# MINUTES

<table>
<thead>
<tr>
<th>Item No</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. OPENING</td>
<td></td>
</tr>
<tr>
<td>1.1 VIC RAPAC Convenor nominations</td>
<td></td>
</tr>
<tr>
<td>2. REVIEW OF ACTION ITEMS</td>
<td></td>
</tr>
<tr>
<td>3. REGIONAL SAFETY MATTERS</td>
<td></td>
</tr>
<tr>
<td>4. CHANGE PROPOSALS</td>
<td></td>
</tr>
<tr>
<td>5. AGENCY BRIEFINGS AND UPDATES</td>
<td></td>
</tr>
<tr>
<td>5.1 Bureau of Meteorology</td>
<td></td>
</tr>
<tr>
<td>5.2 Airservices Australia</td>
<td></td>
</tr>
<tr>
<td>5.3 Defence</td>
<td></td>
</tr>
<tr>
<td>6. OTHER BUSINESS</td>
<td></td>
</tr>
<tr>
<td>6.1 Update on low-level frequency use in Class G airspace</td>
<td></td>
</tr>
<tr>
<td>6.2 Mildura CTAF</td>
<td></td>
</tr>
<tr>
<td>6.3 Use of ERSA</td>
<td></td>
</tr>
<tr>
<td>6.4 Removal of symbols from charts</td>
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<tr>
<td>6.5 Update: DAP Plates – ARFU/PAL (from November VIC RAPAC Meeting)</td>
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1. OPENING

The Chair opened the meeting and thanked the RAPAC members for attending. All members introduced themselves.

The Chair congratulated Mr Dick Gower who had been awarded a Member of the Order of Australia.

1.1 VIC RAPAC Convenor nominations

Mr Brian Hannan informed the members that in the absence of any other nomination he would accept the convenor position for another 12 months. The Chair thanked Brian for his significant contributions to date and looked forward to continue working collaboratively over the next 12 months.

2. REVIEW OF ACTION ITEMS

The status of outstanding action items was reviewed with comment included in the attached table.

3. REGIONAL SAFETY MATTERS

There were no regional safety matters raised.

4. CHANGE PROPOSALS

There were no change proposals raised.

5. AGENCY BRIEFINGS AND UPDATES

5.1 Bureau of Meteorology

Mr Ashwin Naidu (Bureau of Meteorology) gave a presentation (attached) to update the RAPAC on the Bureau’s projects. He highlighted the Transformation of Aviation Meteorological Services project in which he informed the RAPAC that by the end of 2019, the Northern Aviation Centre will be operational in Brisbane, with the Southern Aviation Centre to be operational in mid-2020 in Melbourne. Mr Naidu also informed the RAPAC that the draft report of the TAF review is expected to be released for industry comment in mid-2019, and the implementation of the changes is expected in 2020. The Bureau will send an out of session paper notifying all RAPAC of the release of the draft report where consultation will be open for 6 – 8 weeks.

Mr Naidu also informed the RAPAC that the Bureau is trialling a new AWIS for VHF with the installation at Essendon Airport expected by early March and a planned installation at Wangaratta and a later date.

Mr Naidu raised the changes in the SIGMET sequencing numbering that was implemented last year and said that the Bureau has not received a lot of feedback and that RAPAC members were welcome to continue to provide feedback if desired. He also noted that the Bureau will have a stand at the Avalon Airshow where they will be launching their Customer Satisfaction Survey.

5.2 Airservices Australia

An Airservices representative informed the RAPAC that the Air Traffic Control (ATC) tower hours at Albury airport are scheduled to change due to lower passenger movements. He noted that the passenger movements on the weekend do not meet the minimum movement requirements for the tower to be staffed. The tower will be staffed between 0815 and 1445 on Saturdays and closed on Sunday.
An Airservices representative gave a presentation on Airservices’ Airspace Modernisation Program which highlighted the organisation’s plans to improve and update Air Traffic Management (ATM). Mr Bloom outlined the prioritised changes including transferring five towers’ airspace to Enroute Surveillance Controllers; increasing Enroute Class E and Class C airspace; and the non-towered airport Class E trial at Ayers Rock Aerodrome.

The Convenor raised his concerns to Airservices about the Ayers Rock Class E trial which was sent out of session initially to only two RAPACs. He raised the issue with the lowering of Class E airspace to 1,200ft AGL which would have negatively impacted general aviation and small commercial operators from flying VFR should their ADS-B be unserviceable or ADS-B not fitted (VFR – Class G). The Convenor also raised the concern that Airservices only gave the RAPACs four days to respond to the original proposal. He also informed the RAPAC that the National RAPAC Convenors convened a resolution to reject the proposal.

An Airservices representative informed the RAPAC that a project team from Airservices spent time at Ayers Rock consulting with the local operators and airlines. There has been considerable feedback they received since the original proposal went out for public consultation. As a result of the consultation, the proposed base for Class E airspace at Ayers Rock was amended to 5,500ft AMSL.

The VIC RAPAC stated that they do not agree to the re-proposed Class E base of 5,500ft AMSL but instead believe that 8,500ft AMSL is the minimum appropriate level.

<table>
<thead>
<tr>
<th>Action</th>
<th>Convenor to provide VIC RAPAC recommendation of 8500’ as the Class E LL at Ayers Rock to CASA OAR and Airservices.</th>
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</thead>
<tbody>
<tr>
<td>Responsible</td>
<td>Convenor</td>
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<tr>
<td>Timeframe</td>
<td>Out of Session</td>
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</table>

Andrea Roberts (CAE Oxford Aviation Academy) noted that in her view there was a lack of experience in change management in the government agencies, reflecting on the local matters that have come about in the past six months. She also noted that general aviation should be one of the first points of contact when it comes to consultation as it is the sector that produces airline pilots. The Convenor noted that CASA OAR has an effective process by making proposals available and accessible to the aviation community, but he has not seen this for any proposals made by Airservices.

The RAPAC asked whether CASA OAR had received an Airspace Change Proposal (ACP) from Airservices. Mr Martin Holberton (CASA OAR) confirmed that two ACPS had been received and noted that CASA OAR expects that a proponent of an ACP goes through the process of consulting with stakeholder before they submit the application. They expect that any concerns with airspace activity has been considered. However, if further consideration needs to be undertaken, CASA OAR will 'stop-the-clock' while they wait for the proponent to get back with the required information.

The Convenor enquired why Airservices wanted to lower the Class E airspace at Ayers Rock when there has only been one incident over the past ten years. Mr David Nye (Airservices) stated that while there may have only been one incident, the change is to provide a better service to airspace users and local operators. He noted that feedback is essential and Airservices is taking all feedback on board, as reflected by their re-proposed base for the Class E airspace. Mr Nye also informed the RAPAC that if this trial is successful, there are other areas around the country that the proposal can be implemented. However, the trial is essential to note the operational consequences and feedback in order to determine whether it will be fit to change for other aerodromes.

The Convenor highlighted that while the Ayers Rock trial is relevant more specifically for the NT and SA RAPACs, the lowering of Class E airspace is a national matter that needs to be considered.
This is because Class E airspace requires airspace users to have a transponder installed and if applied to other areas of the country, would negatively impact those airspace users, many of whom may not have had the opportunity to participate in providing feedback on the trial if the proposal was not sent nationally.

5.3 Defence
SQNLDR David Olsen informed the RAPAC of changes occurring to R359 occurring from 28 February 2019. He also advised the RAPAC of Ex Chong Ju occurring on 8 and 9 May and will be the same as previous years. More information is attached to the minutes.

The Convenor raised concern over the late notice to discuss Chong Ju and requested that Defence pay particular attention to the due dates promulgated by the RAPAC Secretariat so RAPAC members have time to review proposals or matters before the meeting. The convenor noted that the Industry Only meeting felt that more detail could have been provided in the Chong Ju brief.

6. OTHER BUSINESS

6.1 Update on low-level frequency use in Class G airspace
The Chair gave an update on low-level frequency use in Class G airspace. He stated that CAAP 166 was out for public consultation and the Summary of Consultation (SOC) will be published in the next few days. The Chair also informed the RAPAC that CASA has a strategy on education for the general aviation sector. The recommended procedure will be promulgated and taught through online e-learning modules, brochures and CASA’s Aviation Safety Seminars.

The Chair also highlighted the changes in charts whereby validated and unvalidated aerodromes will have different symbols to distinguish between them. This will assist airspace users in understanding which frequency should be used at a specific aerodrome and meets the national RAPAC desire to maximise charting of aerodromes.

6.2 Mildura CTAF
The Convenor requested an update on the progress of this matter. He suggested placing this on the Action Register for the RAPAC to keep track of its progress.

6.3 Use of ERSA
Mr Warren Canning raised the concern that many airspace users seem to not be reading their ERSA for their operations using the example whereby prior permission to use airfields is not sought despite it being stipulated in the ERSA. He highlighted the need to ensure that better education is provided to students and operators that ERSA should always be referred to before any flight activity as the matter is a concern for airmanship.

The Chair also raised the matter that there were reports of instances where airspace users are not reading NOTAMs before any flying activity which leads to airspace infringements.

6.4 Removal of symbols from charts
Mr Godsmark stated that when informing Airservices that changes are required on charts, a justification needs to be sent along with the request. Dick Gower to contact Airservices requesting the changes he has suggested.

6.5 Update: DAP Plates – ARFU/PAL (from November VIC RAPAC Meeting)
At the November VIC RAPAC meeting, Mr Kevin Smith raised incorrect information on the West Sale DAP approach charts. It shows PAL 119.6 on all the Approach charts. This means that 3 by 3 second microphone pulses are required to activate the PAL. This has been incorrect since the runway lighting was upgraded some years ago (actual date 20 September 2012) to the 3 by 1
second pulses. The correct information in the approach plates, according to ERSA INTRO, should be “AFRU + PAL 119.6”.
Kevin will circulate a synopsis as an out of session paper and advised that Joe Hain (CASA) has been made aware.

**Update:** Mr Smith’s synopsis was circulated on 10 February 2019 and the Chair offered to proceed it with CASA ANAA.

## 7. ATTENDANCE LIST

<table>
<thead>
<tr>
<th>Name</th>
<th>Organisation</th>
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<tbody>
<tr>
<td>Matthew Bouttell (Chair)</td>
<td>CASA</td>
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<td>Brian Hannan (Convenor)</td>
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<tr>
<td>Julian Smibert</td>
<td>AFAP</td>
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<td>Dallas Nicholls</td>
<td>Regional Express</td>
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<td>Simon Godsmark</td>
<td>Airservices</td>
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<tr>
<td>Warren Canning</td>
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<tr>
<td>Ben Ippolito</td>
<td>Point Cook Flying Club</td>
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<tr>
<td>Jim Duff</td>
<td>Air Nostalgia</td>
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<td>Alex Dallwitz</td>
<td>CASA</td>
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<tr>
<td>David Bell</td>
<td>ABAA</td>
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<tr>
<td>Lindsey Behnck</td>
<td>CAE OAA</td>
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<tr>
<td>Andrea Roberts</td>
<td>CAE OAA</td>
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<tr>
<td>Martin Holberton</td>
<td>CASA</td>
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<tr>
<td>Mark Fineran (VC)</td>
<td>CASA</td>
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<tr>
<td>Matthew Di Toro (Phone)</td>
<td>CASA</td>
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<tr>
<td>Michael White</td>
<td>CASA</td>
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<tr>
<td>Christopher Thorpe</td>
<td>GFA/HCAPA</td>
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<tr>
<td>Dick Gower</td>
<td>AAAA/RAAus</td>
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<tr>
<td>Kevin Smith</td>
<td>Shortstop Jet Charter/GAMair</td>
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<tr>
<td>Ashwin Naidu</td>
<td>Bureau of Meteorology</td>
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<tr>
<td>Adrianne Fleming</td>
<td>AWPA/Tristar Aviation</td>
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<tr>
<td>Brad Johnson</td>
<td>CASA</td>
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<tr>
<td>Daniel Olsen</td>
<td>Defence</td>
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<tr>
<td>Scott Mitchell</td>
<td>Airservices</td>
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<tr>
<td>Tristan King</td>
<td>Bureau of Meteorology</td>
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<tr>
<td>Peter Bloom (Phone)</td>
<td>Airservices</td>
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<tr>
<td>David Nye (Phone)</td>
<td>Airservices</td>
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</tbody>
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**Apologies**

<p>| Tony van der Spek           | AOPA                                |
| Rob Payne                   | VTPC RAPAC delegate                 |
| Doug Gould                  | AOPA                                |
| Gareth Davey                | QLD RAPAC                           |
| John Gleeson                | Kyneton Aero Club/SAAA              |</p>
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<thead>
<tr>
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<tr>
<td>2017-1/2</td>
<td>Update the forum on the progress of the Melbourne Aeronautical Study, including any developments in relation to the Melbourne GBAS or Avalon control area steps.</td>
<td>Chair</td>
<td>Jul-17, Nov-17, Mar-18, TBA</td>
<td>Closed @ 2019-1 pending YMML RWY direction confirmation. Report currently being compiled and draft expected to be published for comment by Q4 2017. Preliminary indications are that current Melbourne airspace arrangements, with the exception of Avalon, are fit-for-purpose (i.e. designed for current published procedures) however will require redesign for parallel runways. CASA OAR advises that DRAFT report is completed and being reviewed internally with the expectation for it to be released for comment end-Feb/Early-Mar. CASA advised the 2018-1 meeting that report was currently being peer-reviewed internally however subsequent to the meeting CASA has placed the release of this study on-hold pending review of draft airspace matters related to the YMML parallel runway. Further updates will be provided by CASA as they become available. 2018-3 update: CASA OAR advised that as Melbourne airport are yet to confirm new runway orientation. As such the OAR will conduct individual studies of the various airports in the Melbourne area and once complete, it is expected Melbourne airport will have nominated the orientation of the new runway to enable a collation of all studies into a final Melbourne Aeronautical Study.</td>
</tr>
<tr>
<td>2017-1/7</td>
<td>Convey the recommendation to consolidate frequencies in ERSA under a single heading to Airservices publications.</td>
<td>Airservices</td>
<td>Jul-17, Nov-17, 2018-1, 2018-2, 2018-3, 2019-1</td>
<td>Closed @ 2019-1. Airservices provided advice at 2018-1 that they were would be willing to consider changes to ERSA format and requested a copy of the changes sought from the VIC RAPAC. Mr Gower has sent the proposed changes (attached to these minutes) to Mr Godsmark (Airservices) on 2 March 2018 for consideration. Airservices to seek further internal guidance again as to whether this can be progressed however at meeting 2018-2 RAPAC was informed that to prioritise this work Airservices will require a safety case. Airservices to provide final advice to inform all RAPACs through the Secretariat of position on this matter. 2018-3 Update: Airservices provided no update on this Action at this meeting. Airservices is requested to inform the VIC RAPAC at the first meeting for 2019. 2019-1: Airservices advise that complete change of ERSA format to accommodate this request would be required and there is no ability to progress at this time. This action now captured 2019-1/1.</td>
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<td>2017-3/1</td>
<td>Provide additional information about the proposed Runway 34 GLS with respect to (1) potential impact if pilots continued to allow a 500ft buffer to controlled area steps and (2) to what extent access to the Class C airspace could be made available to VFR transit flights when the GLS was not being used.</td>
<td>Airservices (Godsmark) and CASA (Chair) Moorabbin Safety Committee</td>
<td>Out of Session.</td>
<td>In Progress. Airservices provided an overview of the airspace changes required for the ML RWY34 GLS at 2018-1. This included chart changes to be publish in the November 2018 AIRAC which will be socialised at VIC RAPAC 2018-2. To enable support of this airspace change members sought that the Melbourne VTC clearly display appropriate hemispherical levels, ‘On Track’ and other educational material to be updated, a concerted campaign by CASA Safety Advisor's outlining the changes with local operators as well as continual updates from Airservices and CASA whilst preprations continue for it’s implementation in November 2018. The meeting noted that the loss of 500’ of Class G increased potential conflict with traffic to and from Essendon at right angles to the VFR route and suggested Airservices consider the safety aspect. 2018-2 Update: CASA has commenced the review of the Wall chart VTC and OnTrack to assist in facilitating this change. In addition, Aviation Safety Advisors will be working with local operators and flying schools through Safety Seminars and on-site visits in preparation. Airservices confirmed the date of effect is 8 November 2018. 2018-3 Update: Airspace changes were implemented on 8 November 2018. In addition, and without prior advice, directional changes and level changes to the Port Phillip Bay VFR route took place. Considerable feedback was provided to CASA regarding the change and a VIC RAPAC working group was established by the Convenor to examine immediate alternatives, including the reversal of the change with the accommodation for the airspace change. Refer meeting minutes for further detail. Action to remain open to enable further discussion at 2019-1 regarding possible future industry proposed changes to VFR route. 2019-1 update: Awaiting further advice from Moorabbin Safety Committee on proposed altitudes at waypoint CARRUM.</td>
</tr>
<tr>
<td>2017-3/2</td>
<td>Provide additional information about the circumstances under which the published runway strip width for Runway 26 at Essendon can be 300m, when there are known obstacles within that strip width.</td>
<td>CASA (Chair)</td>
<td>Out of Session.</td>
<td>Discussions between AFAP and CASA have occurred out of session. CASA will be conducting an out of session briefing on technical details contained within Part 139 MOS in April 2018. Item expected to be closed post-April briefing. Update: Out of session briefing occurred on 9 April. Some agreement has been achieved but further discussions are ongoing. Update 2018-2: CASA will continue to liaise and communicate the matter with the RAPAC. CASA will also provide a draft of the ERSA entry for YMEN ‘Aerodrome Obstacles’ and send to AFAP/Brian for consideration. 2018-3 update: Refer meeting minutes for update on this action and presentation provided by Essendon Fields. 2019-1 update: VIC RAPAC, including ABAA, does not support 180m and recommend it remain at 300m. Action to close once ERSA is updated to reflect new format of advising pilots of OBS.</td>
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### Action Register - VIC RAPAC

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<tr>
<td>2017-3/6</td>
<td>Consider options for addressing potential conflicts between the instrument approach procedure at Bendigo and gliding operations at Raywood, including a NOTAM in the short term.</td>
<td>CASA (Chair)</td>
<td>Out of Session.</td>
<td>CLOSED @ 2019-1: NOTAM has been issued for YBDG. March-2018 DAP Charts have been updated to indicate the location of the gliding operations along with a note. Airport operator and gliding club are working offline with CASA Safety Advisor to work through any potential frequency change. 2018-2 update: Bendigo Gliding Club (Raywood) have decided to proceed direct to CASA/OAR with a request for change for Raywood to adopt the Bendigo CTAF. Further advice will be provided to RAPAC as it comes to hand. 2018-3 update: CASA advised the Bendigo Gliding Club on 16 July 2018 of the detailed information needed for the change to be considered and awaits a submission. Post-meeting update- Qantas announced in December 2018 that it will commence RPT operations at Bendigo from March 2019. 2019-1: VIC RAPAC advise there is no objection for Raywood to have same frequency as Bendigo.</td>
</tr>
<tr>
<td>2018-2/1</td>
<td>Airservices to send a National out of session RAPAC a paper requesting feedback on publishing IFR waypoints in the DAH.</td>
<td>Airservices</td>
<td>Sep-18</td>
<td>CLOSED @ 2019-1 - No update at 2019-1. Transferred into action 2019-1/1.</td>
</tr>
<tr>
<td>2018-3/1</td>
<td>AusALPA to write concerns regarding Metro D operations to Airservices.</td>
<td>L. Gray</td>
<td>Out of Session.</td>
<td>2019-1 update: Convenor and Mr Gray to discuss out of session and advise status at 2019-2.</td>
</tr>
<tr>
<td>2018-3/2</td>
<td>Link to the PCA charts to be displayed on the Bureau of Meteorology’s website</td>
<td>BOM</td>
<td>Out of Session.</td>
<td>CLOSED @ 2019-1: BOM representative gave demonstration of BOM website at 2019-1.</td>
</tr>
<tr>
<td>2018-3/3</td>
<td>RAPAC Convenors to confer to discuss a joint submission for the TAF review.</td>
<td>Chair</td>
<td>Out of Session.</td>
<td>2019-1 update: Chair to arrange teleconference for all convenors in mid-March 2019.</td>
</tr>
<tr>
<td>2018-3/4</td>
<td>Essendon Fields (Neil Weatherson) to provide electronic copy of the earlier safety case (300m RWS), the current safety case (180m RWS) and a copy of the presentation at RAPAC to the RAPAC Convenor</td>
<td>Neil Weatherson / Convenor</td>
<td>Out of Session.</td>
<td>CLOSED @ 2019-1: Safety Case not provided.</td>
</tr>
<tr>
<td>2019-1/1</td>
<td>Consolidated Airservices Actions: 1) Request from RAPAC to include Encode as well as Decode of locations on the PCA Chart 2) Airservices to send a National out of session RAPAC a paper requesting feedback on publishing IFR waypoints in the DAH. (ref. 2018-2/1) 3) Convey the recommendation to consolidate frequencies in ERSA under a single heading to Airservices publications. (ref: 2017-1/7)</td>
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<td>2019-1/2</td>
<td>Convenor to provide VIC RAPAC recommendation of 8500' as the Class E LL at Ayers Rock to CASA OAR.</td>
<td>Convenor</td>
<td>Out of Session.</td>
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<tr>
<td>2019-1/3</td>
<td>Mr Kevin Smith circulated a synopsis on the incorrect information on the West Sale DAP approach charts. The Chair to proceed it with CASA ANAA.</td>
<td>Chair</td>
<td>Out of Session.</td>
<td>The Chair to proceed the synopsis of the matter with CASA ANAA. Update to be provided by 2019-2.</td>
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Bureau of Meteorology Update

VIC RAPAC
Presented by Ashwin Naidu
Topics

• Transformation of Aviation Meteorological Services
• TAF Review
• Changes to VHF AWIS
• Changes to SIGMET sequence numbering - feedback
Transformation of Aviation Meteorological Services:

Current operations
- Forecasters provide public and aviation weather
- Forecasting delivered from 11 discrete locations

Key issues:
- Service improvements are complex and costly
- Workload managed within locations
- Scope to strengthen and uplift aviation specialisation.

Future service demands
- Industry trends
  - Growth in air movements
  - Global operations and sourcing

Future services
- Digital and graphical met information, in cockpit
- Air Traffic Flow Management, OneSky
- Regional Hazardous Weather Advisory Centres (VAAC, TCAC)
Waypoints

Service Review
- 2014-2015: Review of Service
- 2016-2017: Customer feedback
- 2017-2018: Operating and business model development
- 2018-2019: Staff deployment; Systems commissioned
- 2019-2020: Full technology uplift complete

Business Case
- 2016-2017: Business case

Programme Yr 1
- 2017-2018: Technology design and build

Programme Yr 2
- 2017-2018: Staff deployment; Systems commissioned
- 2018-2019: Northern Aviation Centre (Brisbane) operational

Programme Yr 3
- 2019-2020: Southern Aviation Centre (Melbourne) operational
More information:

Aviation Meteorological Services
Transformation webpage

Contact us on:
Aviation_Transformation@bom.gov.au
TAF Review

- **Purpose:**
  - Determine the current and future needs of the aviation industry.
  - Make recommendations relating to the provision and categorisations of TAFs.
  - Quality management.


Changes to VHF AWIS

• The Bureau is trialling a new AWIS for VHF

• Installation at Essendon expected by end of February or early March.

• Wangaratta installation TBA
Changes to SIGMET sequence numbering

- SIGMET sequence numbers consist of three characters, e.g. B02

- The SIGMET sequence number changed on the 8th November 2018 to allow each 26 alpha characters to be used per FIR.

- As a result, the same alpha character can be used simultaneously in each FIR but for two different SIGMET phenomena.

**YMMM SIGMET C02 VALID 200500/200900 YMHF-YMMM MELBOURNE FIR SEV TURB FCST WI S4000 E14900 - S4250 E14900 - MRL - OAT - YDPO - S4000 E14700 SFC/8000FT STNR WKN**
RMK: ME=

**YBBB SIGMET C02 VALID 200440/200640 YSRF-YBBB BRISBANE FIR SQL TS FCST WI S2910 E15000 - S2910 E15020 - S3100 E15140 - YNWD - S3140 E15140 - MUI - S2940 E14950 TOP ABV FL450 MOV E 35KT NC**
RMK: BB=
Coming soon…

- Manual of Aviation Meteorology Update planned this year.
- Customer Satisfaction Survey
  An out of session e-mail will be sent out when the online survey becomes available.
- The Bureau will have a stand at Avalon Airshow.
Questions and comments

Avn_Regional@bom.gov.au
Airspace Modernisation Program

Class E Airspace at Ayers Rock

Air Navigation Services and Customer Service Enhancement
February 2019
Destination ATM 2025

Enhanced Long Haul Airspace Services
- Enhanced Domestic Surveillance (Satellite ADS-B)
- Long Range Air Traffic Flow Management
- Route Optimisation (Blaze Preferred Routes / Dynamic Airborne/Enroute Procedures)
- Single Flight Information Resolution

Enhanced High Density Airspace Environment
- Continuous Descent Approach
- Integrated Departure/Arrival Management
- Wake Turbulence Re-categorisation and Alerting

Modernized Air Traffic Control Environment
- Configuration Flexibility
- Consistent and Informed Supervision
- Intelligent Pre-Shift Briefing
- Mobile Operational Information
- Co-located Defence/Civilian Workforce
- Integrated Defence/Civilian ATM platform
- Full Contingency Capability

Performance Based Endorsement
- Dynamic Sectorsisation
- Voice Switch Capacity
- Enhanced Airspace and Aircraft Conflict Detection
- Workload Forecasting and Management
- Nationally Standardised Procedures

Enhanced Regional Airspace Environment
- Airspace reform aligned to enhanced services
- Increased low altitude ADS-B surveillance (Terminal and Satellite)
- Flexible Use of Airspace

Enhanced Aerodrome Environment
- Digital Aerodrome Services Delivery
- Airport Collaborative Decision Making
- New Parallel Runways at Brisbane and Melbourne
Airspace in the ATM context

- Enabling a predictable air transport network
- Delivering safe and efficient services
- Setting the platform for effective Air Traffic Management
Changing ATM Environment

• Changes to technology (eg Performance based navigation)
• Mandated avionics (eg IFR ADS-B mandate)
• Changes to the ATM platform capability (eg CMATS)
• General aviation expectations (eg VFR access)
• New airspace users (eg Drones, RPAS)
• Changed government expectations (eg Airspace Policy Paper)
• Differing international practice (eg FAA airspace)

• Emerging airports (eg Western Sydney)
• Emerging services (eg Ballina)
• New runways (eg Brisbane and Melbourne)
• New service offerings (eg Digital Aerodrome Services)
• Enhanced surveillance (eg Satellite ADS-B)
• Modernised communications (eg SATCOM)
• New aircraft capability (eg increased velocity, altitude, range)

….airspace hasn’t kept up
Government/Industry Expectations
Features of our current airspace architecture

- Inconsistent regional terminal airspace
  - Differing local ATC procedures & handoffs
  - Differing airspace classification
- Inconsistent capital city tower airspace
  - C in Australia, B in several other countries
- Under utilised surveillance capability
  - Procedural separation where surveillance exists
- Unnecessary restrictions on VFR access
  - Class A where C is suitable
  - Traffic service where separation services are appropriate
  - Class G where E is appropriate in both enroute airspace and outside of tower operating hours

<table>
<thead>
<tr>
<th>Class</th>
<th>Controlled</th>
<th>IFR</th>
<th>SVFR</th>
<th>VFR</th>
<th>ATC Clearance</th>
<th>Separation</th>
<th>Traffic Information</th>
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<tbody>
<tr>
<td>A</td>
<td>Controlled</td>
<td>Yes</td>
<td>No</td>
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<td>Required</td>
<td>Provided for all flights</td>
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<td>Yes</td>
<td>Yes</td>
<td>Required</td>
<td>Provided for all flights</td>
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<td>C</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Required</td>
<td>Provided for all IFR/SVFR to IFR/SVFR/VFR</td>
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<td>D</td>
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<td>Yes</td>
<td>Yes</td>
<td>Required</td>
<td>Provided for IFR/SVFR to other IFR/SVFR</td>
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<td>Yes</td>
<td>Yes</td>
<td>Required for IFR and SVFR</td>
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<td>Provided for all IFR and VFR flights where possible</td>
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<td>F</td>
<td>Uncontrolled</td>
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<td>Yes</td>
<td>Advisory only</td>
<td>Provided for IFR/SVFR to other IFR/SVFR where possible</td>
<td>Provided where possible if requested</td>
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<td>G</td>
<td>Uncontrolled</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Not provided</td>
<td>Not provided</td>
<td>Provided where possible if requested</td>
</tr>
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</table>
# Prioritised changes

<table>
<thead>
<tr>
<th>1</th>
<th>5 Tower’s Transfer of Airspace to Enroute</th>
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<tbody>
<tr>
<td>Hobart, Albury, Launceston, Alice Springs and Tamworth Towers transfer of airspace 4,500 feet AMSL and above to Enroute Surveillance Controllers – increasing airspace within which surveillance services are provided</td>
<td>May 2019</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Increased Enroute Class E and Class C Airspace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement of uncontrolled airspace with controlled airspace above 12,500 feet - increasing airspace in which separation service is provided Increasing access to airspace for aircraft operating under visual flight rules above 18,500 feet</td>
<td>November 2019</td>
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</table>

<table>
<thead>
<tr>
<th>2.1</th>
<th>Non towered airport Class E trial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement of uncontrolled airspace with controlled airspace at Ayers Rock Aerodrome for terminal airspace from 5,500 feet AMSL</td>
<td>November 2019</td>
</tr>
</tbody>
</table>
Changes map

**Change Principles**

CP1. The class of airspace should be commensurate with the service level required to appropriately manage the assessed level of risk.

CP2. There should be national consistency and standardisation of airspace and procedures to reduce complexity for air traffic controllers and pilots and enhance service resilience.

CP3. The class of airspace should leverage the implementation of air traffic management technologies (such as ADS-B surveillance) to improve safety, mitigate risk and enhance access to airspace for all airspace users.

**Service Outcomes**

SO1. Ensure the safety of air navigation is the most important consideration while fostering and promoting civil aviation.

SO2. Provide a predictable, efficient and effective service to the aviation industry.

SO3. Innovate for airspace user value aligned with global industry expectations.
# Airspace Change Process

<table>
<thead>
<tr>
<th>Initiation</th>
<th>Gate 1</th>
<th>Prioritisation and Resource Allocation</th>
<th>Change Preparation</th>
<th>Gate 2</th>
<th>Consultation and Change Process</th>
<th>Gate 3</th>
<th>Implementation and PIR</th>
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</thead>
<tbody>
<tr>
<td>Submit proposal (6.2.2.4)</td>
<td>Gate 1 review (6.2.4)</td>
<td>Service Manager - Assign prioritisation (6.2.5.1)</td>
<td>Assign change coordinator (6.2.6.1)</td>
<td>Gate 2 review (6.2.7)</td>
<td>Execute SEP (6.2.8.1)</td>
<td>Gate 3 review (6.2.9)</td>
<td>Regulatory Performance - ACP to CASA</td>
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<tr>
<td>Commence EIA as per A-NOS-ENV-2.100 (6.2.3.5)</td>
<td>FPG approval</td>
<td>AT3 Change - Allocate resources (6.2.5.2)</td>
<td>Create NRFC (6.2.6.2)</td>
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<td>GSCE - Report on engagement outcomes</td>
<td></td>
<td>ATM Data Services - Publication</td>
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<tr>
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<td></td>
<td></td>
<td>ATM Network Services - Flight path modeling and analysis</td>
<td></td>
<td>CASA consultation (see Note at 6.2.8.1)</td>
<td>CASA ACP form (6.2.8.3)</td>
<td>Note: Changes subject to an ACP must await CASA approval (6.2.10.1)</td>
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<td>FPD - Design</td>
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<td>Review risk record (6.2.8.2)</td>
<td>Progress NRFC (6.2.8.4)</td>
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<td>Review initial design (6.2.6.3)</td>
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<td>CASA consultation (see Note at 6.2.8.1)</td>
<td>NRFC endorsement (6.2.8.5)</td>
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<td>Record risk (6.2.6.4)</td>
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<td>A&amp;EA - Targeted EA as per A-NOS-ENV-2.100</td>
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<td></td>
<td>GSCE - Create SEP as per A-NOS-ENV-2.100 and any other consultation</td>
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<tr>
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<td></td>
<td>Conduct SCARD as per AA-PROC-SPF-0104 and additional safety reporting if required (6.1.2)</td>
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<td>Conduct TNA as per C-MAN0108</td>
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<td>Complete training</td>
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<td>PIR (6.2.10.3)</td>
</tr>
</tbody>
</table>

**Note:**
- a) For IPP errors, see 6.2.3.4;
- b) For MMP errors, see 6.3.1.7.

**Cancel**
Current

- Tower (ADC) provides approach procedural separation in Class C airspace A085 – A045 and in Class D airspace from A045 to ground
- Enroute provide control services down to A085

Concept

- Tower provides approach procedural separation in Class D airspace A045 to ground
- Enroute provide separation in Class C airspace down to A045
Current

- Class A airspace does not have a standardised base and restricts airspace access for VFR aircraft to not above FL180 in medium and high density areas.
- Class E airspace in continental (low density) areas has a lower limit FL180. There is under utilised surveillance capabilities in Class G airspace below FL180.
- Mildura, Dubbo and Bass Straight areas have Class E Corridors LL F125.

Concept

- Class A airspace is raised to FL245 across the Australian FIR. This will standardise the airspace and provide increased airspace access for VFR aircraft.
- Over continental (low density) areas, class E airspace is lowered to FL125.
- Class E FL125 will provide enhanced services (separation) for IFR aircraft whilst retaining unrestricted airspace access for VFR aircraft.
- Mildura, Dubbo and Bass Straight Class E corridors will blend in with continental Class E facilitating standardisation of airspace over the continent.
2.1 Non towered airport
Class E trial

Replacement of uncontrolled airspace with controlled airspace at Ayers Rock Aerodrome for terminal airspace from 5,500ft AMSL

November 2019

Current

• IFR aircraft leave class E airspace passing FL180 and enter class G on decent to Ayers Rock. ATC separation services are terminated and replaced by FIS and DTI with known aircraft.
• All aircraft self separate in class G airspace
• Surveillance capability to the ground is under utilised

Concept

• IFR remain in class E airspace down to A055
• IFR aircraft receive ATC separation services with other IFR aircraft down to 5,500ft AMSL
• Surveillance capability is utilised for separation services for IFR aircraft down to A055 whilst facilitating continued airspace access for VFR aircraft
• VFR self separate in class E and G airspace
Ayers Rock Proposal Consultation

- Consultation with RPT Operators (Qantas, Virgin, Jetstar, Cobham, Alliance and RFDS)
- Consultation with GA Operators (Ayers Rock based and frequent Ayers Rock airspace users as well as airport operator)
- Consultation with industry bodies (RAPAC, RAAA, RAAus, AusALPA, ASTRA, AOPA and APF)
- Consultation with Government (Defence, DIRD and CASA OAR)
- Engagement through mixture of face to face briefings and electronic communication
Ayers Rock Proposal Consultation

- Initial proposal was to introduce Class E airspace from 1,200ft (AGL)

- Following feedback from stakeholders (GA, RAPAC, airlines) proposal was changed to introduce Class E from 5,500ft (AMSL)

- Consultation on this proposal was crucial to producing an airspace design that is safe and efficient for both airspace users and air traffic control
Exercise Chong Ju
8-9 May 19

Headquarters Air Command

AIR FORCE

Mission First, Safety Always
Airspace

- Lateral boundary encompassing extant restricted areas (R350A&B, R351A&B, R352)
- SFC-FL250
- To support live fire exercise including rotary wing and fast jet activity
Mission First, Safety Always
Contact Details

- Squadron Leader Patricia Atkinson
- Phone: (02) 6128 4856
- Email: adf.airspace@defence.gov.au