

COVER PAGE

A/AA submission to Federal Government Aviation White Paper

Executive Summary

As the largest, comprehensive national association for the Australian aviation, aerospace, and space industries, Aviation/Aerospace Australia (A/AA) is committed to playing a key role in providing policy advice on behalf of the members we serve. A/AA is a not-for-profit and independent association, with an overarching objective to contribute to the long-term health and sustainability of Australia's aviation, aerospace, and space sectors. A/AA is committed to building industry sustainability by fostering innovation, organisational diversity, and B2B partnerships.

A/AA is led by a diverse [board](#) of industry leading individuals with experience across the breadth of the aviation, aerospace, and space industry¹ who are uniquely placed to provide deep strategic insights into trends, needs and future forward thinking within each of the sectors that A/AA represents.

Our [members](#) are a broad subsection of the Aviation, Aerospace and Space industry, spanning small and medium enterprises (SMEs) to major industry primes, airlines, and universities. Combined, our membership base represents 47 organisations of more than who employ tens of thousands of aviation and aerospace professionals. A/AA is committed to working with the Government to support, review, and reform Australia's aviation landscape.

A/AA was established in 2010 originally as an initiative of the Victorian government to support the local Aviation and Aerospace industry. Since then, the organisation has continued to grow and mature to be the leading national peak body that supports the very broad Aviation, Aerospace and Space sectors.

A/AA supports the sector through three primary strategic areas of focus:

- GreenSkies Initiative
- NextGen Network
- Women in Aviation Aerospace Initiative

Details of each initiative can be found in the Appendix.

Aviation/Aerospace Australia recognises the crucial role of a safe, efficient, sustainable, productive, and competitive aviation sector in shaping the economy and enhancing the standard of living for all Australians. The release of the Aviation Green Paper signifies a significant milestone in charting the course for the sector's future policies up to 2050.

Aligned with the Australian Government's vision, we are committed to promoting Australia's world-leading safety standards, supporting talent pipeline development, and spearheading the transition to net-zero aviation operations.

Despite recent challenges, including the unprecedented impact of the COVID-19 pandemic, we are encouraged by the signs of recovery in passenger numbers domestically and internationally. However, this period has also highlighted potential weaknesses in our aviation regulations and workforce management and talent pipeline. The impending challenge of decarbonisation is now at the forefront, and we are committed to supporting our members in achieving the Australian Government's commitment to net-zero emissions by 2050.

¹ [A/AA Board Directors details](#)

Through ongoing collaboration, we aim to support and guide policy settings that accelerate the sector's recovery, fortify consumer rights, facilitate the transition to net zero, and support and diversify our invaluable aviation and aerospace workforce. With over a decade since the last Aviation White Paper, we acknowledge the necessity of ending uncertainty and providing a framework for long-term investment, safety enhancement, and clear commitments to consumers and communities.

Response to Green Paper Questions

The current and emerging challenges and opportunities facing aviation can be distilled into the four key focus areas as described in the Green Paper. Our submission will focus on these areas that are of direct relevance to our organisation and therefore our membership base, noting whilst other issues in the paper are also critically important, they are not directly related to the issues our organisation is focused on at this present time.

1. Maximising aviation's contribution to achieving net zero carbon emissions.

A/AA has taken a leading role in maximising the aviation sector's contribution to achieving net-zero carbon emissions across all sectors of the industry through the creation of our [GreenSkies initiative](#) and committee. GreenSkies is an initiative by Aviation/Aerospace Australia to promote action and industry collaboration on sustainability in the aviation, aerospace, and space sectors in Australia.

GreenSkies is (and will continue to be) a critical forum for bringing together a wide range of industry stakeholders, increasing the engagement particularly for organisations who are not advanced in their ESG journey, and creating a framework for current and next generation professionals to provide solution-focused action and a responsible approach to short-term and long-term industry needs.

A/AA strongly supports the focus of decarbonisation in the sector; however, it is imperative to view this issue with a wide lens. There are multiple pathways (beyond SAF) to decarbonisation which the aviation, aerospace and space sectors can pursue / implement and broad engagement across the university sector, small and medium enterprise, large enterprise, defence primes and the space sector will be critical to the transition to a net zero economy. Hydrogen fuel cells, electric Advanced Air Mobility (AAM), innovative technologies that reduce aircraft drag, digital engineering and sophisticated digital twins are examples of other key technological developments that need to continue to advance to move the sector towards net-zero carbon emissions. All parts of the sector must be supported to navigate decarbonisation, including key parts of the ecosystem such as regional airports.

Recommendations:

- Allocate funding for research and development initiatives focused on sustainable aviation technologies. Support projects related to alternative fuels, electric and hybrid-electric propulsion, and innovative aircraft design. A/AA has successfully led training and education development programs and its GreenSkies initiative provides a strong platform to lead this for the industry.
- Support regional Australia to invest in the development of infrastructure necessary for the deployment of sustainable technologies. This includes infrastructure for SAF production, electric charging stations at airports, and facilities for the maintenance of green aviation technologies.
- Invest in programs that provide training and education for aviation professionals in sustainable practices. This can include programs for pilots, engineers, and air traffic controllers to enhance their understanding of and ability to implement environmentally friendly measures. A/AA have previous experience in creating micro credentials the [Aviation](#)

[and Aerospace Fundamentals Short Courses](#) to provide the foundational skills and knowledge needed to help careers in aviation and aerospace take off. The Short Courses were developed by some of the industry's most experienced and well-regarded professionals, providing invaluable skills training in core industry functions. A/AA would be interested in partnering to leverage the knowledge of the GreenSkies initiative network to create and promote sustainability education resources.

- Integrate environmental impact assessments into aviation policies and decisions, ensuring that environmental considerations are part of the decision-making process for new infrastructure and technologies.

2. Emerging aviation technologies

Revolutionary change is coming in the aviation and aerospace and space sectors with the constant flow of rapidly changing aviation technologies. While changing aviation transport technologies are central to industry wide net-zero progress it is also widely understood that the sector can bring significant social value and benefits through R&D, early adoption, and intergenerational acceptance of emergent transport technologies.

A/AA's supports the emergent technology section across the full spectrum of its activities, but in particular its GreenSkies and NextGen initiatives, and support for the university sector. The Aerostructures Innovation Research Hub (AIRHUB), an advanced development collaboration between industry and research, is a good example of the university and industry coming together to work on utilising digitisation to develop intelligent manufacturing processes, using advanced composite materials to design and produce innovative aerostructures. AIRHUB was borne out of Victorian Government funding and has seen Swinburne University collaborate with industry partners such as Boeing, Marand Precision Technology and Quickstep Holdings to accelerate technology development that enables more efficient, cost effective and sustainable manufacturing of aerospace components. This research hub shows government support can help drive collaboration across industry and universities to advance local industry.

Australia must become an attractive destination for manufacturing organisations specializing in future aviation technology. Currently, we often rely on foreign sources for aviation product manufacturing. The AAM sector and manufacturers focusing on hydrogen/electric propulsion are already experiencing growth. Streamlining regulations without compromising standards and offering financial incentives for organisations to stay in Australia are crucial steps to enhance our manufacturing capabilities.

Recommendations:

- Facilitate collaborative research partnerships between government agencies, research institutions, and private companies. Encourage knowledge-sharing and joint projects to accelerate the development of cutting-edge technologies.
- Establish clear and adaptive regulatory frameworks that encourage the development and deployment of emerging aviation technologies. Streamline approval processes for testing and commercialisation, while ensuring safety and environmental standards are met.
- Invest in education programs that focus on the skills needed for emerging aviation technologies. Develop training programs and partnerships with educational institutions to ensure a skilled workforce capable of driving technological advancements. As stated previously, A/AA have previous experience in creating micro credentials the [Aviation and Aerospace Fundamentals Short Courses](#). A/AA would be interested in partnering to leverage the knowledge of its industry member network to create and promote education resources on emergent aviation technologies (info@aviationaerospace.org.au).

- Support and endorse events, conferences, and showcases to highlight Australia's advancements in aviation technology. This not only attracts attention and potential partnerships but also positions Australia as a hub for innovation in the aviation sector.
- Consider and fast track the use of RemotelD technology in Australia to pave the way for an efficient AAM ecosystem. The data obtained from the RemotelD technology will empower companies and law enforcement agencies to efficiently target and address unauthorized flights, improving aviation safety.

3. Workforce skills and training requirements.

A/AA is committed to improving productivity and resilience within the economy by developing and implementing programs targeting workforce skills and training requirements and through industry advocacy². The theme A/AA currently hears most frequently from members across all elements of the industry are challenges around attraction and retention of skilled talent pipeline. Our [NextGenNetwork initiative](#) and direct skills and training pathways bring together whole of sector organisations and individuals to address the future pipeline, talent retention, and skills shortages in tangible ways including events such as the Teach the Teachers Summit and the creation of Fundamental Short Courses, designed with the Victorian Government to fill the gaps to learning new skills for people of all ages and professional capacities in the sectors. Our Space Mission 2040 competition in collaboration with the Australian Space Agency has increased our access to regional and remote schools across the country and fosters early industry engagement which has been identified as critical to student's ongoing STEM engagement throughout their junior – senior schooling years.

We are also a leading organisation in the promotion of gender diversity and the participation of women, diversity of thought, and diversity of identity, within the aviation, aerospace, and space sector in Australia. For the last 10 years through the [Women in Aviation/Aerospace Australia](#) initiative, A/AA has meaningfully engaged across industry on diversity and inclusion, and the frameworks for information gathering to identify barriers to diverse groups of people engaging or re-engaging with the sectors.

The Barriers to the Pipeline Research Project, funded through the Australian Government's Women in the Aviation Industry Initiative, has helped us to better understand the landscape for women in the industry. Through the Take Me Higher campaign, WA/AA can connect and collaborate with STEM outreach, student engagement from primary to tertiary institutions, and promote aviation career pathways across the pipeline with diverse representation.

In light of the diverse and impactful engagement that A/AA has had to date, it will come as no surprise that A/AA supports the Government's proposal to investigate reforms needed to improve, both immediately and into the long term, productivity across the aviation, aerospace, and space sectors and A/AA looks forward to considering further the Department's proposed economic reforms in this area in due course.

Recommendations:

² A/AA also highlights the gaps identified by industry in advocating for Commonwealth Supported Places on behalf of our members, STEM Outreach from primary schools to tertiary education, and industry site visits.

- Recognise the value of diversity in growing the talent pipeline and supporting initiatives such as the Women in Aviation Initiative, noting industry is best placed to advise on to design, develop and deliver programs for impact.
- Expand apprenticeship programs allow aspiring aviation professionals to gain hands-on experience and on-the-job training under the guidance of experienced mentors.
- Streamline existing STEM related education initiatives across department portfolios to identify areas of collaboration.
- Simplifying and streamlining the process for obtaining necessary certifications and licenses for aviation professions to make career pathways more accessible.

4. Ensuring resilience to future shocks.

Governments can and should take several measures to enhance the resilience of the aviation industry against shocks, ensuring its ability to withstand and recover from various challenges. However, the nature of Australian politics has created a system whereby long term, visionary policy is virtually impossible to execute with changing policy priorities and leadership. Whilst the Department has little control over these circumstances, it is critically important to realise that much of the work being undertaken in the policy reform unnecessarily disregards previous consultations and industry platforms where stakeholders have provided exhaustive measures to support industry sustainability for consideration of the government. Ultimately, industry will continue to lobby as required to prioritise the sectors needs to ensure Australians have access to safe and efficient aviation services.

A/AA encourages the Department to ensure its policymakers are appropriately skilled to understand the nuances of the sectors issues, and moreover to seek avenues of genuine consultation by fostering relationships with stakeholders to better understand these nuances and the opportunities to collaborate across the sector, ultimately reducing red tape and unnecessary taxpayer dollars, to ensure the significant role of the aerial work and unmanned aircraft sectors (existing and future) across all levels of general, domestic and regional aviation is not forgotten in the review, in particular noting the contribution that it makes to the Australian economy and regional communities (firefighting (rotor-wing in particular); aeromedical; aerial agriculture, delivery of essential provisions to regional communities, disaster relief (again, rotor-wing) etc) now and into the future.

The education sector is a key component and enabler of the aviation and aerospace sector but also a contributor to the economy in itself. A/AA Partners RMIT University and Swinburne University both provide aviation training not only to domestic students, but also international students, and RMIT University recently announced partnerships with Vietnam Airlines and VietJet to train pilots at their Bendigo base. Research and Development is another key component of economic activity that supports the Aviation and Aerospace sector. One good example is CSIRO and Boeing's 34-year award winning partnership, in which more than \$200 Million has been invested in joint research projects that deliver real solutions for aviation and aerospace industry and create economic benefits and employment for Australians. A/AA encourages the Department to include consideration of the education and research sector in preparation of the Green Paper.

Conclusion

A/AA would be happy to provide the Department with further assistance, engagement, or information to support this response. As a highly respected industry association, we can bring together our members for direct engagement. As highlighted throughout this document, A/AA is well placed to assist the Department with creation, promotion, and delivery of education resources to upskill the sector, particularly in the areas of sustainability and emerging technologies. If you do have any questions or would like to discuss, please do not hesitate to contact A/AA at info@aviationaerospace.org.au.

Kind regards,



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Chair

Aviation/Aerospace Australia

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APPENDIX



Aviation/Aerospace Australia

Partners: Boeing Australia, RMIT University, Swinburne University of Technology, Thales Australia, Qantas Group

A/AA Events:

- ❖ Celebrating Pride in Flight Panel Discussion
- ❖ Reaching Higher Mentor Matching Program
- ❖ A/AA & RMIT Masterclass Webinar (Aviation)
- ❖ A/AA & Swinburne Space Industry Virtual Conference Series
- ❖ A/AA Rotary Wing Webinar – Emergency Services & Defence
- ❖ Airspace Awards
- ❖ Chair’s Dinner & SME Dinner
- ❖ A/AA Boardroom Breakfasts
- ❖ A/AA Cyber Security Webinar
- ❖ A/AA Beyond COVID-19 Webinar
- ❖ A/AA Digital Technologies Transformation Webinar
- ❖ A/AA Site Tours



Women in Aviation/Aerospace Australia

Brief:

Women in Aviation/Aerospace Australia (WA/AA) is an initiative to promote the issue of gender diversity and the participation of women within the aviation, aerospace and space sector in Australia and a network for women to connect with industry peers, inspire future generations to join the industry, and excel in their chosen careers. This year marks our 10-year anniversary.

A/AA is proud to take a leading role in celebrating and promoting diversity in the workplace generally, and the Women in Aviation/Aerospace Australia program is designed to help the industry change the status quo in relation to the participation of women in this exciting and dynamic sector.

The objectives of the initiative are to inspire more women to pursue careers in the sector, encourage women to pursue career progression within the sector, raise awareness of gender diversity issues, provide support and professional development opportunities for those already working in the sector and support human resource professionals in attracting and retaining women in the sector.

Some of the ways WA/AA achieves this is through our No Other Career Can Take You Higher campaign, and the Barriers to the Pipeline Research Project. The Barriers to the Pipeline Research Project has been funded through the Australian Government's Department of Infrastructure,

Transport, Regional Development and Communications 'Women in the Aviation Industry Initiative' to help us better understand the landscape for women in the aviation, aerospace, and space industries.

WA/AA Sponsors: Airservices Australia, Australian Army, Royal Australian Air Force, Lockheed Martin Australia, Monash University, Virgin Australia

WA/AA Events

- ❖ WA/AA National Summits
- ❖ Barriers to the Pipeline Research Project
- ❖ Space Mission 2040 Grade 2 Competition
- ❖ International Women's Day Breakfasts
- ❖ Women in A/AA Webinar Panel Discussions
- ❖ WA/AA Coffee Catch Up
- ❖ Girls in Aerospace & Defence RMIT Initiative
- ❖ WA/AA & GE Champions of Change Breakfast
- ❖ WA/AA & ANU Institute for Space Breakfast
- ❖ Top Gun: Maverick Screenings
- ❖ Chat@6 with Women in A/AA



NextGenNetwork

Brief:

The NextGenNetwork (NGN) is an initiative of A/AA, for individuals who study or work within the aviation, aerospace, or space industries. Supported by some of the largest employers in Australia, NGN is a space where young professionals can come together, understand, and engage in aviation, aerospace, and space, to build a network and support one another through the early stages of their careers and beyond.

NGN brings together under 35s and industry professionals across a yearly calendar of events and projects such as the NGN Altitude competition, Drinks with the Boss, Professional Online Career Seminars, and annual events such as networking, professional development, and site tours across Australia.

NGN Events

- ❖ NGN Altitude Competition
- ❖ NGN Professional Online – Career Seminar
- ❖ NGN Drinks with the Boss
- ❖ Trivia Nights
- ❖ Site Tours



GreenSkies

Brief:

GreenSkies is an initiative by A/AA to promote action on sustainability in the aviation, aerospace, and space sectors in Australia. GreenSkies aims to bring together leading organisations to facilitate solution-focused discussions, collaborations, projects, events, and networking opportunities. The objectives of this initiative are to:

- Create a framework for members to network and engage on issues relating to the sustainability and future of aviation, aerospace, and space sectors in Australia
- Encourage organisations to establish, and individuals to seek out, sustainable career pathways as workforces transform
- Collaborate with stakeholders and organisations in creating white papers tackling key issues
- Raise awareness of the opportunities and challenges of sustainability in the aviation, aerospace, and space sectors
- Provide support and professional development opportunities for those already working in the sector
- Support small and medium businesses in addressing sustainability challenges within their capabilities
- Facilitate events designed to bring the industry together to understand and engage on the current and future landscaped of sustainability in the sectors

GreenSkies Events

- ❖ GreenSkies Sustainability Summit



Skills & Training

Brief:

Under this initiative A/AA have created the Fundamental Short Courses to provide the foundational skills and knowledge needed to help careers in aviation and aerospace take off. The Short Courses have been developed by some of the industry's most experienced and well-regarded professionals, providing invaluable skills training in core industry functions. These courses were designed with the Victorian Government and Swinburne University to help fill the gaps to learning new skills for people of all ages and professional capacities in the sectors.

Aviation/Aerospace Australia Members

Australian Army	Qantas Group
BAE Systems Australia	Pegasus
Boeing Australia	QinetiQ Australia
RMIT University	Latrobe Regional Airport
Brisbane Airport Corporation	Royal Flying Doctor Service
Civil Aviation Safety Authority	Sikorsky Australia
Cirium	Airservices Australia
Royal Australian Air Force	Australian Navy
InFlight Graphics	It's Rocket Science Adventures
Hallam Senior College	Griffith University
Lovitt Technologies Australia	Learn To Fly Melbourne
Moorabbin Airport	MicroTau
QBE Insurance Australia	MoovinV USA
Swinburne University of Technology	Lockheed Martin Australia
Thales Australia	Plan Safe
Monash University	Dovetail Electric Aviation
Australian Industry Standards	The Australian National University Institute for Space
Martin-Baker Australia	Envirosuite
Airbus Australia Pacific	LCI Consultants
Architectus	Bennett Law & Litigation
Marand Precision Engineering	LEAP
Nova Systems ANZ	Virgin Australia
Aerologix	Stratasys
Kite Magnetics	