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Our submission can be made publicly available.

## Submission: Green Paper on Aviation

BlueSalt Consulting is pleased to make a submission on the Aviation Green Paper, following our submission to the White Paper terms of reference in March 2023 (under our previous name Anna Dixon Consulting). In addition to this written submission, we attended two of the virtual roundtables – airports and airport development, and regional aviation.

Established in 2016, BlueSalt Consulting is made up of a team of professionals based across Western Australia's South West region and Perth metropolitan area. Having lived and worked across regional Australia, we have a strong understanding of the regional context and a genuine commitment to supporting sustainable regional development.

In preparing this submission we collaborated with Fly2Health Group, which was founded in Western Australia and has been delivering otherwise non-existent, consistent, and desperately needed NDIS allied health services to people living in regional and rural Western Australia, New South Wales and Queensland since 2021. Fly2health has scaled to 65 staff to cater for this desperate need in the regions, delivering across 30 communities (including three remote Aboriginal communities which have not been serviced before). To date, over 8,000 appointments have been delivered to families across the three states and on average, we receive over 30 new referrals per week.

Importantly, fly2health provide ongoing health care using their model, which brings different needs to aviation-related acute health care provision. Fly2health also attended the Perth in-person roundtable.

Guided by the Green Paper, our submission focuses on four topics:

- Fit-for-purpose agencies and regulation
- General aviation (GA)
- Regional and remote aviation services
- Workforce considerations

# Our Response

## GENERAL COMMENTS AND SUMMARY

We commend the Australian Government for taking a generational view of aviation in Australia and addressing planning to 2050. In summary, our response calls for:

- Greater nuance and introduction of best practice stakeholder engagement in aviation regulation in Australia, particularly on issues affecting general aviation (GA).
- An independent review to identify the root cause of issues with the regulator that have led to the impacts on GA, and recommendations for improvement.
- Fully quantifying the scale and scope of the GA sector, which will in turn assist with regional development and effective decision-making.
- Targeted capability building and supports for GA business owners and operators, particularly those regionally based, looking to the success of programs in other industries.
- Regional and remote aviation to be a cross-cutting theme in the White Paper, as every theme is relevant to regional Australia but will have different impacts to the capital cities.
- An independent social study of the Australian aviation workforce in relation to wellbeing and mental health, including contributing factors (particularly in developing a baseline) and independent recommendations to address any issues found.

### 1. Fit-For-Purpose Agencies and Regulations

In addition to a large focus on Sustainable Aviation Fuel, the Green Paper and associated consultation roundtables we attended had a greater focus on airlines (not General Aviation) and piloting and flying hours (not maintenance and supporting roles including ground crews). This mirrors the approach and focus taken by Australia's key regulator, the Civil Aviation Safety Authority (CASA), despite fundamental differences between these sectors of the industry.

#### 1.1 Regulation Failing General Aviation

It has been identified repeatedly over the past 20 years that while changes in aviation policies affect GA, there is little information available on which to base the likely impacts of these changes.<sup>1</sup> A 1994 study undertaken into GA was the first since 1979, and only took into account flying, not organisations or individuals involved solely in aircraft maintenance, airports and other infrastructure.<sup>1</sup> The consequences of this are now evident.

Since 2011, changes made to maintenance licensing (both on individuals and to operators and aircraft owners) have contributed to wasted resources, the loss of skilled workers and created uncertainty.

While we acknowledge that factors such as pay rate and job demands also play a role in decision-making for employees, we are also aware of maintenance staff who have left the industry directly due to changes in the licence, regulations, as well as those who feel 'like their career plans have been taken away from them'.<sup>2</sup>

Australian aviation is now facing a skills shortage of aircraft maintenance engineers, across all states and nationally, across all categories – see figure 1.<sup>3</sup> The scenario planning document produced for the White Paper also states that a “failure to implement enduring changes to how aviation workers are recruited, trained and retained will lead to further shortages in future”.<sup>4</sup>

ANZSCO Code	Occupation	SHORTAGE RATING										FUTURE DEMAND
		National	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	National	
323111	Aircraft Maintenance Engineer (Avionics)	S	S	S	S	S	S	S	S	S	S	MODERATE
323112	Aircraft Maintenance Engineer (Mechanical)	S	S	S	S	S	S	S	S	S	S	MODERATE
323113	Aircraft Maintenance Engineer (Structures)	S	S	S	S	S	S	S	S	S	S	MODERATE

Figure 1: Australian Government Skills Priority List, 2023.

While reference to the loss of staff related to regulatory change was referred to in the Green Paper, the information provided does not instil confidence that this is being sufficiently investigated.

For example, the statement that in March 2023 “the regulations were further amended to allow LAMEs to be licensed in a modular fashion” is not entirely correct and is misleading without qualifying background, because:

- As of 27 October 2023, CASA’s website states that the modular changes are still in a consultation phase<sup>5</sup>, with this consultation closing only on the 12 October 2023. Hence, it is not amended or implemented and therefore has had no direct positive impact on workers.
- It is remiss not to mention that Australia previously had a modular system, which was changed (with a lack of engagement with those directly affected). Therefore, this should not be presented as an improvement but rather a correction to a system that was operating for some time and was changed.

While appropriate regulation is necessary to uphold the enviable safety record of the sector, over-regulation creates inefficiencies, business uncertainty, reduced viability and in some instances mandated ‘over maintaining’ of aircraft, increasing opportunities for human error.

The reason for an ongoing fixation on the needs of airlines in policy focus and regulation (at the expense of GA) in Australia would only be speculation without independent study, however some possibilities include long-standing organisational culture, the fragmented nature of GA, a lack of peak body or advocacy effort, the prevalence of SMEs in GA, or a perceived lack of economic relevance. Existing qualitative studies have found much critique from participants working in GA with regard to the regulator, with the effect of undermining safety.<sup>6</sup>

## 1.2 Regulator Engagement Practices

A qualitative sector enquiry found, despite a willingness in GA to engage with progressive policy initiatives, efforts to resolve endemic and emergent issues are being compromised by the current bureaucratic engagement strategies in place to participate in industry planning.<sup>7</sup>

While we are aware that engagement practices within CASA have improved in isolated pockets over the past 12-18 months, changes made in both the GA sector specifically (in relation to maintenance), and to maintenance licensing overall, have had negative implications for some, including to their personal livelihoods or business viability. In addition, we are aware of a cohort of businesses that feel like they are operating with a lack of certainty about their future. Part of this uncertainty is perpetuated by past regulatory change that has been introduced without a thorough analysis of impact. The consequences of this are significant for small aviation businesses, which are often regionally based.

A root cause of this appears to be a lack of nuanced decision-making and a lack of engagement and research into potential impacts, leading to regulations that are not fit for purpose, not in the best interests of a sustainable sector, and bearing no relation to the risk profile it presents.

In other sectors, healthcare being just one example, it is expected practice to include the input of people with lived experience as a minimum (and even better to co-design) to ensure that decisions made do not have unintended consequences on any group.

From the outside (with a lack of detailed information forthcoming) it appears that decisions have been based around a view that airlines and GA can be treated as one. It would be helpful to know what GA expertise CASA has relied upon to make such changes, and how competing priorities and interests are balanced in policymaking.

A significant tranche of work will need to be undertaken by CASA to rebuild confidence and trust across the GA sector before they can expect to see effective two-way engagement. It is our experience, and something we also heard in the roundtables attended, that pockets of the aviation sector are effectively in, or close to, crisis mode. It is fair to say that a contributing factor is a lack of support for the industry, and a lack of trust that the key regulator is acting cognisant of those who make the sector work on a day-to-day basis, a distrust that has built up over many years.

As part of a broader engagement practice improvement, we specifically request CASA undertake engagement with operators who may fall under the current CASR part 135. There is no clear guidance as to where some corporate/ business operations fall under, unlike the previous CAR 2(7) - Private Operations. Engagement with operators should be undertaken to determine requirements of manuals, standards and procedures.

## **2. General Aviation (GA)**

### **2.1 Building an Evidence Base**

We note the Green Paper has a large focus on airlines and the highly diverse GA sector is dealt with in five pages. We hope that this is only a preliminary examination of the sector as there have been repeated calls for greater detail and information (see section 1.2). Most issues related to GA fall under the regulation topic, hence are covered in section one.

There is mention of a study being undertaken by the Bureau of Infrastructure and Transport Research Economics (BITRE) and due to be completed in late-2023. It would have been helpful to have this study, or preliminary findings, completed ahead of the Green Paper as there may be missed opportunities to engage the sector and identify potential gaps and opportunities.

At BlueSalt Consulting, we know that evidence is fundamental to effective decision making and yet this appears to be lacking for decisions made in relation to GA. It is difficult to develop priorities and supports without first quantifying the scale and scope of the sector.

We note a focus in the Green Paper to “support GA’s natural growth and regeneration”<sup>8</sup> however we would prefer to see a planned, proactive approach to the growth and regeneration of this sector, upon which regional Australia depends.

## 2.2 Targeted Support

The GA sector is characterised by a diverse range of service areas, typically run by small to medium operators. In regional areas, there are further barriers to accessing networks, building capability and accessing support. COVID19 highlighted weaknesses in the Australian GA sector such as a lack of financial acumen and the need for authentic leadership and emotional intelligence during periods of organisational stress.<sup>9</sup>

Targeted capability building and supports for GA business owners and operators could help to strengthen the resilience of the sector. For example, in the manufacturing sector the Advanced Manufacturing Growth Centre (AMGC) has produced a range of information on sector competitiveness and resilience. Their study into industry knowledge priorities concluded that business improvement priorities are one of two key priority areas for manufacturing in Australia. This is now being used to focus the efforts of policy makers, industry associations, and business support services that target improved business capabilities in manufacturing.<sup>10</sup>

Programs that exist in Western Australia for other sectors include Local Capability Funds, or in the food and beverage industry, the Department of Primary Industries and Regional Development offer industry support and ‘vouchers’ to use for a range of professional services such as developing a business plan and accessing financial advisory services.

Many other industries benefit from proactive planning and support and this appears to be a missing component for the GA sector, an approach echoed by those in the industry who see there is a prominent role for the regulator, but a lack of clarity and support.<sup>6</sup>

We also note the BITRE study referred to has a specific economic focus and have made comments under regulation that are relevant here too – given the severe skills shortage in some occupations and the uncertainties in regulation that have disproportionately impacted this sector (see section one), future studies should be dedicated to both the wellbeing of those employed in this sector and the opportunities to make improvements for their sake and the sustainability of the workforce. For more on this see section four.

## 3. Regional and Remote Aviation Services

### 3.1 Understanding Impact

Our original submission to the White Paper themes called on the role of aviation in regional areas to be elevated beyond the theme of “the role of airlines and airports in supporting regional economies” and preferably included in the White Paper as a cross-cutting theme.

We were pleased to see regional and remote aviation services included in most themes in the Green Paper and pleased to see our comments around the key role regional areas can play in sustainable aviation fuel production reiterated. However, we still believe regional and remote aviation should be a cross-cutting theme, as every theme in the White Paper is relevant to regional Australia and will have different impacts to the capital cities.

By adding a regional consideration against each White Paper theme, the unique circumstances and impacts against that topic could be better addressed and integrated. The current approach also makes it difficult to provide feedback, as our comments related to the regions sit within each of the themes already covered above.

In the Green Paper regional theme general aviation, despite its importance to the regions, is only referred to in introductory commentary that “regional airstrips enable general aviation activities to service cattle stations, First Nations communities, mining sites and other remote locations for various purposes”. The relevance and impact of GA in regional and remote Australia is far more critical than this.

For airport development planning process and consultation mechanisms, engagement on this topic in the virtual roundtable was initially mainly focused on capital city airports, however our comments relate to regional and remote airports.

Regional airfields in Western Australia are predominantly managed by small local governments, with upgrades managed through grant funding. We call on a more systematic method of ongoing asset maintenance and improvement that does not place additional burden on local governments. There is a heavy reliance on regional local governments and communities for airport planning, development and management. While the State Government has released guidance on planning and price-setting, day-to-day airport or airfield management is also subject to stringent regulation (for example specific vegetation clearances) which require specialised knowledge and skills.

We believe the effectiveness and fairness of current management responsibilities needs to be reviewed, in conjunction with estimated growth, demand and investment. There is also a lack of consistency in investment across regional centres, for example provision of RNAV, and a reliance on grant cycles to complete necessary upgrades.<sup>11</sup> In some regional centres commercial operators are reliant on gravel airstrips, frequently causing damage and lost productivity.

## **4. Workforce**

### **4.1 Social study and supports**

While we note the proposed work by BITRE on documenting GA from an economic perspective (see section two), we feel there is a strong case to also investigate the Australian aviation workforce in its entirety from a social perspective.

In considering the need for this, compounding risk factors need to be considered. One is gender - for example, there is a known increased incidence of suicide rates for males in male dominated occupations<sup>12</sup> and a need to address the mental health of workers in male-dominated groups<sup>13</sup>.

Another is location - between 2001 to 2022 the rates of suicide (per 100,000) were higher in inner regional, outer regional, remote and very remote areas compared to major cities; in some years over double.<sup>14</sup> Many aviation workers are required to travel frequently and / or live in regional locations.

Aviation faces further contributing issues. Aviation was a key sector impacted by COVID and the Senate Standing Committee on Rural and Regional Affairs and Transport heard that the effects of the pandemic on mental health within the aviation sector have been widespread. The committee heard that financial challenges, and the ongoing uncertainty faced by aviation workers, have had ongoing impacts on their psychological wellbeing.<sup>15</sup> Again, this chapter in the committee report was heavily focused on airlines.

In Ireland, the 2021 Lived Experience Wellbeing project at Trinity College Dublin (on aviation workers) found that cabin crew and maintenance staff, arguably two of the least studied occupations in aviation, also had the highest rates of depression, anxiety and suicidal ideation, with cabin crew reporting around twice the rate of pilots.<sup>16</sup> Staff in aviation operate in a highly regulated setting with a high emphasis on human performance. For further compounding factors see section 1.1 on regulation failing GA and the impact on maintenance engineers. We note that the Green Paper did not mention mental health once.

We are calling on a social study of the Australian aviation workforce in relation to mental health, a study of contributing factors (particularly developing a baseline) and independent recommendations to address any issues found, with a view to addressing underlying issues contributing to the skills shortage. This must include a focus on GA and maintenance staff.

## Contact

Once again, thank you for the opportunity to make a submission on the Aviation Green Paper, we look forward to hearing the outcomes of this consultation. For any enquiries we can be contacted via [team@bluesaltconsulting.com.au](mailto:team@bluesaltconsulting.com.au)

Yours sincerely



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## References

- <sup>1</sup> Bureau of Transport and Communications Economics, 1996. *General aviation. Flying in Australia (Report 95)*. Retrieved from: [https://www.bitre.gov.au/sites/default/files/report\\_095.pdf](https://www.bitre.gov.au/sites/default/files/report_095.pdf)
- <sup>2</sup> One on one interview, identity suppressed.
- <sup>3</sup> Australian Government, 2023. *Skills Priority List*. Retrieved from: <https://www.jobsandskills.gov.au/data/skills-priority-list>
- <sup>4</sup> LEK, 2023, *Scenario Analysis of the Future of Australian Aviation*. LEK Consulting Australia Pty Ltd
- <sup>5</sup> CASA, 2023, *Seeking Feedback Modular Licence Aircraft Maintenance Engineers*. Retrieved from: <https://www.casa.gov.au/seeking-feedback-modular-licence-aircraft-maintenance-engineers>
- <sup>6</sup> Anjum Naweed, Kyriakos I., Kourousis. 2020, *Winging It: Key Issues and Perceptions around Regulation and Practice of Aircraft Maintenance in Australian General Aviation*. *Aerospace* 2020, 7, 84; doi:10.3390/aerospace7060084
- <sup>7</sup> Tisdall, L., Zhang, Y., 2023, *Seeking wicked problems, finding opportunities: Advancing Australian general aviation policy beyond COVID-19*. *Case Studies on Transport Policy* Volume 14, December 2023, 101070. Retrieved from: <https://www.sciencedirect.com/science/article/abs/pii/S2213624X23001244>
- <sup>8</sup> See page 120.
- <sup>9</sup> Tisdall, T., Zhang, Y., 2020, *Preparing for 'COVID-27': Lessons in management focus – An Australian general aviation perspective*. *Journal of Air Transport Management* Volume 89, October 2020, 101922.
- <sup>10</sup> Advanced Manufacturing Growth Centre, 2023, *Resources*. Retrieved from: <https://www.amgc.org.au/resources/>
- <sup>11</sup> WA Government, 2023, *Funding Allocation: RADS*. Retrieved from: <https://www.transport.wa.gov.au/aviation/funding-allocation.asp>
- <sup>12</sup> Milner, a., King, T., 2018, *Men's work, women's work and suicide: a retrospective mortality study in Australia*, *Australian and New Zealand Journal of Public Health*.
- <sup>13</sup> Roche AM, Pidd K, Fischer JA, Lee N, Scarfe A, Kostadinov V., 2016, *Men, Work, and Mental Health: A Systematic Review of Depression in Male-dominated Industries and Occupations*. *Saf Health Work*. Dec;7(4):268-283. doi: 10.1016/j.shaw.2016.04.005. Epub 2016 Apr 29. PMID: 27924229; PMCID: PMC5127922.
- <sup>14</sup> AIHW, 2023, *Suicide by remoteness areas*. Retrieved from: <https://www.aihw.gov.au/suicide-self-harm-monitoring/data/geography/suicide-by-remoteness-areas>
- <sup>15</sup> Commonwealth of Australia, 2022, *The future of Australia's aviation sector, in the context of COVID-19 and conditions post pandemic*, Chapter 4. March 2022. Retrieved from: [https://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Rural\\_and\\_Regional\\_Affairs\\_and\\_Transport/CovidAviation/Report](https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/CovidAviation/Report)
- <sup>16</sup> Lived Experience & Wellbeing Project School of Psychology Trinity College, 2022, *Impact of COVID on Aviation Worker Wellbeing*, March 21, 2022. Retrieved from: <https://www.tcd.ie/cihs/assets/pdf/projects/livedexperience/covidresultsmarch2022.pdf>