Pakistan Civil Aviation Authority	Muzaffar.Naeem@caapakistan.com.pk; muzznaim@hotmail.com;
11.	**Papua New Guinea**			
	19.	Mr. Raymond Vai	Acting Chief Executive Officer Accident Investigation Commission	rvai@aic.gov.pg; jraymondvai@gmail.com;
12.	**Philippines**			
	20.	Ms. Nelsie Fabila	Civil Aviation Authority of the Philippines	nfabila@caap.gov.ph;

State / Name			Designation / Organization	E-mail
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	28.	Ms. Chosita Sae Lim	Aviation Safety Standards Officer Aviation Safety Management and Standards Assurance Office (SMO)/ Aviation Safety Standards Group (AG) The Civil Aviation Authority of Thailand	chosita.s@caat.or.th; apple.chosita@gmail.com;
	29.	Mr. Nawat Sukhopala	Transport Technical Officer, Practitioner Level Airport Standard Control Division Department of Airport	Nawat.s@airports.go.th; nawatsukhopala@gmail.com;
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State / Name			Designation / Organization	E-mail
	33.	Mr. Kittitat Premrote	Senior Aerodrome Safety Officer Aerodrome Standards and Safety Department Airports of Thailand Public Company Limited (AOT)	Kittitat.p@airportthai.co.th;
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	35.	Capt. Somchai Sopanon	Director - Corporate Safety Safety Division Bangkok Airways	somchai.sop@bangkokair.com;
16.	**United States**			
	36.	Mr. Chad Brewer	SEI WG State Co-Chair Foreign Affairs Specialist Office Of International Affairs U.S. Federal Aviation Administration Washington, DC 20591	chad.brewer@faa.gov;
	37.	Mr. Shayne A. Campbell	Senior International Air Traffic Representative Asia Pacific Federal Aviation Administration Air Traffic Organization, Mission Support American Embassy, Singapore	shaynea.campbell@faa.gov;
	38.	Mr. Micah Lyman	Foreign Affairs Specialist Air Traffic Safety Oversight U.S. Federal Aviation Administration Huntsville, AL 35824	micah.lyman@faa.gov;
	39.	Eric Rossignol	Operational Safety Analyst Office of Accident Investigation and Prevention U.S. Federal Aviation Administration Washington, DC 20591	eric.c.rossignol@faa.gov;
17.	**Viet Nam**			
	40.	Ms. Luong Thi Hai Hanh	Flight Inspector/Investigator Fight Safety Standard Department Civil Aviation Authority of Vietnam	hanhlth@caa.gov.vn; luonghaihanh@gmail.com;
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	42.	Ms. Ninh Thi Uyen	Deputy Director of ATS Department Viet Nam Air Traffic Management Corporation	bkl.ninhuyen@gmail.com;
	43.	Mr. Ho Son Tung	Management of Safety - Quality and Security Division Vietnam Air Traffic Management Corporation (VATM)	Tungho.ats@vatm.vn;
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State / Name			Designation / Organization	E-mail
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1.	**Airbus**			
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2.	**Boeing**			
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3.	**CANSO**			
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4.	**EASA**			
	49.	Mr. Daniel Cruz	SCOPE APP Project Office Manager, ANS & Safety Intelligence	daniel.cruz.ext@easa.europa.eu; Dcruz-aviation@outlook.com;
	50.	Mr. David Waller	EASA representative in Singapore	david.waller@easa.europa.eu;
5.	**Flight Safety Foundation (FSF)**			
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6.	**International Air Transport Association (IATA)**			
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	53.	Mr. S M Nazmul Anam	Regional Officer, Flight Safety	sanam@icao.int;
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	57.	Mr. Farid Imam Wahyudin	Technical Assistance/ Air Transport Officer	fwahyudin@icao.int;
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	58.	Mr. Sudhir Kumar Singh	Chief Technical Advisor and Programme Coordinator (CTA/PC) COSCAP-SEA	sksingh@icao.int;

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List of Updated APRAST/21 Decisions and Conclusions

Conclusion/ Decision No ---	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status	Action by RO/HQ/ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Decision APRAST 21/1 –	**Decision APRAST 21/1 – Support for Implementation of SSP and Development and Implementation of NASP for Majority of APAC States – WP/5**	That, APAC RO to circulate State Letters urging States/Administrations, International Organizations and Industry to deploy ICAO NASP iPACKs on cost recovery basis or on gratis in coordination with APAC RO.	APAC RO	1) Coordinate with ICAO GAT 2) Find Sponsors, if any	APRAST/22	1) One of the NASP Workshop is planned in Singapore from 3-6 December 2024. 2) RO shall intimate States/Administrations in case ICAO GAT plans any iPACKs on NASP for APAC State/Administration. . **Action:** Proposed to be Closed	RO
Decision APRAST 21/2 –	**Support for Implementation of SSP and Development and Implementation of NASP for Majority of APAC States – WP/5**	That, a) APAC RO to circulate State Letter urging States/Administrations, International Organizations and Industry to provide resources and support for SSP/SMS Training courses and workshops; and b) The outcomes of the Training courses and workshops may be presented at APRAST as a consolidated Working Paper to track the progress.	SEI WG SRP WG	Action in accordance with the Decisions.	APRAST/22	1) AP-RASP Action Custodians are working on the same subject and RO shall follow up for any further support required. . **Action:** Proposed to be Closed	RO

Conclusion/ Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2023	Action by RO/HQ/ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Decision APRAST 21/3 –	**Challenges Faced by Nepal in Effectively Utilizing GPWS/TAWS Equipment in Mitigation of CFIT Accidents – WP/7**	That, APAC RO to coordinate with ICAO HQ's appropriate Panel sharing the WP/7 of APARST/21 on the issues faced by Nepal seeking any possible solution and/or, redirect Nepal to the identified expertise for consultation to address the challenges of generating nuisance alerts approaching the mountainous airports while utilizing GPWS/TAWS equipment and thereby help prevent CFIT accidents.	APAC RO	Action in accordance with the Decisions.	APRAST/22	1) RO has already coordinated with ICAO HQ Flight OPS Panel for the comments of relevant Study Group to look into the matter. ICAO HQ appropriate panel/study group shall consider in their purview. **Action:** Proposed to be Closed	RO
Decision APRAST 21/4 –	**Flight Safety Foundation Regional Safety Assessment Project – Final Progress Report and Proposed Follow up Actions – WP/12**	That, APAC RO in coordination with FSF to: a) circulate the final report of the Regional Safety Assessment with the comprehensive fact sheets to assist stakeholders in prioritizing their regional engagement, and/or, preparing/updating the Regional/National	APAC RO SEI WG	1) Issue SL 2) Feedback from Stakeholders	By 30 September 2023	1) Regional Aviation Safety Assessment Final Report Highlights of May 2024 is circulated amongst the State NCMCs by Mr. Mitch Fox from FSF on 12th Sep 24. **Action:** Proposed to be Closed	RO

		Aviation Safety Plans; and b) provide information related to effective implementation of USOAP results and air navigation (AN) deficiencies available to RASG-APAC, its appropriate subgroups, as well as States upon request.					

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List of Updated RASG-APAC/13 Decisions and Conclusions

Conclusion / Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2024	Action by RO/HQ/ ANC
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Decision RASG-APAC 13/1 — A & B	**Review of Decisions and Conclusions Adopted at APRAST 19 & 20 – WP/7**	That, the Decisions adopted at APRAST/19 and APRAST/20 as described in Attachments A & B of the WP/7 be endorsed.	RO	Action in accordance with the Decision.	By RASG 14	Action: Extension of Decision APRAST 19/8 was provided for receiving more feedback on UPRT Survey which is reviewed in APRAST/21 SEI Output review process. **Action:** Proposed to be Closed	RO to follow up
Decision RASG-APAC 13/2 — A & B	**Update on Work Done by APAC-AIG – WP/8**	That, RASG-APAC/13 approved the AIG Expert Group (AIG-EG) as introduced in AIG/11 through Decision APAC-AIG 11/2 and related ToRs in RASG-APAC Procedure Handbook.	RO APAC-AIG	Action in accordance with the Decisions.	By RASG 13	AIG Expert Group (AIG-EG) with total of 22 volunteer members from 14 States/Administrations and 2 International Organizations was formed. First meeting was launched on 14 December 2023 tasking AIG-EG members to support AIG Work Programme. **Action:** Proposed to be Closed	RO

Conclusion / Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2024	Action by RO/HQ/ ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Decision RASG-APAC 13/3 — A & B	**Progress of development of Annual Safety Report (WP/7)**	That, RASG-APAC/13 agreed on the proposed timeline for the Annual Safety Report 2024 as discussed in WP/9.	SRP WG	Action in accordance with the WP timeline	October2024	The proposed timeline for the 2024 ASR with delivery expected by October 2024. **Action:** Proposed to be Closed	RO to follow up
Decision RASG-APAC 13/4 — A & B	**Safety Enhancement Initiative (SEI) Output Revision for RASG-APAC Consideration and Approval – WP/10**	That, a) RASG-APAC/13 approved the proposed CFIT/4 SEI's output revision as attached in the WP/10, and b) Secretariat shall update the safety tools session in ICAO APAC webpage and circulate a State Letter informing all States/ Administrations to note the SEIs CFIT/4 output revision for their implementation.	APAC RO SEI WG	Uploaded in Web	By APRAST 21	Action: The safety tools website is updated with the revised SEI output CFIT/4 on Guidance on the Establishment of a Flight Data Analysis Programme (FDAP). State Letter [Ref.: T 6/8.5 – AP042/24 (FS) dated 06 March 2024] was issued to inform all States/ Administrations to note the SEIs CFIT/4 output revision. **Action:** Proposed to be Closed	RO

Conclusion / Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2024	Action by RO/HQ/ ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Decision RASG-APAC 13/5 — A & B	**Update on RASG-APAC Procedure Handbook - WP/12**	That, RASG-APAC/13 approved the proposed amendment of RASG-APAC Procedural Handbook (3rd Edition) and Secretariat shall upload the RASG-APAC Procedural Handbook (3rd Edition) on ICAO APAC webpage subject to necessary correction.	All	Action in accordance with the Decisions.	By RASG 14	The approved RASG-APAC Procedural Handbook (3rd Edition) with suggested refinements from RASG-APAC/13 was published on ICAO APAC Website: https://www.icao.int/APAC/RASG/Pages/default.aspx **Action:** Proposed to be Closed	RO
Decision RASG-APAC 13/6 — A & B	**Review of progress of RASG-APAC/12 Decisions and Conclusions (WP/13)**	That, the Meeting endorsed the recommendations of the 12 Decisions of RASG-APAC/12 presented in Attachment A to WP/13.	All	Action in accordance with the Tasks	By RASG 14	No Pending Action from RASG-APAC/12. **Action:** Proposed to be Closed	RO
Decision RASG-APAC 13/7 —	**Improving Processes and Outputs for the Asia-Pacific Regional Aviation Safety Team (APRAST) – WP/16**	That, States/Administrations are urged to; a) nominate members/focal points for APRAST/APAC-AIG; and	All	Action in accordance with the Decisions.	APRAST/21	Audience presents at RASG/13 and APRAST 21 were urged to nominate their focal point for follow up of the Outcome of AIG, APRAST and RASG meetings. And formally nominate their names for each meeting and contribute for a longer period.	RO

Conclusion / Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2024	Action by RO/HQ/ ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A & B		b) ensure their nominated members/focal points consistently attend and contribute to APRAST/APAC-AIG meetings.				RO shall monitor the meeting attendance by nominated focal points and update in subsequent meetings. **Action:** Proposed to be Closed	
Decision RASG-APAC 13/8 — **A & B**	**Advancing Safety Through Safety Information Exchange – WP/20**	That, APAC RO shall coordinate to organize Workshops on Safety Culture in the region for APAC members to share and exchange experience in promoting Safety Culture.	All	Workshops on Safety Culture	By RASG 14	Two or, three days workshop on Safety Culture is planned to be organized from 3-5 Feb 2025. **Action:** Proposed to be Closed	RO
Decision RASG-APAC 13/9 — **A & B**	**Air Navigation Service Providers' Role in Regional Aviation Safety - WP/22**	That a) APAC RO in coordination with APANPIRG and RASG-APAC Chairperson to organize Workshops on ANS Safety matters inviting	ICAO RO All	Action in accordance with the Decisions.	By RASG 14	The issue was discussed during APRAST 21 with APANPIRG Focal Points for arranging a Workshop or an effective discussion forum and take the outcome to upcoming APANPIRG-34 and RASG-13 Meetings as it is scheduled back-to-back in Bangkok. *All the Sub-Group Co-Chairs of both APANPIRG and RASG-APAC are invited on 20th June 2024*	RO

Conclusion / Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2024	Action by RO/HQ/ ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		ANSPs /International Organizations; b) the workshop to identify the gap and recommend actions to enhance the coordination mechanism for APANPIRG and RASG-APAC; c) the APANPIRG and RASG-APAC Coordination meeting forum to invite all the leadership and Chairs of all the related Subgroups of APANPIRG and RASG-APAC to address the action items arising from the workshop; d) the final outcome to be tabled in both APANPIRG and RASG-APAC Plenary for appropriate action;				*through a formal Invitation Letter to join on a VTC and discuss the issue together under Agenda 5 during the upcoming **APANPIRG/34 & RASG-APAC/13 Midyear Review Meeting** scheduled on 23 August 2024.* It was decided that on 27 November, on the last day of APANPIRG, another coordination meeting shall take place on the subject where APARST Co-Chairs with APANPIRG Co-Chairs shall join. **Action:** Proposed to be Closed	
Decision RASG-	**RASG-APAC Yearly/Standing Work Programme**	That, the proposed RASG-APAC 2023/2024 Yearly Work	APAC RO All	Action in accordance	By RASG 14	**Action:**	RO

Conclusion / Decision No --- Strategic Objective*	Title of Conclusion/Decision	Text of Conclusion/Decision	Responsibility	Deliverable	Target Date	Status as of August 2024	Action by RO/HQ/ ANC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
APAC 13/10 —	**2023/2024 (proposed) – WP/28**	Programme is approved, as in **Attachment A** of WP/28.		with the Decisions.		RO to Follow up the pending Tasks and place it in next year's Work Program. As such this action may be closed. **Action:** Proposed to be Closed	

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UPDATE ON THE RASG-APAC 2023/2024 YEARLY WORK PROGRAMME

TASKS	Decision RASG-APAC	APRAST Ref	Subject Ref (if any)	Champion	Brief Description
TASK-1 (Carried Forward)	RASG-APAC Decision 8/14. Task-6 of RASG/8 2018-19 Work Prog.	APRAST-13, Agenda 8	Open item from 2020/2021	Related APRAST Working group	RASG–APAC to prepare the report on the progress/achievements of Beijing Declaration safety aspects to be tabled in next Ministerial Conference. APRAST/15 update: APRAST Co-Chairs- - Complete the tasks in hand derived from Yearly Work Programme. - Propose new action plan and include them in next yearly work programme to ensure the objectives are achieved. - Update RASG to assist prepare the report for next Ministerial Conference.
STATUS TASK-1: **Action:** Proposed to be Closed Action : 'Proposed to be Closed' as the Ministerial Conference in New Delhi has been conducted successfully from 11-12 September 2024. New Task Number shall be captured in next Yearly Work program if any new scope of tasks arising from the next Ministerial Declaration in New Delhi.					

TASKS	Decision RASG-APAC	APRAST/AIG Ref	Subject Ref (if any)	Champion	Brief Description
TASK-2 (Carried Forward)		**Decision APRAST 16/4** Implementation of Asia-Pacific Regional Aviation Safety Plan 2020-2022 Edition (AP-RASP: 20-22 Edition) – WP/12 **Decision APRAST 16/5** Implementation of Asia-Pacific Regional Aviation Safety Plan 2020-2022 Edition (AP-RASP: 20-22 Edition) – WP/12 Decision APRAST 15/14 Implementation of a Risk Register addressing Unmitigated Risks – WP/21		All APRAST WG & AP-RASP Custodians & APAC RO	With the support of identified Volunteers/ Champions, APRAST to consider incorporating the following tasks related to AP-RASP by the Custodians as mentioned in AP-RASP and Volunteers nominated through the State Letter; a. Implementation of OPS ROADMAP given in Appendix A of AP-RASP Document b. Implementation of ORG ROADMAP given in Appendix A of AP-RASP Document.

STATUS TASK-2:
Action: In Progress

Carried Forward from Task-2 of 2022/23 Program : Open –

1) The Champions and Volunteers are being identified to work on the implementation of OPS and ORG Roadmap. SEI WG has already worked out on the OPS Road Map and Monitoring Tools is developed to monitor the progress of those 17 Action items of SEI implementation under the OPS Roadmap. 23 Actions of ORG Road Map is a continuous process which are captured for the current AP-RASP 2023-25.

2) The AP-RASP Working Group was formalized during APRAST/20 for the purpose of implementation monitoring and further updates of the document where necessary.

TASKS	Decision RASG-APAC	APRAST/AIG Ref	Subject Ref (if any)	Champion	Brief Description
TASK-3 New Task		APAC-AIG/11– **WP/18**			1) AIG Co-Chairs, together with AIG-EG to follow up the 07 Action Items of APAC-AIG Annual Work Programme 2023-2024 that are related to the AP-RASP implementation and monitoring coordinating APRAST and their Sub-Groups. 2) Report the implementation progress of AP-RASP AIG Action Items to next RASG.

STATUS TASK-3:
Action: In Progress

1) AIG EG organized internal meetings to address those Action Items related to AIG captured in the AP-RASP 2023-25 version. The progress report of the Sub Tasks was presented through Working Paper 5, 6, 7, 8, 9 and 10 during last AIG/12 Meeting in August 2024.

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LIST OF APRAST/22 DECISIONS

Decision APRAST 22/1: Monitoring and Reporting Progress of Implementation of AP-RASP 2023-25 and the Road Map; Goals and Targets – WP/6	
That, APAC RO to disseminate a State Letter: a) Encouraging States, International Organizations and Industry Partners to continue support to ICAO APAC initiative of CAT Mission by providing resources; and b) sharing information on details of methodology on how to proceed volunteering for CATMs to sponsor for other states or for self-sponsorship.	***Expected impact***: ☒ Achievement of global and regional aviation safety priorities and targets ☐ Enhancement of USOAP Effective Implementation ☐ Monitoring and Administration ☒ Capacity Building and Sharing of Information ☐ Inter-Regional
Why: Achieving Target T 10 of APAC RASP 23-25.	
When: Immediate	**Status**: In Progress
Who: ☒APRAST ☐ APAC-AIG ☐ SRP WG ☐ SEI WG ☐ AP-RASP WG ☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☐ Other: Industry	

Decision APRAST 22/2: Establishing a Mechanism for Addressing Global High-Risk Categories under Runway Safety – WP/8	
That, a) SEI WG will finalize a draft on the GAPPRI implementation tracker and draft a State Letter by the end of October 2024 for ICAO APAC RO's consideration. b) ICAO APAC RO will send the State Letter to share the GAPPRI implementation tracker and associated guidance material with States/Administrations.	***Expected impact***: ☒ Achievement of global and regional aviation safety priorities and targets ☐ Enhancement of USOAP Effective Implementation ☐ Monitoring and Administration ☒ Capacity Building and Sharing of Information ☐ Inter-Regional
Why: Addressing HRC Runway Safety in APAC Region.	
When: APRAST/23	**Status**: In Progress
Who: ☒APRAST ☐ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG ☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry	

Decision APRAST 22/3: Safety Enhancement Initiative (SEI) Output Revision for Consideration and Approval – WP/12	
That, SEI WG Co-Chair to share with APAC RO the approved RE-7 for onward action to upload in the Monitoring Tools and ICAO APAC Website.	***Expected impact***: ☒ Achievement of global and regional aviation safety priorities and targets ☐ Enhancement of USOAP Effective Implementation ☒ Monitoring and Administration ☐ Capacity Building and Sharing of Information ☐ Inter-Regional
Why: SEI Output Review and update	
When: By APRAST/23	**Status**: In Progress
Who: ☒ APRAST ☐ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG ☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry	

Decision APRAST 22/4: Establishment of a RASG-APAC Safety Advisory – WP/13	
That, SEI WG to adapt the template of the RASG-PA Safety Issue Alert to disseminate safety information in a timely manner and discuss with APAC RO for any ToR to be amended in RASG Procedural Handbook for RASG-APAC/14 Approval.	***Expected impact***: ☒ Achievement of global and regional aviation safety priorities and targets ☐ Enhancement of USOAP Effective Implementation ☒ Monitoring and Administration ☐ Capacity Building and Sharing of Information ☐ Inter-Regional
Why: SEI Output Review and update	
When: By APRAST/23	**Status**: In Progress
Who: ☒ APRAST ☐ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG ☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry	

<table>
<tr><td colspan="2">Decision APRAST 22/5 – SEI WG Breakout Session</td></tr>
<tr><td>That,

SEI WG Co-Chair to share the provisionally approved RE-2 by APRAST/22 with all APAC States/Administration for onward action to upload in the Monitoring Tools and ICAO APAC Website by RO after the feedback from APAC States/Administrations.</td><td>Expected impact:
☒ Achievement of global and regional aviation safety priorities and targets
☐ Enhancement of USOAP Effective Implementation
☒ Monitoring and Administration
☐ Capacity Building and Sharing of Information
☐ Inter-Regional</td></tr>
<tr><td colspan="2">Why: SEI Output Review and update</td></tr>
<tr><td>When: APRAST/23</td><td>Status: In Progress</td></tr>
<tr><td colspan="2">Who: ☒APRAST ☒ APAC-AIG ☐ SRP WG ☒ SEI WG ☐ AP-RASP WG
☒ ICAO APAC RO ☐ ICAO HQ ☒ APAC States/Administrations ☒ Other: Industry</td></tr>
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Discussion on Just and Fair Culture

by SEI WG

Just & Fair Culture (Discussion)

Definition: Just Culture as an environment that encourages people to share safety-related information while also clearly defining acceptable and unacceptable behavior. It is also known as a "trust culture" or an "open reporting environment".

Aim: The aim of a Just Culture is to promote continuous learning from previous mistakes and to encourage pilots/ employees to openly and freely share essential safety related information.

What is Acceptable and Unacceptable Behaviour

- Flight Operations
- Maintenance & Engineering
- Cabin Services
- Flight Dispatch & Load Controllers
- Office environment

Patrick Hudson Model

James Reason Model

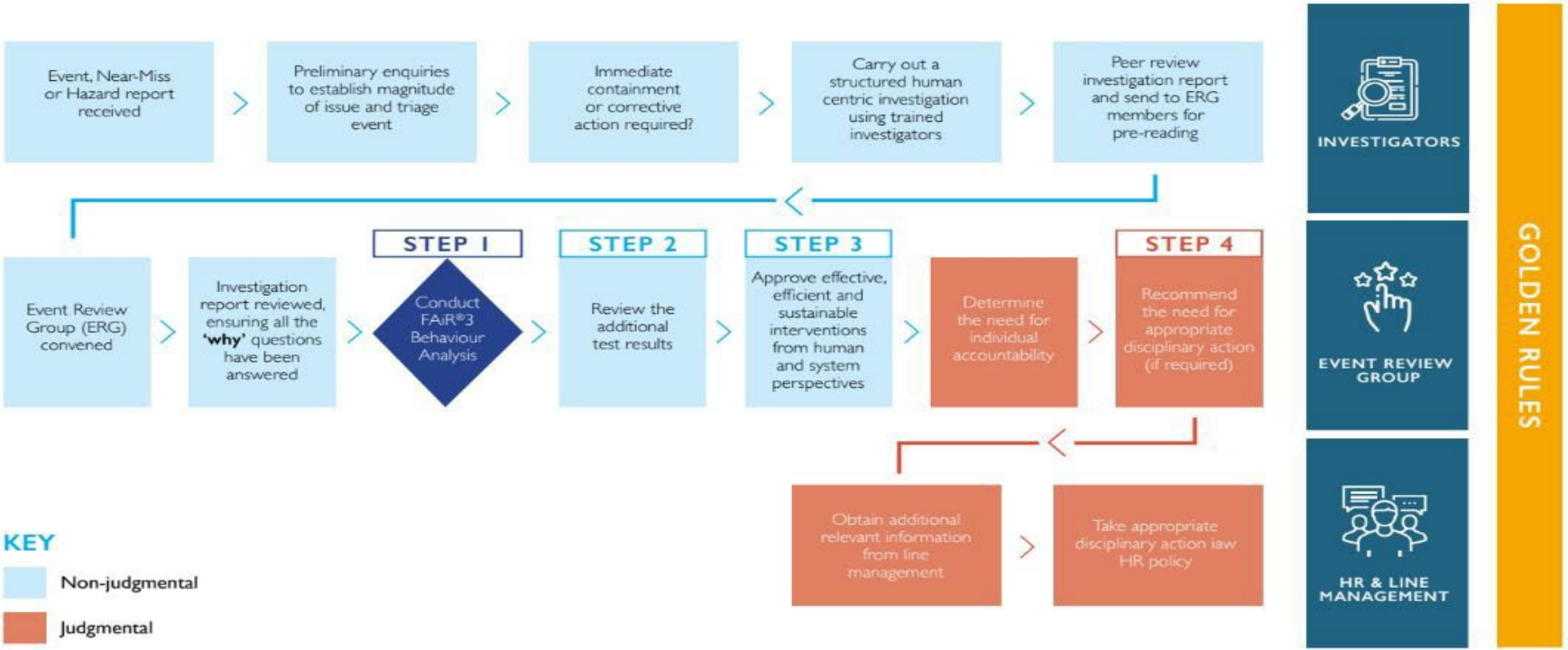
Baines Simmons FaiR Tool (3.3) (credit Baines Simmons FaiR Tool 3 from slides 3-12)

12 Golden Rules of Using FAiR®3

Pre-Event Review Group (ERG) Meeting	
1	Use the FAiR®3 User Guide. It is there to help and guide you and to provide consistency of results.
2	Ensure a Human Factors based investigation has been undertaken by at least two competent investigators; typically, one Subject Matter Expert (SME) and one non-SME, ideally independent from the work area involved. They should use a standardised taxonomy and report format, such as Baines Simmons' SAFE® or Boeing's MEDA, and replace the names of the individuals involved with 'tags' to maintain confidentiality.
3	Select competent and trained Event Review Group (ERG) members (typically an odd number to aid decision-making). Note: To minimise bias and preserve impartiality the ERG board should ideally not include Managers from the department or area in which the event occurred (although they could be consulted as SMEs in the development of interventions).
4	Verify the report is complete and of an adequate standard. It should clearly identify the contributory factors and have dug deep enough to understand 'Why' it happened from a management system perspective and not simply focusing on the individuals involved. If not, clarify any discrepancies with the investigators or request further investigation before proceeding.
During-Event Review Group (ERG) Meeting	
5	Approve the report recommendations or raise additional recommendations as required; ensuring that they will be effective, efficient, sustainable and SMART. Assign ownership and timeframes for completion to all agreed recommendations and track progress to implementation.
6	When considering individuals' actions remember to review the event from the perspective of those involved with the information they had available to them at the time, taking into account their knowledge levels, focus of attention and competing goals. Consider all levels of the organisation to ensure fairness and transparency.
7	Classify the behaviour types of key specific actions based solely on the facts contained within the report and not on personal opinion, perception and assumptions.
8	Review the results of the Substitution and Routine Tests conducted by the investigation team (see page 14) to provide support to Step 7.
9	Reach a conclusion every time; there is no need to spend excessive amounts of time perfecting the spelling and grammar within the report.
10	The Chairperson should add additional remarks to the report explaining any split decisions on accountability or anything else specifically requested by senior leadership.
Post-Event Review Group (ERG) Meeting	
11	Ensure feedback is given to those involved in the investigation and, if appropriate, consider using the event as a 'lesson learned' example in training and safety communication programmes (maintaining the confidentiality of those concerned): - To facilitate organisational learning by increasing the awareness of the contributory factors across the wider organisation, and not simply in the area involved. - To promote the value and consistency of using the FAiR®3 System in support of a Just Culture.
12	Record all ERG proceedings for any future review, analysis and assurance purposes, as well as to hold the review group to account for their decisions.

FAiR®3 is entirely predicated on information gathered during a 'human-in-the-system' investigation, conducted by trained investigators. It should not be used in isolation or without an objective, non-judgmental and comprehensive investigation being conducted first.

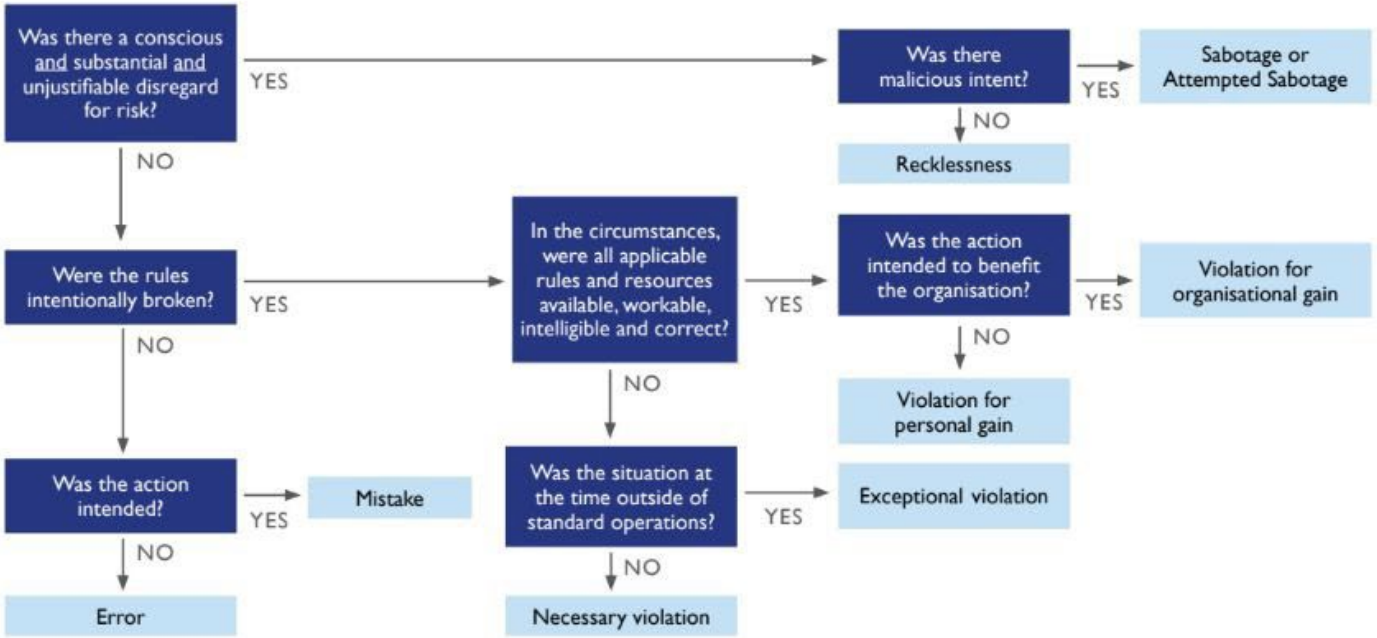
FAiR®3 Process Flowchart



STEP 1: Classify the Behaviours (continued)

FAiR®3 Behaviour Identification

START: Review the factual, non-judgmental, human performance oriented investigation data provided by your trained investigators



STEP 2: Apply the Additional Tests

These tests and activities are designed to help the ERG confirm or modify the results of the behaviours analysis on page 17 (Figure 6). The Additional tests cannot be conducted inside the ERG because the ERG board do not have immediate access to the individual's peers nor do they necessarily understand the culture in which the individual was operating. Therefore, the substitution and routine tests must be carried out by the investigators prior to the ERG sitting. The results should be provided to the ERG stating which organisations and how many people were consulted and the number of supporting statements received.

The Substitution Test

Would another person with the same levels of professional education, training and experience behave in the same way in the same circumstances?

This test is used to assess whether a peer might have reasonably followed the same course of action under similar circumstances. The term peer in this context means somebody of a similar grade, rank and/or certification capability and level of experience as the individual under review.

If the answer is yes, the recommended interventions need to primarily address systemic weaknesses in the organisation; they may also need to focus on the culture within the area involved.

The Routine Test

Has this event happened before to either the individual or to the organisation?

This test requires an evaluation of existing safety data and/or reference to other information either from the original investigation or undertaken on behalf of the Safety Manager. The response to the routine test helps to verify the findings of the Substitution Test.

If the organisation has experienced similar occurrences previously and remedial actions were put in place then we need to ascertain why they have failed to prevent reoccurrence. If the event has happened before to this individual that does not instantly mean that the individual is at fault or incompetent. It is important to assess the situation, task, etc. and understand why this individual has not performed as expected.

Test Results

Evaluating the results of both the Substitution and Routine Tests:

- Will have a direct influence upon determining the most appropriate interventions.
- May diminish the level of individual accountability.

STEP 3: Identify Effective Interventions

Specific: Ensure the recommended intervention is a clear and specific action that includes a verb, i.e. somebody must do something.

Measurable: Is it clear when this action will be complete; have you made it quantifiable?

Assignable: The action needs an owner. This should be the person who is accountable for ensuring the intervention is implemented.

Realistic: Ensure the intervention is achievable, within the scope of the actioned, and that they have adequate time to complete it.

Time Bounded: Ensure that there is a time frame within which the intervention should be completed and then check that it has been.

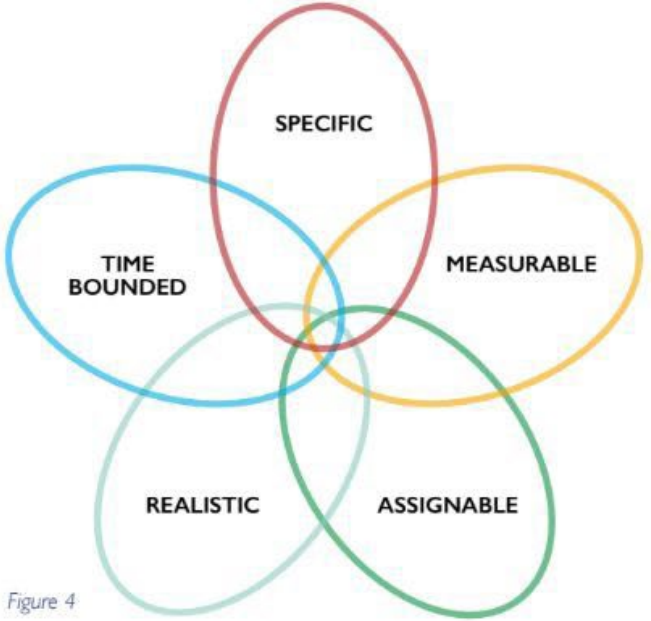


Figure 4

Interventions also need to be:

Effective: They need to address the actual problem in order to prevent re-occurrence, or minimise its likelihood.

Efficient: If they eliminate the problem but the 'cost' to the business is that it cannot realistically operate then the recommendation needs to be reviewed.

Sustainable: The recommendation should not be a quick fix that will be forgotten in 6 months' time, or when staff leave and new staff arrive.

STEP 3: Identify Effective Interventions (continued)

Addressing Specific Error Types

If we understand what causes specific error types then we can use that information to develop more effective interventions

- **Errors** are skill-based failures that occur at the point of execution. They are usually associated with tasks that require little conscious attention. Distraction is a common cause for these types of error.

- **Mistakes** are knowledge or rule-based and involve failures in decision making and judgement. Either the individual does not possess the requisite knowledge to undertake the task, was misapplying a rule of thumb, or the rules and procedures they were supposed to follow were ambiguous for the situation.

- **Violations** are motivation-based and involve a conscious decision to deviate from the rules and procedures. Violations are often driven by the social context, which either directly or indirectly condones the behaviour.

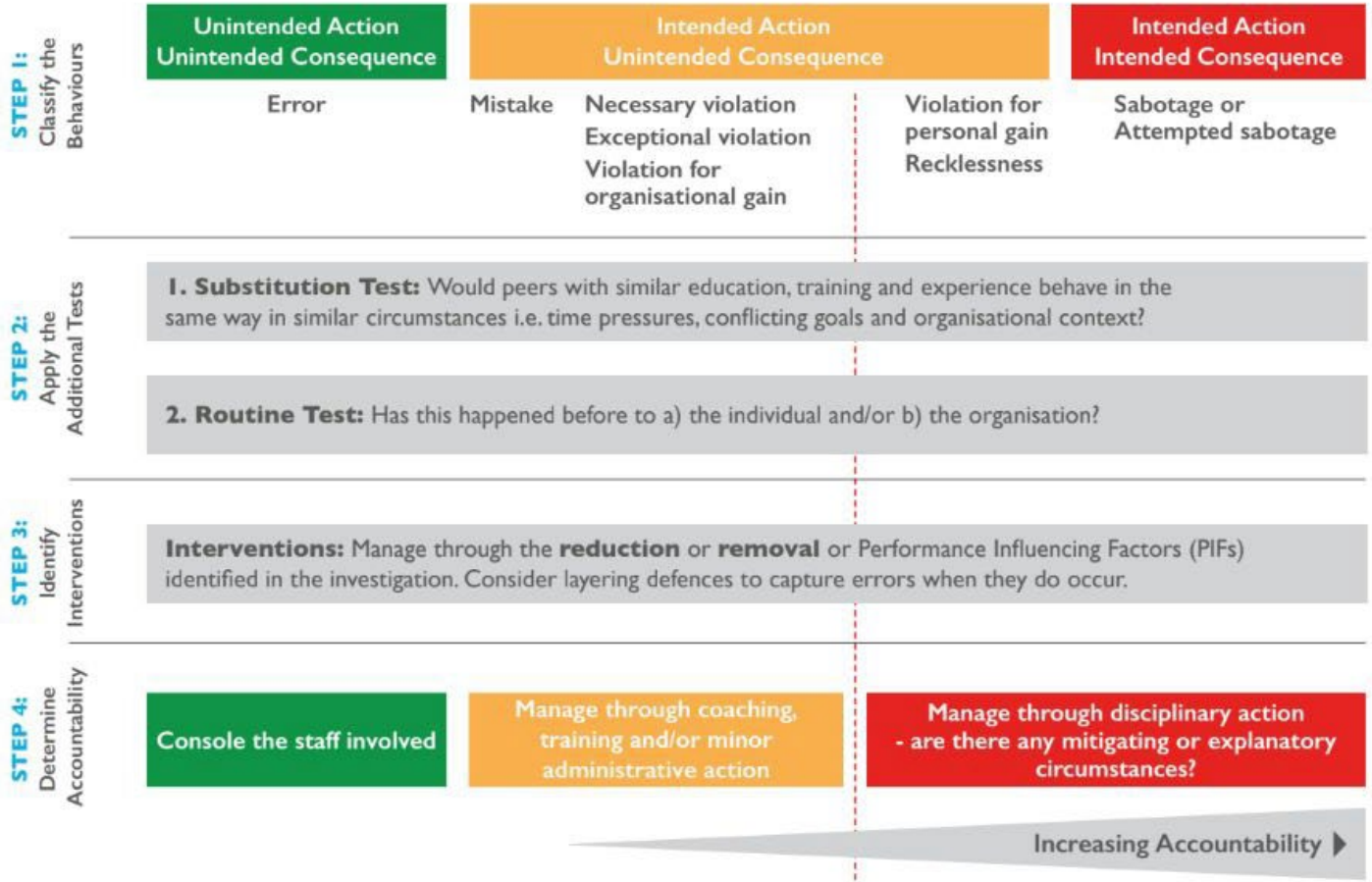
Figure 5

Interventions based on error types

Once behaviour types and their precursors have been determined from factual evidence gathered following a human factors oriented investigation, appropriate interventions can be developed using the table below.

Behaviour type	Intervention
Error	**System** - Review task for human performance issues esp. if errors occur regularly. Look at the system defences and conditions that are not optimised for human performance. What can be done to reduce the likelihood of the error or capture the error when it does happen. **Individual** - Console.
Mistake	**System** - Look at the training and education system, understand why the individual lacked the correct knowledge or did not know how to apply it in the circumstances and address those issues. **Individual** - Address through performance management and training.
Necessary Violation	**System** - Find and follow the goal conflicts. Assess discordance between management priorities and staff understanding. Ensure management goal priorities are clearly and fully presented to all appropriate staff. Review processes and procedures as required. **Individual** - Address through organisation-wide performance management and training.
Exceptional Violation	**System** - Why was this situation unexpected? Ensure that appropriate procedures, equipment and training are in place for similar future occurrences. Brainstorm other potential but realistic unusual circumstances and develop processes and procedures for staff to deal with them and test them. **Individual** - Address through training.
Violating for organisational gain	**System** - Review the normative behaviours and the cultural drivers for those behaviours across the organisation. Address the organisation's cultural issues. **Individual** - Address through performance management and training.
Violating for personal gain	**System** - Understand the context and underlying causes, address these to prevent reoccurrence with other staff. **Individual** - Manage through appropriate disciplinary action.
Recklessness	**System** - Understand the context and underlying causes, address these to prevent reoccurrence with other staff. **Individual** - Manage through appropriate disciplinary action.
Sabotage	**System** - Understand the context and underlying causes, address these to prevent reoccurrence with other staff. **Individual** - Manage through appropriate disciplinary action.

STEP 4: Determine Accountability (continued)



Appendix 2: Behavioural Classification Definitions

Error	An error is the failure of a planned action to achieve its desired goal, where this occurs without some unforeseeable or chance intervention. In other words, the plan of action was entirely appropriate but the resulting performance was not as intended. Errors are associated with familiar activities that require little conscious effort: they are simple, frequently-performed physical actions that go wrong, and are caused by recognition failures (misidentifying information or not detecting critical information) attentional slips and memory lapses. For example, inadvertently flipping on the windscreen wipers when you meant to use the indicators, writing down the wrong digits when recording a telephone number, making your colleague a cup of tea when they asked for coffee, or forgetting to complete a step of a task because of an interruption or distraction.
Mistake	Mistakes are deficiencies or failures in judgement i.e the individual is aware of the issue and has chosen an action that is incorrect. Mistakes can be rule-based or knowledge-based in origin. Rule-based mistakes include misapplying a good rule (assumptions) or applying a bad rule (habits). Misapplying good rules can happen in circumstances that share common features for which the rule was intended but where significant differences are overlooked. For example, using known good information based on knowledge of one aircraft type but on a new type of aircraft where it is no longer applicable. Knowledge-based mistakes are the result of new problems or novel situations in which the individual finds themselves. For example, planning an unfamiliar route with an out of date road atlas.
Violations	Violations are deliberate acts where people mean to break the rules or not comply with procedures, though they generally do not intend for the bad outcomes that sometimes result. Violations can be subdivided further into necessary violations, exceptional violations and violations for personal gain.
Necessary Violation	Where deliberately not following the rules was the only way to complete the task i.e. it was necessary to violate the rules in order to finish the job with the resources available. Individuals may assert that, given the circumstances in which they found themselves, the only way to get the task done was to break the rules. For example, using incorrect equipment during a maintenance task because the correct equipment was unserviceable at the time, or logistics drivers speeding to complete the day's over ambitious delivery schedule.

Appendix 2: Behavioural Classification Definitions (continued)

Exceptional Violation	These are created by exceptional, unusual or one-off events, where staff feel they have to improvise because of a lack of clear instructions specific to that particular circumstance.
Violating for organisational gain	This is a catch-all term used for violations that are not covered elsewhere, which an individual believes is worth taking for the benefit of the organisation. They happen for a number of reasons, e.g. the individuals are often not aware of the risks they are introducing. They think that is what management wants, corner-cutting, get the job done quickly or everybody else is doing it that way.
Violation for personal gain	Deliberately not following rules with the aim of benefiting the individual in some way. 'Thrill-seeking' as a means of alleviating boredom or as a demonstration of ability or skill. For example, not completing a task properly to get away from work on time; not using the correct equipment because it requires effort to obtain or taxiing at excessive speeds to meet a personal deadline. Practical jokes or initiation rites are prevalent forms of these violations.
Recklessness	A conscious and substantial and unjustifiable disregard of visible and significant risk. Whilst there is no intent to do harm to others, recklessness implies that an individual knowingly ignored the potential consequences of their actions. For example, coming into work under the influence of alcohol or knowingly operating a sector in an excessively fatigued state having voluntarily not taken the required rest period.

Thank You!

BOEING
CHIEF AEROSPACE
SAFETY OFFICE

Hard Landing Assessment

Ensuring a Balanced & Proportionate Approach

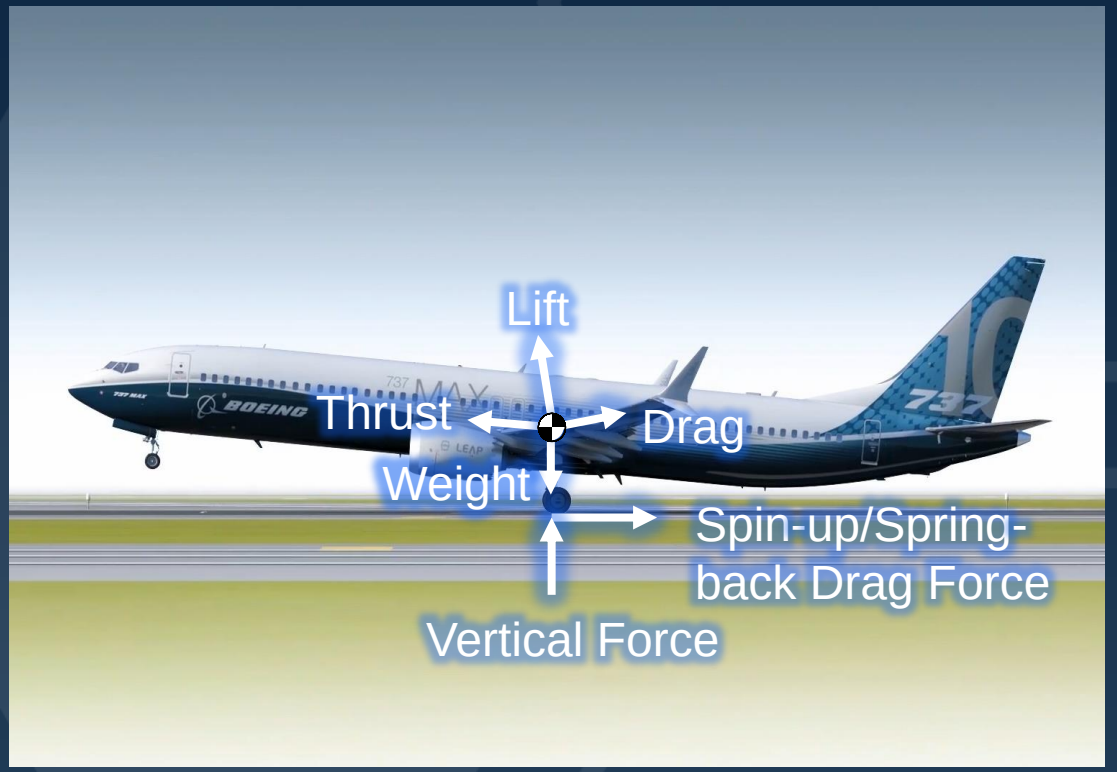
Jack Hagelin
Senior Technical Fellow
Flight Engineering

22nd Meeting of the Asia Pacific Regional
Aviation Safety Team (APRAST/22)
Bangkok, Thailand, 1 Oct 2024

Landing Sequence of Events

- As the aircraft touches down:

1. The inertial resistance of the wheel spinning up pulls the landing gear back like a stiff spring and then it rebounds after wheels reach rolling speed
2. Landing gear absorbs the energy to arrest the touchdown sink rate
3. Spoilers deploy, compressing the landing gear as the aircraft weight transitions from being carried by the wing to the landing gear
4. The pilot rotates the airplane down onto the nose gear
5. Thrust reverser deploy, decelerating
6. Brakes are applied, further decelerating



The combination of these events in short sequence causes complex/dynamic structural resonances

What is a Hard Landing?

ANSWER: A Hard Landing occurs when the structural loads may have exceeded the design limit loads of the aircraft structure as defined in FAA/EASA Part 25 regulations.

QUESTION: What causes the structural design limit loads to be exceeded?

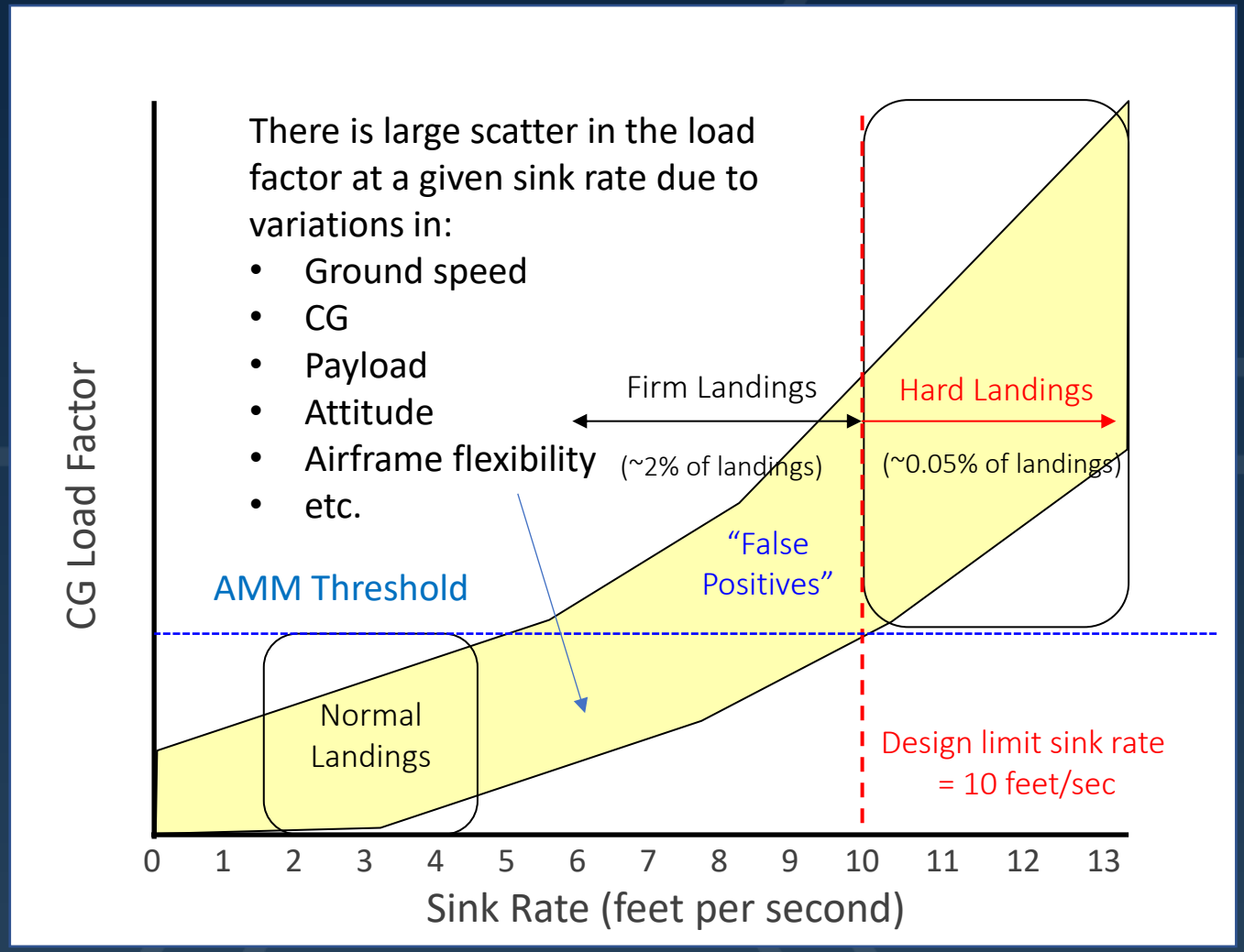
ANSWER: If the rate of descent (or sink rate) of the aircraft exceeds 10 feet per second (~3.1 meters per second), then the structural loads may have exceeded the design limit loads, depending on other parameters, such as cg, pitch attitude, ground speed, payload distribution, bank angle, etc.

How are Hard Landings Determined?

- The flight crew's judgment is the most reliable qualitative criterion for determining if a hard landing has occurred. Flight crew are generally conservative.
- Quantitatively, modern aircraft are able to directly measure Sink Rate
  - Measuring Sink Rate at the moment of touchdown is the most accurate/direct way to numerically measure if a hard landing has occurred because Sink Rate is the parameter to which the aircraft is designed.
- Earlier aircraft models rely solely on accelerometer measurement – sometimes referred to as "CG Load Factor" (measured in g's)
  - This method is indirect and not as accurate because:
    1. The aircraft is not a rigid body – meaning that an aircraft is highly flexible and responsive to the dynamic loads that occur at the moment of touchdown – not all points on the aircraft experience the same "G" and yet an accelerometer measures one location on the airplane.
    2. Other parameters associated with Landing, like attitude, ground speed, payload, etc. cause a large variation in the CG load Factor for any given sink rate.

CG Load Factor vs. Sink Rate

- The Vertical Speed flight parameter is not accurate near the ground, hence cannot be used as hard landing indicator
  - Aerodynamic ground effects
  - Recording sample rate
- AMM threshold is set to a conservatively low value to ensure the inspection can be safely waived.
- Due to large scatter in load factor vs. sink rate, it is possible for AMM threshold to be exceeded for landings that are not above design sink rate.
- Statistically, the vast majority of AMM threshold exceedances are “firm”, not “hard” landings.



Why do we Need to Know?

- If a hard landing is suspected to have occurred, a structural inspection is required
- If a hard landing did occur, structural damage may have occurred and must be repaired
- Virtually all reported hard landings do not result in any damage
- Structural inspections are expensive and time consuming
- Accelerometer thresholds were originally introduced as a way to safely determine if a structural inspection could be waived
- These thresholds are conservative in nature, and do not necessarily indicate that a hard landing definitely occurred

AMM Load Factor thresholds were never intended to be hard landing indicators

Industry Concerns

- Safety risks associated with hard landings are often perceived to be greater than they truly are
  - The bodily sensations at landing are perceptible to everyone who flies; even firm landings startle people
- Just Culture is needed: pilots have been penalized for “Firm” or “Slightly Harder than Normal” landings
  - Pilot performance is sometimes associated with how “gentle” the landing is felt to be

- Punitive actions for “Firm” or “Sightly Harder than Normal” landings tend to cause pilots to focus on achieving a landing that feels soft to the exclusion of other important parameters

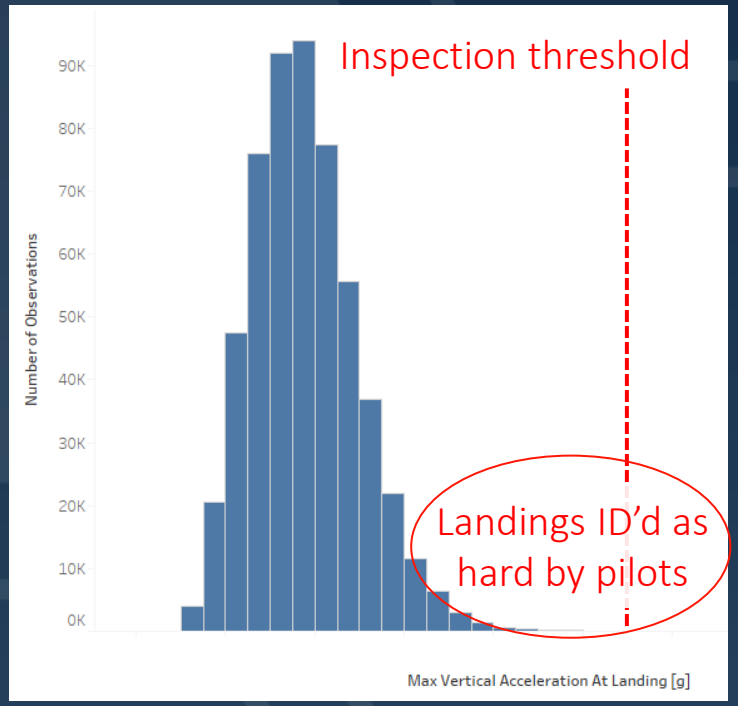
Unstable approaches, longer flares, missed touchdown zones, etc. increase runway excursion risk

Viewing Hard Landings in Proportion to Risk

- Boeing conducted a study based on 570,000 flights by 737 NG/MAX operators
- With regard to structural load limit, **99.97%** of landings were found to be below the AMM Load Factor inspection threshold, which is itself conservatively below the threshold of a hard landing

Many pilots tend to be conservative in what they report as a hard landing

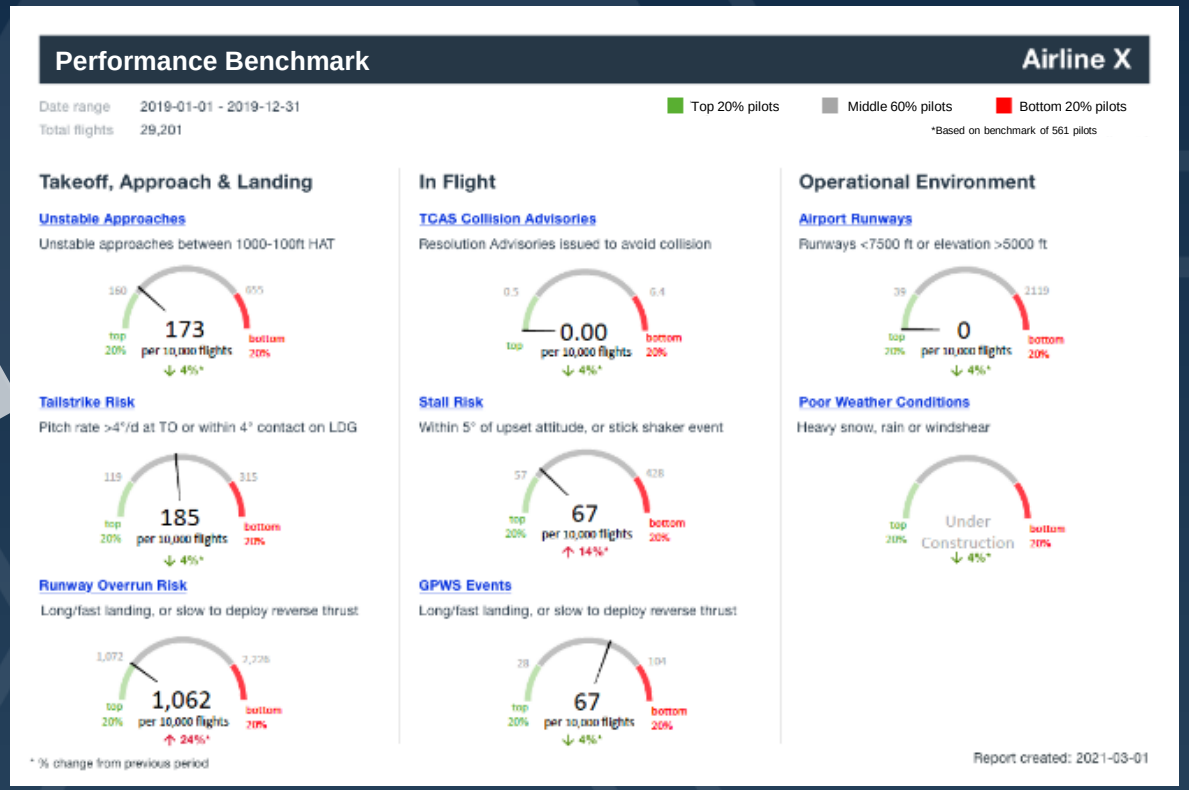
- Firm landings are rare, and feel significantly harder than normal landings
- Less than 1% of these are actually “hard” landings from a structural limit load perspective



Avoiding Unintended Consequences

- The industry must actively discourage disproportionate attention given to hard landings at the expense of other important Safety Performance Indicators (SPIs)
  - Pitch rate on take-off
  - Climb out speed high
  - Pitch attitude high during take-off
  - Excessive heading change (approach)
  - Rough taxiing (excessive speed / braking)
  - Deviation above glideslope
  - High rate of descent (<100ft)
  - Spoiler used at low altitude
  - Late landing flap
  - Approach speed high (<1000ft)
  - Deviation below glideslope
  - Late flare (<20 feet)
  - Long flare (duration from flare height)
  - Long or short landing
  - Abnormal pitch landing (low)
  - Excessive bank on landing (below flare height)

Examples (not exhaustive)



Key Takeaways

- Reduce the risk of tail strikes, long landings and runway overruns by discouraging the inappropriate use of the CG Load Factor as an SPI
- CG Load Factor is not an accurate measure of a hard landing and should be used only as a structural inspection threshold
- Pilot performance should be measured holistically without overly weighting lower risk parameters

Airlines and regulators should work together to ensure hard landings are not disproportionally prioritized as an SPI compared to the actual risk they pose

Questions / Feedback

APRAST'S SAFETY ENHANCEMENT INITIATIVE WORKING GROUP

APRAST/22| September 30 – October 4, 2024

SEI WG WORKING PAPERS

- WP/X – Establishing a Mechanism for Addressing Global High-Risk Categories – Runway Safety
- WP/X – SEI Output Revision for RE/7
- WP/X – Establishment of RASG-APAC Safety Advisory
- WP/X – Focused Discussion: Safety Culture and the Adverse Impacts of Hardline Organizational Policy

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- The SEI WG has reviewed, developed, and published several high-level safety outputs that are designed to address the ICAO's Global High-Risk Categories (G-HRCs). These guidance materials are helpful but remain broad and do not indicate any prioritisation for implementation.
- At APRAST/21, the APRAST co-chairs challenged the SEI WG to identify new methodologies to better understand the region's safety enhancement implementation challenges. The APRAST also agreed that identification and prioritisation of safety fundamentals for each G-HRC was necessary.
- There is also a need for these fundamentals to be supported by specific guidance, utilising existing resources where necessary. This would be supported by a granular implementation tracking template to better understand regional implementation status and provide feedback on areas where further resources are needed.

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- In an ongoing effort to develop a model to prioritize safety issues, the SRP WG conducted an exercise at APRAST/21 using an existing G-HRC to test the validity of a proposed process.
- The SRP WG examined multiple data sets including, but not limited to, the Annual Safety Report, FSF's APAC Accident Dashboard as well as global concerns by reviewing runway safety trends in other regions.
- APAC averages 2.6 runway incursion accidents / serious incidents per year between 2017 and 2022, making it the highest region together with EURNAT with RI events.

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- The SRP WG identified the following primary causal factors;

  a) Communications: incorrect phraseology or communication procedures by pilot and/or controller, including hear-back, read-back, and misunderstandings.

  b) Loss of position and traffic awareness by pilot and controllers.

  c) Issues concerning ATC training.

  d) Lack of Flight Deck Crew Resource Management (CRM).

- The SRP WG highlighted that 40% of APAC States currently have low EI scores with respect to the implementation of the basic building blocks for aerodrome and ground aides in at least of one the following areas: aerodrome design, aerodrome maintenance and/or operational area management.
- The SRP WG determined these areas, <u>if properly implemented</u>, can also help mitigate the possibility of runway incursions.

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- Increased focus on the G-HRCs of Runway Incursion (RI) and Runway Excursion (RE) is pertinent given the growing occurrence rate of taxi errors which are precursor events to RIs highlighted by Singapore at APRAST/20 and considering the most recent runway incursion and subsequent collision that occurred at Haneda Airport.
- At APRAST/21, the SEI-WG agreed to pursue a new methodology in addressing runway safety to complement existing safety outputs found on the ICAO website.
- The Global Action Plan for the Prevention of Runway Incursions (GAPPRI), published in 2024 under the framework of the ICAO Global Aviation Safety Plan and Global Aviation Runway Safety Action Plan, was chosen as suitable reference material for this work.

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- The GAPPRI report part 1 contains 127 actionable recommendations for States, airport operators, air navigation service providers, aircraft operators, manufacturers, and the research community.
- These tasks need to be prioritised to ensure the most effective implementation of fundamental safety recommendations. The prioritisation would also consider the resource burdens associated with the implementation of some recommendations and the varying levels of effective implementation (EI) across the APAC region.
- In advance of the GAPPRI part 2 being published (August 2024), the Working Group proceeded with the prioritisation of recommendations.

Categorisation	Definition
Essential	These recommendations are considered to be easily implemented with notifications/minor changes to procedures and require minimal or no training, cost and resources. OR These are critical, basic standards that are required to maintain a minimally acceptable level of safety and support the basic implementation of ICAO standards.
Intermediate/ **Mid-term**	These recommendations are considered moderately difficult. They enhance safety beyond basic standards and may carry some associated implementation difficulty, cost, resources, or training requirement. Implementation may require a staged approach and a hazard identification/risk assessment exercise. The recommendation may not be applicable to all States. This may include the implementation of "off the shelf" technological solutions that are currently available but carry an associated cost. They are strongly recommended best practices that support ICAO standards and recommendations.
Advanced/ **Long-term**	These recommendations are considered complex. They require significant effort and resources to implement. The ICAO standards and recommended practices for these recommendations may not yet have been developed. These may be emerging technologies that are not yet widely available. They may have a long implementation timeline.

	Recommendations		
Work area	**Essential**	**Intermediate/Mid-term**	**Advanced/Long-term**
Aerodrome operators	26 (65%)	7 (17.5%)	7 (17.5%)
Aircraft operators	27 (84.5%)	4 (12.5%)	1 (3%)
States and Regulators	16 (89%)	1 (5.5%)	1 (5.5%)
Air navigation service providers	23 (64%)	10 (28%)	3 (8%)
Research and development	0 (0%)	0 (0%)	8 (100%)

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- A more granular implementation tracking template was developed to understand the regional implementation status of the GAPPRI recommendation and provide feedback on areas where further resources may be required.
- This implementation tracking template is intended to supplement the current APRAST monitoring tool.
- During APRAST/21, the SEI WG members highlighted that tracking the implementation of all aerodromes and aircraft operators may not be an effective use of resources given their size, type of operation, and volume. It was
- It was agreed to focus the effort towards collecting information from the service providers that handle ~80% of the individual State's international operations.

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

No.	Guidance	*Reference Sources*	*Data Sources*	Implementation					
				Aerodromes				ANSP	
				(insert aerodrome name 1)		*(insert aerodrome name 2)*		*(insert ANSP name)*	
X	**Example:** State the specific recommendation and highlight the intended target group (if not applicable to all) e.g. Aerodrome operators to establish local runway safety teams	The source reference for the guidance. Can include more than one source (GAPPRI rec reference)	*Insert source (e.g. ICAO/IATA IOSA/CANSO). Where the data is not open source, to provide a copy in the relevant SEI WG ICAO portal folder*	Select Yes or No to indicate full implementation. N/A should only be selected for recommendations that are indicated as not applicable in the guidance material. If fully implemented, indicate the date of implmentation e.g. March 2024. If not yet implementated, the current status of implementation should be indicated e.g. awaiting regulatory approval					
ESSENTIAL									
1	Aerodrome operator to establish a local runway safety team	*GAPPRI ADR1*	ICAO Runway Safety Team Handbook	Select	*MMM-YY*	Select	*MMM-YY*	Select	*MMM-YY*
1A	Annually assess own contribution to the effectiveness of the aerodrome local runway safety teams (LRSTs), including the existence and implementation of runway safety action plans.	*GAPPRI ADR1*	ICAO Runway Safety Team Handbook	Select	*MMM-YY*	Select	*MMM-YY*	Select	*MMM-YY*

APRAST | Safety Enhancement Initiative Working Group

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

- The data sources referenced in the document are intended to be suitably specific such that the user does not need to search for the relevant information.
- The implementation tracking template will be tested by an air operator in advance of the APRAST/22 with feedback to be considered by the SEI WG.
- The SEI WG intends to finalise the template during APRAST/22 for distribution by State Letter and completion in accordance with a five-month timeline.

Must stress to States and Industry, this is not an audit and should not be viewed as non-compliance if not implemented.

- The results of each area will be collated and discussed during APRAST/23 for the consideration of the plenary.

ESTABLISHING A MECHANISM FOR ADDRESSING GLOBAL HIGH-RISK CATEGORIES – RUNWAY SAFETY

The Meeting is invited to:

a) Note the progress of the SEI WG in developing a prioritisation and implementation tracking mechanism as agreed during APRAST/21;

b) Consider the implementation tracking template for the GAPPRI recommendations;

c) Adopt the proposed mechanism for future SEI topic, commencing with FSF's GAPPRE – to address Runway Excursions; and

d) Agree to the timeline of events detailed in paragraph 2.2.4.

SEI OUTPUT REVISION FOR RE/7

- Completed SEI outputs may need to be revised or removed as the SEI outputs due to technological improvements and the increasing complexity of the operating environment.
- Outputs must be current for implementation by APRAST members to cope with the identified risk.
- As of APRAST/19, all 17 SEI outputs have been reviewed by the SEI WG.
- The SEI Runway Excursion (RE)/7 safety output, *Guidance material and training program for runway pavement, maintenance and operations from aerodrome operator's perspective*, constitutes the first of the 2nd round of SEIs to be reviewed and revised accordingly.

SEI OUTPUT REVISION FOR RE/7

- Runway Safety (RS) is a global and regional high-risk category of occurrence respectively identified in the Global Aviation Safety Plan and the Asia Pacific Regional Aviation Safety Plan.
- RASG-APAC/4 endorsed guidance material and a training programme for aerodrome operators in November 2014, known as RE/7.
- The purpose is to help reduce the risk of runway excursions by providing aerodrome operators with guidance materials and training in the form of courses and seminars on runway maintenance and operations based on Annex 14 SARPs and industry best practices.

SEI OUTPUT REVISION FOR RE/7

- Thank you to those States/Administrations and Industry Organizations for providing their feedback in 2023.
  - Macao – China, Hong Kong - China, Indonesia, and US CAST
- Over 16 items of feedback were considered during the review which necessitated revisions.

RE/7 is still considered current and valid for implementation.

SEI OUTPUT REVISION FOR RE/7

- Special thanks to ACI for championing the revision.
- With respect to recommendations and suggestions received from the APRAST members, the SEI RE/7 output revision encompasses the following changes:
  - updated the guidance material for ACI's Runway Safety Handbook;
  - added the guidance material for ACI's Airfield Maintenance Handbook;
  - added ACI webinar recordings and training courses for implementing the Global Reporting Format (GRF);
  - updated the correct link to ACI's Runway Safety Management training course;
  - formatted the SEI safety output in accordance with template and preamble found in the 3rd edition of the RASG-APAC Procedural Handbook; and
  - added specific actions to be completed by the Aerodrome Operator and State Regulator for clarity.

SEI OUTPUT REVISION FOR RE/7

The Meeting is invited to:

a) Note the process and changes to the revised safety output;

b) Approve the proposed RE/7 output revision attached in this working paper as empowered by the APRAST;

c) Inform the RASG-APAC members of the SEI revision for their implementation and update the safety tools section on the ICAO APAC website;

d) Continue to support the work of SEI WG and provide experts and champions to assist the development of future Safety Enhancement Initiatives when needed.

ESTABLISHMENT OF RASG-APAC SAFETY ADVISORY

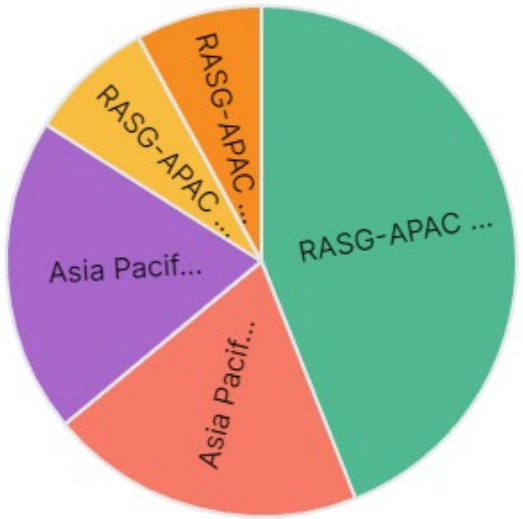
- At APRAST/20, the SEI WG co-chairs set a vision to complement the SEI development process by brainstorming multiple communication mediums to share safety information for safety matters not requiring a full 10-step process.
- The goal is to have a mechanism that allows for timely dissemination of critical safety information and/or highlight specific mitigations found in existing guidance such as elements found in existing SEI safety outputs.
- At APRAST/21, a PA-RAST member stated they published their first RASG-PA Safety Issue Alert (RSIA) in May 2024 highlighting the increased risk of Increased Risk of Controlled Flight into Terrain due to Incorrect Altimeter Settings on RNAV Approach at Non-ILS airports.

ESTABLISHMENT OF RASG-APAC SAFETY ADVISORY

- Following APRAST/21, the SEI WG members agreed on the concept of a safety advisory like RASG-PA's RSIA and a poll was taken to decide on a name.

RASG-APAC Safety Advisory (RSA)	44% (11 votes)
Asia Pacific Safety Information Advisory (APSIA)	20% (5 votes)
Asia Pacific Safety Information for Regulators and Service Providers (APSIRS)	20% (5 votes)
RASG-APAC Advisory (RA)	8% (2 votes)
RASG-APAC Safety Issue Alert (RSIA)	8% (2 votes)

Total votes: 25



ESTABLISHMENT OF RASG-APAC SAFETY ADVISORY

- Multiple topics were discussed as potential first use case including:
  - Weather/turbulence (a topic receiving heightened attention recently)
  - Alpha numeric call signs (a topic discussed during APRAST/21 WP/9)
  - Upset Prevention and Recovery Techniques (SEI WG gap analysis on implementation ongoing)
  - Appropriate use of Enhanced Ground Proximity Warning Systems (guidance found in Appendix 7 of LOC/1 and CFIT/2 SEI Output)
  - FSF has identified emerging risks (SCF-NP, SCF-PP, and TURB discussed during APRAST/21 WP/12)

- The SEI WG also agreed that it would be beneficial to establish a social media presence as a mechanism to share the RSAs with the global aviation community. This is a RASG-PA best practice with over 1,000 subscribers.

ESTABLISHMENT OF RASG-APAC SAFETY ADVISORY

- At the RASG-APAC/13 in December 2023, the members decided to empower the APRAST and its Subgroups. APRAST can adopt, inter alia, Decisions and Conclusions related to "all technical and operational aspects of APRAST work within its TORs including the development of regional guidance material for publication in ICAO APAC website" (ref. RASG-APAC Procedural Handbook – 3rd edition, Appendix B, section 4.0).
- However, since the RSA is intended to be a RASG-APAC branded product, the SEI WG agrees it may be best to get the RASG-APAC's approval.

ESTABLISHMENT OF RASG-APAC SAFETY ADVISORY

The Meeting is invited to:

a) Approve the concept of a RASG-APAC Safety Advisory to help meet the need to disseminate safety information in a timely manner or highlight existing guidance;

b) Note the template used by RASG-PA to be adapted by the SEI WG; and

c) Discuss whether to table this at RASG-APAC/14 for approval considering the safety advisory is intended to be a RASG branded product.

FOCUSED DISCUSSION

- The SEI WG is introducing the idea of a "focused discussion" during the APRAST plenary.
- It is not intended to replace the specific efforts of the individual APRAST working groups but rather emphasize the ongoing effort to share safety information with States/Industry via multiple communication mediums that don't require the full process of SEI development.

We welcome active participation and a lively discussion.

FOCUSED DISCUSSION: AGENDA

Presentation	Time (BKK)
Introduction of Working Paper (*SEI WG Co-chairs*)	0905 - 0920
Setting the Safety Context (*SEI WG Co-chairs*)	0920 - 0930
Presentation by Boeing (*Jack Hagelin*)	0930 - 1030
COFFEE	**1030 - 1100**
Active Discussion (*Just & Fair Culture, Facilitated by SEI WG Co-chairs*)	1100 - 1200
LUNCH	1200

FOCUSED DISCUSSION: SAFETY CULTURE AND THE ADVERSE IMPACTS OF HARDLINE ORGANIZATIONAL POLICY

- Safety Culture are the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.
- An organizational culture is influenced by a set of commonly shared beliefs, expectations, and values that guide the thinking and behavior of organization members and influenced from the top leadership.
- The topic of a positive safety culture has received much needed focus over the past several years. Most recently…
  - RASG-APAC/12 WP/24, *Safety Culture and Effective Management of Risk*
  - APRAST/21 WP/10, *Examples and Indicators of a Positive Safety Culture*
  - Safety Culture Surveys
  - Multiple workshops and forums held throughout the world

FOCUSED DISCUSSION: SAFETY CULTURE AND THE ADVERSE IMPACTS OF HARDLINE ORGANIZATIONAL POLICY

- These efforts are very welcome as the intricacies of a safety culture can be an abstract concept difficult to grasp.
- It can be particularly difficult when trying to grasp a holistic view of the safety culture of independent organizations which share common goals such as a State regulator and operator connected by an overarching goal of safety.
- Continuous improvements in aviation safety must create a sustainable culture of safety through an open and transparent exchange of safety data and information between employees and management, and then between the State and the aviation community.
- This exchange of safety information must result in the transformation of accurate safety intelligence. Organizational policies informed by inaccurate safety intelligence can have adverse impacts on aviation safety.
- A recent analysis by Boeing on hard landings versus firm landings demonstrates this concept.

FOCUSED DISCUSSION: SAFETY CULTURE AND THE ADVERSE IMPACTS OF HARDLINE ORGANIZATIONAL POLICY

The Meeting is invited to:

a) Actively participate in a half-day focused discussion to ask questions and exchange ideas on the aforementioned concepts and risks with the goal of enhancing aviation safety in the region;

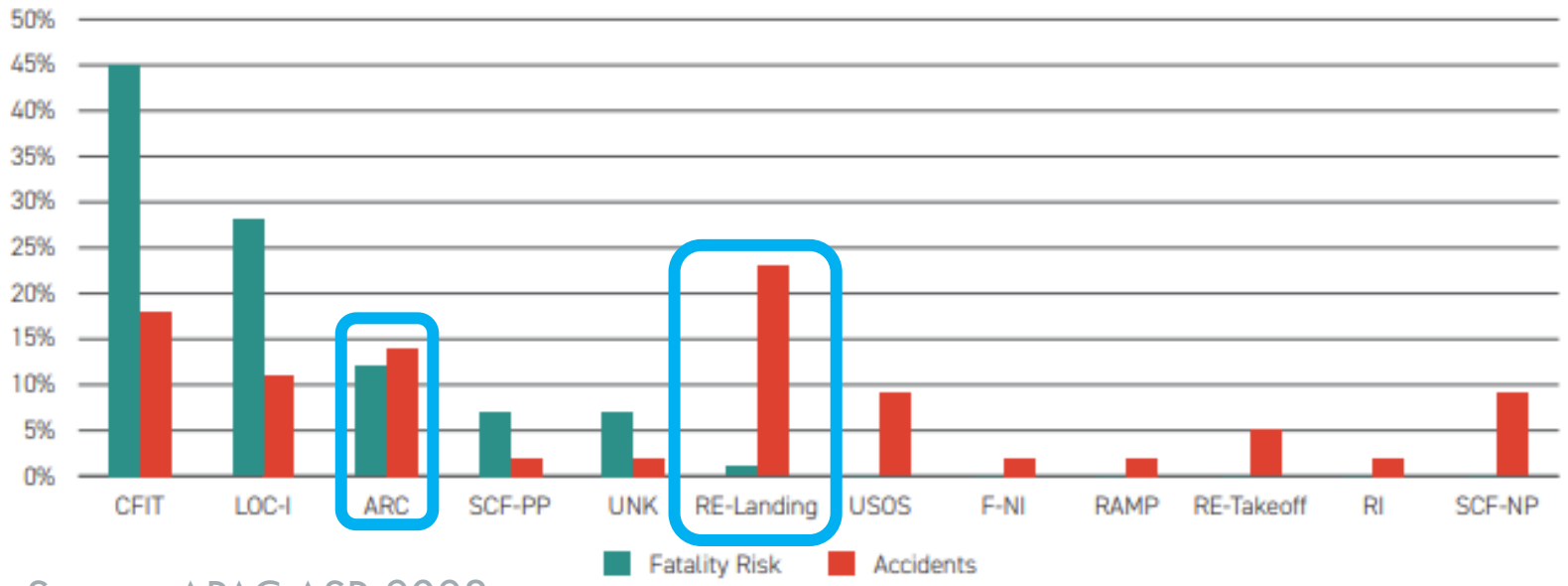
b) Share their perspectives, and views on the impact of a safety culture, to mitigate a disproportionate focus on hard landing at the extent of an increase to runway excursion risk; and

c) Provide feedback on the use and feasibility of the “focused discussion” mechanism for future APRAST plenaries to highlight specific safety topics and encourage open discussion.

FOCUSED DISCUSSION: SAFETY CULTURE AND THE ADVERSE IMPACTS OF HARDLINE ORGANIZATIONAL POLICY

- Some context into runway excursions and abnormal runway contact within the region.

Chart 6.3.1 Fatality and Accident Risks for High-Risk Accident Categories in APAC



Source: APAC ASR 2023, CAST

FOCUSED DISCUSSION: SAFETY CULTURE AND THE ADVERSE IMPACTS OF HARDLINE ORGANIZATIONAL POLICY

- In collaboration with AAPA, ACI, CANSO and IATA, FSF's Asia Pacific Centre for Aviation Safety (AP-CAS) identified precursors & contributing factors related to abnormal runway contact. Factors include, but not limited to:
  - Unstabilized Approach
  - A go-around was necessary but not conducted.
  - Holding off in the flare
  - **Latent conditions such as inadequate or absent SOPs, operational instructions and/or policies, inadequate company regulations and/or controls to assess compliance with the regulations and SOPs**

Source: Flight Safety Foundation, Regional Aviation Safety Assessment Fact Sheets: Highlights, link.

FOCUSED DISCUSSION: SAFETY CULTURE AND THE ADVERSE IMPACTS OF HARDLINE ORGANIZATIONAL POLICY

- Presenter: Jack Hagelin, Senior Tech Fellow | Loads and Dynamics, Boeing

Disclaimer: The statements found in paragraphs 2.1 – 2.5 of APRAST/22 WP/X are of Boeing and may not represent the view of all members of the SEI WG.