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# SESSION 6

Global Aviation Safety Roadmap





# Overview

- Purpose of roadmap
- Structure
- ORG and OPS roadmaps
- Safety enhancement initiatives (SEIs)



# Purpose of Roadmap

- Roadmap is action plan to assist aviation community in achieving GASP goals
- It provides structured, common frame of reference
  - for all relevant stakeholders
  - to develop and implement NASP/RASP
  - by presenting series of SEIs
  - linked to the GASP goals and targets
- Use of roadmap as basis for national/regional safety planning enhances coordination
  - reducing inconsistencies and duplication of effort





# Structure of Roadmap

- Roadmap outlines specific SEIs
  - associated with GASP goals and targets
- Each SEI is supported by set of actions
- Roadmap includes specific initiatives for 3 different stakeholders
  - States
  - Regions
  - Industry
- Success relies upon close collaboration & cooperation of all stakeholders





# Structure of Roadmap (2)

- Roadmap is composed of 2 pieces:
  1. Organizational challenges – ORG roadmap
  2. Operational safety risks – OPS roadmap



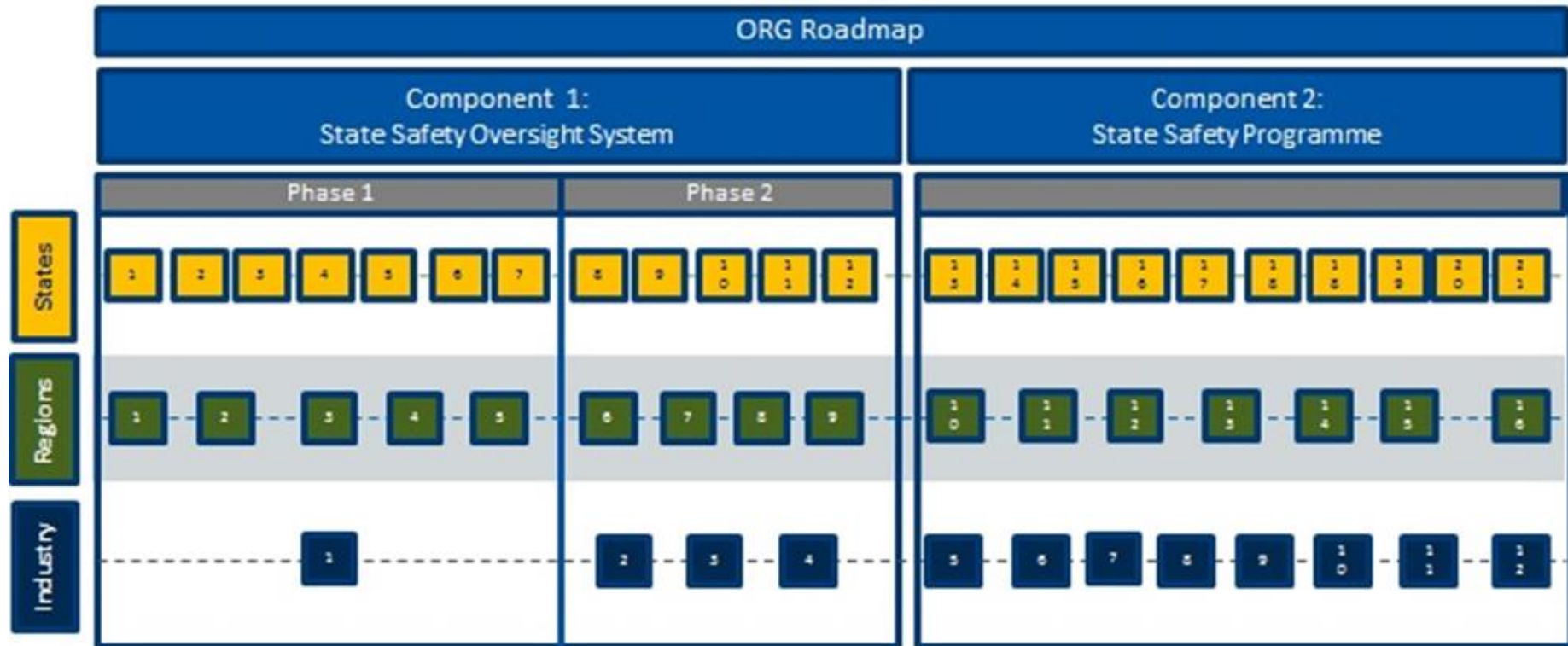
## Structure of Roadmap (2)

- ORG roadmap provides SEIs to meet GASP goals related
  - State safety oversight capabilities
  - SSP implementation
  - SMS implementation (industry)
- OPS roadmap provides SEIs to meet GASP goals related
  - continuous reduction of ops safety risks
  - SRM activities to address HRCs



# ORG Roadmap

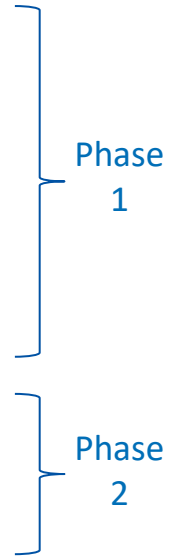
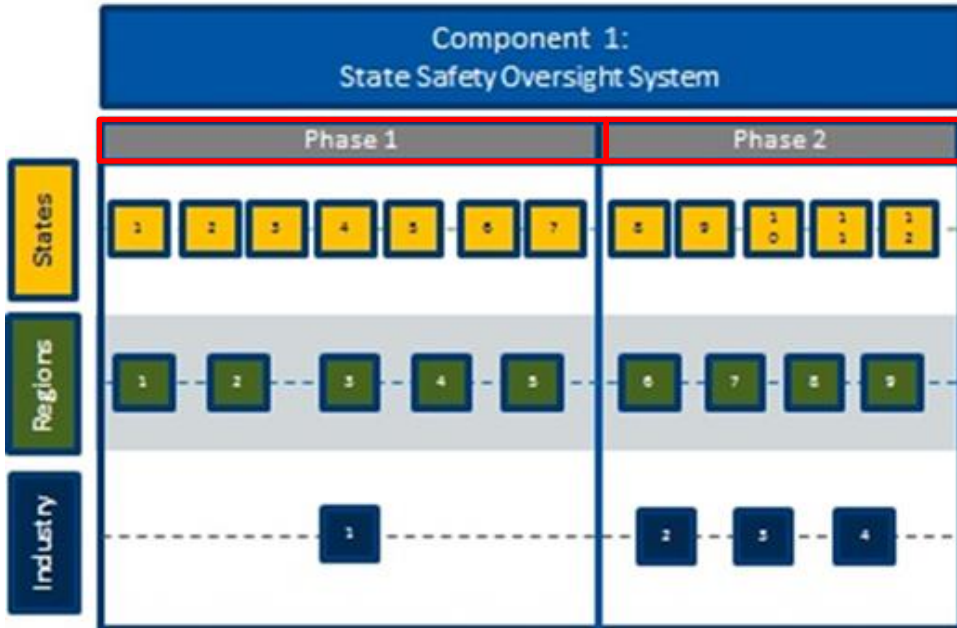
- Contains 2 distinct components, in line with GASP goals, to address SM responsibilities:
  1. State safety oversight (SSO) system
  2. SSP, including service providers' SMS







# ORG Roadmap





# Layout of SEIs in ORG Roadmap

<i>Safety enhancement initiative</i>	SEI-7 — Provision of the primary source of safety information to ICAO by completing, submitting and updating all relevant documents and records
<i>Stakeholder</i>	States
<i>Actions</i>	<ul style="list-style-type: none"><li><input type="checkbox"/> 7A — Update USOAP corrective action plan items</li><li><input type="checkbox"/> 7B — Complete and submit the self-assessment checklist based on USOAP CMA priority PQs</li><li><input type="checkbox"/> 7C — Complete and submit the State aviation activity questionnaire (SAAQ)</li><li><input type="checkbox"/> 7D — Complete and submit the compliance checklists (CCs) on electronic filing of differences (EFOD) system</li><li><input type="checkbox"/> 7E — Update documents and records, as required, in a timely manner</li></ul>
<i>References</i>	<ul style="list-style-type: none"><li>— Doc 9735, <i>Universal Safety Oversight Audit Programme Continuous Monitoring Manual</i>, sections 2.8, 2.14 and 2.15</li><li>— <a href="#">iSTARS</a></li><li>— <a href="#">USOAP CMA Computer-based Training</a></li><li>— <a href="#">USOAP CMA Online Framework</a> (log-in required)</li><li>— <a href="#">USOAP CMA Workshops</a></li></ul>



# Layout of SEIs in Roadmap

- All SEIs presented in standardized “roadmap template” format
- Covers following points
  - **SEI** - Description of specific safety enhancement initiative
  - **Stakeholder** - Entity to which SEI is addressed
  - **Actions** - Description of tasks required for implementation of SEI
  - **References** - Documents and tools to assist stakeholders
    - in implementing SEIs and associated actions



# OPS Roadmap

- OPS roadmap addresses ops safety risks
- Based on HRCs identified in GASP
  - contains specific SEIs to address each of 5 HRCs
  - States, regions and industry should use OPS roadmap
  - to assist them in developing plan to mitigate risks associated with HRCs
- Unlike ORG, OPS roadmap is not divided into components or steps
  - SEIs can be accomplished in parallel





# Layout of SEIs in OPS Roadmap

Safety Enhancement Initiative	Mitigate contributing factors to CFIT accidents and incidents
Stakeholder	Regions
Actions	<ol style="list-style-type: none"> <li>1. Implement the following CFIT safety actions:               <ol style="list-style-type: none"> <li>a. Support the adoption of TAWS in accordance with Annex 6</li> <li>b. Promote the wider use of TAWS beyond the requirements of Annex 6</li> <li>c. Promote the adherence to TAWS warning procedures</li> <li>d. Promote greater awareness of approach risks</li> <li>e. Promote the implementation of CDFA</li> <li>f. Promote the implementation of MSAW systems</li> <li>g. Promote the timeliness of updates and accuracy of eIQD</li> <li>h. Promote the use of global positioning system (GPS)-derived position data to feed TAWS</li> </ol> </li> <li>2. Validate the effectiveness of the SEIs presented in this roadmap in the region using data provided by States and industry (apply safety management methodologies)</li> <li>3. Identify additional contributing factors, for example:               <ol style="list-style-type: none"> <li>a. Flight in adverse environmental conditions</li> <li>b. Approach design and documentation</li> <li>c. Phraseology used (standard vs non-standard)</li> <li>d. Pilot fatigue and disorientation</li> </ol> </li> <li>4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for CFIT</li> <li>5. Conduct continuous evaluation of the performance of the SEIs</li> </ol>
References	<ul style="list-style-type: none"> <li>— <a href="#">Annex 6, Operation of Aircraft</a></li> <li>— <a href="#">ICAO Safety Report</a></li> <li>— <a href="#">RASGs</a></li> <li>— <a href="#">Commercial Aviation Safety Team</a> Safety enhancements for CFIT</li> <li>— <a href="#">IATA CFIT</a></li> <li>— <a href="#">IATA Safety Report</a></li> <li>— <a href="#">Flight Safety Foundation ALAR Toolkit</a></li> <li>— <a href="#">Skybrary</a></li> <li>— <a href="#">EUROCONTROL</a></li> </ul>



# SEIs in OPS Roadmap

- SEIs are considered global safety enhancements, applicable to all States and regions
  - should be implemented to mitigate risks linked to HRCs
  - deemed of global concern
  - not an exhaustive list
- ORG roadmap is not substitute for SRM activities
  - that need to be conducted as part of SSP & SMS





# SEIs in OPS Roadmap (2)

- Stakeholders should conduct analysis of data and reports
  - to validate effectiveness of implemented SEIs
- SSP and SMS should be implemented
  - to develop data collection & analysis capabilities
  - then derive contributing factors through data analysis
  - refer to SEIs in the ORG roadmap
- Roadmap gives specific examples of potential contributing factors
  - not exhaustive
  - may not be applicable to all stakeholders or operational environments





## SEIs in OPS Roadmap (3)

- Based on analysis, may need to develop and implement further SEIs
  - to mitigate any additional risks
- Stakeholders should assess effectiveness of SEIs
  - may refine them in response to changes that introduce new hazards
- SEIs related to State's ops safety risks should be included in NASP





# Points to Remember

- Roadmap is action plan to assist in achieving GASP goals
- Provides structured, common frame of reference
- Use roadmap as basis for NASP
- ORG portion for SSO & SSP
- OPS for HRCs, supporting SM approach



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