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30th November 2023

Director, Aviation White Paper Project Office
Aviation White Paper
Department of Infrastructure, Transport, Regional Development, Communications and the Arts
GPO Box 594
Canberra ACT 2601

By Email: aviationgreenpaper@infrastructure.gov.au.

Dear Director,

RE: Aviation Green Paper – Towards 2050

Introduction

The Honourable Company of Air Pilots is concerned with every technical aspect of flying, from safety to navigational aids, from airport facilities to training methods and in particular with new developments in aircraft and their handling. It is a unique organisation, as its membership is restricted to qualified pilots, navigators and rear crew and therefore it can truly claim to bring together the views and ideas of people who control aircraft in the air. Perhaps the most important function of the Company is to help set and maintain standards of conduct among flying people.
The Honourable Company of Air Pilots is the largest of the Livery Companies with around 2500 members worldwide, including about 250 in Australia. Membership ranges from teenagers to nonagenarians and brings fellowship and networking opportunities with experienced pilots in all walks of life, from recreational instructors to airline and military pilots, and even astronauts; with experience in training, operations, management, government regulation and safety investigation and international aspects of aviation.

Submission

The Honourable Company of Air Pilots Australian Region (HCAPA) thanks the Department for the opportunity to provide a submission on the Green Paper (the Paper). HCAPA supports the overall aim of the White Paper to provide a vision out to 2050. HCAPA has identified the following as the Key Issues arising from the Green Paper (the Paper). In line with the advice from the Department, our submission is presented as bullet points, under each of the Paper's section headings.

Kind regards,

Spencer L Ferrier

Spencer Ferrier
Chairman, Australian Region
The Honourable Company of Air Pilots

The Honourable Company of Air Pilots, Australian Region
Submission on Aviation Green Paper

1. Sector Overview

a. Aviation should be acknowledged for its major contribution to the Australian economy and its role in providing connectivity throughout the nation. It is an easy target until it is needed by the Governments, communities and individuals. Governments need to be more proactive in supporting the sector and to promote it as an essential infrastructure.

2. Likely Future Directions to 2050

a. The Green Paper does not layout a National Aviation Policy. Without a coherent policy, there will be a piecemeal approach to different issues which will diminish their effectiveness.

b. There is an emphasis on sustainability and environmental issues and, whilst these are admirable objectives, they do not solve the many areas that exist today and will continue to do so without effective action.

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

a. Cabotage competition in the aviation sector has to be balanced with the need to have a strong locally based aviation sector that can be relied upon when required.

b. HCAPA supports any initiative that provides better and full disability access to airport and other aviation facilities for recreational and work activities.

4. Regional and Remote Aviation

a. Regional airports are vital infrastructure for natural disaster relief (fires, floods, cyclones). There needs to be a national plan to maintain and support this vital asset.

b. Many of our regional airports are suffering due to the decline in general aviation. There needs to be a balance between the transformation to net zero and further burdening general aviation.

c. To this end, the Australian Government should consider prioritising regional airports and supporting infrastructure such as roads and runways. These assets are particularly impacted by natural disasters and issues regarding ongoing maintenance funding and planning.

d. In HCAPA's view, "better, more resilient and more flood-proof infrastructure" starts with regional airports. We have had widespread flooding across Australia that has highlighted the impossibility of flood-proofing all of our roads and railway lines while highlighting the vulnerability of many of our population centres to isolation from flooding. Retaining a connection by air can significantly ease the hardship for those affected, particularly in more remote communities, and may well be the most cost-effective first step.

5. Maximising aviation's contribution to improvements Net Zero

a. Aviation has already made substantial progress in reducing emissions. Unfortunately, this improvement is often unacknowledged. Likewise, the actual low percentage of emissions is overshadowed by the perception that aviation is a major contributor. Aviation should not be penalised disproportionately.

b. The suggested solutions in the Paper will provide some further reductions, but these new technologies, such as Sustainable Aviation Fuels and Hydrogen and Electrical propulsion, together, carbon offsets are unlikely to make a major difference for several decades.

6. Airport development planning processes and consultation mechanisms

a. Has "light touch" led to incompatible development around airports? (see Sub para 8.k)

b. It is unfortunate that the focus of this section of the Paper is on noise, instead of protecting the airspace and preventing inappropriate rezoning leading to development that impinges on the safety and efficiency of aviation.

c. Noise is a community issue, but it is not assisted by rezoning and allowing domestic premises to be built close to airports or under known or planned flight paths.

d. Wind disturbance from building and other activities on or off airport continues to be a major safety concern. The National Airports Safeguarding Framework Guideline (NASFG) "B" is not fit for purpose as it does not follow the Royal Netherlands Aerospace Centre (Royal NLR; *Dutch: Koninklijk Nederlands Luchten Ruimtevaartcentrum*) research and considers buildings and other things in isolation. The Guideline needs to be amended to rectify these defects and then needs, along with the other NASF Guidelines, to be enacted by each State and Territory, as was the original undertaking made at COAG.

e. The Royal NLR, identified certain characteristics of building-induced turbulence in their report NLR-TP-2010-312 *Wind criteria due to obstacles at and around airports* released in July 2010 [1]. Those characteristics were:

   i. Along the aircraft track the speed deficit due to a wind disturbing structure must remain below 7 knots. The speed deficit change of 7 knots must take place over a distance of at least 100m.

   ii. Across the aircraft track the speed deficit due to a wind disturbing structure must remain below 6 knots. The speed deficit change of 6 knots must take place over a distance of at least 100m.

   iii. Surface roughness: the gust/turbulence components in horizontal direction caused by a wind disturbing structure in combination with the meso-scale surface roughness must remain below RMS values of 4 knots.

f. The National Airports Safeguarding Framework Guideline "B" (NASFG "B") *Managing the Risk of Building Generated Windshear and Turbulence at Airports*, despite being based on the NLR report, misrepresents the research by:

   i. Inappropriately shortening the critical zone for building placement; Critical Zone: The critical zone adopted by NASFG "B" results in a truncated critical zone that barely covers half of the normal touchdown zone. The correct NLR recommended critical zone for buildings extends to1500m.

   ii. The NASFG "B" provides no guidance on what airspace volume should be examined to identify excessive turbulence and no guidance on what constitutes suitable meteorological data for the turbulence assessment.

7. General Aviation:

a. GA is still the backbone of our aviation industry. It is the sector that provides initial flying training in the civil sector. Without it the whole aviation transport industry faces constraints so supporting this sector is vital. This includes support of GA airports, access to training airspace, support for light aircraft maintenance engineers and facilities.

b. At present, the energy density of batteries is insufficient to support a flight of 150nm, which is a basic requirement for the issue of a PPL. Another way of reducing emissions, at least in the flight training sector, is increased use of high-fidelity simulation, thereby reducing actual flight time.

c. A major issue is the lack of light aircraft maintenance facilities, and this may not be as much a regulatory issue as a societal one. HCAPA would support the concept of the "gumtree" LAME: a maintainer who does not necessarily have their own fixed workshop facility but is allowed to travel and work on the aircraft where the owner/operator is based. (Much like the "we come to you" motor mechanics and windscreen technicians.)

8. Fit-for-Purpose Regulations

a. With the demise of RAPAC and its morphing into AvSEF there is no longer a regular forum where issues that involve multiple departments can be discussed. Each department now has their own dedicated consultation/ engagement process.

b. CASA stated at the time RAPAC was dissolved that there would still be a multi departmental forum held on a regular basis. There may have been one or two attempts, but HCAPA is not aware of any recently. Moreover, these are not the same as the AvSafety seminars that CASA organises.

c. A good example of where multi-departmental involvement is required is the development of Western Sydney International Airports airspace and routes. Now we have information on air routes coming from Infrastructure but ultimately it will be ASA that controls the airspace and CASA who approves it through the OAR. Western Sydney airspace has ramifications for both airlines and GA.

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1 This report superseded NLR-CR-2006-261 of the same title published in May 2008 and is essentially identical in content. NLR-TP-2010-312 was available when the Guidance Material was compiled.

d. Another example of where multi-departmental involvement would have been appropriate was Airservices' handling of the Ballina Byron Gateway airport. ASA went through a process of consultation before establishing their Surveillance Flight Information Service, during which they were told it would not really be a satisfactory solution. Ultimately ATSB raised it as a safety issue forcing the OAR to do an airspace review. One of the recommendations was the establishment of CTR at Ballina by 30 Nov 2023!

e. Apparent risk aversion means that Australian regulators fail to take account of ways of regulating aviation using means that are well-tried and tested and in common use by the rest of the world, and hence Australia has ceased to be a leading force in ICAO.

f. This leads into the next issue which is "consultation" which should mean listening to stakeholders rather than going out and trying to find feedback that supports preconceived positions. Recent discussion on the medical TWG relate to this. Departments should approach consultation with a blank sheet of paper, do actual research and analysis before coming to conclusions.

g. The Aviation Safety Advisory Panel receive their information on TWG recommendations from the CASA "support" team rather than from the TWG members themselves. This means that CASA are able to report outcomes of the discussions in a way that suggests the TWG members either support the CASA input to the group, or may be misled into accepting a report that does not fairly represent the views of the industry specialists' proposals. Furthermore, some key agreed standards have been changed significantly during the legal drafting process.

h. The Australian Strategic Air Traffic Management Group (ASTRA) Council was considered by most stakeholders as one of Australian aviation's leading consultative forums. ASTRA was responsible for the development, consultation and reporting of industry policy in relation to air traffic management (ATM) matters and provided an expert and focused voice to government. It was dependent upon AsA, the primary recipient of its advice, for secretarial support. The key to its success was that all portfolio agencies participated in its working groups and main forum, allowing maximum transparency and accountability. AsA withdrew its support some five or six years ago and reverted to generalised public consultations. Those consultations removed the visibility of all agency ATM efforts as well as avoided any accountability to the stakeholders most affected by AsA decisions. HCAPA believes that ASTRA should be re-established as a matter of urgency.

i. Funding Model**.** Both Airservices and the Bureau of Meteorological (aviation weather) are funded primarily through customer charges with the international carriers (pre-Covid traffic) paying 50% of those charges. The pandemic has highlighted the flaws in this system and has indirectly led to the shortage of controllers through the Retirement Incentive Scheme (RIS) which was used by AsA to reduce its overheads and to retain young ATCOs and those in training. The more rapid recovery than predicted has resulted in reduction of tower hours and the use of Temporary Restricted Areas and Traffic Information Broadcast by Aircraft (TIBA) as a "band aid" solution. A much more resilient funding model is required.

j. ATSB produces well considered safety recommendations based on careful analysis of accidents and studies of specific issues. There should be a much stronger requirement to adopt these recommendations and cost of implementation should not be the overriding determinant.

k. Airspace Protection exists only in name and is limited to Federal Leased Airports. The NASF needs to be legislated in every State and Territory (as was the undertaking) rather than relying on them as Guidelines, which has not worked in practice. Proper zoning needs to be enforced to prevent residentially properties being built close to airports or under known or future flight paths. Finally, a better mechanism needs to be established to prevent permanent penetrations of the Obstacle Limitation Surfaces. The new ICAO OLS Standards and Recommended Practices are scheduled to be implemented in 2028. Without a regulation, such as the Part 77 (used in the US and NZ (see extract below)), abuses of the system will continue and with the reduced OLS dimensions, the situation will worsen.

Extract From NZ Civil Aviation Rules
Part 77 Objects and Activities Affecting Navigable Airspace

77.1 - Purpose

(a) Subject to paragraph (b), this Part prescribes rules for persons within the territorial limits of New Zealand, including the New Zealand Defence Force, proposing—
  (1) to construct or alter a structure that could constitute a hazard in navigable airspace; or
  (2) the use of a structure, lights, lasers, weapons, or pyrotechnics, that could constitute a hazard in navigable airspace.

77.19 - Standards for determining hazards

(h) The Director may determine, based on the circumstances of each proposal, a structure to be a hazard in navigable airspace if—
  (1) it is located within an instrument flight procedures area that is specified in ICAO Document 8168, including standard arrival routes, initial, intermediate, final, visual and missed approach segment areas, departure areas and standard instrument departure routes, and would result in—
    (i) the vertical distance between any point on the structure and an established minimum instrument flight altitude within that area or segment being less than obstacle clearance required for the instrument flight procedure; or
    (ii) additional or new ceiling or visibility restrictions or a change in flight procedures applicable to departures within that area; or
  (2) it is located within an IFR en-route obstacle clearance area, including evaluated routes on NZ en-route and area charts but excluding charted routes as published in the AIPNZ, and would necessitate an increase in an existing or planned minimum obstacle clearance altitude; or
  (3) it exceeds the general tree height by 18 m and is located in an area of low level aerial activity or other low flying activity, or in a low flying zone or low level route as prescribed under Part 71; or
  (4) it protrudes through the obstacle limitation surfaces of an aerodrome.

l. HCAPA would support a mandate for ADSB-OUT in the medium term in a similar manner to the way the US currently mandates the carriage of transponders in certain airspace, usually within 30nm of busy airports. The ASTRA Council proposed such a strategy several years ago.

m. COVID-19 has highlighted how a lack of preparedness, at government level, to a known risk can have a devastating effect on aviation, a critical industry. Government must be open to other potential risks that could have a similar impact. Imagine, for example, the effect of a national or global GNSS outage, either via a solar storm or by cyber-attack. How would Australia fare?

n. Government should consider whether the critical job of security screening should be handled by a commercial arrangement between airlines and airports where cost is likely to be the overriding consideration, rather than the quality of the product.

o. Why does Australia have a different method of international passenger facilitation for inbound passengers with bio-metric passports than just about every other country. It is confusing for both non-nationals, and unaware nationals.

9. Emerging Aviation Technologies

a. Drones (RPAS/AAM) have increased exponentially, and the prospect is now for drone operations and vertiports in the centre of cities which have safety implications, as well as potentially affecting nearby airports and flight routes.

b. RPAS have the potential to open up new areas of operation but to develop their full potential they need to be able to operate Beyond Visual Line of Site (BVLOS) routinely, initially below 400ft AGL but ultimately to be integrated into the ATM system.

c. Our concern is that the generally well-ordered and regulated legacy aviation sector will be required to accept these new entrants into its operating areas without the same rigour being applied to the consideration and formation of appropriate regulation.

d. Advanced or Urban Air Mobility (AAM/UAM) aircraft are on the cusp of commercial operations. How they will be certified, operated and integrated into airspace management is a pressing challenge to be resolved.

e. The commercial pressure to accommodate AAM will be enormous. It is incumbent upon the Department and the various groups it has set up to provide meaningful outcomes to protect traditional crew-based operations, particularly in the integration of airspace. The proposals in the Paper seem piecemeal and, instead, should form part of the CASA's Australian Future Airspace Framework, rather than an adjunct.

f. See also our views on multi-departmental consultation in Section 8.

10. Future industry workforce

a. The skill shortage cannot be remedied without a "National Training Policy" which would receive funding from Federal and States Governments. Australia cannot rely solely on aviation companies to provide ab-initio training for pilots, LAMEs and other ancillary aviation workers.

b. Aviation has always been an expensive career choice due to the cost of training. For many entrants the only choice is to take advantage of the VET student loan system. However, this is not helped by the Government applying a twenty percent (20%) loan fee.

c. The VET system should provide the necessary pathways for careers in aviation through its certificates, diplomas, and degrees. This will make the industry more attractive for entrant by enabling skills and knowledge to be transferable and providing a "career ladder". This will also be the most effective way of dealing with diversity. This is an imperative against the need to retrain personal for emerging technologies.

d. Specifically, the CPL (A) Diploma and CASA examinations should be aligned. The ground syllabus for the licences needs to be updated particularly regarding navigation, flight planning and performance. Visual Aids and Wildlife Hazard Management should be added.

e. Air Cadets can provide a valuable source of self-disciplined and motivated individuals for the future workforce, including the aviation sector. Governments should actively support their activities.

11. International Aviation

a. HCAPA welcomes international aviation cooperation in line with international agreements.

Summary

1. The issues highlighted by HCAPA, as well as other factors, can only be addressed if not only the importance of aviation is acknowledged, but also its essential function in terms of the Australian economy and its role in providing connectivity throughout the nation.
2. Without a clearly stated National Policy and the underlying drivers (such as protection of airspace, an Aviation Workforce Strategy, etc.), this White Paper will remain aspirational rather than fulfilling its purpose as the bedrock of a cogent and coherent plan that can unlock the benefits of a properly resourced and considered aviation sector.