APRAST'S SAFETY ENHANCEMENT INITIATIVE WORKING GROUP

APRAST/21 | March 11-15, 2024

SEI WG AGENDA

Tuesday, March 12 or **Wednesday, March 13** or **Thursday, March 14** **One-day SEI WG Discussion (0900-1600)**	
0900-1030	SEI Process during the Last Decade • Presentation on SEI workflow and its challenges *[60 min.]* • Answer any questions as to the history of the SEI WG *[30 min.]*
1030-1100	*Break*
1100-1200	Moving Forward - SEI WG Vision • Continued collaboration with government and industry; support best practices and ongoing work programme *[10 min.]* • Strengthen the safety outputs through integrated and data-driven work processes. *[20 min.]* • Establish relationship with other RASTs for best practices *[30 min.]* - Presentation on Pan America Regional Aviation Safety Team (*Mr. Angel LUNA, FAA/CAST Pan American International Representative*)
1200-1300	*Lunch*

1300-1430	SEI Development • Coordination mechanisms between SRP WG and SEI WG *[30 min.]* - Safety issues referred by the SRP WG to SEI WG - Safety data/information: availability of precursor information - SEI versus safety advisory SEI WG Sub-group philosophy *[15 min.]* SEI Implementation • Discuss strategy to execute the implementation proposals made during Monday's Plenary *[45 min.]*
1430 -1500	*Break*
1500-1600	SEI Implementation continued… • Discuss strategy to execute the implementation proposals made during Monday's Plenary *[15 min.]* • Prioritized SEI Outreach – ask APRAST to prioritize the current HRCs to help influence the SEI WG work programme *[30 min.]* SEI Effectiveness • Importance of understanding SEI Effectiveness *[15 min.]*
End (1600)	

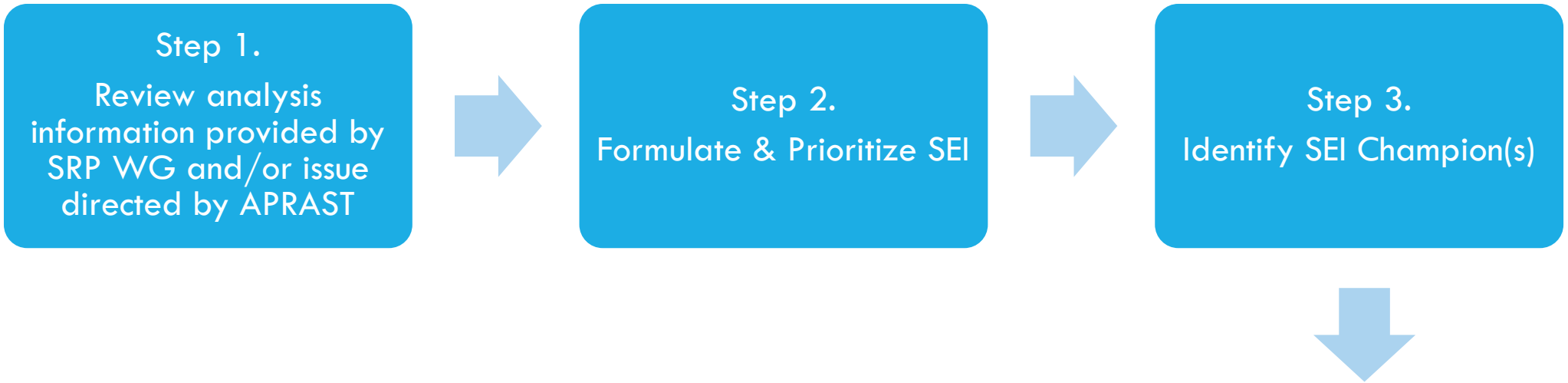
SEI PROCESS DURING THE LAST DECADE

0900-1030	SEI Process during the Last Decade • Presentation on SEI workflow and its challenges *[60 min.]* • Answer any questions as to the history of the SEI WG *[30 min.]*
1030-1100	*Break*

SEI PROCESS DURING THE LAST DECADE

APRAST Conceptual Framework

SEI PROCESS DURING THE LAST DECADE



SEI PROCESS DURING THE LAST DECADE

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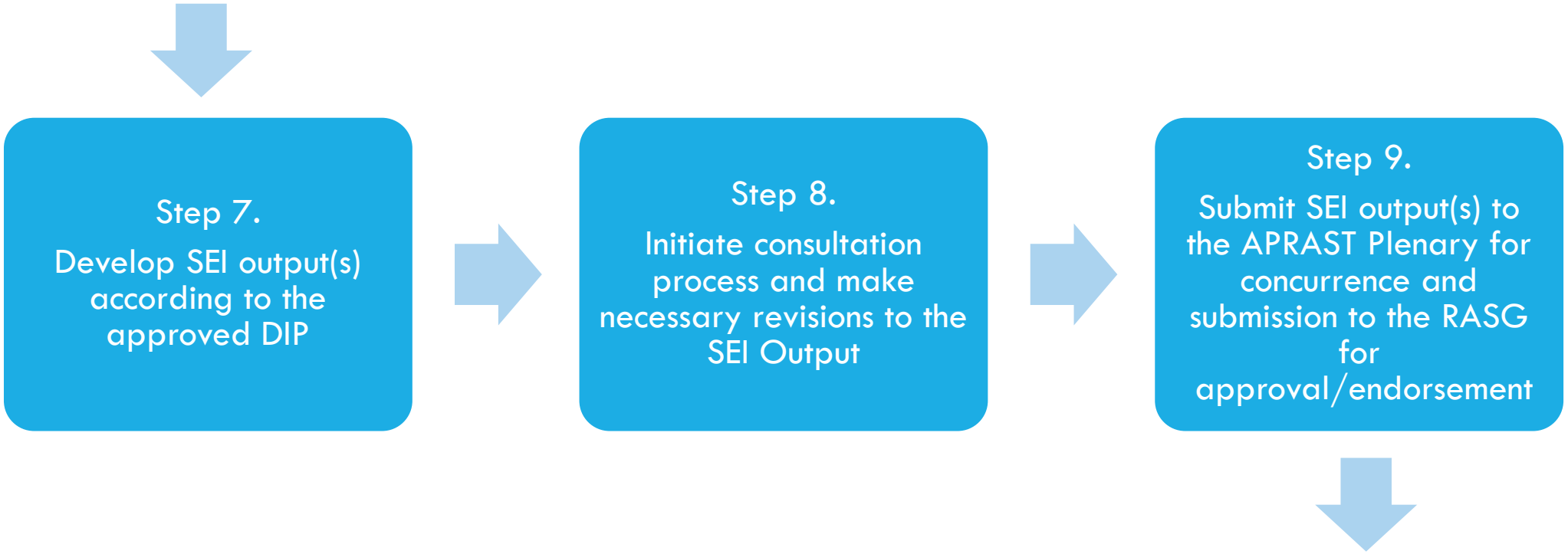


SEI PROCESS DURING THE LAST DECADE

Step 10.
IMPLEMENT OUTPUT
https://www.icao.int/APAC/RASG/Pages/SafetyTools.aspx

Step 11.
MONITOR IMPLEMENTATION
https://monitoring-tools.org/login

SEI PROCESS DURING THE LAST DECADE

- Inputs to the SEI WG have largely been the Annual Safety Report, the GASP and the Region's priorities and targets
- Process has resulted in 17 safety outputs
- Safety outputs address LOC-I, CFIT, RS (excursions and incursions) and standardized capacity building
- Vast majority of SEIs are model regulations or model advisory circulars for States to implement
- Current SEIs were developed between 2013 – 2018
- Review of all SEIs for currency and validity complete as of APRAST/20
- Detailed Implementation Plan (DIP) archives?

SEI PROCESS DURING THE LAST DECADE

What questions do you have regarding the history of the SEI WG?

BREAK

MOVING FORWARD – SEI WG VISION

1100-1200	Moving Forward - SEI WG Vision • Continued collaboration with government and industry; support best practices and ongoing work programme *[10 min.]* • Strengthen the safety outputs through integrated and data-driven work processes. *[20 min.]* • Establish relationship with other RASTs for best practices *[30 min.]* - Presentation on Pan America Regional Aviation Safety Team
1200-1300	*Lunch*

SEI WG VISION – CONTINUE THE GOOD WORK

- Support and promote the practice of reviewing the SEIs for currency and validity
- Strive to collect implementation data and understand the impediments to implementation
- Coordination with the SRP WG and future safety issues needed to develop new SEIs
- Revisit the language in the AP-RASP surrounding the SEI WG responsibilities within the ORG Roadmap
  - A.I.18 - review and implement SEIs
  - A.I.19 - indicators and targets for implementation and effectiveness
  - A.I.21 - SEI Prioritization
  - A.II.4 - Standardized Capacity Building Program
- Confirm POC list for SEI WG

SEI WG VISION – STRENGTHEN SAFETY OUTPUTS

- Update process to vet the intervention strategies that are proposed when determining the safety product(s) for a new SEI (e.g. feasibility scores)
- Develop clear and concise actions by responsible parties within each safety product
- Input from Experts
  - 'Subject Matter Experts' available between APRAST in-person meetings to reduce process delays, ensure SMART concept and increase engagement of the States/Administrations
- Up-level the safety outputs to improve their website presence to Stakeholders and others
- Develop a Communications Plan
- Potential avenues to get the safety tools more visibility (e.g. social media platforms)
- Gap Analysis - research publicly available NASPs to identify gaps in SEI adoption
- Determine SEI Effectiveness – four-pronged approach

SEI WG VISION – GLOBAL RAST COLLABORATION

Mr. Angel LUNA

Federal Aviation Administration

U.S. CAST International Representative to Pan America

"Pan America Regional Aviation Safety Team (PARAST)

Challenges and Best Practices"

LUNCH

SEI DEVELOPMENT & IMPLEMENTATION

1300-1430	SEI Development • Coordination mechanisms between SRP WG and SEI WG *[30 min.]* - Safety issues referred by the SRP WG to SEI WG - Safety data/information: availability of precursor information - SEI versus safety advisory SEI WG Sub-group philosophy *[15 min.]* SEI Implementation • Discuss strategy to execute the implementation proposals made during Monday's Plenary *[45 min.]*
1430 -1500	*Break*

SEI DEVELOPMENT – COORDINATION BETWEEN SRP WG & SEI WG

- Safety Issues brought forth to APRAST
  - Safety Issues referred by the SRP WG to SEI WG versus safety issues referred directly to SEI WG
- Safety data/information availability of precursor information
- SEI versus safety advisory/alert
  - Not all safety issues need to be mitigated via an SEI
  - Safety advisory/safety alert = for awareness only. Similar to FAA's InFO or SAFO.

SEI WG SUB-GROUP PHILOSOPHY

From APRAST/20 Final Report:

6.1.10 Sub-groups are proposed to be created under SEI WG namely Aerodrome (Runway Safety, Wild-life Management, and Visual Aids), Flight Operations (Training, FOQA, and Document Management), Safety Management (SMS, FDAP, Safety Audits, Risk Management, Safety Assurance, Surveillance and Risk Based Oversights), and Air Traffic Management. This will help putting in opinions of experts in their relevant areas to participate in ICAO discussion and support the functioning of SEI WG when creating new SEIs or addressing existing SEIs.

6.1.11 It was agreed, the States/Administrations will coordinate internally to bring along representatives of their airlines, air navigation service providers, aerodrome operators including their bird and wild-life management experts to participate in the relevant SEI WG sub-group's online meetings.

6.1.12 SEI WG opined that too much time is lost between APRAST meetings and the progress made cannot be judged till the next meeting. Hence, the SEI WG agreed to meet on a regular basis online as sub-groups to work and capture the progress…

SEI IMPLEMENTATION

OPEN DISCUSSION BASED ON MONDAY'S PLENARY

BREAK

SEI IMPLEMENTATION & EFFECTIVENESS

1500-1600	SEI Implementation continued… • Discuss strategy to execute the implementation proposals made during Monday's Plenary *[15 min.]* • Prioritized SEI Outreach – ask APRAST to prioritize the current HRCs to help influence the SEI WG work programme *[30 min.]* SEI Effectiveness • Importance of understanding SEI Effectiveness *[15 min.]*
End (1600)	

SEI IMPLEMENTATION

OPEN DISCUSSION BASED ON MONDAY'S PLENARY

SEI IMPLEMENTATION – PRIORITIZED SEI OUTREACH

APRAST to prioritize the **current** HRCs to help influence the SEI WG work programme

SEI EFFECTIVENESS

- Determine SEI Effectiveness – four-pronged approach
  - Reactive Information such as Targets, ASR Data (fatal and accidents)
  - Key Performance Indicators (KPIs)/Metrics (e.g. Overbank, Stalls, Unstable Approaches)
  - Gap Analysis – current SEIs against recent accidents
  - Leverage COSCAPs who are measuring “effectiveness”

END OF SEI WG DAY

Thank you for your input and active participation!

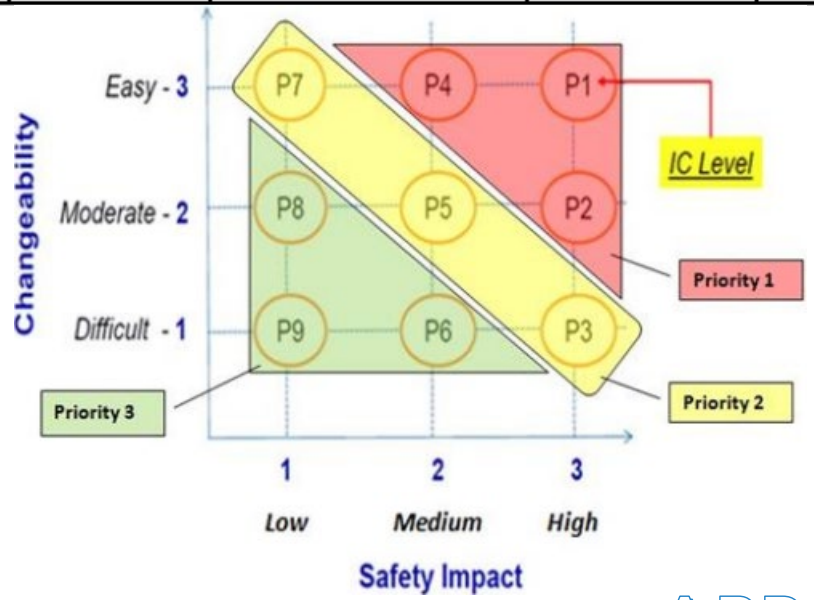
BACKUP SLIDES

BACK

STEP 2. SEI PRIORITIZATION DURING DEVELOPMENT

APRAST No.	Safety Enhancement Initiative	Reference	GSI	Safety Impact	Changeability	Indicator	Priority	Champions(s)

- GSI = Global Safety Initiative
- Safety Impact = Low, Medium, High
- Changeability = Low, Medium, High
- Priority = Changeability + Impact



Detailed Implementation Plan **(DIP)**									
APRAST No.	Safety Enhancement Initiative	GSI	Reference	Safety Impact	Changeability	Indicator	Priority	Champion(s)	Time Frame

Safety Enhancement Action (expanded):	
Statement of Work	
Champion Organization	
Human Resources	
Financial Resources	
Relation with Current	

Financial Resources	
Relation with Current Aviation Community Initiative	
Performance Goal Indicators	
Key Milestones	
Potential Blockers	
DIP Notes	

BACK

IMPLEMENTATION FEASIBILITY

1. Technical
2. Financial
3. Operational
4. Schedule
5. Regulatory
6. Sociological
7. Pilot / Operator Population

Resulting Score is the Feasibility Measurement (F)

TECHNICAL FEASIBILITY

The ability of the project to take advantage of the current state of technology in pursuing further development.

- 3 - Off-the-shelf technology, no development required
- 2 - Some development required, not currently in public use
- 1 - Major technology development effort required

FINANCIAL FEASIBILITY

Should consider the total cost of the implementation, including the planning process. Financial feasibility also involves the capability of the participating organizations (FAA, Manufacturers, and Airlines and Operators) to provide the appropriate funding needed to implement the project.

- 3 - Less than $100M to implement
- 2 - Less than $250M, greater than $100M to implement
- 1 - Greater than $250M to implement

OPERATIONAL FEASIBILITY

Involves the "practicality" of the project within the context of the operating environment, including NAS, ground operations, maintenance, inspection, etc. Considers which organizations within the aviation system are impacted.

- 3 - Minimal change to entities within the operating environment
- 2 - Modest change to operating environment
- 1 - Major change to operating environment

SCHEDULE FEASIBILITY

Can the project to contribute to achieving the goal in a selected timeframe? Must consider implementation schedule by project.

- 3 - Less than 2 years to full implementation
- 2 - Full implementation in 2-5 years
- 1 - Longer than 5 years to full implementation

REGULATORY FEASIBILITY

Should be evaluated against current rules and certification process. Could be a deterrent due to a long approval process.

- 3 - No policy change
- 2 - Guidance change only (orders, handbooks, policy)
- 1 - Rule change

SOCIOLOGICAL FEASIBILITY

Requires an evaluation of project goals compatibility with the prevailing goals of the political system. Worthy projects may face heavy opposition due to sociological factors alone, while a less meritorious project may receive support solely because of the vision that it is "politically correct."

- 3 - Positive push from political system
- 2 - Neutral
- 1 – Negative

PILOT / OPERATOR POPULATION

What is the total portion of the pilot / operator population that can be reached?

- 3 – Greater than two thirds
- 2 – Between one third and two thirds
- 1 – Less than one third

BACK

SEI GAP ANALYSIS

Accident	OccurrenceDate	InjuryLevel	CICTTOccurence	CFIT and ALAR Training	CFIT7 - Guidance for Air Operators in Establishing FSDS	CFIT8 - Model AC for Issuance of Terrain or Obstacle Alert/Warning	LOC2 (LOC4) - Guidance on Flight Crew Proficiency	LOC5 - AC for Mode Awareness and Energy State Mngmt Aspects of Flight Deck Automation	LOC6 - Manual On UPRT	LOC6 - Procedures for Air Navigation Services Training	LOC6 - AUPRTA	RE2 - Guidance on Unstabilized Approach	RE7 - Guidance and Training Program for Runway Pavement, MX and Operations from Aerodrome Perspective	RI2 - Model AC for RI Prevention and Pilot Training	RS1 - RS Maturity Checklist
Operator 1	12/20/2023	Non-Fatal	ARC									Implemented			
Operator 2	12/8/2023	Non-Fatal	SCF-NP				Implemented						Implemented		Applicable
Operator 3	8/7/2023	Non-Fatal	ARC									Applicable			
Operator 4	1/15/2023	Fatal	LOC-I			Implemented		Implemented		Applicable					
Operator 5	1/2/2023	Non-Fatal	ARC				Applicable					Implemented			

Implemented = The SEI is applicable to the event and was implemented, but there was an escape to the safety barrier.

Applicable = The SEI is applicable to the event, but it was NOT implemented.

NOTIONAL ANALYSIS

BACK