January 2021



AIRSPACE MODERNISATION PROGRAM

Industry Briefing Presentation

BACKGROUND

PURPOSE

- Reform Australia's airspace architecture to:
 - Ensure the class of airspace is aligned with the assessed level of risk
 - Leverage the benefits of increased ADS-B coverage
 - Reduce complexity.
- Contributes to OneSKY Benefit Delivery.

CHANGE PRINCIPLES

- Class of airspace should be commensurate with the service level required to appropriately manage the assessed level of risk.
- Should be national consistency and standardisation of airspace and procedures to reduce complexity for ATC and pilots and enhance service resilience.
- Class of airspace should leverage the implementation of ATM technologies (such as ADS-B surveillance) to improve safety, mitigate risk and enhance access to airspace for all airspace users.

SERVICE OUTCOMES

- Ensure the safety of air navigation is the most important consideration while fostering and promoting civil aviation.
- Provide a predictable, efficient and effective service to the aviation industry.
- Innovate for airspace user value aligned with global industry expectations.



CONTEXT

FOSTER AVIATION, ENHANCE SERVICE, IMPROVE SAFETY

COVID-19 has changed the industry. We need to embrace this new landscape, while enhancing safety at minimal cost.

Over the coming years, we will change our service provision at 15 regional airports and across thousands of miles of low level airspace. Benefiting the entire east coast and regional Australia, we are leveraging ADS-B and radar surveillance assets to enhance our service delivery.



Non-Towered Aerodromes

Four regional airports to receive enhanced surveillance information services through Surveillance Aerodrome Flight Information Service (SAFIS)



Airspace

Lower the level of controlled airspace between Cairns and Melbourne



Towered Aerodromes

Eleven regional airports to gain improved surveillance separation services



DELIVERABLE SCHEDULE 2021/2022

SAFIS at Mangalore and Ballina	Enhanced FIS and SIS (VFR and IFR) at Mangalore and Ballina aerodromes with mandatory CTAF broadcast and approx. dimensions of 15nm radius / SFC-8,500ft AMSL (YBNA) and 20nm radius / SFC-8,500ft AMSL (YMNG)	Mid 2021	
3 Tower's Transfer of Airspace to Enroute	Rockhampton, Mackay and Hamilton Island Towers transfer of airspace 1500 ft AGL and above to Enroute Controllers utilising surveillance capabilities – focused aerodrome services & increased airspace with surveillance services	End 2021	
Increased Class E on the East Coast	Replacement of uncontrolled airspace with controlled airspace above 1500 ft AGL - increased airspace with surveillance services	End 2021	
6 Tower's Transfer of Airspace to Enroute	Albury, Alice Springs, Broome, Coffs Harbour, Karratha and Tamworth Towers transfer of airspace 1500 ft AGL and above to Enroute Controllers utilising surveillance capabilities – focused aerodrome services & increased airspace with surveillance services	Mid 2022	
SAFIS at two additional candidate aerodromes	Enhanced FIS and SIS (VFR and IFR) at candidate Aerodrome 3 and Aerodrome 4 with mandatory CTAF broadcast and dimensions yet to be confirmed.	End 2022	
Hobart and Launceston Airspace	The transfer of tower airspace 1500 ft AGL and above to Approach Controllers, introducing a dedicated Tassie Approach service	End 2022	



CHANGE: INCREASED SURVEILLANCE AT REGIONAL AERODROMES

CURRENT

- Regional tower controllers separate IFR aircraft procedurally.
- Tower Situation Air Display (TSAD) is used by the controller for situational awareness to assist with traffic management.
- TSAD cannot be used for separation purposes.

PROPOSED

- Transfer of airspace 1,500ft AGL and above to enroute ATC.
- Enables enhanced surveillance services.
 - Separation can be premised on the most accurate data available.
- Tower controllers focus on delivery of aerodrome services.

IMPLEMENTATION

- Introduced at Mackay, Rockhampton and Hamilton Island.
- December 2021.
- Meets the requirements of Ministerial Direction no. 4 (2004).



PROPOSAL: LOWER BASE OF CLASS E BETWEEN CAIRNS AND MELBOURNE

PROPOSAL

- Introduce Class E airspace in lieu of Class G airspace in segments between Cairns and Melbourne.
- Lower Level to be 1,500ft (AGL).
- Enhances services for IFR aircraft, similar to changes introduced in 2020.
- Proposal to be introduced in December 2021.





NON-TOWERED AERODROMES

SURVEILLANCE AERODROME FLIGHT INFORMATION SERVICE (SAFIS)

SAFIS is the amalgamation of two services which can be offered to VFR and IFR aircraft operating in the vicinity of a non-towered aerodrome.

Flight Information Service (FIS) in the surrounding Class G airspace + Surveillance Information Service (SIS) = enhanced safety.





SIS

FIS

SIS is available on request for VFR in Class E or G subject to ATC workload and surveillance coverage



Alerting, local traffic and operational information on designated CTAF



OUTCOME

Improved situational awareness with CTAF + Mandatory Broadcast Area + Enhanced Surveillance

PROPOSED LOCATIONS

MANGALORE

- Proximity to Melbourne attracts significant flying training activity.
- CTAF in place.
- Surveillance is available.
- Broadcast area to be established.

BALLINA

- RPT operations > 5000, 40% of traffic movements at aerodromes.
- VFR account for ²/₃ of flight hours in the vicinity of the airport.
- Varied mix of VFR and IFR traffic.
- Broadcast area, CTAF and CA/GRS.
- Surveillance is available.

RISK ANALYSIS

- Future locations determined on the basis of risk analysis.
- VFR:IFR collision risk assessments to be conducted.
- Aerodromes will be prioritised.



2021 : J-CURVE, FIRST 3 TOWERS AND FIRST 2 SAFIS





BENEFITS

ENHANCED SAFETY

- Improved safety for RPT and other airspace users reducing complexity for pilots and controllers
- Improved safety for RPT at regional aerodromes using appropriate levels of airspace classification and appropriate airspace and aerodrome services
- Provides international consistency through a harmonised global ANS including standardised ICAO airspace
- Fosters equitable access for of all airspace users
- Caters for current and future needs of airspace users including metroplex considerations (e.g. Brisbane and Melbourne)
- Use and value of investments improved (ADS-B, ACAS)
- Facilitates Continuous Descent Operations
- Controlled airspace containment and separation for IFR flights (large improvement over current situation)

CHANGES NEEDED

- Airspace classification changes
- Expansion of the current use of AGL for class E airspace to enable standardisation of lower levels of CTA
- Jurisdiction changes for ADCs area of responsibility at regional Class D aerodromes
- Increase use of low powered non-TSO ADS-B transponders to maximise infrastructure investment
- Pilot education program
- Additional Broadcast areas to support SAFIS



ENGAGEMENT TIMELINE





FEEDBACK AND NEXT STEPS

LOWER BASE OF CLASS E BETWEEN CAIRNS AND MELBOURNE

- What questions do you have relating to this proposal?
- Questions can be submitted via Engage Airservices:
 - https://engage.airservicesaustralia.com/lower-base-class-e-east-coast

NEXT STEPS

- We will host another webinar prior to ACP submission to demonstrate our progress on the Lowering of Class E proposal in February.
- Formal feedback submissions can be provided at: <u>https://engage.airservicesaustralia.com/lower-base-class-e-east-coast</u>

