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By Email

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Mr Ben Lyons
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International Aviation, Technology & Services Division
Department of Infrastructure, Transport, Regional Development and Communications
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Dear Ben,

AUSALPA COMMENTS ON THE NATIONAL STRATEGIC AIRSPACE: NATIONAL AVIATION POLICY ISSUES PAPER 2021

The Australian Airline Pilots' Association (AusALPA) is the Member Association for Australia and a key member of the International Federation of Airline Pilot Associations (IFALPA) which represents over 100,000 pilots in 100 countries. We represent more than 7,100 professional pilots within Australia on safety and technical matters. Our membership places a very strong expectation of rational, risk and evidence-based safety behaviour on our government agencies and processes and we regard our participation in the work of the Australia's safety-related agencies as essential to ensuring that our policy makers get the best of independent safety and technical advice.

AusALPA welcomes the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC) initiative to drive a more strategic focus on the management of Australia's national airspace. We agree that it is essential to Australia's national interests, both now and in the future.

Before addressing the paper in detail, we need to draw your attention to some general issues that we believe adversely affect national airspace policy, regulation and management.

GENERAL ISSUES

Machinery of government arrangements

The Issues Paper, while released for public comment by DITRDC, nevertheless has all of the hallmarks of being drafted, rather than simply informed, by Airservices Australia (AsA). Consequently, the introductory comments about CASA's role in airspace management and as the developer of the Australian Future Airspace Framework (AFAF) ring hollow. It is particularly easy to come to the view that the AFAF will be drafted by AsA, approved by DITRDC and handed to CASA as a *fait accompli*. AusALPA does not believe that such an outcome is in the national interest.

In our submission on the draft 2021 Australian Airspace Policy Statement (AAPS), we raised our concerns about related machinery of government issues that we consider constrain the proper contemplation of airspace risk and mitigation, as well as the generation of appropriate safety-based advice to the Government. Our AAPS submission should be read as an adjunct to this submission.

AusALPA is concerned that the Office of Airspace Regulation (OAR), supposedly a distinct operational unit of CASA, is placed so far down in the CASA bureaucracy that it is effectively suppressed as the arbiter of airspace safety. In sharp contrast, AsA appears to us to be accorded excessive influence in airspace policy decisions. In our AAPA submission, we said:

> Airservices Australia
>
> In theory, CASA as the safety regulator decides on airspace requirements and Airservices as the service provider gives those requirements substance. However, in practice, AusALPA perceives that Airservices attempts to control the narrative at all levels, both in terms of policy and implementation. It also appears that, despite the AAPS-implied independence of CASA airspace determinations, the mandatory "close consultation" might better be characterised as requiring "consensus". If, as we suspect, Airservices is granted excessive influence in airspace policy decisions, then the result is effectively a role reversal that largely sidelines OAR in the process.
>
> Most recently, it appears to us that Airservices is trying to implement changes within the broad classes of airspace classification without invoking the Airspace Change Proposal (ACP) process. The proposed introduction of a Surveillance Flight Information Service (SFIS) at Ballina (and possibly Mangalore) is touted to provide a safety benefit through a new level of service that uses existing communications and surveillance assets, controller and technical skills and experience, but without changing the class of airspace. To the best of our knowledge, there is no ICAO standard for this type of service and no external scrutiny over the controller training, resource allocation or risk assessments.
>
> Unfortunately, Airservices seemingly eschews transparency of any of its recent airspace and airspace-related activities, particularly consultation feedback, leaving us unable to verify whether these activities are being conducted wholly or in part to benefit Airservices' organisational requirements in preference to those of the industry and the traveling public.

We also said:

> The relevant costs here are service and infrastructure costs imposed on operators and the industry through the "user pays" mechanism from the activities of a monopoly for-profit service provider. In the absence of competition and public scrutiny, implementation costs solely determined by Airservices can be used as a powerful political tool both for and against risk mitigation determinations made by CASA.
>
> Contextually, AusALPA considers that in the present circumstances Airservices acts more like a self-interested private entity than a public interest agency. There is little to no incentive for monopoly suppliers to minimise costs in a pass-through system where the end-user, the travelling public, has no real influence over the supply chain.

AusALPA accepts that airspace management involves balancing considerations of safety, access, efficiency and economics. However, we do not accept that those considerations are of equal weight – when decisions are made to accept a reduction in safety to achieve a benefit in one or more of those other considerations, then the decision-maker should be clearly identified and the rationale for the decision should be fully explained and subject to public scrutiny.

Trust in our policy-makers

This Issues Paper has all of the hallmarks of AsA's approach to the Airspace Modernisation Program, which consistently emphasised the good while diminishing or excluding the bad and about which a substantial amount of negative feedback has been generated. Much of that feedback is hidden from public scrutiny by the whim of AsA, apparently unchallenged by the Government's supposed commitment to Open Government. DITRDC should ensure that it directly examines the industry feedback to gain a proper insight into why the industry has rejected the lack of transparency, consistency and safety basis for the various elements and tranches of a program that appears to lack clear broadly applicable benefits for the aviation industry. There is very little industry trust in AsA's priorities beyond self-interest.

That absence of trust is not helped by Government insisting that AsA make sufficient profit to pay a dividend to the Commonwealth coffers – profit made from user-pays in a system where the industry has no effective control over either the monopoly costs or the purported benefits.

Airspace protection

AusALPA is again disappointed that "airspace protection issues, such as protection of Obstacle Limitation Surfaces, are considered to be out of scope for this discussion".

Assigning the protection of this airspace to DITRDC has been a safety system failure, characterised by a "development at any cost" outcome supervised by an economic agency with no credible enforcement record using legislation that effectively side-lines CASA. On the other hand, much is made of managing airspace down to the surface for RPAS and other emerging technologies

This deliberate omission of airspace protection measures reinforces our view that this Issues Paper is not about the strategic management of airspace by a range of agencies, but rather about the future provision of ATM by AsA. They are related but different things.

Acceptable levels of risk

The concepts of an Acceptable Level of Safety Performance (ALoSP) and As Low as Reasonably Practicable (ALARP) are centrepieces of this Issues Paper. They are the risk management practices that are intended to balance the costs of risk mitigation – a measure of the affordability of safety.

Who decides?

The Issues Paper conveniently never mentions, let alone discusses:

- who makes the decision that a particular level of safety performance is acceptable; and
- in accordance with what criteria?

This absence of accountability occurs for a range of differing risk-related issues discussed within the paper. That characteristic is unacceptable to us.

In our submission on the draft 2021 AAPS, AusALPA reflected on the imbalance in airspace safety decision-making generally, and the organisational arrangements within CASA in particular, that effectively suppress OAR as any form of independent risk adviser. We also expressed the view that it is inappropriate for OAR to adopt an economic role in determining the affordability of recommended airspace risk mitigators. Recent experience makes it very clear that the decision-maker will not be OAR – it is

more likely to be a CASA CEO, either directly or on advice, making a politically expedient decision on the recommendation of AsA and DITRDC.

It is abundantly clear to us that it certainly shouldn't be AsA, as the conflicted interests of the for-profit service provider cannot be ignored or resolved. For example, AusALPA remains concerned about the residual elevated risk levels at Ballina, despite underdeveloped "Band Aid" mitigators such as "Special Flight Information Service" (SFIS), yet AsA consider the risks to be ALARP because the likely cost of a Class D tower (if provided by AsA) is too high to be a "practicable" risk mitigator.

Nonetheless, the point has been made previously to a number of inquiries and reviews that determining that a particular level of safety performance is "acceptable" is not a technical decision for a technical agency such as CASA, but rather a political decision to be made by the Minister. Clearly, the Minister is advised by DITRDC in such matters, but it is incumbent upon the Minister to ensure that the DITRDC advice is balanced and not excessively biased by AsA or other stakeholders.

Any policy outcomes that depend on ALoSP or ALARP determinations must include a clear statement of accountability for the making of such determinations and for the provision of advice to the decision-maker. Given the pivotal nature of these determinations, AusALPA is adamant that the decision making must be fully transparent to all stakeholders and on the public record.

Importing risk tolerance

There is a clear presumption in the Issues Paper that there is widespread acceptance of the view that every element of the US National Airspace System (NAS) is of net benefit to Australia. However, the US NAS was developed in a very different historical, political, economic and infrastructure context. While much of the airspace is similar, some is clearly not. Class E is the predominant lower level airspace in the US NAS, supported by some 700 ADS-B ground stations, with very little Class G, the complete opposite of the Australian architecture and related infrastructure.

The Issues Paper is silent about the infrastructure requirements to support an exact copy of the NAS and equally silent on explicitly identifying what existing Australian services and risk mitigators would be wound back to achieve an identical system. The critical question is whether the risk tolerance of Australia's aviation industry and travelling public matches that typically demonstrated by US travellers.

In April, in response to AsA's revised proposal to lower Class E airspace on the East Coast, we noted

> Class E airspace of itself provides no mitigation of the collision risk between VFR aircraft and IFR or other VFR aircraft – that relies entirely at the lowest levels of aircraft equipage on unalerted "see and avoid". AusALPA assesses the risk tolerance of the US public to medium to large scale fatal events to be substantially different from our own. In particular, the ineffectiveness of "see and avoid" as a mitigator of collision risk in medium to high performance aircraft does not seem to be as concerning to our US compatriots as it does to us.
>
> In any event, unlike Australia, the availability and pricing of avionics means that the collision risk is slowly being mitigated by the take-up of quite capable CNS equipment, particularly collision avoidance avionics and especially ADS-B In and Out.

The local response to COVID-19 seems to be clear evidence that the Australian public does not share the American public's tolerance for risk in general. The airline industry's tolerance for risk is arguably reflected in the Australian Class E radio and transponder requirements, which certainly do not replicate the absence of similar

requirements below 10,000 feet in US Class E. Similarly, the additional risk mitigator of Directed Traffic Information (DTI) to aid IFR aircraft to self-separate in Australian Class G airspace is not a feature of the US NAS.

It now seems clear from the proposals discussed in the Issues Paper that the planned final national volume of Class E will be extensive and intended to replace Class C steps wherever it can be implemented. It also seems clear that control zones and terminal airspace are planned to shrink considerably within the blanket coverage of Class E while services within Class G, such as DTI, are also targeted for removal.

The Issues Paper does not address the communications and surveillance infrastructure that is fundamental to supporting the proposed system. We do not believe that the existing infrastructure is adequate.

We remain unconvinced whether Australians have the tolerance to accept the risk profile of the NAS in its final form and, more importantly, in the reduction of services to get there. Understanding that tolerance, as well as the level of trust in our government agencies to act in the public interest, are key considerations that lead to a more informed airspace policy and the potential resolution of the intense polarisation of airspace debate in Australia.

ICAO compliance

AusALPA supports Australia's compliance with ICAO Standards and Recommended Practices (SARPs). However, it is important to note that ICAO SARPs are minimum standards designed to cater for a wide range of national capabilities among Contracting States. Compliance creates no impediment to providing enhanced services or more targeted risk mitigators and no imperative to lower local standards to match what may well be the lowest common standards achievable in more straitened ICAO States.

Equity and Access

The Issues Paper, like ICAO, uses "equity" and "access" separately and together in a way that we find potentially inconsistent. A casual reader might form the view that equitable access to airspace is an absolute right and a number of airspace-related documents imply that such is the case. AusALPA often feels compelled to clarify that access is, in fact, conditional and, from a risk management perspective, well justified.

Appendix 4 to the paper reproduces Appendix D of the GATMOC, which is found in full in ICAO Doc 9854. Under the heading *Access and equity*, the Appendix is clear that there is a right of access only "to the ATM resources needed to meet their specific operational requirements" rather than to any particular class of airspace, while separately ensuring that "the shared use of airspace by different users can be achieved safely". The issue of equity is limited to "all users that have access to a given airspace or service".

Paragraph 2.5.7 of Appendix F to ICAO Doc 9854 is clear:

> 2.5.7 Expectations are not independent. For example, there will always be conflicts of interest among individual airspace users for access to the same airspace/runway at the same time, and the economic impact of meeting all needs may translate into unrealistic costs. Trade-offs will therefore be necessary. However, safety is always the highest priority in aviation. Therefore, once an acceptable level of safety has been established, it will not be subject to trade-offs.

If we now reconsider the implications of trying to replicate accurately the US NAS while remaining compliant with ICAO, we encounter some significant difficulties:

- If Australian Class G includes a DTI service to provide an acceptable level of safety, trading it off as proposed on page 21 for some undisclosed benefit would not comply with paragraph 2.5.7 above.
- If Australian Class E requires a radio and transponder at all levels to provide an acceptable level of safety, trading it off merely to replicate the US NAS model would not comply with paragraph 2.5.7 above.
- On the other hand, if Class E is intended solely to be transparent to VFR aircraft as if they were in Class G, is it equitable to effectively exclude VFR aircraft that can operate in Class G from Class E by extending Class E almost to the ground?
- Does the widespread replacement of Class C steps with Class E to provide access to VFR aircraft mean that there is trade-off of the accepted level of safety, contrary to paragraph 2.5.7 above?

AusALPA considers that clarification of how the 'equity' and 'access' terms are applied by policy makers is critical. Unexplained or uninformed use of these terms separately or in conjunction will only serve to further polarise airspace debate, which clearly is not in the national interest. Unfortunately, in this regard, we find the Issues Paper to be quite unhelpful. CASA must ensure that the AFAF is much clearer and definitive.

Australia's most significant airspace threat

AusALPA notes that the layout of the Issues Paper basically follows that of ICAO Annex 11. From an ATM perspective, that layout addresses the most complex of the international ATM tasks – the provision of safe upper level air routes to facilitate the safe movement of international air traffic. However, search and rescue and war zone issues aside, we do not see the Annex 11 sequence (and consequently the Issues Paper) appropriately addressing the highest operational risk in our airspace – conducting passenger transport operations into uncontrolled aerodromes in high traffic densities and/or marginal weather conditions.

AusALPA strongly suggests that more focus and priority needs to be placed on robustly addressing that issue.

THE ISSUES PAPER

Technical background

In regard to upper serviced (or potentially serviced) enroute airspace, Class B airspace is mentioned as an option providing VFR access if there are high level general aviation or military VFR operations. Under Part 91, VFR aircraft may be granted access to Class A airspace, so it is not clear what level of activity would trigger a reclassification of airspace to Class B. In the case of military operations, special use airspace has been the historical solution to exclude incompatible civil traffic. It is not clear to us if the Issues Paper is signalling a proposal to replace military special use airspace with ICAO civil airspace classifications or to what end.

The final paragraph on page 14 refers to technical and procedural solutions that can be deployed within different classifications of airspace without the need to reclassify the airspace. Each of these additional services serves to hybridise the nominal ICAO classification of airspace in search of an ALoSP outcome, but there is no discussion

about when these localised add-ons might generate a generic service change applicable to the whole of that airspace class or when reclassification is more appropriate. For example, do the additional services quoted bring our Class G closer to Class F, an airspace class available under the AAPS but not mentioned in the Issues Paper?

Figure 2 mentions that "airspace classification is used to manage risk to ALoSP". However, there is no discussion about why there is an apparent preference for service add-ons over reclassification. To be clear, AusALPA is not opposed to appropriate localised solutions to achieve ALoSP, but we are opposed to a lack of transparency around what is acceptable and why reclassification is not the appropriate option.

For example, AsA has just been approved to implement what it calls a Surveillance Flight Information Service (SFIS), initially at Ballina. The SFIS is the provision of traffic information to IFR/IFR, IFR/VFR, and VFR/VFR aircraft operating within a CASA declared broadcast area using the aerodrome's discrete Common Traffic Advisory Frequency (CTAF). That service is clearly substantially enhanced over DTI, itself an increased service level over ICAO/US NAS Class G airspace that has proved to be inadequate at Ballina. AusALPA considers it noteworthy and clearly convenient for AsA to classify SFIS as a 'flight information service' as distinct from an 'air traffic advisory service', since the latter would invoke a change to Class F airspace pending a further reclassification to Class D or C.

Section 9.1.4 of ICAO Doc 4444 describes the characteristics of an 'air traffic advisory service', the objective of which is:

> 9.1.4.1.1 The objective of the air traffic advisory service is to make information on collision hazards more effective than it would be in the mere provision of flight information service.

In our view, SFIS has exactly that objective as well as the other characteristics set out in section 9.1.4. There has been no discussion during SFIS consultation as to why it is not an 'air traffic advisory service' and why there has been no interim or permanent airspace classification change.

Technical considerations

The reference in the fourth dot point on page 16 to 'equitable access' reflects the terminology variously used in the *Airspace Act 2007*. For the reasons outlined in our general comments, AusALPA recommends that the Act be amended to reflect that the granting of access to airspace and the equitable balancing of compatible activities within that airspace are separate safety-based decisions.

The third dot point on page 17 reflects paragraph 4.4 of ICAO Annex 2 and CAR 173(3). However, under Part 91, Australia no longer requires special approval for VFR operations above FL200. In any event, it was never an airspace-related limit and should not have been conflated with airspace architectural considerations.

Proposals for airspace classification

Standardisation of airspace design has become an AsA catch cry. It is not always clear with whom or to what purpose we are standardising. There is also an increasing tendency to use standardisation as the reason to implement a range of airspace and service changes without further explanation and often without obvious benefit to the industry.

Class of airspace – Upper airspace

Presumably, the blanket coverage of Class A airspace is to facilitate flexible tracking and the gaining of the associated efficiency and environmental benefits. In the US NAS, Class A also has blanket coverage with a base of FL180 across the continental US and Alaska. The US regulations (see 14 CFR 91.159) do not appear to set an upper limit for VFR flight.

Proposal **AC1** includes VFR access as part of the rationale as does proposal **AC2**. Given that that there are no altitude limits on VFR flight and, further, that CASR 91.285 allows an approval to be granted for VFR operations in Class A airspace, choosing an appropriate lower level for Class A airspace could be standardised across the country based simply on the level that provides sufficient controlled airspace to cater for all normal enroute operations and the vast majority of drift down requirements in the event of the failure or abnormal operation of an engine. The widespread use of FL245 as the base of oceanic Class A would seem to indicate that it is an appropriate lower level to protect high-level passenger operations without unnecessarily excluding lower-level activities.

Proposal **AC2** is an expansion of controlled airspace for the wrong reasons as already identified. However, noting the generalised issue of VFR access, AusALPA is agnostic as to whether the lower level of Class A is reduced to FL205 or is standardised at FL245. Replicating the US NAS lower level of FL180 is not supported.

AusALPA believes that the critical element is the class of airspace that underlies continental Class A to provide protection for climb to and descent from that airspace volume. The proposals at AC6 and later inadequately discuss that issue.

Class of airspace – Enroute oceanic airspace

The 2018 AAPS indicates that north of 65º S latitude, DTI is provided in Class G. There is no distinction made therein between continental and domestic Class G. Proposals **AC4** and **AC5** give the impression that there is some difference and that the service provision is not currently aligned. In the absence of an explicit statement of the status quo, the differences between the existing and proposed Class G service levels, the traffic levels involved and the resource requirements, AusALPA is unable to contribute meaningfully to this element of the consultation.

Class of airspace – Enroute continental airspace

AusALPA has written extensively to AsA and CASA about the various attempts to replace Class G airspace with Class E. We do not intend to replicate the relevant correspondence, since they are already available to DITRDC as info addressees.

The industry responses to AsA's two proposals to lower Class E on the East Coast generated in excess of 1000 responses – anyone considering responses to this Issues Paper must gain access to those responses to better understand the industry's concerns. There is a high risk that consultation fatigue may well limit responses to this paper and it would be a grievous error to misinterpret a lack of response to be a lack of concern.

In the US NAS, operations in Class E airspace at and above 10,000 feet MSL within the 48 contiguous states and the District of Columbia, excluding the airspace at and below 2,500 feet above the surface require an operable radar beacon transponder with automatic altitude reporting capability and operable ADS-B Out equipment. There are no radio equipment requirements. Below 10,000 feet AMSL, VFR operations in US NAS Classes E and G are identical and non-exclusive.

In contrast, our Australian rules require the carriage of both radio and transponder in Class E airspace, thus excluding that part of the VFR community that do not comply. The exclusion increases as the base of Class E gets lower, as does the potential concentration of aircraft in Class G immediately below the base of Class E. Even where aircraft have a radio but are excluded by transponder requirements, self-separation can be problematic wherever the Class E and underlying Class G airspace do not share the same frequency.

One critical issue that AusALPA has highlighted is the time and space available to flight crew exiting Class E airspace on descent to identify all relevant traffic and self-separate to maintain the safety of flight. As the base of Class E is lowered, the benefits of this class of airspace diminish as time and space becomes compressed to the point that the collision risk may actually increase, notwithstanding any other safety consequences of the substantially increased cockpit workload.

Within the range of Australia's surveillance infrastructure, proposal **AC6** generally provides the IFR-IFR and IFR-VFR separation benefits of Class E while, for the most part, providing adequate time to self-separate in Class G. However, there are caveats: first, that VFR detection, while enhanced, is not guaranteed; and, second, that terrain clearance below the Class E base varies significantly.

Surveillance detection of VFR traffic itself is a function of two things. First, our relatively limited surveillance infrastructure: 61 ADS-B sites and a handful of radar sites in Australia, compared with the coverage of a similar geographic area in the US by 700 ADS-B sites and hundreds of radar sites; and, second, VFR aircraft in Australian Class E have the option of an IFR ADS-B OUT, a Mode S transponder, a Mode A/C transponder or an Integrated traffic awareness beacon system (TABS) device, meaning that they may not be visible to ATC or TCAS at the same time. As ATC identification of VFR aircraft is not required, no consistent serviceability check is available.

Terrain clearance can be problematic. Even an 8500 feet Class E base will be time-and-space compromised along the Great Dividing Range and other elevated sites throughout the country. Further mitigations such as Class E and G frequency matching may be essential in some sectors.

Noting the Issue Paper's introduction of Class B as a potential enroute option, the Class E lower levels of proposals **AC7** and **AC8** have been partially consulted already as ASA's Lowering Class E on the East Coast proposal – we believe with widespread rejection. AusALPA's advice to AsA was as follows:

> **Conclusions**
>
> For the absence of doubt, we will repeat our previous conclusions, updated appropriately.
>
> AusALPA does not support the proposal to lower the base of Class E airspace to approximately 1,500ft AGL by way of blocks of fixed altitudes AMSL in medium and high density enroute airspace between Cairns and Melbourne and believes that a complete rethink is required. The revised proposal should also be withdrawn.
>
> The Design and Implementation Safety Cases for this proposal (and all elements of the AMP) should be made public and redacted only to the minimum extent required to protect individual (but not corporate) privacy.
>
> Many, if not most, of the touted benefits of this proposal are more hubris than of substance. In some cases, the likely outcomes are the opposite of what is suggested.

> The proposal continues what seems to be a myopic rush to install Class E as the default Australian airspace but without the subtleties and operational maturity of the US NAS system upon which it is based.
>
> AusALPA has seen nothing in the way of post implementation reviews by Airservices (with particular emphasis on the flight operations aspects) of the existing pockets of Class E with lowest levels of 700ft and 1200ft AGL, at least one of which has drawn adverse comment from CASA OAR. The current proposal should not be implemented in the absence of such reviews of implementation versus design, given the significant consequences of the proposed changes.
>
> Given the flawed proposal of implementing Class E as enroute airspace, we consider low exit altitudes from Class E into Class G/CTAFs on arrival and vice versa for departures as potentially dangerous due to greatly increased cockpit workloads, time compression and communications complexity.

Furthermore, AusALPA rejects the additional part of **AC7** and **AC8** to remove DTI from Class G. There are no safety benefits suggested and, as discussed in our general comments above, it is directly contrary to both the spirit and the letter of paragraph 2.5.7 of Appendix F to ICAO Doc 9854 that proscribes reductions to established levels of safety.

Although often quoted as an option, the Issues Paper provides no explanation of how Class B might be used in the Australian context – that is unhelpful. It is also not clear whether Class B as an option has disappeared from AC9 simply to reflect current practice or there is some other non-intuitive reason.

Noting our comments on AC6 above, some elements of proposal **AC9** have some attraction, both as an opportunity to reset the whole Class E debate and to clean up the previous low level Class E experiments conducted by AsA at the listed aerodromes. Many of those airspace experiments have recently been reviewed by OAR and recommendations have been made to AsA to resolve the issues. As far as we are aware, AsA has not acted on any of the recommendations.

AC10 is not supported. The associated rationale states that Class G would be as per AC6, but that is not status quo in terms of design – presumably it therefore refers to service levels and the retention of DTI.

Although not explicitly stated, it is clear that the enroute proposals are intended to replace existing Class C steps with Class E.

Apparently, there are some options that avoid the risks associated with uncontrolled VFR traffic during climb and descent of passenger transport aircraft. The summary statement on page 38 says in relations to proposals AC6-AC10:

> Proposals are the default position unless Class D, C or B has been determined to maintain an ALoSP.

However, in our experience, Class D has been used in the terminal area/control zone context and it appears that Class B is used in the US context as terminal airspace, thus somewhat muddying the waters of the enroute airspace distinction made in this paper.

In any event, it is not clear to us what hurdles need to be overcome to retain Class C steps from the terminal area/control zone up to the base of Class A airspace. It is insufficient to merely mention making an ALoSP determination without further elucidation.

Given that VFR aircraft are permitted in Class C, AusALPA sees no valid reason to replace Class C steps with enroute Class E. AsA has been advised that we firmly reject the use of Class E over terminal airspace. We believe that this part of the

potential architecture requires a more robust and honest consultation than currently has been the case.

Class of airspace – Terminal airspace

Proposal **AC11** and **AC12** purportedly retain the status quo of airspace being classified as E, D, C or B as required to maintain an ALoSP. It is not clear whether the added requirement in **AC12** means that the first step classification then becomes the driver of the control zone classification.

Given that steps are designed for containment, it makes no sense to us to design steps with different airspace classes.

Class of airspace – Control zones

AusALPA is concerned that proposal **AC13** is driven more by the apparent need to ensure viability of new entrants than to protect the travelling public. Proposal **AC14**, the status quo option, is considered problematic:

> This solution [AC14] has potential limitations as new entrants may require access to the airspace for destinations that exist in the control zone or the terminal buildings at the airport itself. Regulatory solutions may be required to facilitate new entrants, especially eVTOLs, into Class C or B control zones as the separation standards utilised by controllers in this class of airspace could limit the number of aircraft in the zone at any one time, which may not support the expected number of aircraft to make such a service viable.

While AusALPA supports providing appropriate access to airspace, the decisions must be made on an appropriate risk basis, unbiased by real or perceived pressure to foster new entrants.

The wholesale change of control zones to Class D under proposal **AC13** requires proper safety cases for each location, rather than just a thinly explained blanket change. It is not acceptable as currently proposed.

Proposals for low level airspace

Clearly, there is much more work to be done to take these proposals from their current state to much clearer and potentially acceptable proposals. As described, proposal **LL2** is the only one that considers specific operating environments and interaction with the air traffic system and, therefore, the only proposal which could attract our in-principle support.

Proposals for airspace design

Airspace design – Control zones

AusALPA has consistently raised the issue of containment of instrument approaches and the protection of IFR traffic as a priority. We also support the concept of having a baseline design that is modified only when necessary to cater for site-specific issues. Proposal **AD1** offers the most developed concept, but requires site by site consultation. We would caution against placing too much emphasis on whether circling is permitted – in some cases that is only as a consequence of the runway edge lighting performance and should not be considered as a permanent prohibition.

Standardising the vertical aspects of the design should not lead to such propositions as splitting control over the single zone in the Archerfield example. In such cases, the "standard" zone should be modified by reducing the height to match the lower level of the overlying terminal/control zone airspace.

Proposal **AD2** is less clear. It suggests that containment would be achieved "as per proposal 1", but the rationale suggests that containment is achieved by a different means to the AD1 design parameters. The existing designs that do not meet containment standards should be the highest priority for AD1 design revision. Do nothing, as per proposal **AD3**, is not appropriate.

Airspace design – Terminal control area

Our priority is for containment. As with the control zone options above, the designs identified for amendment under proposal **AD5** should be the highest priority for AD4 design revision. Proposal **AD4** should then be implemented for the remainder. Proposal **AD6** is not appropriate.

Airspace design – Enroute control area

Proposal **AD7** appears to be appropriate as a design standard, but can't be considered in isolation without the complete airspace design from the surface to the base of Class A revealed. AusALPA does not support the replacement of Class C steps with Class E.

Consequential discussion points

The *Air Services Act 1995* Section 16 Direction No. 4 of 2004

AusALPA agrees that the AFAF will supersede the Direction and that it should be rescinded. However, there are more significant issues that require legislative attention.

The AFAF will be essentially worthless if it is not enforceable as soon as it is made. It is not clear to us under what head of power it is to be enforced and, further, whether CASA has sufficient authority to compel AsA to comply with its provisions.

For example, in setting out AsA's functions and powers, subsection 8(3) of the *Air Services Act 1995* provides:

> (3) Subject to subsection (5), subsection 9(1) and section 16, the extent to which AA provides **services and facilities** is subject to **AA's discretion**. [emphasis added]

Subsection (5) requires a priority to be placed on services and facilities for air navigation within Australian-administered airspace, subsection 9(1) is the safety priority and section 16 is about Ministerial directions. Notwithstanding, our question remains as to whether that legislated discretion has the effect that, unless otherwise directed by the Minister, AsA can choose exactly what it will or won't do provided safety is not demonstrably compromised.

At the same time, the Airspace Regulations 2007 do not seem to help the cause. In our submission on the draft 2021 AAPS, we said:

> **Clause 6**
>
> Although Clause 6 simply summarises Part 2 of the Airspace Regulations 2007 (the Regulations), it raises a related question in the context of the SFIS proposal for Ballina whether regulation 9 Particulars of air traffic services acts to severely curtail CASA's powers as potentially authorised by s11(2)(c) of the Airspace Act 2007 (the Act).
>
> S11(2)(c) provides a head of power for CASA to make regulations to determine "the services and facilities to be provided by the providers of air navigation services in relation to particular volumes of Australian-administered airspace". However, the only regulation related to s11(2)(c) is silent on making determinations and, instead, limits CASA to the role of publisher of the "details of the air traffic services that are

to be provided", "including details of the manner in which the services are to be provided". Those details are apparently further limited only to those services provided "in accordance with Annex 11 to the Chicago Convention".

If that analysis is legally correct, then Airservices becomes the determiner of the manner in which Annex 11 compliant services are provided as well as both the standards and delivery of non-Annex 11-compliant services such as SFIS. That would be an entirely inappropriate outcome that is inconsistent with the scope of CASA powers envisaged under the Act.

AusALPA strongly recommends that the legislative framework needs to be more broadly reviewed to ensure that the roles of the regulator and the service provider are clearly delineated.

Concluding Comments

There are a number of machinery of government and legislative issues that need to be resolved if this national strategic airspace policy is to become effective.

There must be clear accountability for, and transparency of, all risk decisions.

There are many aspects of the proposals set out in the Issues Paper that are sensible. There are many others that are not. The overall picture will not be made clear until all of the proposals are combined and the intersections of each proposal become obvious.

AusALPA does not support the replacement of Class C steps with Class E and we do not support the use of Class E over terminal airspaces.

AusALPA does not support the removal of DTI in Class G airspace.

AusALPA strongly recommends action to ensure that instrument approaches, as well as Continuous Climb and Continuous Descent operations, are contained within airspace designs and current deficiencies should be rectified as a high priority.

AusALPA considers that the highest operational risk in our airspace is conducting passenger transport operations into uncontrolled aerodromes in high traffic densities and/or marginal weather conditions. That risk remains unaddressed by this Issues Paper.

Yours sincerely,

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