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Aviation White Paper
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Airservices Submission to the Aviation Green Paper

Thank you for the opportunity to provide a submission to the Australian Government's Aviation Green Paper (the Green Paper). Airservices has had the opportunity to contribute to the development of the Green Paper and congratulates the Department on its inclusive and consultative approach.

Airservices agrees with the challenges and opportunities canvassed in the Green Paper and supports the priorities identified to ensure the continued growth and success of a sector that is integral to the quality of life of all Australians as well as Australia's continued economic prosperity.

Airservices has structured its response by providing contextual background on its role in the sector followed by specific commentary aligned to long term macro-economic trends we consider are shaping the aviation environment consistent with specific chapters of the Green Paper.

Our role

Airservices is a critical stakeholder within the aviation sector that makes a significant contribution to Australia's reputation as a world leader in aviation safety. We are a technical agency comprised of skilful and dedicated specialist staff responsible for providing air traffic management, aviation rescue fire fighting and aeronautical information, navigation and communication services to benefit industry, and by extension, the travelling public. Airservices is a government-owned, statutory authority established by the *Air Services Act 1995*. We are also a designated corporate Commonwealth entity under the *Public Governance, Performance and Accountability Act 2013*.

Our purpose is to connect people with their world safely by:

- Providing facilities and services for the safety, regularity and efficiency of air navigation within Australian-administered airspace. This includes providing air traffic services, aviation rescue fire fighting services, aeronautical information, radio navigation and telecommunications services. We provide air traffic control services at 29 of Australia's major airports and aviation rescue fire fighting services at 27 airports. In providing these services, we manage 11 per cent of the world's airspace including coordination with Australia's neighbouring states.

- Managing the impact on the environment, including engaging with communities to ensure they understand what we are doing and how we are doing it.

- Promoting and fostering civil aviation both within and outside Australia by working with international organisations and neighbouring partners.

Long term trends

There are long term macro-economic trends shaping the global aviation environment in which Australia's aviation sector, including Airservices, operates. Airservices makes the following comments and observations within the context of these macro-economic trends that are also aligned and referenced to key chapters within the Green Paper.

1. Intelligent systems[1]

The aviation industry has matured significantly over the last two decades driven largely by technology proliferation, from drones to space-based infrastructure. Aviation is a heavy adopter of digital technologies as they offer significant safety, predictability, efficiency and operational benefits.

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[1] Covers information relating to Chapter(s) 1, 2, 8, 9

Increased automation and digitalisation presents challenges to current systems and thinking. Airservices is investing in new technologies, processes and approaches which will allow for optimised, rapid and adaptive management of decisions, air traffic management (ATM), aviation rescue fire fighting, telecommunications and information exchange.

Airservices must ensure that all traditional and emerging technologies can be safely, efficiently and effectively managed within Australia's airspace and this will require the use of automation and digital technologies. Airservices is responding to these challenges with key investments underway including the development of a Flight Information Management System (FIMS) to underpin the Australia's Unmanned Aircraft System Traffic Management (UTM) ecosystem and serve as an interface with the broader ATM system.

Our significant investment in OneSKY, the replacement of Australia's separate civil and military ATM systems with a single advanced system, will improve aviation safety and efficiency through a modernised digital platform that will manage airspace as a national resource.

The implementation of Artificial Intelligence (AI) in both safety and non-safety critical capabilities offers the possibility for improved safety, efficiency, capacity, cost and resilience across the aviation ecosystem. AI implementation will require appropriate policy, regulatory and governance settings to ensure implications are appropriately understood and managed.

As we continue to operate in a rapidly transforming digital world, we continue to anticipate significant implications with regard to cyber security and data protection. Maintaining data integrity and cyber resilience will be critical to providing a safe, efficient and integrated airspace network. This will require balancing cost recovery approaches with service provision and ongoing costs between industry and Government.

The evolution of ATM technologies will in certain instances require broader industry adoption of corresponding technologies and associated business process changes. The industry is broad and has varying capability, means and appetite for adopting technology. This includes managing the least equipped aircraft with the most capable, both of which seek access to congested airspace. Government direction and support will be essential in industry's adoption and equipage of technology that provides enhanced safety and efficiency benefits and in particular where benefits realisation and investment levels are not aligned. Consideration and clear articulation of the justification, capabilities and timings for the aviation ecosystem to transition between technologies will be critical.

Airservices is supportive of Government consideration which protects aviation spectrum and promotes space-based Very High Frequency (VHF) and Automatic Dependent Surveillance-Broadcast (ADS-B) technology solutions, Satellite-Based Augmentation System (SBAS) solutions and UTM/FIMS.

Considerations: *The introduction of AI in safety and non-safety critical systems will require government policy which contemplates how AI will be introduced and regulated given the significant benefits it offers and the as yet undefined challenges.*

Government policy direction and financial support for technology adoption that enhances safety, efficiency and capacity will be critical for the continued growth of aviation and the integration of new airspace users such as drones operating alongside traditional aircraft.

2.   Increasing airspace complexity[2]

Traditional and emerging aircraft will need to operate alongside each other, increasing congestion and complexity of finite airspace. Over the next 20 years, drone flights are projected to grow on average by 20% per annum, to around 60 million flights each year by 2043[3]. This provides a once-in-a-generation opportunity to unlock a new, enduring and world-leading aviation market in Australia.

Airservices has a clear mandate to ensure safe, reliable and efficient airspace access for all airspace users in Australian airspace. Airservices is responding to these challenges through key initiatives underway to ensure ATM services and infrastructure evolve to meet the challenges associated with increased demand for airspace. We are investing in digital and automated capabilities, including a FIMS, to support continued growth of emerging uncrewed aircraft systems (UAS or drones).

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[2] Covers information relating to Chapter(s) 1, 2, 8, 9

[3] Sizing the future drone and advanced air mobility market in Australia; October 2023; Scyne Advisory

Australia has established a number of policies and frameworks relevant to airspace policy in recent years including the *Australian Airspace Policy Statement, Australia's Future Airspace Framework (AFAF)* as well as a *National Strategic Airspace Policy Issues Paper* in 2021. There is an opportunity through the Aviation White Paper process to articulate a vision which sets the direction for how airspace will be managed to accommodate both traditional and emerging airspace user needs. This direction-setting, with an accompanying implementation schedule, would provide industry with greater confidence in the Government's approach to an integrated airspace concept, and identify any regulatory reform needed to facilitate this new era of aviation and in what timeframe. This policy direction would result in greater investment certainty for both industry and relevant government agencies.

Airservices supports the introduction of mechanisms which encourage emerging airspace users and their safe integration into the 2050 horizon aligned with other jurisdictions internationally.

Consideration: There is an opportunity through the Aviation White Paper to articulate how airspace will evolve to accommodate the integration of traditional and emerging airspace users, the necessary regulatory reform required to facilitate this transition, and importantly, an implementation timeframe. This will provide industry with greater certainty of how we transition from current to future state.

3. Long term growth of international and domestic aviation[4]

Post pandemic we are seeing an incremental but meaningful shift in market demand from traditional metropolitan city-pairs to regional and non-capital city-pairs. We expect international aviation to continue to experience increased demand, with increased point-to-point services. Balancing demand and capacity whilst maintaining network performance will ensure the industry can sustainably grow whilst managing resource allocation efficiently.

Airservices' ongoing investment in ATM automation, such as OneSKY, FIMS, Airport Collaborative Decision Making (A-CDM) and Digital Aerodrome Services will enable us to support Australia's investment in airport infrastructure and focus our efforts on improving network efficiency and sustainability to ensure we support anticipated growth and complexity, both in the domestic and international environment.

There are other mechanisms that can be improved to benefit overall network performance such as airport Master Plan and airport Major Development Planning processes. Individual airport development impacts on the efficiency and capacity of both the airport developing the infrastructure, but also the network as a whole, and must increasingly be considered. With new runway infrastructure planned across our largest airports and significant volumes of new airspace entrants, the overall network management of Australian airspace and airport safety, capacity and efficiency will require high levels of collaboration across the aviation ecosystem.

As part of supporting this long-term growth, participation and support of key international bilateral and multilateral fora will be crucial to Australia's aviation efforts. This includes the International Civil Aviation Organization (ICAO) and the Civil Air Navigation Service Organisation (CANSO). Airservices is an active participant in the development of standards and providing technical expertise to the ICAO through panels and working groups.

Airservices is committed to supporting the Australian Government in the continued delivery of its Asia Pacific regional engagement activities through forums such as the Indonesian Transport Safety Assistance Package (ITSAP), the Pacific Aviation Safety Office (PASO) and various government-funded international and trade programs.

We are also supportive of working with international partners to explore concepts and innovations around UTM standards, ARFFS and ATM services to ensure global consistency.

Considerations: A broader Australian aviation network perspective should be included in regulatory mechanisms, such as airport Master Plans and airport Major Development Plans.

Continued government financial support is required for Airservices to continue to provide capacity building support to international and regional counterparts that enhances regional and global aviation safety.

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[4] Covers information relating to Chapter(s) 1, 3, 6, 11

4. Environment and community[5]

Changes in community perceptions regarding the impacts of aviation, increasing environmental obligations and expectations and greater social responsibility are both opportunities and challenges facing the industry that require careful balance with our obligation to promote and foster civil aviation, whether in or outside Australia.

Airservices will continue to work with aviation stakeholders to minimise the impact of aircraft operations on the environment and community while enhancing openness and transparency to engender greater trust with communities and growing the social licence for air transport. Airservices is supportive of long term strategic environmental policies that work in collaboration with international requirements.

As aviation technology continues to advance providing new opportunities for organisations to deliver aviation services, it also presents challenges for how those services' impact the community, are regulated and oversighted. Ensuring this emerging market's success will depend on its ability to create a social licence to operate. Having strong consumer and complaints safeguards will be essential.

Airservices is committed to continual improvement of our operations to provide better outcomes for our major and metropolitan, regional and remote communities including best practice community engagement. We will do this through our Community Engagement Standard (CES), which has been developed through an independent review to identify best-practice standards for community engagement and using guidance from the International Association for Public Participation (IAP2). The CES exemplifies our community engagement obligations to minimise the impact of aircraft operations on communities. Consideration should be given to whether the principles articulated in the CES should be incorporated for consultation on airport Master Plans, Major Development Plans and major infrastructure maintenance works. The adoption of the principles in the CES would provide the community with a more consistent, transparent, best-practice approach to community engagement.

Currently, the Aircraft Noise Ombudsman (ANO) is charged with investigating complaints about Airservices from community members that feel have not been dealt with adequately. The ANO is currently funded by Airservices and reports to the Airservices Board. Airservices is aware of some community views relating to this governance arrangement and concerns about the independence of the ANO.

With the introduction of drones and advanced air mobility, there may be an opportunity to review existing noise complaints mechanisms and governance arrangements, including that of the ANO, to ensure they are responsive and reflect the contemporary environment. Similarly, this review may wish to include other mechanisms that contribute to noise complaints where Airservices has not been able to provide a satisfactory response due to it being outside Airservices remit, e.g. flight procedures designed by other flight path design organisations.

Considerations: There is an opportunity for greater consistency across all airports utilising best practice standards for community engagement, particularly in relation to consultation on airport Master Plans, Major Development Plans and major infrastructure maintenance works.

Airservices would be supportive of a review of existing aircraft noise complaints mechanisms, including the role, scope and governance of the ANO, to better reflect the changing aviation environment.

5. Evolving aviation value chain[6]

The aviation value chain comprises not only the frontline service providers, such as the airlines, but also the industries that supply the skills and enabling workforce that support the operation of the frontline services. Air traffic controllers, vehicle maintenance technicians, communications and surveillance engineers, and fire fighters are all examples of critical skillsets of employees that make up the aviation workforce.

Airservices must find ways to ensure its workforce is diverse, inclusive and able to transition to respond to new technologies which can dramatically change our operating landscape.

Aviation education and training programs that attract new employees and support the development of appropriate skills and knowledge to adapt to changing technologies and practices will be critical to aviation's continued growth. An aviation industry training board or aviation job skills framework that works with aviation

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[5] Covers information relating to Chapter 5, 6, 8

[6] Covers information relating to Chapter 1, 2, 3, 10

subject matter experts to co-design competency requirements that comprise aviation industry training packages would be beneficial.

The aviation industry would benefit from government support programs that encourage careers in aviation and provide assistance in skills development and apprenticeships. There is an opportunity to target underrepresented groups, such as women, First Nations, persons with cultural and linguistic diversities, and neurodiversity and disabilities, to participate in what has traditionally been a male dominated industry. This could open the door to a cohort of untapped potential that would make a significant contribution to aviation. This would also contribute to a change in culture in aviation that reflects a modern, inclusive society.

Airservices would be supportive of opportunities which support First Nations training initiatives that could encompass schooling assistance for remote communities and specific training in technology focused roles.

Consideration: Airservices would support an aviation workforce pathway underpinned by aviation education and training programs, an aviation industry training board or aviation job skills framework and initiatives which incentivise underrepresented groups (women, First Nations, culture and linguistic diversity, neurodiversity and disabilities) within the aviation workforce.

6. Contemporary, fit-for-purpose legislation and regulation[7]

A significant amount of aviation legislation was drafted decades ago and reflects a different era in which aviation operated.

Airservices is required to comply with several Ministerial Directions. While the intent of these Directions is still relevant, the specific requirements within these Directions are in some cases outdated. For example, the Provision of approach radar services at specific airports Direction references radar technology and does not reflect the advances made in replacing this technology with other surveillance capabilities since 2004 when the Direction came into effect. Another example is the Direction relating to the handling of aircraft noise complaints which does not fully reflect Airservices current approach to noise and information service management which has undergone significant changes since 1996 when the Direction came into effect. There is an opportunity to review and update these instruments to ensure they reflect the expected outcomes in today's changing environment. This would also result in benefits for compliance and reporting.

Consideration: A review and update of Airservices Ministerial Directions would better reflect the outcomes and service provision expectations in the current and future aviation environment and result in improvements in compliance and reporting of these obligations.

We would be happy to discuss our submission in further detail if it would be helpful. Airservices looks forward to its continued involvement in the development of the Aviation White Paper which will set the Australian Government's policy agenda for the aviation sector out to 2050.

Yours sincerely

Jason Harfield
Chief Executive Officer
30 November 2023

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[7] Covers information relating to Chapter(s) 8