AIRSPACE MODERNISATION PROGRAM

TRANCHE THREE

Airservices is progressing into tranche three of the Airspace Modernisation Program, focusing on providing standardisation across our regional aerodromes and increased access to enroute airspace.

BACKGROUND

Airservices have developed an Airspace Modernisation Program that will deliver a series of enhancements to Australian airspace over the next five years. This program will improve service outcomes for the aviation industry through national standardisation and leveraging the benefits of increased surveillance coverage, while ensuring that the safety of air navigation remains our most important consideration. The program is a key enabler for Airservices to deliver the benefits of the OneSKY Australia program and ensures that Airservices future operating concepts across the entire network are taken into account.

Industry were notified of the Airspace Modernisation Program in October 2018. Airservices consulted with industry the first tranche of proposals (the national standardisation of Class A and E airspace and the transfer of control responsibility of surveilled Class C airspace). Consultation with industry occurred on the second tranche proposal (a trial to lower Class E airspace at Ayers Rock) in January 2019. Two of these proposals are subject to Airspace Change Proposal (ACP) approval by CASA.

More information on the Airspace Modernisation Program proposals is available on the Airservices website.

The program is now moving into Tranche 3, which focuses on providing standardisation across our regional aerodromes and increased access to enroute airspace.

Hobart was previously included in Tranche 3, however Airservices supports the position that Hobart has a Class C tower and will make this submission to CASA as part of the Preliminary Airspace Review of Hobart currently under way. This has resulted in Hobart being removed from Tranche 3 of the Airspace Modernisation Program.

TRANCHE THREE

Tranche 3 of the Airspace Modernisation Program consists of five initiatives to further standardise regional aerodromes and en route airspace use and access:

1. Re-classify Class C airspace to Class E airspace at eight regional aerodromes (Albury, Alice Springs, Coffs Harbour, Hamilton Island, Launceston, Mackay, Rockhampton and Tamworth).
2. Replace the out of tower hours Terminal Class E or Class D airspace with Class G airspace from the surface to 4,500ft Above Mean Sea Level (AMSL) at three regional aerodromes (, Launceston, Mackay and Rockhampton).
3. Lower the out of tower hours Class E airspace steps to 4,500ft AMSL at three Class D regional aerodromes (Albury, Alice Springs and Tamworth).
4. Lower the Class D airspace upper limit from 5,500ft AMSL to 4,500ft AMSL at two Class D regional aerodromes (Broome and Karratha).

5. Lower the base of Class E airspace at Ayers Rock from 5,500ft AMSL to 4,500ftAMSL *

*Ayers Rock will not be implemented until the proposed trial of Class E is complete and has been included to bring consistency in the application of Class E airspace at regional aerodromes across Australia.

These initiatives will provide Australia's regional aerodromes and surrounding airspace with a single generic service configuration, resulting in an appropriate service provided for the assessed level of risk. Resources, technology and procedures will be better optimised, benefiting all airspace users and ensuring safe, secure, efficient and environmentally responsible services to the aviation industry.

These initiatives will also reduce inconsistencies found at these aerodromes and the added complexity for pilots and air traffic controllers resulting from this. Other challenges at these aerodromes include:

- underutilisation of available surveillance coverage after ADS-B implementation and uptake
- inefficient use of resources managing enroute airspace above where traffic levels and the mix of traffic are not commensurate with the risk assessment for a Class D airspace service
- nine aerodromes (in scope) have surrounding Class C airspace with another three surrounded by Class E
- when the tower closes, seven aerodromes revert to Class G airspace with the other four reverting to either Class E or Class D airspace
- there are five different tower and enroute airspace configurations among these 11 aerodromes
- the current design is not conducive to the implementation of generic endorsements in OneSKY, which will allow air traffic controllers to be rated on like-type sectors through airspace standardisation, delivering productivity benefits to industry
- inconsistent risk application for the service levels applied where other Class E airspace use is acceptably safe in regional areas
- delivery of a surveillance approach service is resource and training intensive and disproportionate to the level of risk associated with the deactivation of the tower and Class D airspace out of tower hours
- inconsistent airspace design and level of service is problematic for pilots operating multiple flight sectors, leading to higher workload for aircrew (particularly single crew operations), errors and violations of Controlled Airspace (CTA).

It is proposed that these initiatives will be implemented in the May 2020 AIRAC cycle (subject to ACP approval by CASA).

CASE FOR CHANGE

These airspace changes are required as part of the broader Airspace Management Program to provide the platform for an effective air traffic management service and are an enabler to deliver the benefits of the OneSKY Australia Program.

In removing the requirement to separate VFR aircraft from IFR aircraft in relatively low density regional areas, resources can be re-allocated to manage traffic at higher density and higher risk areas.

The current airspace design has not undergone any major changes since the implementation of the International Civil Aviation Organisation (ICAO) airspace classification system in Australia in 1996, yet there has been significant changes in technology, traffic levels and stakeholder expectations within the aviation sector. These include:

- changes to technology (e.g. Performance Based Navigation (PBN))

- mandated avionics (e.g. IFR ADS-B mandate)
- upcoming changes to the ATM platform capability (e.g. CMATS)
- General Aviation (GA) expectations (e.g. increased VFR access)
- new airspace users
- changed Government expectations (e.g. airspace policy paper)
- different international practices
- enhanced surveillance through ADS-B
- new aircraft capability (increased velocity, altitude and range).

Today's regional airspace environment has remained relatively static from a design perspective since the early 2000's, while technology and the airspace system has changed significantly with technology advancing exponentially leading to the inconsistencies provided above.

TRANCHE 3.1 – RE-CLASSIFY CLASS C AIRSPACE TO CLASS E AIRSPACE AT EIGHT REGIONAL AERODROMES

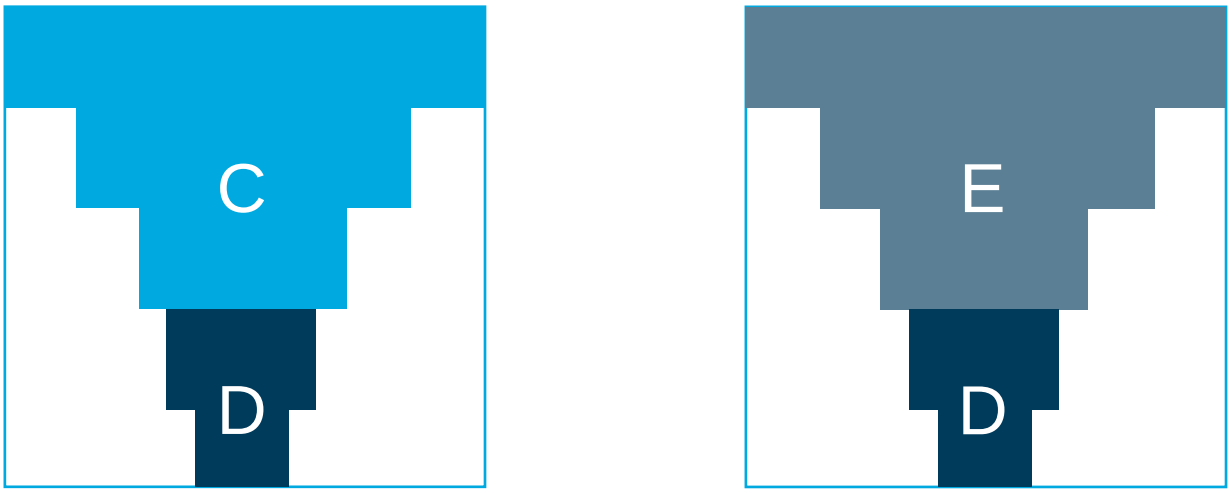
Albury, Alice Springs, Coffs Harbour, Hamilton Island, Launceston, Mackay, Rockhampton and Tamworth

These Class D regional aerodromes and associated enroute sectors are made up of Class C and Class E airspace. Air traffic control currently provide services to Instrument Flight Rules (IFR) and Visual Flight Rules (VFR) aircraft arriving, departing and transiting.

It is proposed to replace the Class C airspace with Class E over these regional aerodromes while ensuring the current levels of efficiency and safety to all airspace users in those areas remain. This will provide VFR aircraft with greater unrestricted access to airspace at these locations, fostering and promoting civil aviation.

Class E airspace is more commensurate to the risk assessment for these aerodromes and will deliver the following benefits:

- supports a standardised graduated service model
- reduces air traffic control complexity, allowing for IFR traffic growth in regional areas without increase in console and controller numbers
- standardised airspace will deliver ATC productivity benefits flowing to our customers
- reduces the potential for delay to IFR aircraft being restricted by lower performing VFR aircraft.



TRANCHE 3.2 AND 3.3: OUT OF TOWER HOURS OPERATIONS

Launceston, Mackay, Rockhampton, Albury, Alice Springs and Tamworth

These aerodromes currently provides a non-continuous tower service, with different levels of service provided outside of the tower service hours, which is either:

- a Class G airspace service provided by the enroute controller, replacing the Class D tower airspace
- a Surveillance Approach for Regional Aerodromes (SAFRA) service provided by enroute and approach controllers at the Brisbane and Melbourne Air Traffic Service Centres.

There are also six different airspace designs used outside of tower hours for these locations.

The SAFRA service was introduced to meet a Ministerial Directive presented to Airservices in 2004. The Directive instructed that if the volume of airspace above a Class D aerodrome was classified as Class E airspace, and should that airspace be re-classified as Class C airspace after the commencement of the directive, Airservices must provide an approach radar control service. SAFRA enables non-continuous towers to provide an approach service during out of tower hours.

11 regional tower services were in scope, using existing surveillance infrastructure such as radar, ADS-B or Wide Area Multilateration (WAM). Five aerodromes currently offer SAFRA services (Mackay, Rockhampton, Launceston, Hobart and Avalon), but there is divergence in air traffic control procedures and service levels provided, resulting in a disproportionate high cost associated with controller training and service delivery requirements.

Airservices is proposing to replace the out of tower hours terminal Class E and Class D airspace with Class G airspace at Albury, Alice Springs, Launceston, Mackay, Rockhampton and Tamworth. As the airspace above these Class D aerodromes will become Class E, an approach service is not required outside of tower hours (as the Ministerial Directive requires these services where Class C exists over Class D).

When each tower closes, and the Class D airspace is deactivated, the airspace will revert to Class G airspace between the surface and 4,500ft AMSL.

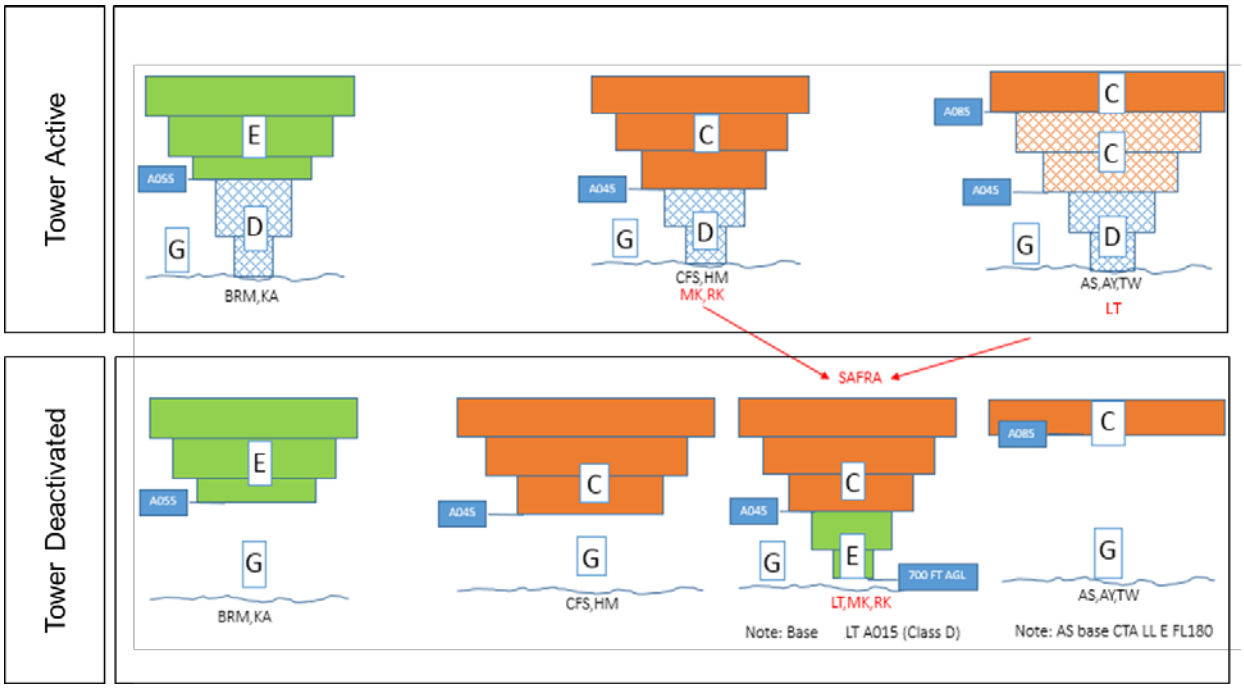
Airservices is also proposing to lower the out of hours Class E steps to 4,500ft AMSL at Albury, Alice Springs and Tamworth as these towers have traditionally deactivated their control area steps at the

closing of the air traffic control tower. The control area steps above the Class D airspace will remain active 24 hours a day with a base of Class E at 4,500ft AMSL.

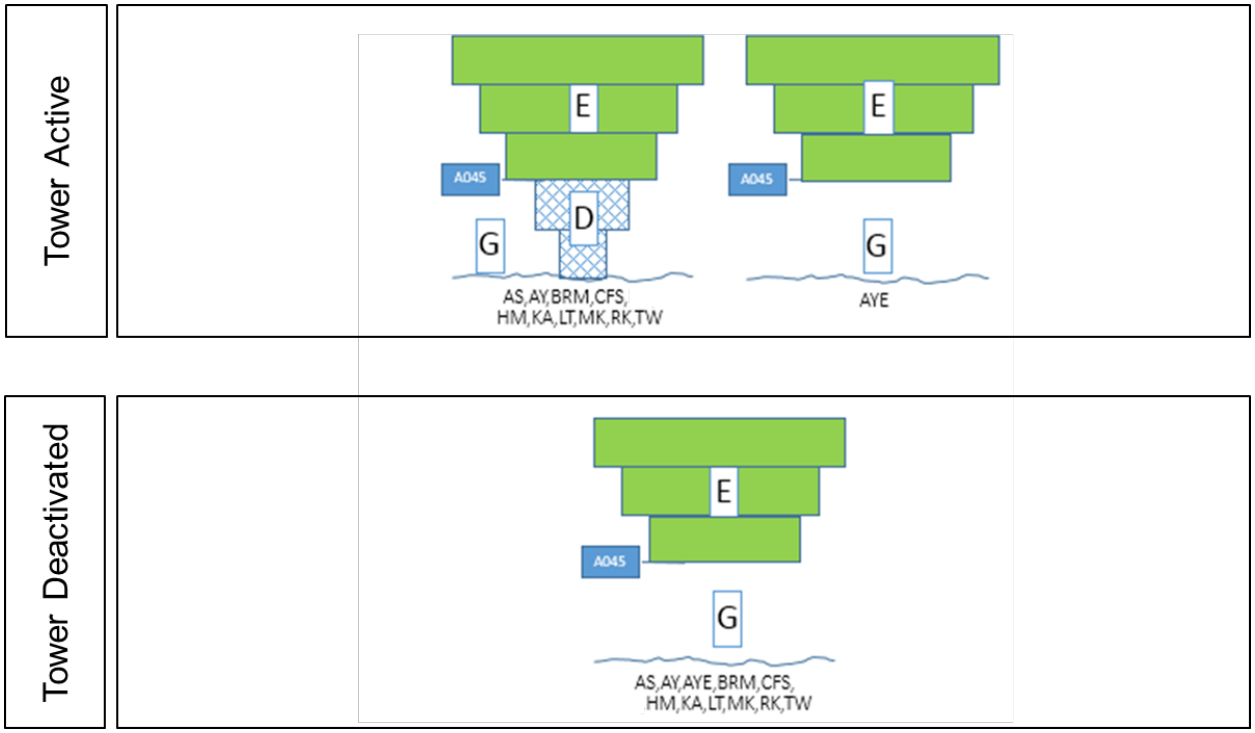
The benefits that will be delivered to industry through the implementation of these initiatives are:

- a reduction in overall controller and pilot training through economies of scale, generated by using generic airspace models
- improve standardisation of procedures and airspace classification use across the country
- remove the disproportionate cost of training and rostering controllers to provide the SAFRA service when compared to the level of risk based on traffic density outside of tower hours
- to provide a separation service to lower levels outside of tower operating hours at some aerodromes where surveillance coverage is currently underutilised.

CURRENT STATE



PROPOSED STATE



TRANCHE 3.4 AND 3.5: LOWERING OF CLASS E AIRSPACE CONTROL STEPS TO 4,500FT

Broome, Karratha and Ayers Rock

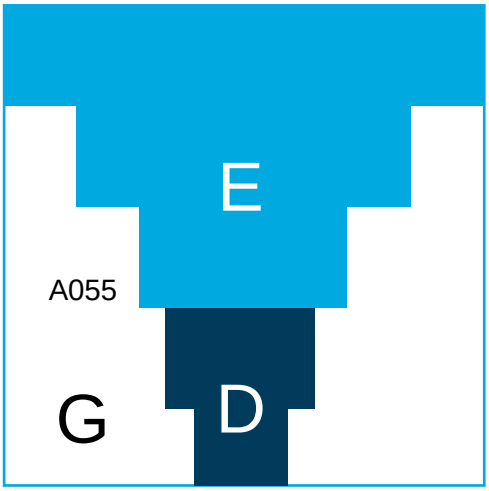
These aerodromes have a Class E lower limit of 5,500ft.

Airservices is proposing to lower the Class E airspace control area steps to 4,500ft AMSL, ensuring standardisation across all Class D regional aerodromes with a transfer point of 4,500ft when the air traffic control tower is active.

The change at Ayers Rock will not be implemented until the proposed trial of Class E is complete and has been included in this tranche to bring consistency in the application of Class E airspace at regional aerodromes across Australia.

The benefits delivered to industry through implementation of these initiatives are:

- improve standardisation of procedures and airspace classification across the country
- enhance separation services through replacement of airspace volumes managed by a procedural tower with airspace managed by an enroute surveillance service
- provide a separation service to lower levels outside of tower operating hours where surveillance coverage is currently under utilised
- reduce overall controller and pilot training through economies of scale, generated by using generic airspace models.



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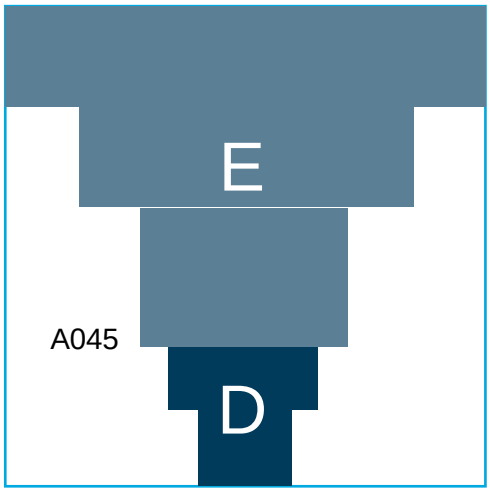

PROPOSED

(Ayers Rock does not have a Class D service and it is proposed to introduce Class E steps to A055 in November 2019, as per Tranche 2)

INDUSTRY CONSULTATION

Airservices is consulting widely on these proposals, and welcome feedback from all airspace users. This feedback will be used to feed into our design and safety work in preparation for the Airspace Change Proposal submission.

Consultation and information distribution mechanisms include:

- Airservices representatives will be visiting the aerodromes where these changes are proposed, to discuss the initiatives with local operators and seek feedback. These forums will be scheduled within the five week consultation period.
- Airservices hosted an Industry Operations Forum in early May for industry groups, including RAPAC Convenors, representative organisations and industry bodies. A presentation on the Airspace Modernisation Program (tranche 3 changes) and a Q&A session will form part of that agenda.
- Airservices has met with senior airline operational and safety representatives to discuss these proposals, with future meetings scheduled.
- RAPAC paper distribution out of session, noting State RAPAC meetings are not scheduled during this period Airservices can meet with/provide further information to other RAPAC convenors for their members as required.
- Information sent directly to:
    - Board of Airline Representatives Australia (BARA)
    - Regional Aviation Association of Australia (RAAA)
    - Australian Airline Pilots Association (AusALPA)
    - Recreational Aviation Australia (RAAus)
    - Australian Strategic Air Traffic Management Group (ASTRA)
    - Aircraft Owners and Pilots Association (AOPA)
    - Australian Business Aviation Association (ABAA)
    - Gliding Federation of Australia (GFA)

  - Australian Airports Association (AAA)
  - Air Sport Australia Confederation (ASAC)
  - Australian Parachute Federation (APF)

- The Airservices website contains all information on these initiatives, including fact sheets for individual aerodromes, where feedback can be provided via email to stakeholder@airservicesaustralia.com.
- Airservices can provide further information and/or briefings with individual industry representatives as required during the consultation period.

Feedback

Please provide feedback directly via email - stakeholder@airservicesaustralia.com.

Feedback can be submitted until close of business Friday 24 May 2019.