



Australian Government
Civil Aviation Safety Authority

APRAST Safety Seminar – SSP Implementation: Australia’s State Safety Programme

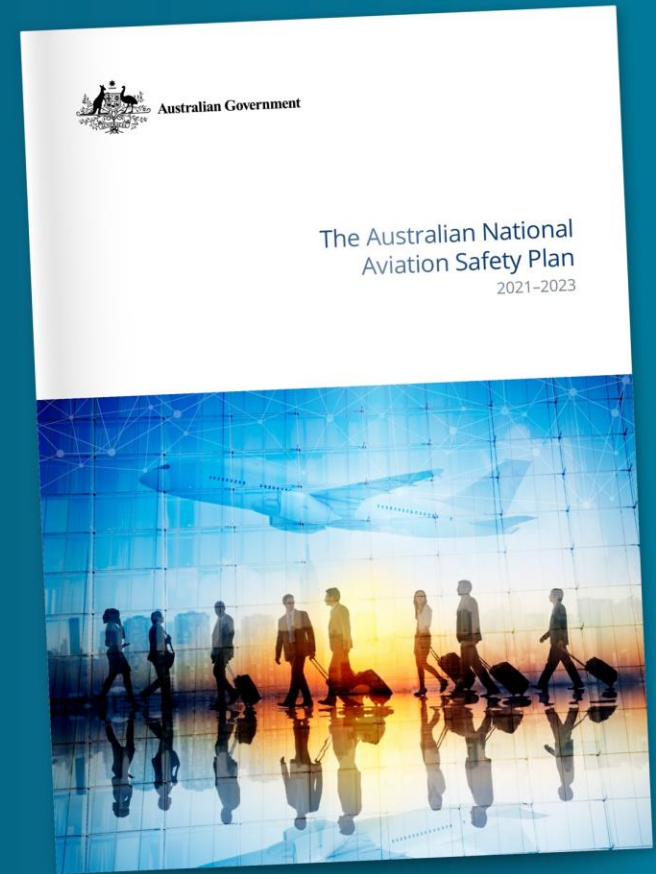
Michael Burgess – a/g Manager Safety, Risk & Intelligence
Branch, Civil Aviation Safety Authority Australia

2 – 4 August 2023
ICAO Asia Pacific Regional Office, Bangkok, Thailand

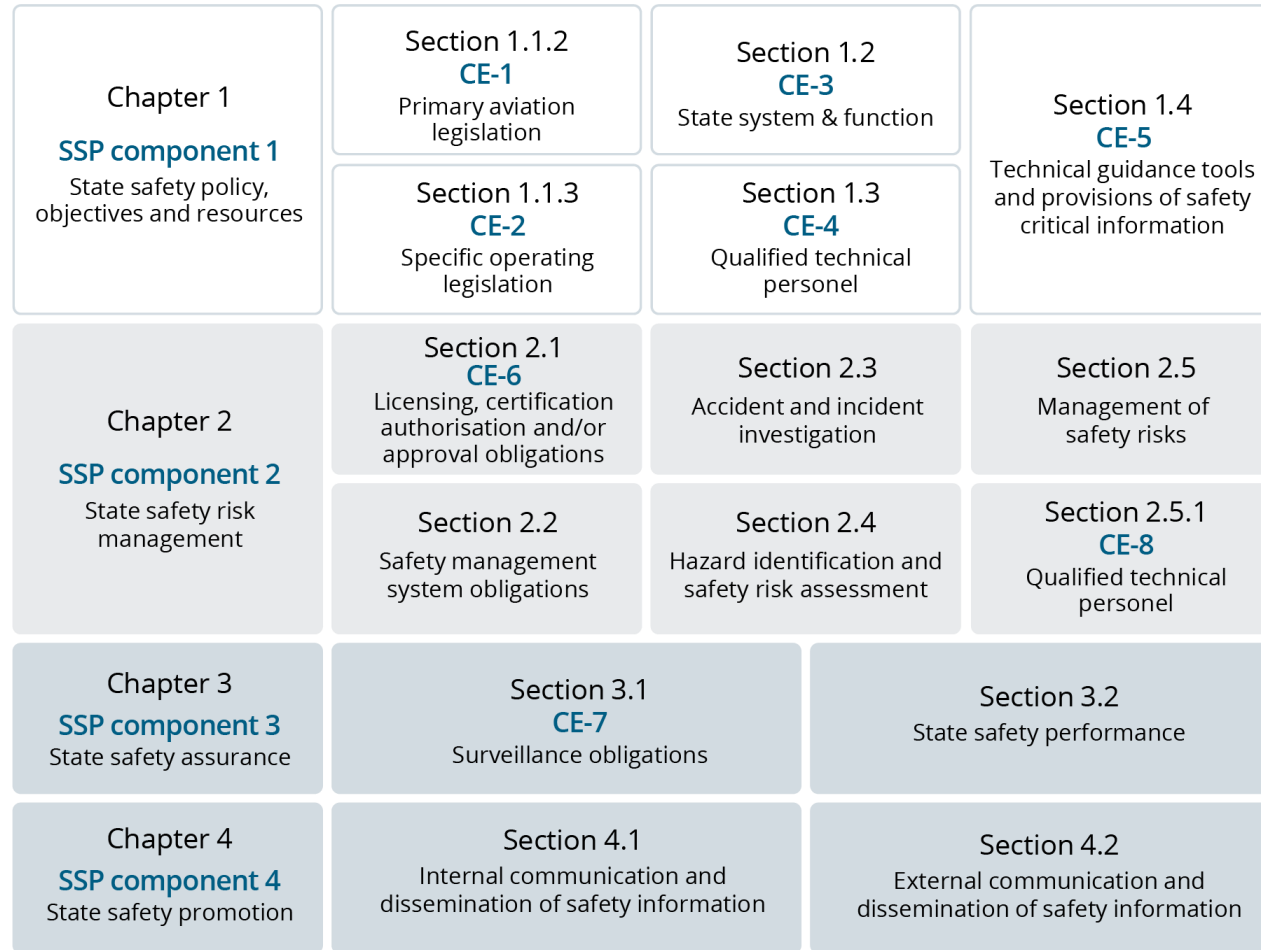
Module 1 Outline:

- Overview of Australia's State Safety Programme
- State Safety Policy, Objectives, and Resources
- State Safety Risk Management
- State Safety Assurance
- State Safety Promotion
- Summary and key learnings

Australia's State Safety Programme



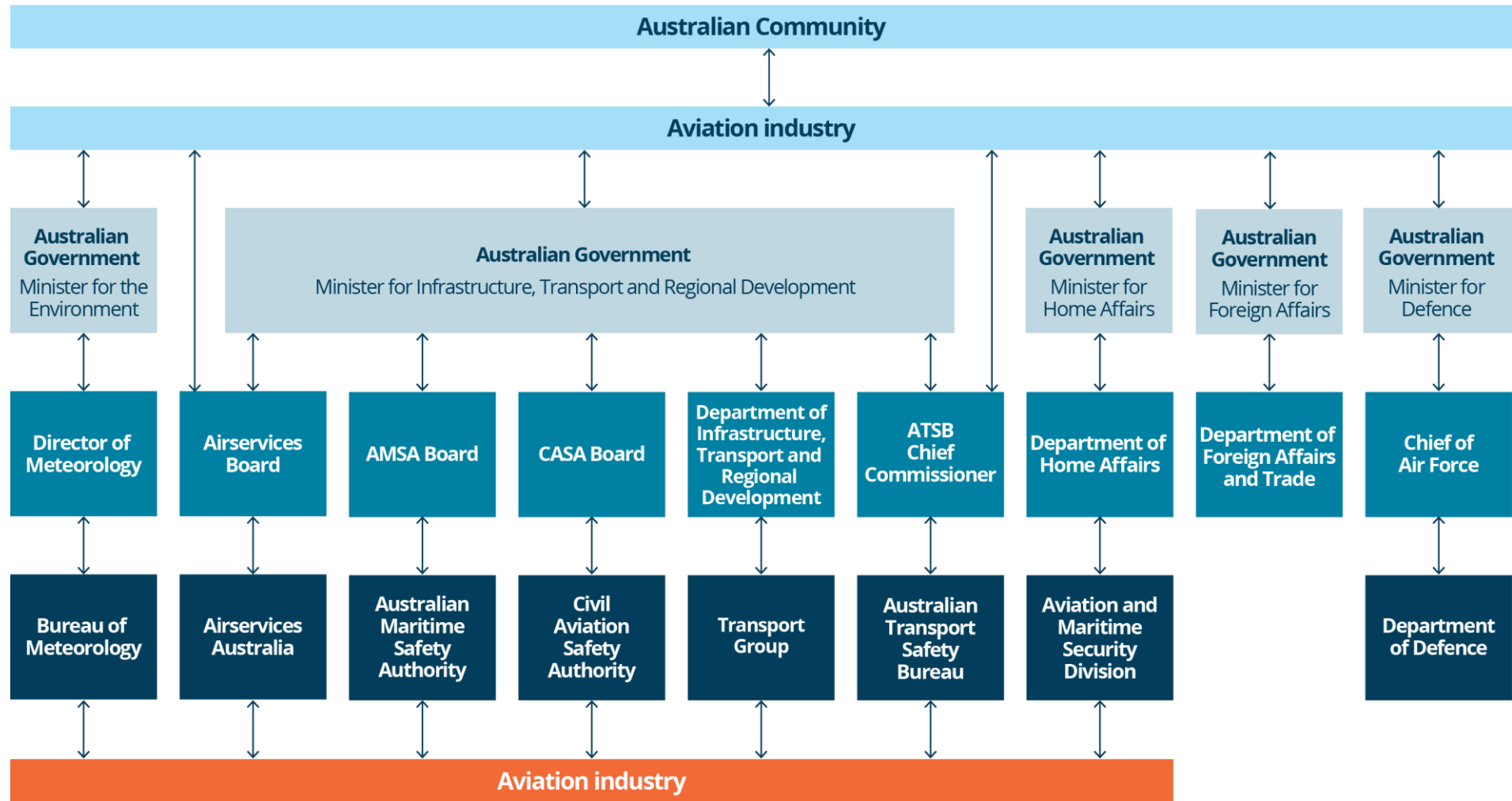
Australia's SSP component and Critical Element (CE) mapping



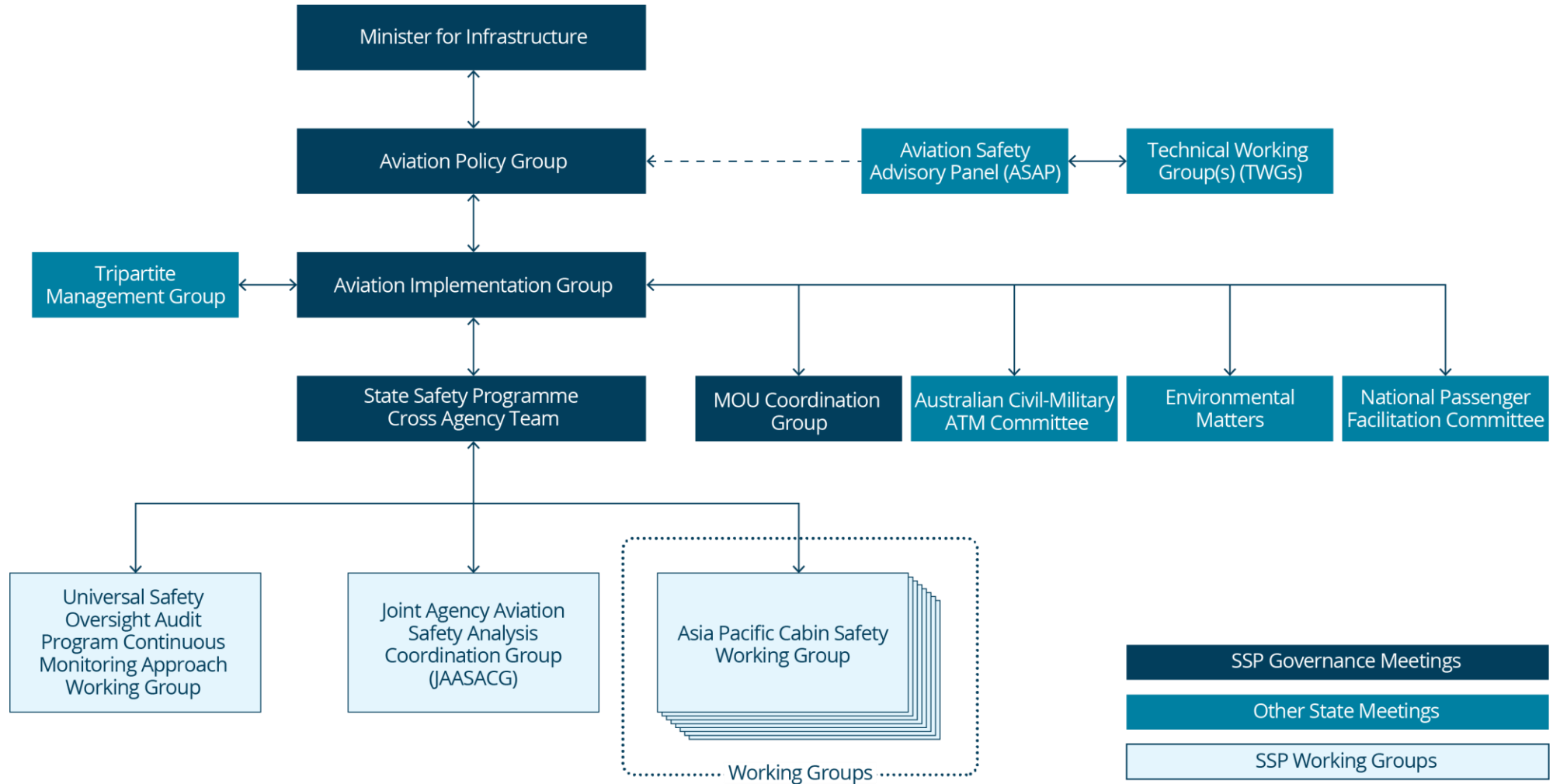
Australia's SSP agencies



Organisational structure of Australia's SSP agencies



SSP governance meeting's structure



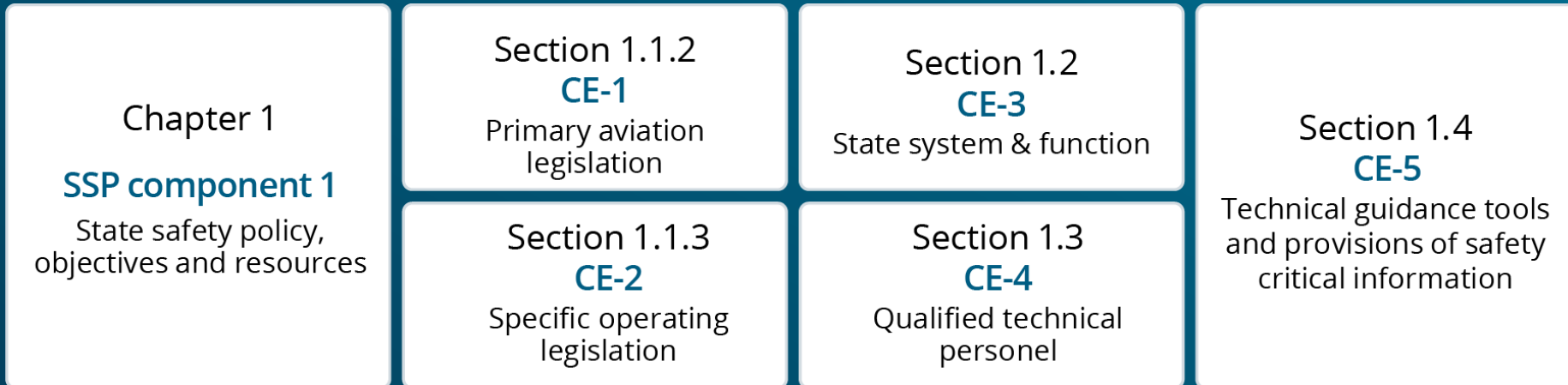
Module 2

State Safety Policy, Objectives and Resources

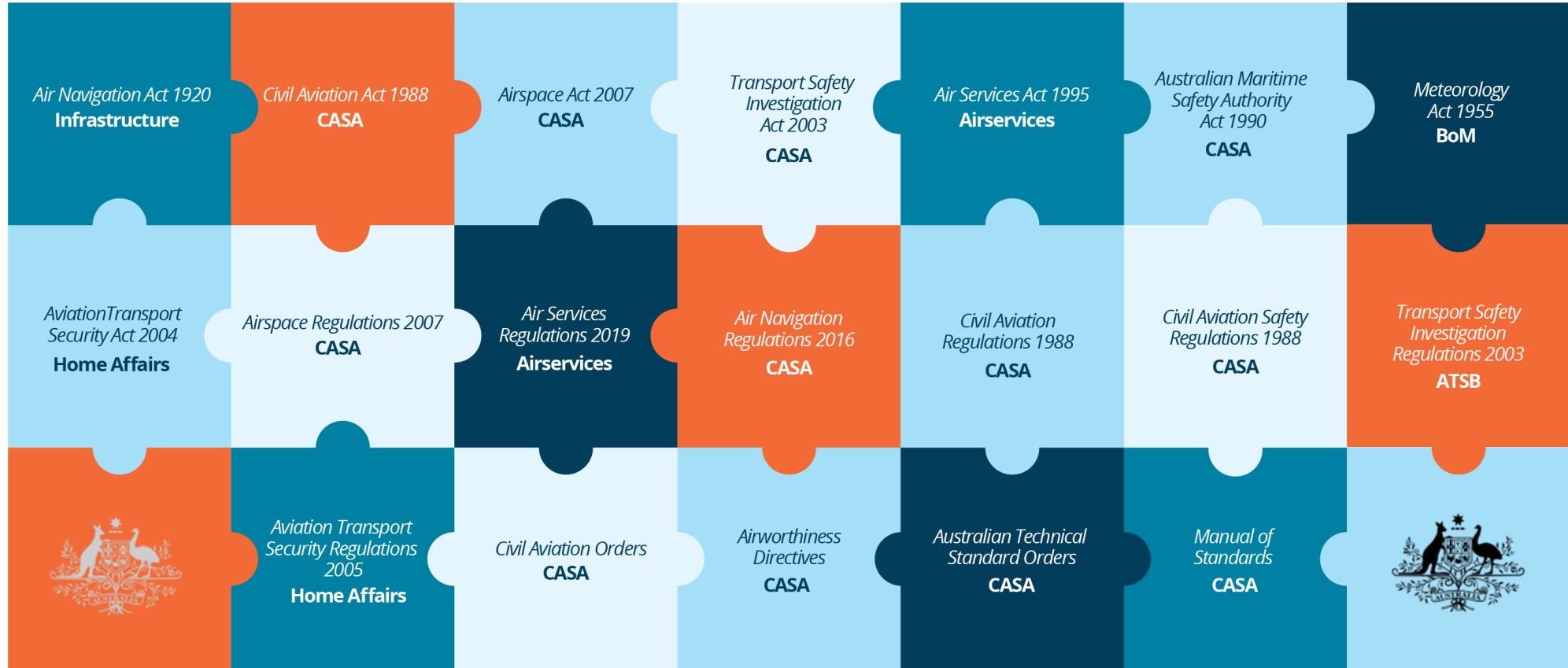
- State safety policy, objectives and resources
- Primary aviation legislation
- Specific operating legislation
- State system & function
- Qualified technical personnel
- Technical guidance tools and provisions of safety critical information



Module 2 – State Safety Policy, Objectives and Resources



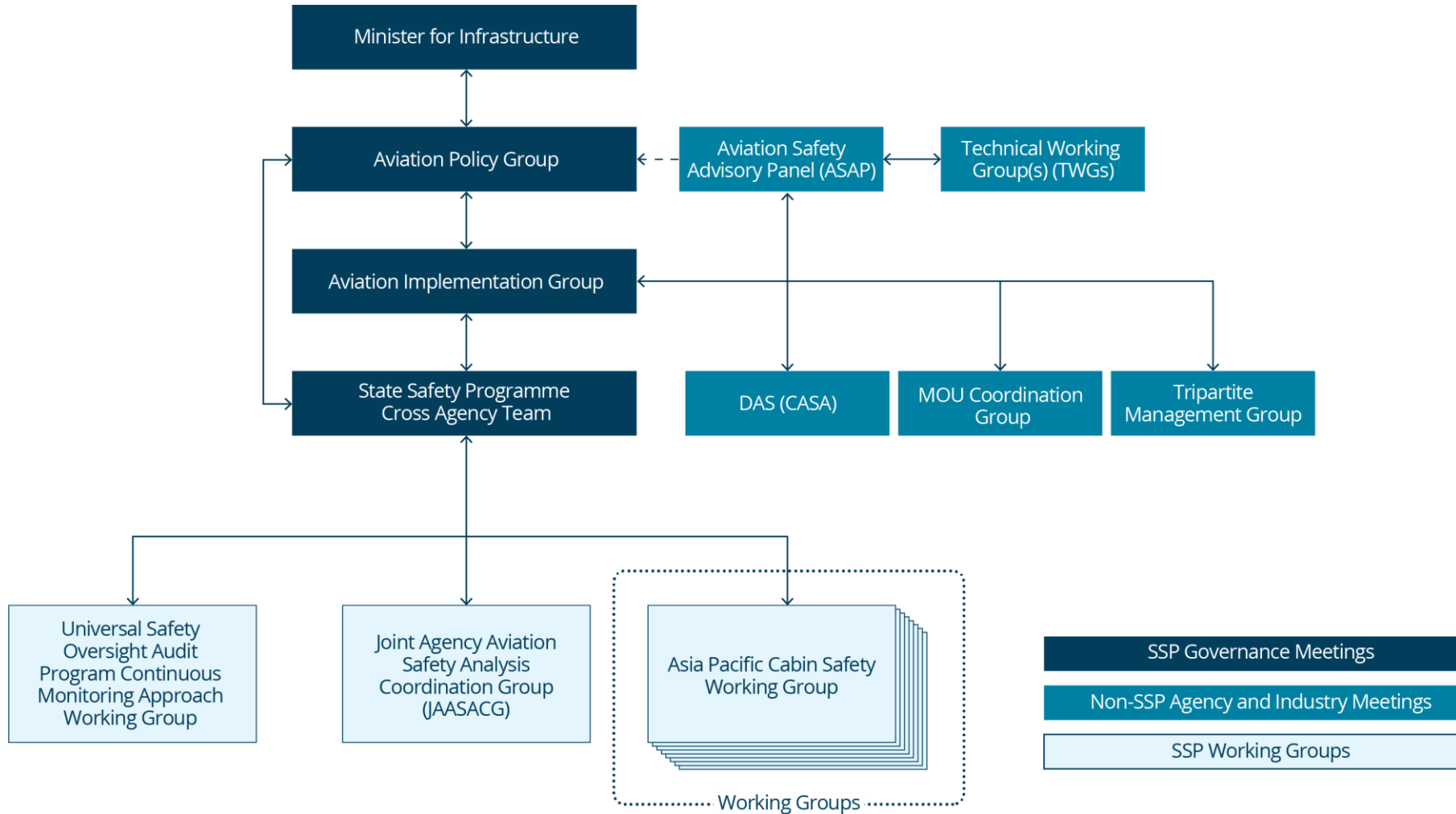
Summary of aviation safety legislation, regulations, and instruments



Allocation of ICAO annexes

<p>Annex 1</p> <p><i>Personnel Licensing</i></p> <hr/> <p>CASA</p>	<p>Annex 2</p> <p><i>Rules of the Air</i></p> <hr/> <p>CASA</p>	<p>Annex 3</p> <p><i>Meteorological Services</i></p> <hr/> <p>BoM</p>	<p>Annex 4</p> <p><i>Aeronautical Charts</i></p> <hr/> <p>Airservices</p>	<p>Annex 5</p> <p><i>Units of Measurement</i></p> <hr/> <p>Airservices</p>	<p>Annex 6</p> <p><i>Operations of Aircraft</i></p> <hr/> <p>CASA</p>	<p>Annex 7</p> <p><i>Aircraft Nationality & Registration Markings</i></p> <hr/> <p>CASA</p>
<p>Annex 8</p> <p><i>Airworthiness of Aircraft</i></p> <hr/> <p>CASA</p>	<p>Annex 9</p> <p><i>Facilitation</i></p> <hr/> <p>Infrastructure</p>	<p>Annex 10</p> <p><i>Aeronautical Telecommunications</i></p> <hr/> <p>CASA / Airservices</p>	<p>Annex 11</p> <p><i>Air Traffic Services</i></p> <hr/> <p>CASA / Airservices</p>	<p>Annex 12</p> <p><i>Search and Rescue</i></p> <hr/> <p>AMSA</p>	<p>Annex 13</p> <p><i>Aircraft Accident & Incident Investigation</i></p> <hr/> <p>ATSB</p>	<p>Annex 14</p> <p><i>Aerodromes</i></p> <hr/> <p>CASA</p>
<p>Annex 15</p> <p><i>Aeronautical Information Services</i></p> <hr/> <p>Airservices</p>	<p>Annex 16</p> <p><i>Environmental Protection</i></p> <hr/> <p>Infrastructure</p>	<p>Annex 17</p> <p><i>Security</i></p> <hr/> <p>Home Affairs</p>	<p>Annex 18</p> <p><i>The Safety Transportation of Dangerous Goods by Air</i></p> <hr/> <p>CASA</p>	<p>Annex 19</p> <p><i>Safety Management</i></p> <hr/> <p>CASA / ATSB</p>		

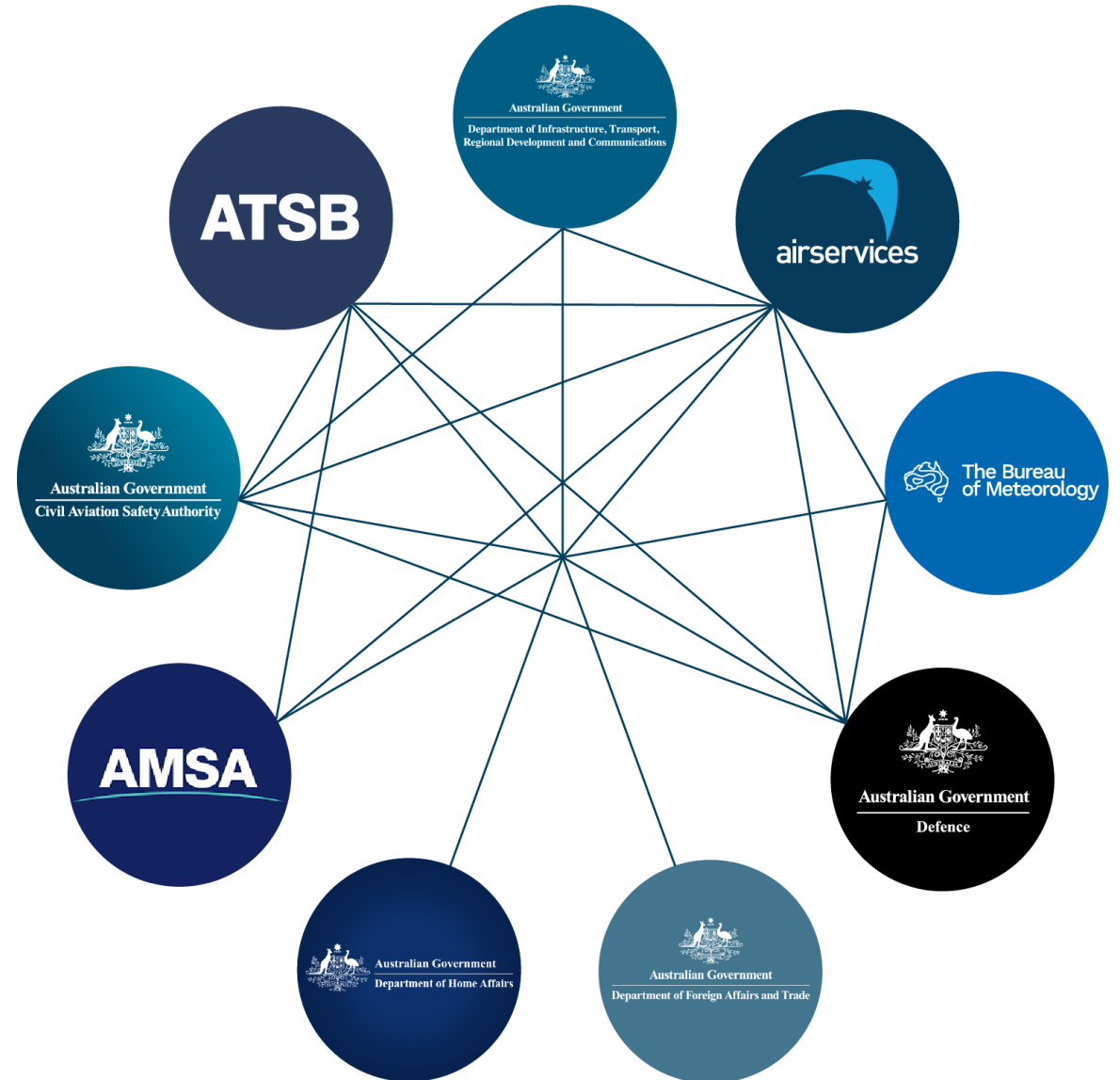
SSP governance meeting's structure



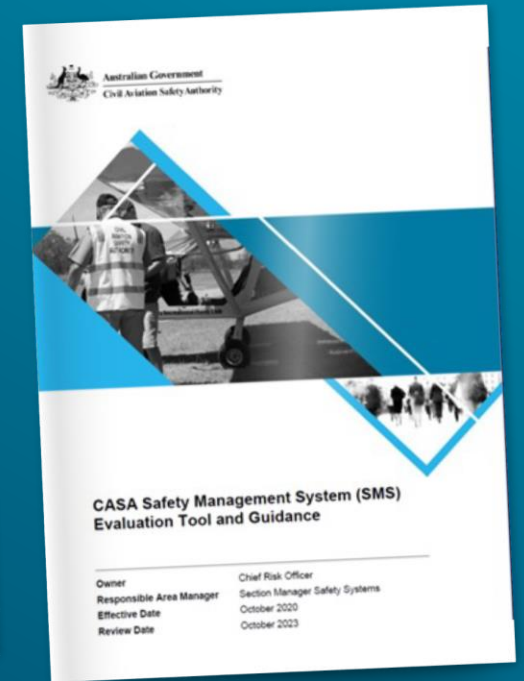
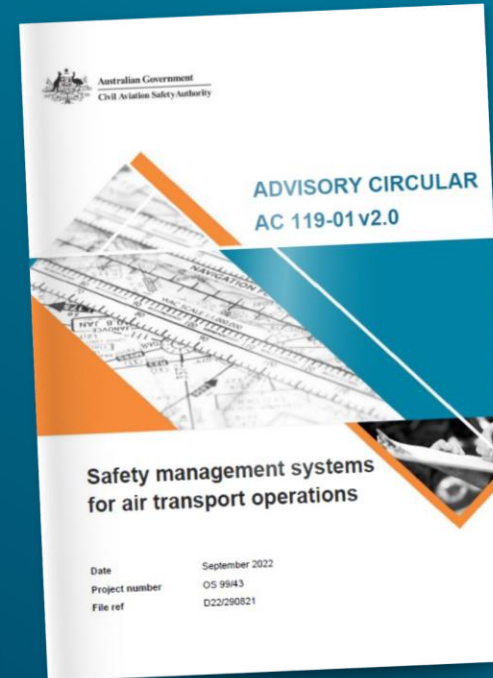
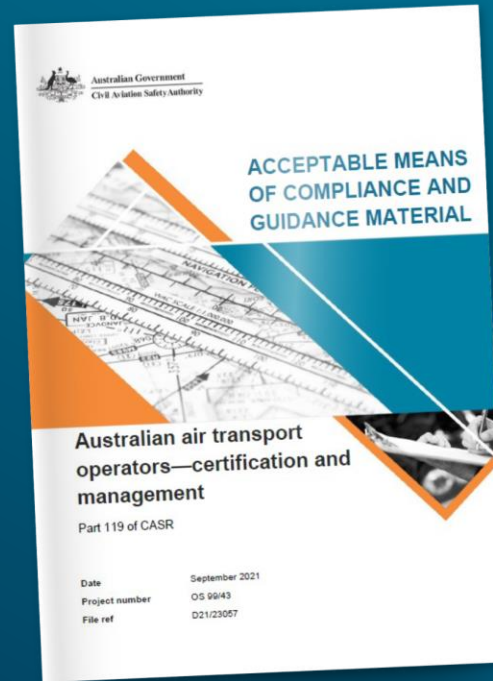
State Agreements

Australian Agencies involved in Civil and Defence Aviation Memorandum of Understanding

Sets out arrangements between Australian aviation agencies concerning their management of international (including ICAO arrangements) and domestic aviation issues.



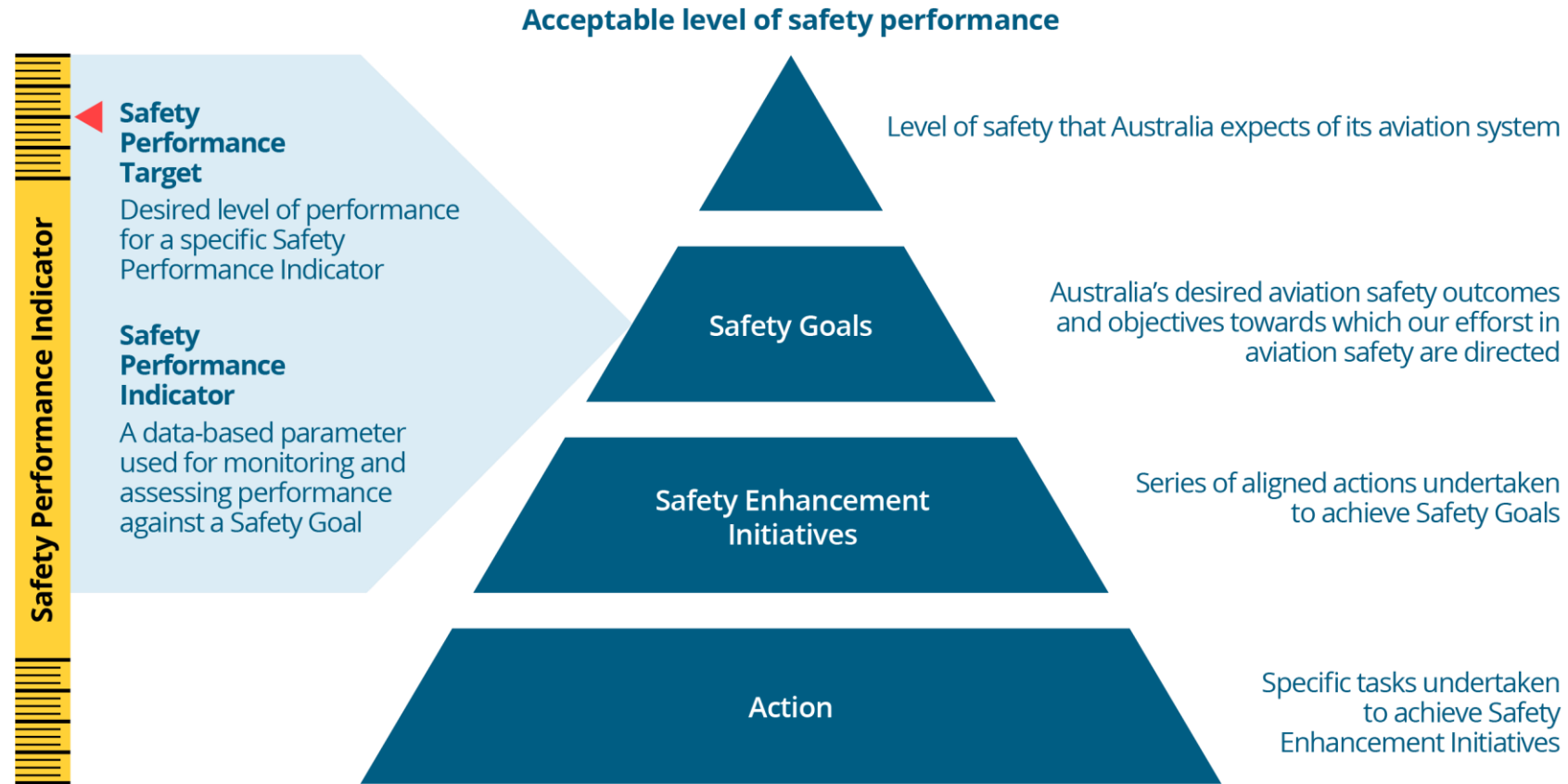
Current industry guidance materials



Australia's State Safety Goal Alignment

GASP Goals	1 Achieve a decreasing trend of global accident rate	2 Strengthen States safety oversight capabilities	3 Implement effective State safety programmes (SSPs)	4 Increase Collaboration at the regional level	5 Expand the use of Industry Programmes	6 Ensure the appropriate infrastructure is available to support safe operations
AP-RASP Goals	1 Reduce operational risks	2 Improve States' safety oversight and compliance	3 Implement effective SMS and SSP	4 Move towards data-driven regulatory oversight	5 Enhance aviation infrastructure	
State Safety Goals	1 Improve the safety of Australian aviation operations across all sectors.	2 Strengthen Australia's safety oversight capabilities	3 Embed an effective SSP that delivers Australia's acceptable level of safety performance.	4 Increase Collaboration at the regional level	5 Expand the use of Industry Programmes	6 Ensure the appropriate infrastructure is available to support safe operations

Relationship between Australia's safety goals, SPIs, SPTs, SEIs and actions



Example of SSP Goal 1: Indicators and Targets

 Australian Safety Goal	 Australian Safety Performance Indicators	 Australian Safety Performance Targets
<p>Goal 1</p> <p>Improve the safety of Australian aviation operations across all sectors (where Australia has State oversight responsibility)</p>	<p>Fatal accident rate (per 10,000 flying hours) (CAT)</p> <p>Number of fatal accidents (non-CAT)</p> <p>Number of ground fatalities</p> <p>Accident rate (CAT) (per 10,000 flying hours)</p> <p>Number of accidents (non-CAT)</p> <p>Serious incident rate (CAT) (per 10,000 flying hours)</p> <p>Number of serious incidents (Non-CAT)</p> <p>Number of runway safety events</p> <p>Aviation Search and Rescue response activations</p>	<p>1A No fatal accidents</p> <p>1B 10% reduction*</p> <p>1C No ground fatalities as a result of an aviation accident</p> <p>1D 10% reduction*</p> <p>1E 10% reduction*</p> <p>1F 10% reduction*</p> <p>1G 10% reduction*</p> <p>1H 10% reduction*</p> <p>1I 10% reduction*</p>

* Based on 2018 established levels.

Example of NASP Goal 1 and associated SEIs to address G-HRCs



Example of NASP Goal 1 SEI 1.1 associated actions



Safety Enhancement Initiative

1.1: Mitigate contributing factors to Controlled Flight into Terrain.

SSP Governance

SSP-CAT

Stakeholders



Actions

- 1.1.1 Enhance cooperation of the national airports safeguarding advisory group with the broader SSP governance framework.
- 1.1.2 Improved Flight Data Analysis Program (FDAP) guidance to encourage operators to consider CFIT precursors as part of FDAP.
- 1.1.3 Improve the airworthiness regulatory environment to more easily allow installation of non-required, non-certified, safety enhancing technology.
- 1.1.4 Extend the existing regulatory requirements for the fitment of Terrain Awareness and Warning System (TAWS) to aircraft used in lower capacity air transport operations.
- 1.1.5 Implementation of Satellite-based Augmentation System to enable vertically guided and continuous descent approaches.

Lead Agency



Completion

2021

2021

2021

2021

2021

Tracking



Completed



Completed



Delayed



Completed



Completed

Related NASP target(s)

1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I

AP-RASP Reference

Goal I Reduction in Operational Risks: A.I.1, A.I.9, A.I.10, A.I.11, A.I.12, A.I.13, A.I.14, A.I.15, A.I.16, A.I.17

GASP Reference

SEI-CFIT (States) – Mitigate contributing factors to the risk of CFIT.

Other Reference

Minister's Statement of Expectations - CASA (15 Jul 19 to 30 Jun 21)
Minister's Statement of Expectations - Airservices Australia (15 Jul 19 to 30 Jun 21)

Module 3

State Safety Risk Management

- State safety assurance
- Surveillance obligations
- State safety performance

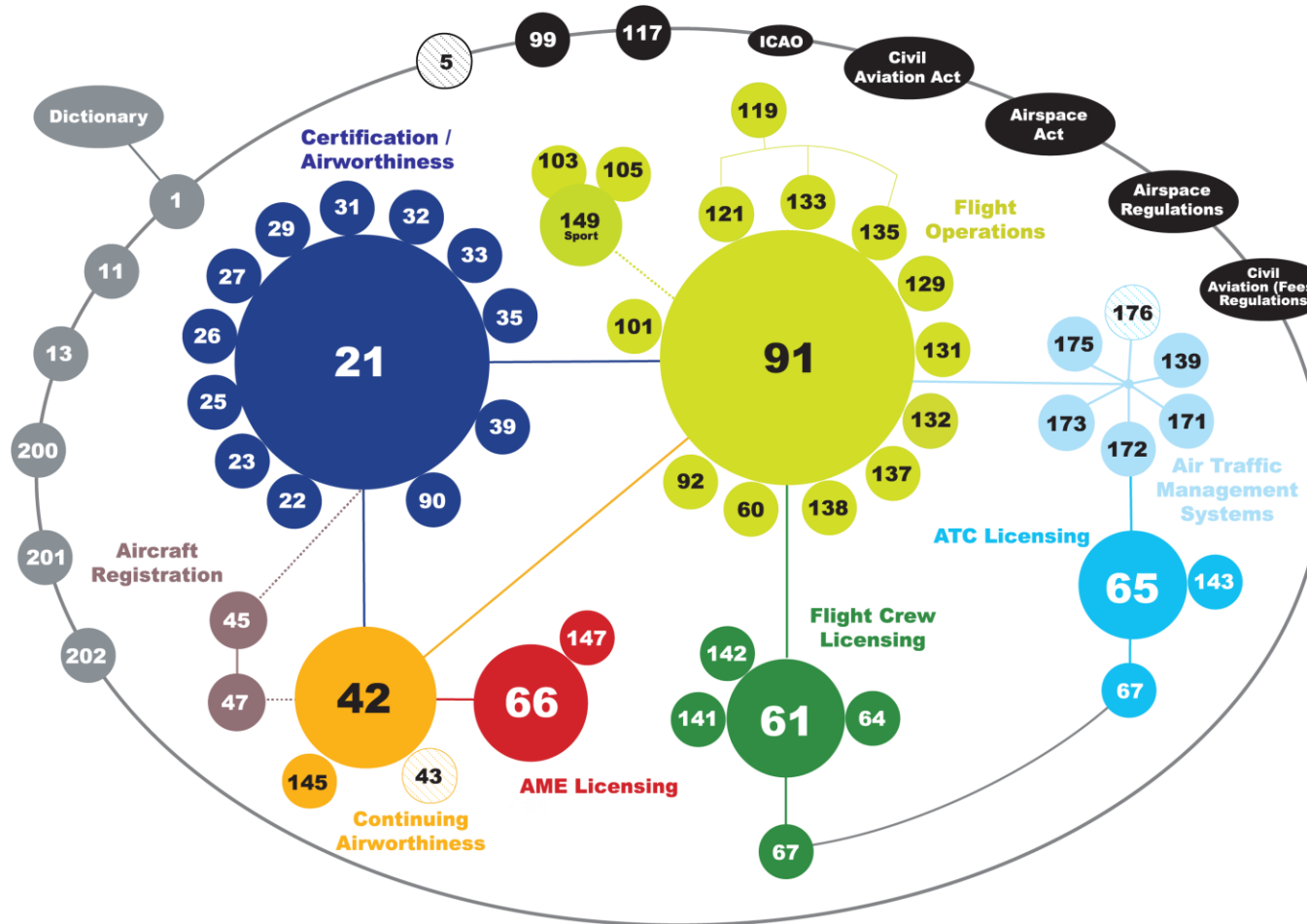


Module 3

State Safety Risk Management

Chapter 2 SSP component 2 State safety risk management	Section 2.1 CE-6 Licensing, certification authorisation and/or approval obligations	Section 2.3 Accident and incident investigation	Section 2.5 Management of safety risks
	Section 2.2 Safety management system obligations	Section 2.4 Hazard identification and safety risk assessment	Section 2.5.1 CE-8 Qualified technical personnel

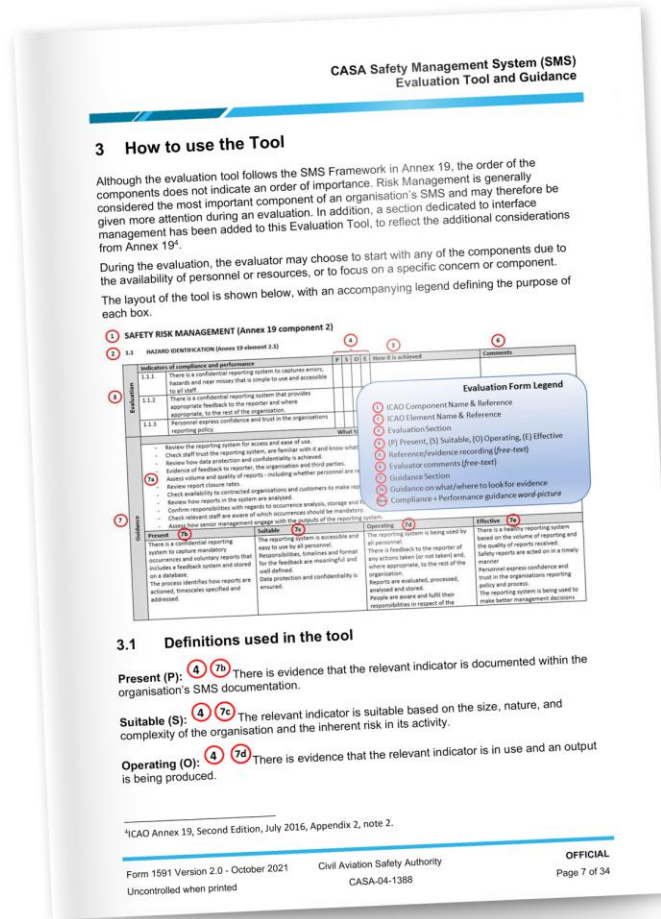
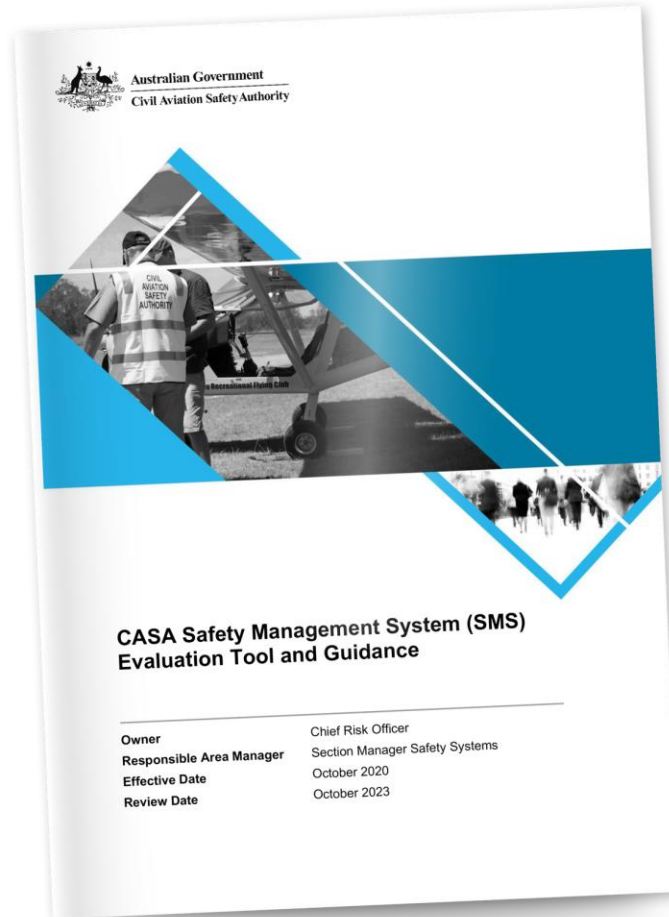
CASR framework for licensing, approvals, and certifications



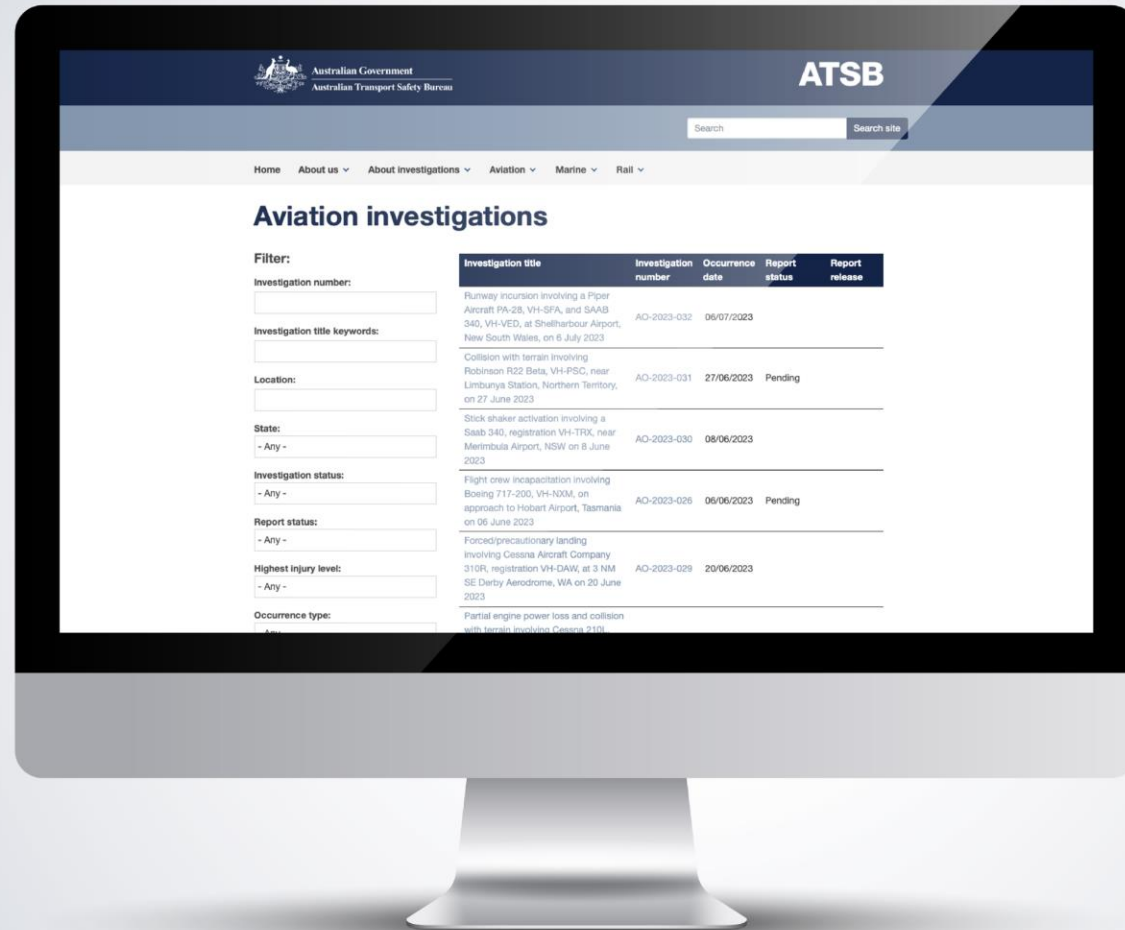
Australia's SMS Regulations

Activity	Regulatory Reference
 Air Transport Operations	CASR 119*
 Aerial Work Operations	CASR 138*
 Approved Self-Administering Aviation Organisations (Sport & recreational)	CASR 149
 Air Traffic Service Providers	CASR 172
 Aerodromes	CASR 139.B
 ARFFs	CASR 139.H
 Approved Maintenance Providers	CASR 145.A
 Aeronautical telecommunication and radionavigational providers	CASR 171.C
 Integrated and mutli-crew pilot flight training, contracted recurrent training and contracted checking	CASR 142.G
 Intrument flight procedure design	CASR 173.B

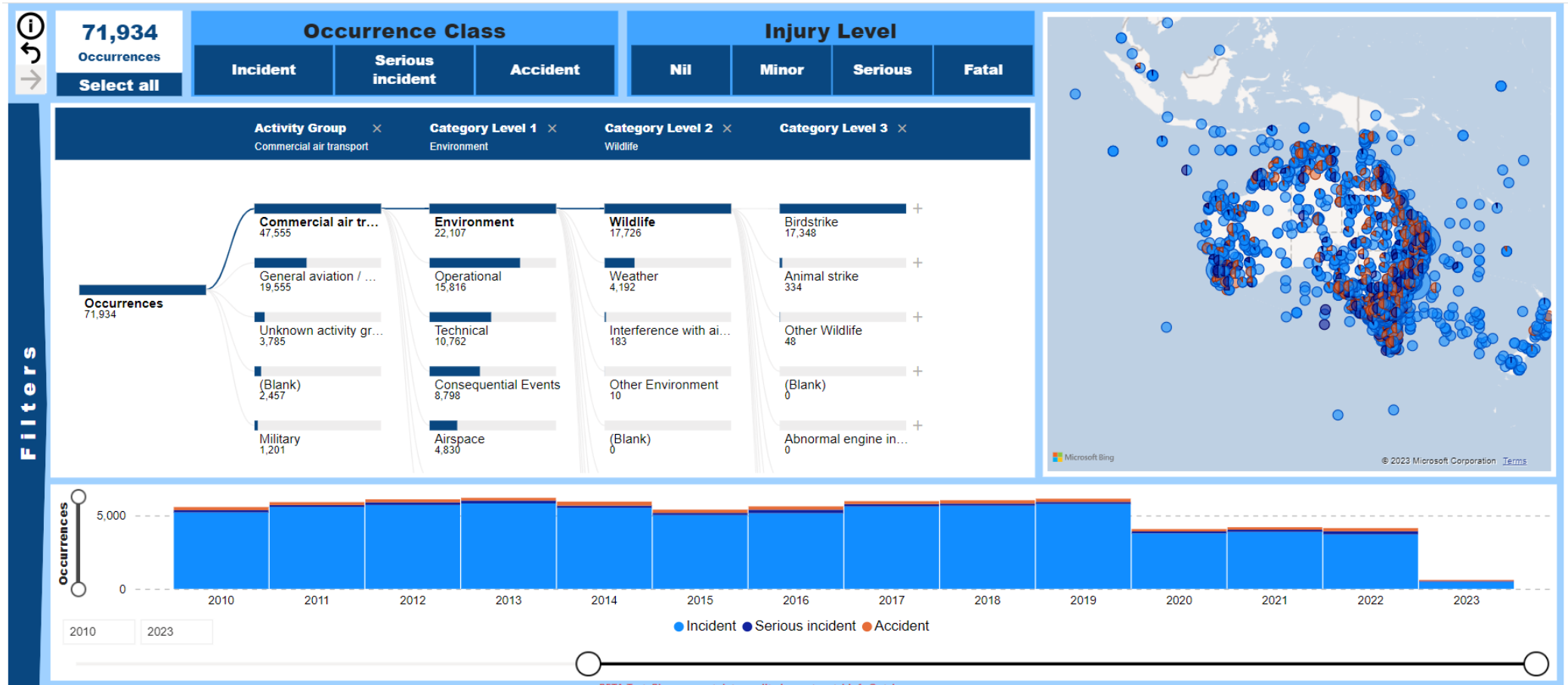
CASA SMS evaluation tool



ATSB Investigation Reports Library



ATSB National Aviation Occurrence Database



Module 4

State Safety Assurance

- State safety assurance
- Surveillance obligations
- State safety performance



Module 4

State Safety Assurance

Chapter 3
SSP component 3
State safety assurance

Section 3.1
CE-7
Surveillance obligations

Section 3.2
State safety performance

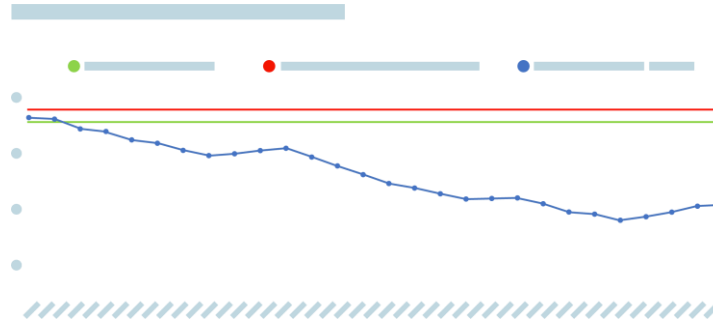
Surveillance obligations



Example of individual SSP Agency reporting on NASP SEI Performance



Example of SSP performance reporting: *Runway Safety*



Safety Enhancement Initiative

1.4: Mitigate contributing factors to Runway Safety* accidents and incidents.

* Runway safety is considered runway incursions and runway excursions.

SSP Governance

SSP-CAT

Stakeholders



Actions

Actions	Lead Agency	Completion	Tracking
1.4.1 Reinvalidate the National Runway Safety Group.		2021	Completed
1.4.2 Promote the establishment of local runway safety teams.	ALL	Ongoing	On-track
1.4.3 Establish requirements for a reporting format to assess and report runway surface conditions in accordance with the ICAO Global Reporting Format in Annex 14 Vol I.		2021	Delayed
1.4.4 Improved FDAP guidance to encourage operators to consider Runway Safety precursors as part of FDAP.		2021	Completed
1.4.5 Agree on a common definition for runway safety events.		2021	Completed
1.4.6 Increase Australia's compliance with Annex 14 through the completion of the CASR Part 139 post implementation review.		2021	Completed

Related NASP target(s)

1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H

AP-RASP Reference

Goal 1 Reduction in Operational Risks: A.I.1, A.I.9, A.I.10, A.I.11, A.I.12, A.I.13, A.I.14, A.I.15, A.I.16, A.I.17

GASP Reference

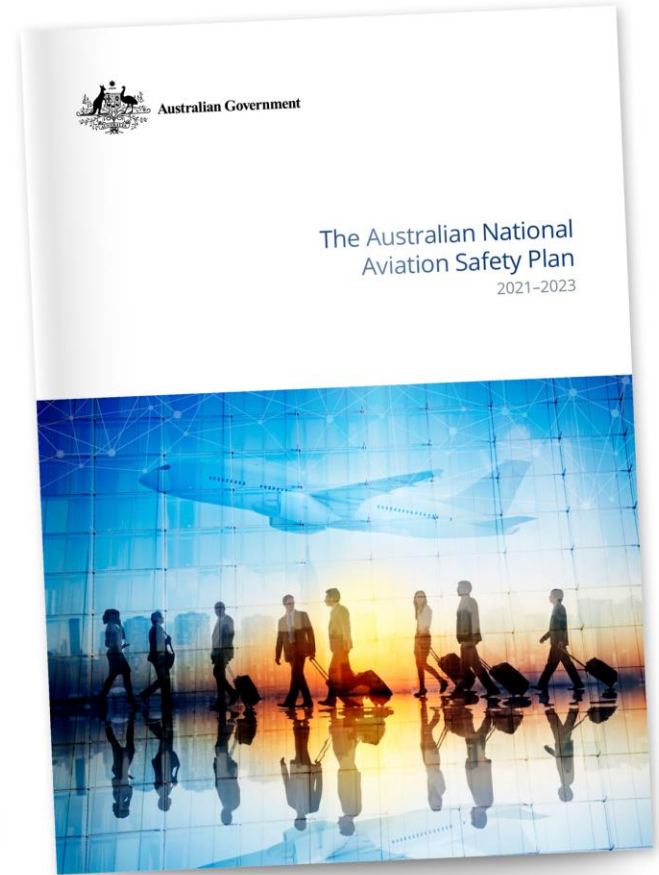
SEI-RE (States) — Mitigate contributing factors Runway Excursion accidents and incidents.

SEI-RI (States) — Mitigate contributing factors Runway Incursion accidents and incidents

Other Reference

(ICAO) Runway Safety Programme — Global Runway Safety Action Plan, First Edition, November 2017

Change and continuous improvement



Module 5

State Safety Promotion

- State safety promotion
- Internal communication and dissemination of safety information
- External communication and dissemination of safety information



Module 5

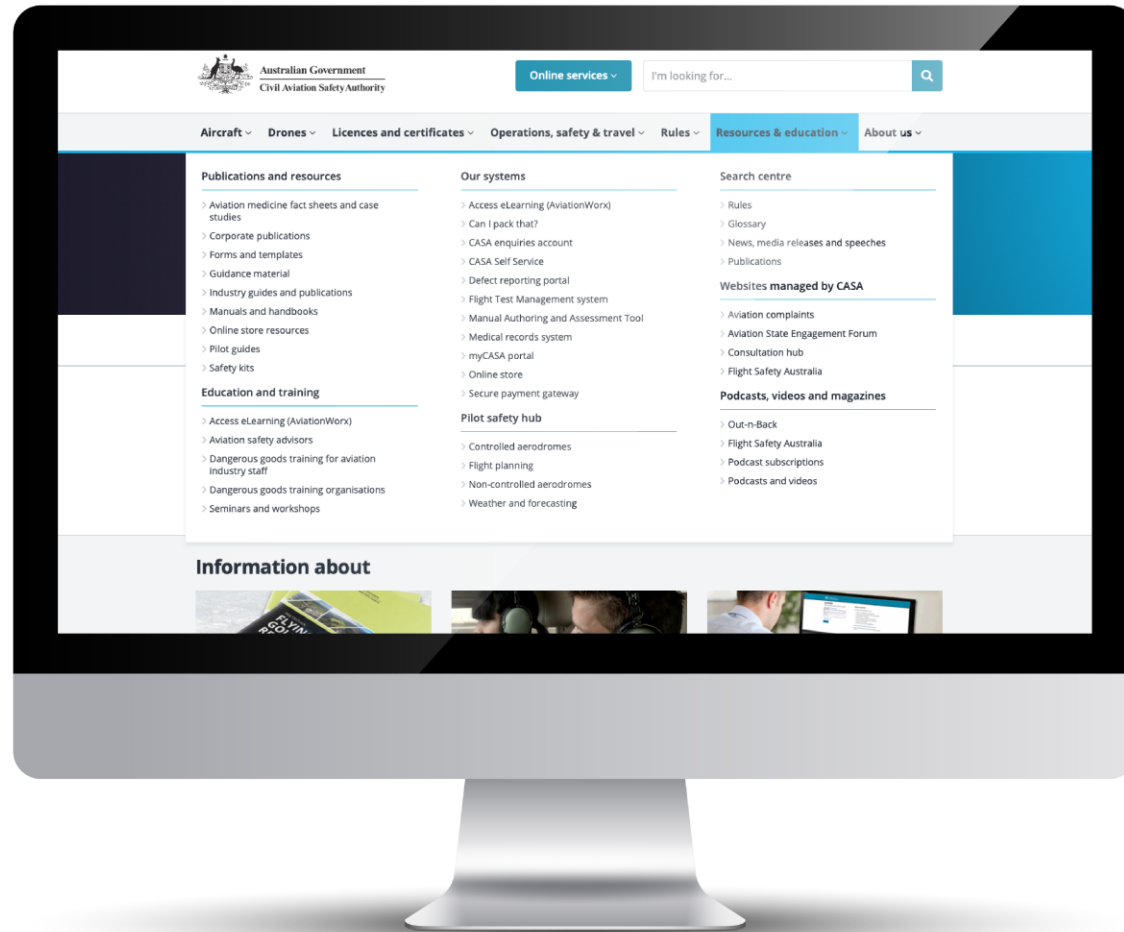
State Safety Promotion

Chapter 4
SSP component 4
State safety promotion

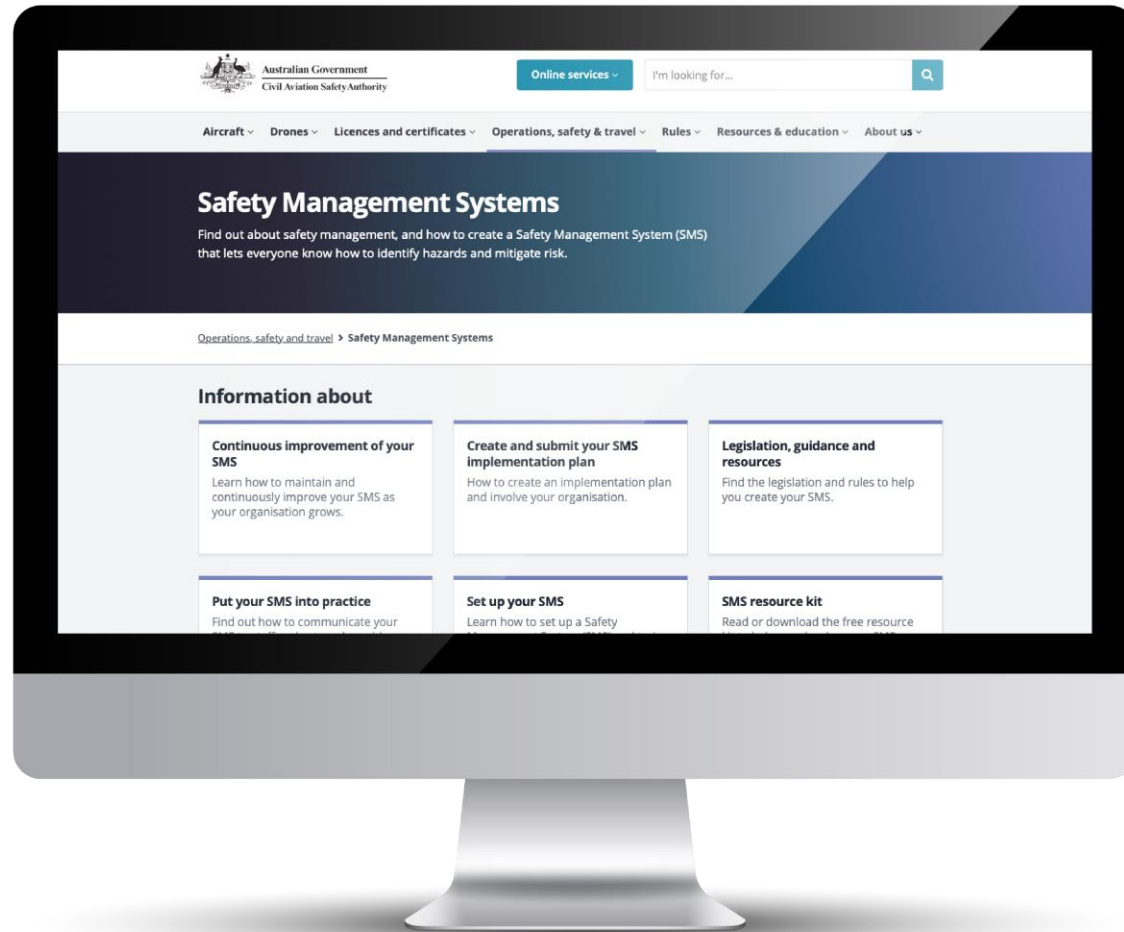
Section 4.1
Internal communication and
dissemination of safety information

Section 4.2
External communication and
dissemination of safety information

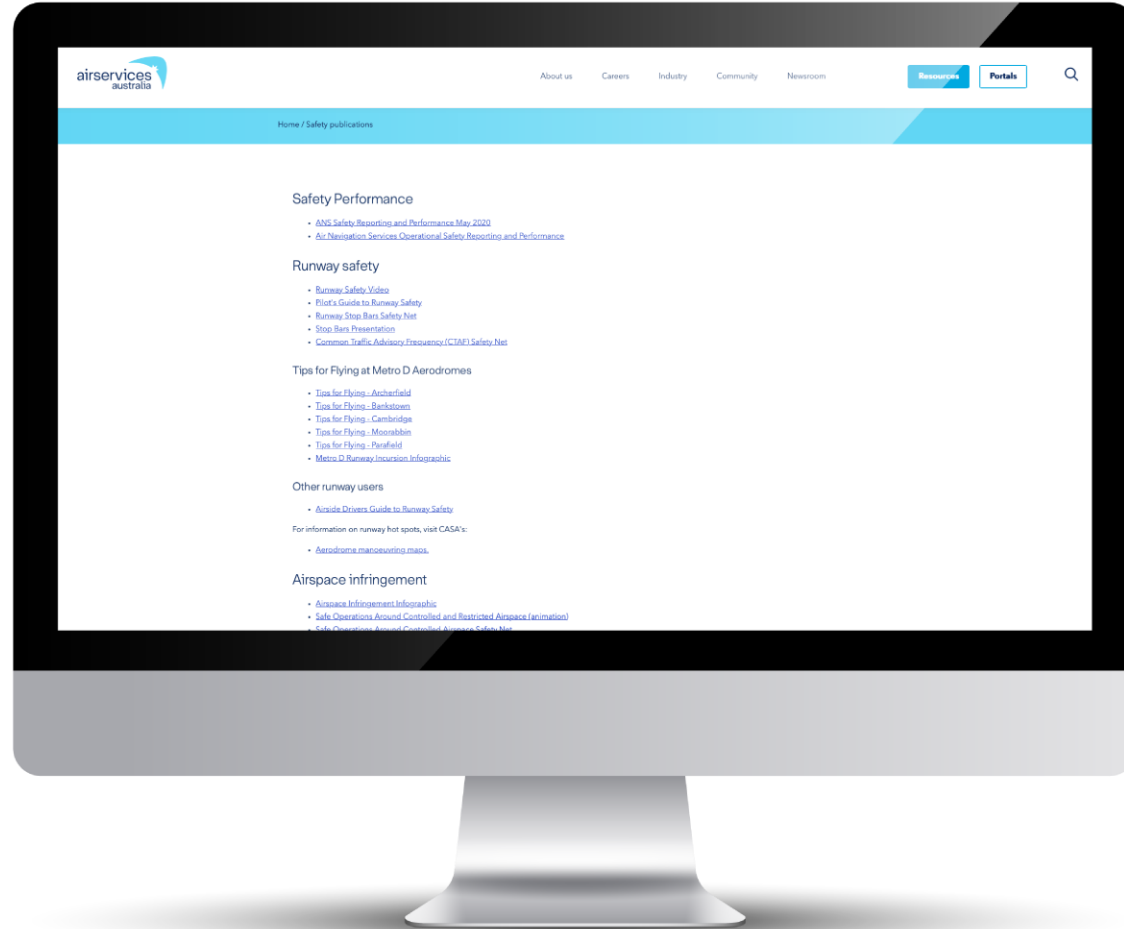
CASA resources, education, and communications public webpage



CASA SMS resources public webpage



Airservices Australia Safety Publications Webpage



CASA SMS Toolkit for Industry



CASA Safety Behaviours Human Factors Guides



Flight Safety Australia

The central monitor displays the Flight Safety Australia website. The header features the logo and navigation links: HOME, NEWS, FEATURES, AIRWORTHINESS, SDRs, CLOSE CALLS, ACCIDENTS, QUIZZES, and SUBSCRIBE. The main content area includes a featured article titled "Now and next: the subtleties of state and trend" with a sub-headline "Pilot fatigue: let's go back to basics". Below this are sections for "Singularity and safety" and "The phantom menace". A "Latest News" section highlights "Top class aviation safety in the Top End" and "Alice, through the looking glass". A "Close Calls" section features "Drone flyer diary: Melissa" and "Decision or design".

Surrounding the monitor are promotional graphics:

- Top Left:** A stack of Flight Safety Australia magazines.
- Bottom Left:** A promotion for a "Free VFRG* with annual subscription!" with a note "While stocks last or until 31 March 2023. *Free VFRG (just pay shipping)".
- Right:** An "AIRSHOW SPECIAL" offer for a "12 month subscription to Flight Safety Australia" plus a "BONUS extra issue, 2023 calendar and coffee cup" for "\$39 (eftpos only)". It includes logos for Mastercard and VISA and a note "While stocks last".
- Bottom Right:** A graphic showing a model airplane on a runway with the text "Subscribe now!".

Summary & Key Learnings

