



28 November 2023

Dear Director,

Colleagues from the School of Aviation, University of New South Wales, Sydney have read through the Aviation Green Paper - towards 2050. I have consolidated our comments and attach as an addendum to this letter. We look forward to reviewing the Aviation White Paper in due course.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read 'Brett Molesworth'.

Brett Molesworth PhD RPsych
Professor and Head of School
Human Factors and Aviation Safety

Addendum.

Consolidated comments from School of Aviation, University of New South Wales, Sydney

Chapter 2 – Likely future directions out to 2050

Sustainability drivers

1. The Green Paper states that SAFs are the only green alternative until 2050. However, there are questions about SAF's green credentials, including sustainability. These questions relate to the entire life cycle of SAFs, from deforestation due to SAF production to contrails and their effect on the environment (Becken et al., 2023).

Especially for regional air traffic in Australia, other greener alternatives to SAFs are already available or will be in the very near future. Powering aircraft (including new vehicles such as vertical take-off and landing vehicles) for Australia's regional air travel with electric and hydrogen is not only a viable and much greener option than SAFs, but also makes more economic sense considering the vast potential now and into the future of renewable energies and hydrogen in Australia. Making regional Australian air travel and indeed road travel sustainable will need imminent investment in hydrogen and electric infrastructure, including at major and regional airports (Gu et al., 2023).

Therefore, UNSW Aviation recommend urgent adequate funding for sustainable aviation alternatives, a research agenda that looks holistically at travel and transport options in our country (i.e., not looking at aviation separately from other transport options and taking international and national research results into account before further commitment and investment in SAFs).

Chapter 3 – Airlines, airports and passengers – competition, consumer protection and disability access settings

Section 3 Disability Access

Seat Pitch

2. Seat pitch varies between commercial aircraft and within airlines. For passengers with and without disabilities, this has health and wellbeing implications (i.e., mobility, access, egress, medical risk of blood clots), as well as safety implications (increases time to exit aircraft in emergency).

Therefore, UNSW Aviation recommends the Australian Government establish a minimum standard for ‘seat pitch’ for commercial aircraft.

Approach to and management of the challenge of appropriate accessibility.

3. Research on how public space operators, including those in aviation environments, approach accessibility shows that there tends to be a primary focus on the built environment, without considering the social and cultural aspects that affect accessibility (e.g., attitudes, stigma, training, cultural norms etc; Caponecchia, Mayland, & Huron, 2023). This has also been found to be the case when Disability Inclusion Action Plans (DIAPS), or similar, are in place (see McGrath, 2009). Accordingly, it is critical that any strategic initiative to improve accessibility in aviation be based on a holistic and comprehensive understanding of accessibility, consistent with the International Classification of Function, Disability and Health (ICF; WHO, 2002). Consistent with this model, disability is seen as arising from the interaction between impairments (e.g., physical, sensory, cognitive) and personal factors (e.g., experience, gender, education) and the physical environment (e.g., lighting, space, handrails, navigational cues) and social environments (e.g., attitudes, awareness). This contrasts to common, more narrow views of “disability” as being constituted by health conditions or use of assistive devices. There are a few implications of this for aviation accessibility, including:
 - a) The need to consider a wide range of experiences of limitations, and how these may interact with different spaces and equipment. Importantly, this includes the need to consider age-related mobility impairment, especially in the context of the ageing population (TRA, 2018; ABS, 2019).
 - b) The need to consult widely and meaningfully with those who have lived experience of disability.
 - c) The need to go beyond consultation, to participation, whereby people with lived experience of disability are actively involved in helping to facilitate accessibility, and all other business objectives, through ongoing roles in

industry. This is also relevant to the Green Paper *Section 10.2 Regulatory and Cultural Barriers*. The whole aviation industry needs to give greater consideration to diversity, and this should extend beyond issues of gender to the inclusion of people with disability.

- d) The need for systematic approaches, rather than partial solutions for some segments of the disability community (e.g., those with neurodiversity), or for some segments of travel (e.g., at the airport, boarding aircraft etc). This is consistent with adoption of universal design and delivers accessibility benefits for all users of a space/service, including those without disability, those with temporary impairments and those who may not identify as having a disability.

Therefore, UNSW Aviation recommends that the Australian Government could achieve this by adopting a systematic informed approach driven/designed with consideration of a wide range of experiences, needs and interactions. The approach also needs to include active and meaningful consultation with people who have lived experience and who are also actively involved to help facilitate accessibility.

Management Systems Standards for Accessibility Management

4. The Green Paper poses the question of what improvements can be made to accessibility that go beyond the existing standards for accessible transport, and how Disability Access Facilitation Plans can be improved. The information above, and the research we have been undertaking, points to the need to go beyond the built environment and embed accessibility as a core objective in all aspects of business. Academics at UNSW have been working on adapting Management Systems Standards frameworks, which are currently used for other complex objectives, such as safety, quality and environmental impacts (e.g., ISO45001; ISO9001; ISO14001), for accessibility management. The use of the Management System Standards framework that is already in place globally is an efficient and effective way of going beyond the built environment, and ensuring accountability for accessibility across an enterprise, and by extension, across an entire passenger journey. Management Systems Standards not only document leadership commitment, but support and align this with an understanding of legal requirements and other requirements. These include resource provision, training and competency development, communication and awareness, consultation and participation of interested parties, and performance evaluation and review (ISO/IEC, 2013). Importantly, Management Systems frameworks are tailored to context – so that businesses of different sizes, or addressing different public space user needs, would necessarily do things differently. The framework maintains flexibility while helping to ensure accountability and continual improvement.

This approach goes beyond responding to incidents and complaints and is more consistent with proactive, documented and planned risk management. Management System approaches differ from Disability Inclusion Action Plans (DIAPs) in that they are more systemic and operate on embedding consideration of the complex objective at hand in all related systems within an enterprise. While existing Standards tend to document minimum physical requirements, Management Systems Standards frameworks can help aviation organisations with implementation, and present significant opportunities for efficient, effective and already well-used structures to be tailored to accessibility management.

Therefore, UNSW Aviation recommends that the Australian Government adopt and tailor a Management Systems framework to manage accessibility within the aviation context.

Research, Collaboration and Continual Improvement

5. Talking about accessibility, or lack thereof, can be difficult for businesses. Inaccessible environments are increasingly the subject of negative attention and reputational damage. At the same time, providing more accessible spaces and interfaces should not be seen merely as a marketing opportunity. Academics at UNSW have encountered reluctance from industry to discuss how accessibility is managed, even with assurances of anonymity research reporting purposes. Going forward, if accessibility in air travel is to improve, we must develop and value structures that facilitate more open conversations about accessibility, reward investment in research collaboration to generate new knowledge and find the best ways forward, and facilitate communication and sharing of best practice. As part of this, people with lived experience of disability need to contribute to driving the agenda, not merely contribute to it once it has been decided.

Therefore, UNSW Aviation recommends the Australian Government develop a framework for business to provide more opportunities for collaboration and consultation regarding the management of accessibility.

Active Competition Regulation

6. Passengers need to be appropriately compensated for delayed, cancelled, or denied boarding against their will. Regulation 261 of the European Parliament of the Council provides a viable model for such compensation as does the Canadian Transportation Agency's Air Passenger Protection Regulation.

Therefore, UNSW Aviation recommends the Australian Government implements a Bill of Rights in line with either the European Parliament of Council Regulation 261 or the Canadian Transportation Agency's regulation.

7. Slot hoarding and regular last-minute cancellations of flights by airlines adversely affects competition, the economy, and consumer trust in the Australian aviation.

Therefore, UNSW Aviation recommends the Australian competition regulator (Australian Competition and Consumer Commission – ACCC) address the ability of the carrier to operate as per the schedules they publish.

Chapter 4 – Regional and remote aviation services

Decarbonisation of regional and remote air travel/connectivity

8. Numerous Australian start-ups (for example, Stralia, Dovetail and AMSL Aero) prepare for certification of their air vehicles powered by electricity and hydrogen. These aircraft and vertical take-off and landing (VTOL) vehicles will bring great merit for decarbonising regional and remote Australian aviation services. With cleaner and more efficient aircraft, this will likely result in an increase in people electing to live in regional areas. Therefore, it will also support the ‘Closing the Gap’ goal. However, to make this a reality urgent and sufficient funding is necessary for planning and building of the necessary infrastructure.

Therefore, UNSW Aviation recommends the Australian Government provide suitable funding for research, planning and implementation of hydrogen and electric charging facilities in regional and remote areas as well funding for answering questions around supply chains, business models and operation models.

Traditionally, where intra-state aviation services have been subsidised, costs have been carried by state and territory governments. Does this remain the best structure?

9. Australia is *one* country. Equitable access to services and equal living standards are the responsibility of the National Government. Access to services should not be determined depending on the State or Territory a person lives in, nor how much the State or Territory Government provides for intra-state aviation connectivity. Therefore, intra-state aviation should be regulated, subsidised and organised by the National Government in consultation with States and Territories. Furthermore, the current security risk of allowing regional flights with unscreened passengers and baggage flying to capital cities (or indeed being in the Australian airspace) also needs urgent attention.

Therefore, UNSW Aviation recommend the National Government to take responsibility for Australian air travel and connectivity as a whole providing well-connected, affordable, safe, secure and reliable service for all Australians.

Chapter 6 – Airport Development Planning Processes and Consultation Mechanisms

Noise

10. The noise from overflying aircraft intrudes into the life of those living near the airport flight paths. The Green Paper states that approximately one third of public submissions to the Terms of Reference for the Aviation White Paper related to concerns about noise and communication regarding noise. This highlights the importance of not only minimising noise impact, but also ensuring that the measures being taken and the estimates of the impact are fully understood by those involved with planning controls in the surrounding area, and by members of the community. Adequate guidance for land use planning is clearly not being provided by the Australian Noise Exposure Forecast (ANEF) contours, which have been used as the primary tool to date.

Therefore, UNSW Aviation supports the views of the Aircraft Noise Ombudsman (ANO) and stakeholders that other means of considering the impact of aircraft noise should be utilised.

Trust

11. Trust is one of a number of non-acoustical factors that is critical in programs for reduction of aircraft noise annoyance (Porter and Knowles, Acoustics Bulletin, March/April 2016, 52-57, <https://www.ioa.org.uk/sites/default/files/Acoustics%20Bulletin%20March-April%202016.pdf>). While not criticising the work thus far of the Aircraft Noise Ombudsman, having that role clearly separated from Airservices Australia and directly responsible to the Minister would more specifically demonstrate independence of that Ombudsman role.

Therefore, UNSW Aviation recommends the formal establishment of the ANO as independent from Airservices Australia.

RPAS

12. Remotely Piloted Aircraft (RPA: aka drones) are rapidly evolving with technology. Technological advancements often result in improved aeroacoustics, resulting in reduced noise contours. Unlike other forms of aviation, drones can be manufactured in short time and at low cost. Therefore, the development of any policy dealing with drones should be agile and able to cope with the fast-changing product. One aspect of the policy should encourage the frequent replacement of older drones with modern lower noise drones that are capable of doing the same tasks. To this end Airservices Australia should encourage and maintain an expertise on drone use within

Australia and support research that provides quantitative data on the operational noise from drones in the community, plus guidance on how best to manage the noise impact.

Therefore, UNSW Aviation recommends investment in research and widespread monitoring of the noise impact from drones within the Australian context.

Chapter 7 – General Aviation

A growing General Aviation Sector

13. In the Sydney basin there are limited airports that general aviation (GA) operators can work/operate from. These airports monopolise the industry (i.e., closed market) and as a result, charge high rents making it difficult for operators to remain economically viable.

Therefore, UNSW Aviation recommends that to create a sustainable GA sector, the Australian Government needs to eliminate the monopolisation of airports, and regulate the rent charged by such entities.

Electric Aircraft

14. Electric aircraft have both environmental and operational benefits. However for flight training schools, these benefits cannot currently be realised due to the limited endurance of electric aircraft. This is highlighted by the case study titled Electric Aircraft in Flight Schools in the Green Paper. Lithium-ion batteries currently available provide only 50 minutes of flight time. This is insufficient to conduct any real flight training.

Therefore, UNSW Aviation recommends the Australian Government support financially the development of electric and hybrid aircraft due to the clear benefits for the General Aviation industry.

Chapter 8 – Fit for Purpose Agencies and Regulations

Support Research to Enable Effective Policies

15. CASA is responsible for maintaining, enhancing and promoting the safety of civil aviation. Central to achieving this goal is being informed by scientific research. CASA, however, does not support the true cost of research to achieve this aim. This is in contrast to its equivalent in the United States, the Federal Aviation Administration (FAA) which has created the FAA Air Transportation Centers of Excellence. This body directly supports research through the funding of research projects related to relevant aviation matters. In contrast, CASA limits its support to in-kind contributions which results in the organisation undertaking the research bearing the actual costs. Without adequate financial support, quality research that informs regulation and safety in the Australian aviation space is significantly compromised.

Therefore, UNSW Aviation recommends CASA recognises the true cost of quality research and provides funding to support research for the aviation industry. This is best achieved by adopting a model similar to the FAA, and enacting this in legislation (i.e., change the Civil Aviation Act).

16. CASA requires risk assessments from operators even when the operator is simply complying with the prescriptive rules CASA set out. For example, Civil Aviation Order 48.1 Instrument 2019 (the fatigue rules) requires operators set out a procedure for determining the limits and requirements relating to fatigue. However, the limits and requirements are set by the regulator in the same instrument, so is the procedure required to implement those requirements. Conversely, when CASA make rules relating to the conduct of operations, there is not always an associated risk assessment. For example, “CASA EX64/22 Flight Training and Flight Tests by Grade 1 Training Endorsement Holders (Exemptions and Approvals) Instrument 2022” expands the privileges of grade one flying instructors to include the conduct of specified flight tests, which are normally conducted by Flight Examiners. The training and assessment for a grade one instructor to exercise these new privileges is minimal, especially when compared with that required for a Flight Examiner. No risk assessment in relation to the proposed, and now implemented change has been published. The change has significant implications for safety and deserves an analysis of current hazards, new hazards caused by the change, and appropriate risk ratings and controls based on the assessment. The difference in requirements in relation to risks that apply to operators and the regulator is stark. Not only would the regulations themselves benefit from a risk-based approach before implementation, the industry would benefit from the exposure to these risk assessments and

perhaps become more accepting and knowledgeable about risk-based implementation.

Therefore, UNSW Aviation propose CASA eliminates the need for a risk assessment when operators are complying with CASA's prescriptive rules. Further, it is proposed that CASA applies the same standard it holds its operators to and employ a risk-based approach to all regulations, and make this approach publicly available.

Aeronautical Knowledge Exams

17. CASA contract the provision of aeronautical knowledge exams set by CASA to a New Zealand company, which thus has a monopoly market position in the provision of professional level aeronautical knowledge examinations. Flying training organisations are prohibited (not by regulation) from conducting professional level aeronautical examinations set by CASA as this is contractually reserved for CASA's selected provider. This arrangement is uncompetitive and results in no safety benefit but imposes significant costs for operators and pilots. In contrast, flying training organisations are trusted to conduct flight tests and proficiency checks for students they have trained by employing Flight Examiners.

Therefore, UNSW Aviation propose CASA eliminates the monopoly on aeronautical knowledge exams and allows operators to conduct professional level aeronautical knowledge examinations set by CASA.

18. CASA sets minimum pass standards for aeronautical knowledge exams by instrument (Manual of Standards) and then requires the correction of knowledge deficiencies, beyond the minimum pass standard set, before the licence or rating is issued. This excludes the Air Transport Pilot Licence, which does not require the correction of knowledge deficiency to 100% before the licence is issued. The award of the qualification that allows pilots to command transport category aeroplanes in Part 121 operations is not examined with the same rigor as that required for a Recreational Pilot Licence. The reason/s for this is unclear (no risk assessment is available) but probably was a result of Flight Examiner at ATPL level discontent regarding the correction of knowledge deficiency to 100% at the time of the ATPL flight test. If the syllabus of aeronautical knowledge for ATPL is so impractical that Flight Examiners lack the expertise to effectively correct the aeronautical knowledge to 100% in the flight test, then either the syllabus or the Flight Examiners require improvement. The solution of degrading the rigor by which the highest qualification a pilot can obtain has serious safety implications. Conversely, if the level of safety achieved by not correcting aeronautical knowledge deficiency for ATPLs is satisfactory, it should be

replicated for all the other qualifications that award privileges less expansive than the ATPL.

Therefore, UNSW Aviation recommends CASA standardise the requirements in relation to knowledge deficiency for licence issue, consider modifications to the ATPL aeronautical knowledge syllabus, and/or the training and testing for ATPL examiners to enable effective standardisation, and publish the risk assessment that supports the decision to remove 100% correction for knowledge deficiency in the ATPL.

Rules by Fiat

19. There are too many self-repealing instruments of exemption from CASA rulesets that are necessary to correct or improve the application of poorly designed rules. For example, “CASA EX28/23 — Class 1 Medical Certificate (Certain Flights by Holders of a Commercial Pilot Licence or Air Transport Pilot Licence) Exemption 2023” provides significant relief for pilots in relation to the requirement to hold a Class 1 aviation medical certificate for the conduct of specified operations. Similarly, “CASA EX81/21 – Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2021”, at paragraph 19, provides an exemption from compliance with regulation 91.305 of CASR 1998 in relation to the minimum height for IFR flight. This regulation is perhaps the most critical requirement for all IFR flights, yet somehow the regulatory drafting process failed to consider how aircraft could legally climb to the lowest safe altitude after take-off in non-controlled airspace in anything but day VMC conditions. The correction of this oversight, and the changes to medical certification requirements, and many other similar matters, may well be best rectified initially by instrument but then changes to the regulations themselves should follow. As of now, industry is expected to absorb and comply with individual rulesets contained in instruments, which may or may not be renewed at the sole discretion of CASA. This creates uncertainty and distrust of the regulatory process. The design and implementation of instruments should include a process for integration into the appropriate regulations within a specified time.

Therefore, UNSW Aviation recommends CASA implements a robust process for incorporating applicable secondary legislation made by instrument into regulations in a timely way.

One ARN per ABN

20. CASA's policy states one ARN per organisation. This policy is not supported by regulation. Furthermore, the policy ignores the various operations that may be undertaken within this organisation. The different operations require different authorisations under the legislation, and in many cases require different key personnel who specialise in the conduct of the different operations. Yet, communication with the regulator is limited to one email address associated with the ARN, not associated with the key personnel that each have individual duties under the legislation for the compliant conduct of the operations, or with the authorisations held by the operator. Hence, there is no safety benefit that arises from this policy, and it would be a trivial matter to associate communication with the authorisations or the key personnel rather than the ABN.

Therefore, UNSW Aviation recommends CASA permits an organisation to hold multiple ARNs where there are separate authorisations with different key personnel.

Sydney Basin Airspace

21. A significant opportunity to maximise the utility of the airspace around Sydney for all classes of civil operations was lost during the design of revised arrangements for Western Sydney Airport (WSA). Kingsford Smith Airport (KSA) and Defence airspace was off-limits, and no serious consideration of airspace for flying training was made until the WSA flightpaths were designed. A review and redesign that considers the most productive use of the airspace including KSA, WSA, Defence, and airspace associated with Bankstown and Camden Airports is required. The review should consider:
- a) The size and location of Defence control zones and restricted areas – Richmond and Holsworthy restricted airspace within 45 miles of Sydney encompasses a larger volume of airspace than the Sydney, Bankstown, and Camden control zones combined, for a fraction of the movements.
 - b) Availability of civil Instrument Landing Systems (ILS) approaches for training. Practically limited now to Richmond as KSA slots are unavailable except where they include landings (missed approaches are not acceptable), and Nowra refuse ILS training whenever the airspace is active for any reason. The closest alternative to Richmond is Canberra. Availability at Richmond depends on Defence operational imperatives, and lengthy periods of unavailability are caused by operations that could easily be conducted in other parts of the large volume of Defence restricted airspace around the country.

- c) Priorities specified in AIP for use of Class C terminal control areas associated with Sydney are not applied as per AIP specifications – Bankstown departures are not effectively integrated with control areas associated with Sydney. Equal priority is required for flights compliant with AFTM requirements, and flights that are exempt from AFTM requirements. In practice, IFR departures from Bankstown are not given equal priority and delays result despite being exempt from AFTM requirements. VFR departures into Class C airspace are rarely available and are not given equal priority. Similarly, faster aircraft are given priority over slower aircraft for departures and arrivals at Bankstown, despite the requirement for priority to be given to the aircraft first able to use the maneuvering area or airspace.

Therefore, UNSW Aviation recommends that CASA require Airservices Australia to implement the correct priorities at Bankstown. Further, UNSW Aviation recommends the Australian Government conduct a comprehensive review into Sydney basin airspace arrangements that includes consideration of all civil and military control zones and airspace, with flying training as a key matter.

Security screening

22. Security screening is essential for the safe carriage of passengers. However, the requirements for security screening varies between domestic and international travel. For passengers, this is confusing, a source of stress, and can result in financial loss due to the disposal of items deemed prohibited in area of travel.

Therefore, UNSW Aviation recommends that the Australian Government standardise the carriage of prohibited items between domestic and international travel.

Chapter 9 Emerging aviation technologies

Question :How can we build on Australia’s strengths to ensure that Australian industry in this sector is able to be competitive internationally?

23. Countries like the United States of America (USA) and Germany are more advanced in the area of Advanced Air Mobility (AAM), than Australia. However, for all countries involved, AAM is of equal importance. The benefits of AAM for countries that are geographically vast are numerous, with regional areas having the most to gain (Wiedemann et al., 2023a; <https://www.drones.gov.au/sites/default/files/documents/validating-the-benefits-of-increased-drone-uptake-for-australia-final-report.pdf>)

Therefore, UNSW Aviation recommends significant investment in regional capabilities and training centres especially in areas such as IT, software, cybersecurity, drone manufacturing and drone maintenance.

Question: How could the Australian Government create an environment that fosters private investment in emerging aviation technologies?

24. For investors it is paramount to have reliable information and trust in long-term Government directions and commitments. An easy-to-apply policy that signals a ‘first-mover’ approach, as in Dubai and Singapore, combined with significant capital investment to keep or attract talent will support this goal. Australia has also a unique opportunity to become an international testbed for new aviation technology as geographically we have more available space than for example jurisdictions in Europe.

Therefore, UNSW Aviation recommends adopting an AAM policy similar to the ones in Dubai and Singapore, foster international collaboration and fund the aviation sector appropriately.

Question: How can the Australian Government best work with states and territories to foster a supportive environment for investment in manufacturing of these technologies?

What regulatory roles in particular do stakeholders see as critical for the Australian Government to lead to enable the advantages of new technologies while managing the risks?

25. A whole of Australia approach is needed. Australia's market is small on an international comparison. Rules and regulations need to apply to whole of Australia to be internationally competitive.

Research has shown that managing airspace, safety, security, privacy and noise are seen as critical for the Australian Government to manage to enable a higher drone uptake (Wiedemann et al., 2023a)

Therefore, UNSW Aviation recommends working closely with all State and Territory Governments to agree on rules, regulations and funding that applies to whole of Australia equally.

Question: As competition for access to airspace is expected to increase, how can government ensure fair and equitable access while maintaining safety and efficiency of this public use asset? How could a safe, open, competitive and commercial UTM market operate?

How do we achieve a balance between mitigating the negative impacts of drones and AAM while realising the potential benefits?

26. Congested airspace is common in many European countries as well as in the USA. The European U-Space project could be used as a reference to understand how other jurisdictions have solved this challenge:
<https://www.eurocontrol.int/project/air-traffic-management-u-space-project>

A whole ecosystem approach is needed. Drones and AAM are becoming one part of a transport system. Noise, access and privacy concerns need to be addressed, regulated and considered together with other urban stressors such as noise from trucks, buses and trains.

Therefore, UNSW Aviation recommends a whole ecosystem approach where aviation is seen as part of an Australian transport network.

Question: What frameworks does the Australian Government need to ensure community acceptance as the sector continues to develop, and particularly if it reaches some of the more optimistic growth projections?

27. As research has shown, appropriate regulation and education is paramount (Wiedemann et al., 2023a). Right now, for example, hobby drone pilots often do not know that they cannot fly in the proximity of a controlled airport or that they are supposed to land immediately when they spot a crewed aircraft. This is due to lack of education and awareness. Rules also need to be presented in simple language as these hobby pilots are not aviators. Currently incident rates are low, but with an increased uptake of RPA usage, this is expected to change. Also, research has shown that the public is supportive of drone usage for 'useful' use cases such as shark spotting and rescue missions but not so much recreation use by hobby drone pilots. A colour-coding scheme for drones, especially for those used by organisations, could give the public confidence when seeing a drone about the organisation and use behind it (Wiedemann et al., 2023a).

Therefore, UNSW Aviation recommends a large public campaign as a first step to minimise risk from untrained recreation drone pilots. Workshops, campaigns, and training together with a system that ensures safety and security is paramount to gain the trust of the public. A colour coding scheme should be considered to clearly identify drones used for legitimate purposes.

Chapter 11 – International Aviation

Unutilised Traffic Rights

28. Australia has negotiated many bilateral traffic rights that up until today, remain unutilised, with no other Australian airline taking them up. There may be many reasons why this is the case, but the way to unlock the value of these traffic rights is to offer them to appropriately licensed foreign carriers when there are no takers locally. The Australian Government would need to set/make the parameters very clear around what would qualify a foreign carrier to be able to ‘bid’ for traffic rights that no Australian carrier has any interest in flying and then grant these for an initial period but renewable thereafter to avoid subsequent ‘cherry picking’ by Australian carriers.

Therefore, UNSW Aviation recommends that CASA sets clear parameters around foreign carriers access to unutilised bilateral traffic rights.

Liberalising non-scheduled flying to foreign carriers

29. Unlike Europe, Australia is yet to develop the concept of charter airlines – flying people on packaged holidays to holiday destinations. For scheduled carriers, there has been little incentive to develop or grow this market segment, given that they push everything onto their scheduled services. Unfortunately though, this doesn’t get consumers directly to their favourite (or new) holiday destinations. Instead, people have to make connections over numerous gateways to ultimately get to their destination. This keeps costs high and often means people do not maximise their holiday time in their destination. Examples of popular destinations with no direct flights from Australia, include Maldives, Seychelles, Siem Reap, Langkawi, Penang, Sabah, Koh Samui, Okinawa, Guam, Zanzibar, Cancun to name a few. The Australian Government could encourage the growth in this new segment by allowing and encouraging experienced existing foreign charter carriers, to serve such popular holiday destinations from Australia. The advantage of this is that it is also counter seasonal to the Northern Hemisphere – so high season here in Australia, is low season in Europe – meaning that there is much idle capacity that could be deployed in Australia to stimulate new markets and segments, bringing much greater consumer choice and benefit.

Therefore, UNSW Aviation recommends that CASA facilitates in the development of charter airlines and extends this opportunity to foreign carriers.

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