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Open Letter to:

Mr Michael McCormack, Deputy Prime Minister;

Mr Simon Atkinson, Secretary of the Department of Infrastructure, Transport, Regional Development and Communications;

Mr Anthony Mathews, Chair, Board of the Civil Aviation Safety Authority,

Ms Pip Spence, Chief Executive Officer of the Civil Aviation Safety Authority, and

Senator Susan McDonald, Chair of Rural and Regional Affairs and Transport Legislation Committee

Engineering Design, Manufacturing Jobs and Advanced Technology.

Where is government's vision for creating jobs in the civil aviation manufacturing industry? A sector recognised by our Asian trading partners as a job-creating industry.

For jobs to be created, government must remove regulatory red tape preventing growth in the civil aviation engineering sector, specifically for aeroplanes above 5700Kg.

Government:

- Take immediate action to improve the competencies of the Civil Aviation Safety Authority technical expertise so it can certificate aeroplanes above 5700Kg; and
- Amend CASR Part 21 and associated parts to meet provisions of the Convention's Annex 8 to reduce the number of differences lodged with ICAO; and then
- Review the differences lodged with ICAO against Annex 8 so the world knows Australia has a competent civil aviation regulator (CASA) capable of certificating aeroplanes above 5700Kg.

In particular, AMROBA calls upon the Government to immediately remove the 'difference' they have lodged against the *Convention on International Civil Aviation*, Annex 8, 2.4.2.1 stating that "***aeroplanes above 5,700Kg MTOW are not designed or manufactured in Australia***".

> *"Annex 8, 2.4.1 When approving production of an aircraft, engine, propeller or associated part, the Contracting State having jurisdiction over the organization responsible for production shall:"*

That decision of government/CASA has placed an administrative restriction on the Australian regulations for civil aviation design/manufacturing industry that stifles new civil aviation manufacturing projects. It restricts the potential to create jobs.

AMROBA is aware of two projects to manufacture aeroplanes in Australia above 5700Kg; both have been turned away by CASA.

Why does government stop jobs from being created?

Having recently become aware of this difference promulgated in the *Aeronautical Information Package*, 20 May, 2021; AMROBA now understands why its members' applications for design approvals supporting Supplemental Type Certificates, Parts Manufacturing Approvals for aeroplanes above the 5700Kgs, takes so long to conclude.

CASA technical expertise needs to be equivalent with industry peers.

It now appears to industry that CASA has not maintained the technical design/manufacturing expertise for aeroplanes above 5700Kgs.

What are the ramifications for the industry if technical engineering expertise is reduced to match the 5700Kgs aeroplane certification standards within the Australian aviation fleet and industry that consists of much larger aircraft? Is CASA's current technical expertise competence inclusive of certification standards for larger aircraft?

Obviously, CASA must have let their internal technical expertise diminish for government to administratively reduce the regulatory capability of CASA without informing the civil aviation industry that they have restricted CASA from providing a full regulatory service capability for product certification projects.

There are 30 odd other lodged differences to Annex 8 listed with ICAO that must make other NAAs question Australia's civil aviation engineering capability.

How come we have, after decades of regulatory reform, so many Convention Annex 8 provisions not addressed in Australian regulations?

Does this mean that CASA does not have the technical expertise to perform continuing oversight of engineering matters associated with aeroplanes above 5700Kgs?

It explains why Australian manufacturers of advanced technology products have taken their designed products and moved off-shore to get recognition.

Also explains why many of our members are frustrated when dealing with CASA with regards to high level design/manufacture projects requiring experience and expertise skills to approve their design products for larger other than 5700Kg & below aeroplanes.

Was this a political, public service or CASA decision to limit potential?

Differences Comparison with FAA/EASA/NZ.

Australia Annex 8
https://www.airservicesaustralia.com/aip/aip.asp?pg=10 Annex 8 Bottom of page

FAA Notifications
https://www.faa.gov/air_traffic/publications/atpubs/aip_html/part1_gen_section_1.7.html

NZ – Annex 8
https://www.aviation.govt.nz/assets/about-us/icao/annex-08.pdf

EASA Compliance List
https://www.easa.europa.eu/domains/international-cooperation/cooperation-with-ICAO

Their differences lodged do not restrict their Civil Aviation Regulator from certificating aeroplanes above 5700Kgs. Our differences probably explains why government/CASA have not been able to obtain global recognition of our design, manufacturing and maintenance services in their own right. The differences informs other nations that we are not technically skilled to address larger aircraft.

This 5700Kg limit is very restrictive on Australian design/manufacturing industry and is not aligned with the current global design standards for small aeroplanes under the CASR Part 23 that adopts both the EU CS 23 & the USA FAR Part 23.

These differences lodged against Annex 8 is, in our opinion, restricting government policy to create jobs. Jobs could be created in the civil aviation design, manufacturing and maintenance industry. Time to bring the technology back into Australia.

Both the USA FAR & EU CS system includes **19 seats and 8618 Kgs** aeroplanes under Part 23 small aeroplane design standards. 5700Kg was the past limit of this global standard. Australian aviation must be brought into line with current global standards

Time to move to the present so we can prepare for the future.

EASA

CS 23.2005 Certification of normal-category aeroplanes

(a) Certification in the normal category applies to aeroplanes with a passenger seating configuration of 19 or less and a maximum certified take-off mass of 8 618 kg (19 000 pounds) or less.
(b) Aeroplane certification levels are:
(1) Level 1 — for aeroplanes with a maximum seating configuration of 0 to 1 passengers;
(2) Level 2 — for aeroplanes with a maximum seating configuration of 2 to 6 passengers;
(3) Level 3 — for aeroplanes with a maximum seating configuration of 7 to 9 passengers; and
(4) Level 4 — for aeroplanes with a maximum seating configuration of 10 to 19 passengers.
(c) Aeroplane performance levels are:
(1) Low speed — for aeroplanes with a VNO or VMO ≤ 250 knots calibrated airspeed (KCAS) or a MMO ≤ 0.6; and
(2) High speed — for aeroplanes with a VNO or VMO > 250 KCAS or an MMO > 0.6.

The EU encourages anyone to design and manufacture aircraft. Australia did so until the management of CASA over the last decade stopped supporting manufacturing. CASA is more concerned with the "classification of operations" instead of the ICAO's "classification of activities" that includes, design, manufacture and maintenance.

FAA

FAR 23.2005 Certification of normal category airplanes.

(a) Certification in the normal category applies to airplanes with a passenger-**seating configuration of 19** or less and a **maximum certificated takeoff weight of 19,000 pounds** or less.
(b) Airplane certification levels are:
(1) Level 1—for airplanes with a maximum seating configuration of 0 to 1 passengers.
(2) Level 2—for airplanes with a maximum seating configuration of 2 to 6 passengers.
(3) Level 3—for airplanes with a maximum seating configuration of 7 to 9 passengers.
(4) Level 4—for airplanes with a maximum seating configuration of **10 to 19** passengers.
(c) Airplane performance levels are:
(1) Low speed—for airplanes with a V_{NO} and V_{MO} **≤ 250** Knots Calibrated Airspeed (KCAS) and a $M_{MO} \leq 0.6$.
(2) High speed—for airplanes with a V_{NO} or V_{MO} **> 250** KCAS or a $M_{MO} > 0.6$.

The USA standards were introduced to streamline certification of aeroplanes up to 19 seats, 19000 lbs that now includes multi-engine piston and turbine aeroplanes.

This is the future, Australia has proven in the past they have the expertise to design and manufacture aircraft. So why restrict the ability for Australia to participate.

In other words, Australia's Annex 8 restrictions actually limits design/manufacture to small aircraft below 5700Kg aeroplanes, not the current small aircraft definition of EASA CS 23 and the FAA Part 23 of 19 seat/8618Kg limit.

This is a disincentive to create civil aviation design and manufacturing jobs in Australia.

Global Recognition

Another area of concern is when other nation's aviation regulators review Australia's differences lodged with ICAO, they must be wondering if CASA has the technical expertise to perform many of its regulatory engineering functions. It is an important factor associated with the decline in civil aviation engineering jobs.

Pre 1998, CASA's predecessors had technical staff globally recognised for providing design/engineering/manufacturing expertise that guaranteed employment and capabilities in the civil aviation industry.

The management of CASA over the last decade must be held to account for reducing CASA's certification capabilities so they cannot perform full regulatory functions.

It is obvious now why they have restructured away from the ICAO model post CEO/DAS Mr M Toller had in place. They have lost the client interface that is critical to enhancing aviation safety and expertise.

The Structure of CASA Could be the Problem For Differences.

ASRR Recommendation 21: "**The Civil Aviation Safety Authority changes its organisational structure to a client oriented output model**."

Until CASA accepts the ASRR Recommendation 21 and restructure as a **client based civil aviation regulator,** as most civil aviation regulators are, then technical expertise will continue to decline.

STANDARD (client based) REGULATORY AUTHORITY V SECTION 9, CAAct					
CERTIFICATION (DESIGN & MANUFACTURE)	MAINTENANCE & CONTINUING AIRWORTHINESS	AIR TRANSPORT OPERATIONS (>18 Seats)	AIR TRANSPORT OPERATIONS (<19 Seats)	PRIVATE & AERIALWORK OPERATIONS	AIRSPACE & AERODROMES
CO staff	CO staff	CO staff	CO staff	CO staff	CO staff
FO Staff	FO Staff	FO Staff	FO Staff	FO Staff	FO Staff
Each Division's Central Office: Regulatory Reform; Regulatory Standards & Practice; National Oversight					
Each Divisions' Field Offices: Regulatory Services, Regional Oversight; Regulatory Guidance					

Until the structure resembles a client based civil system, civil aviation activities will not grow safely within Australia. The CASA structure has returned to the bureaucratic system of the past before reform in the 80s and 90s ended up with a client based structure.

Today's CASA structure looks nothing like other NAA client based structures and that is probably why product certification and maintenance services do not have the importance placed on them by this over bureaucratic structured organisation.

We need politicians, government, the applicable government departments, agencies and CASA to have a much broader vision for civil aviation growth.

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