

Commonwealth Government of Australia

Aviation Safety Regulation Review 2014

Submission by the

Australian Licenced Aircraft Engineers
Association



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“Guardians of Air Safety”

Introduction

The Australian Licenced Aircraft Engineers Association (**ALAEA**) is the body representing Australia's professional Licensed Aircraft Maintenance Engineers (**LAMEs**). The LAMEs critical role in certifying aircraft airworthiness is best summed up by their trade-marked mission statement "guardians of air safety."

The Association appreciates the opportunity to provide the perspective of Australia's professional LAMEs to this critical Aviation Safety Regulation Review. Engineers support the review and believe the current administration of Australian aviation safety oversight, flawed evolution of the national regulatory framework and subsequent reduction in Australia's preeminent safety reputation requires in-depth strategic review and reassessment.

In considering this submission the Association encourages the Aviation Safety Review Board to view licenced aviation personnel as part of an essential quality control mechanism that ensures safety remains at the centre of aviation decision making.

This independent role is becoming increasingly important as Australia's "worlds' best practice" aviation safety practices come under increasing commercial pressures to align with lower "global minimum standards" and "least safe cost" alternatives.

As a matter of process we canvassed our members opinions for the compilation of this submission and a summary of some of their responses are appended to this document.

Please contact me if I can provide any additional information, clarification or assistance.

Yours Sincerely,

A black rectangular box used to redact the signature of Steve Purvinas.

Steve Purvinas

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Part 1 – Submission in Context;

This submission outlines flaws in the development of the new EASA style aircraft maintenance engineer licensing and training systems and calls for the strengthening of the personnel licencing standards that have long facilitated the independent safety role of LAMEs. Similarly, the submission rejects the subtle transfer of certifying LAME authority to Approved Maintenance Organisations (**AMO**) holders or Civil Aviation Safety Regulation (**CASR**) Part 42 organisations that is occurring under the development of the EASA style licensing system.

The ALAEA provides this submission in the context of accelerating liberalisation and ever stronger commercial pressures. Simultaneously, however, Australia’s regulatory framework is also undergoing a fundamental shift toward an outcome based model that places greater levels of responsibility for safety oversight and regulatory compliance upon industry participants. The scope of these self-oversight responsibilities are set to sharply increase in the near future as the next phase of Australia’s Regulatory Reform Program (**RRP**) is implemented.

However, unless carefully monitored by an effective “arms-length” regulator and independent licensed industry personnel, pressures created by liberalised aviation markets may be at odds with increased regulatory self-supervision. For this reason this submission calls for both significantly stronger compliance and audit stance by CASA and a national aviation Whistle-blower Protection Program to protect industry and regulator personnel who provide information relating to aviation safety violations.

Regrettably, engineers have witnessed too many instances of the Civil Aviation Safety Authority (**CASA**) being unable or unprepared to confront the largest aviation organisations when breaches are brought to its attention. Consequently, Australia’s LAMEs do not have confidence that CASA is acting as an effective counterweight to the commercial pressures threatening to reduce Australia’s traditional world’s-best-practice safety outcomes.

This submission therefore also calls for more thorough audits and tougher compliance action by CASA similar to the regime of substantial penalties routinely issued by the American Federal Aviation Administration (**FAA**). Similarly, CASA must realign its organisational structure to better conduct this primary audit and enforcement role, which it must now undertake as the national regulator of an outcome based regulatory framework.

Aviation Safety Review Terms of Reference (ToR)

The stated objectives of the Aviation Safety Review :

The principal objectives of the review are to investigate:

- *the structures, effectiveness and processes of all agencies involved in aviation safety;*
- *the relationship and interaction of those agencies with each other, as well as with the Department of Infrastructure and Regional Development (Infrastructure);*
- *the outcomes and direction of the regulatory reform process being undertaken by the Civil Aviation Safety Authority (CASA);*
- *the suitability of Australia's aviation safety related regulations when benchmarked against comparable overseas jurisdictions; and*
- *any other safety related matters.*

In relation to the Terms of Reference for the Aviation Safety Review this submission addresses the following:

1. the structures, effectiveness and processes of all agencies involved in aviation safety; **(ToR1)**
2. the outcomes and direction of the regulatory reform process being undertaken by the Civil Aviation Safety Authority (CASA); **(ToR2)**
3. the suitability of Australia's aviation safety related regulations when benchmarked against comparable overseas jurisdictions; **(ToR3)**and
4. any other safety related matters. **(ToR4)**

Part 2 - Summary of ALAEA Concerns and Recommendations;

1. Outcome based regulation places more oversight responsibility on organisational permission holders. (ToR 1)

- a. This shift must be accompanied by stricter audit, compliance and enforcement regimes, including US Federal Aviation Administration (**FAA**) style financial penalties;
- b. Independent Safety oversight must be maintained by individual professional personnel licensing and not devolved to group or company licensing;
- c. Personal authority to certify must remain with fully licenced personnel who understand the interconnected nature of complex aviation systems and not be diminished by new subclasses of licence or reallocation of licence tasks to discrete “specialised” tasks.
- d. Requirements for electronic recording of aircraft maintenance certification should ensure that only trained and authorised persons can certify for maintenance.

2. CASA not properly policing maintenance operations. (ToR 1)

- a. On a regular basis the ALAEA provides evidence or allegations to CASA of maintenance organisations operations or documentation breaches. CASA does not always act on this information in a timely and/or transparent manner, despite the high level of subject matter expertise of our LAME members;
- b. CASA appears to err toward commercial bias and selective interpretation of regulation in favour of large operators when breaches are brought to CASA’s attention. CASA demonstrates a reluctance to impose regulatory cost on the large operators that reinforces this perception of bias.

3. Disproportionate enforcement action taken against soft-targets (ToR 1)

- a. The General Aviation industry has been suffering under a regime of what is widely considered by engineers to be overzealous [punitive] regulatory enforcement, while the big operators appear to escape similar censure by CASA;

- b. CASA very strongly pursued minor operator Tiger Airways over safety breaches and poor systems. While this action seemed entirely appropriate, Engineers have not seen CASA demonstrate anywhere this level of eagerness to pursue the largest operators... This lack of balance provides a perception of bias in favour of larger operators or CASA timidity in confronting more powerful organisations.

4. Whistleblower Protection Program (ToR 1)

- a. The liberalisation of aviation is placing increasing commercial pressure on companies, while the regulatory reform program (**RRP**) is simultaneously placing more responsibility for compliance on these same commercial participants;
- b. In the ALAEA's view this contradiction must be balanced by ensuring the independence of professional license holders is maintained and they are supported in their reporting obligations. This support should include the establishment of a Whistleblower Protection Program (**WPP**) similar to that operated by the US FAA so that safety reporting can be made [by industry and regulator personnel] without fear of recrimination.

5. CASA Industry complaints commissioner requires statutory independence (ToR 1)

- a. Currently the Industry Complaints Commissioner's (**ICC**) functions are conducted from within the office of the Director of Aviation safety;
- b. ALAEA is aware that of evidence provided by another aviation association of regulation breach. The Commissioner agreed in writing that breach had occurred but he was unable to direct CASA enforce the law;
- c. Such organisational arrangements provide a fundamental conflict of interest between the independence required by an ombudsman and senior CASA management influence. This conflict reduces the confidence of industry in the impartiality of the ICC and the ability of the ICC to act;
- d. The ICC must be established as a separate statutory body with independence from the regulator the ICC is called upon to investigate. This call was supported by the

previous Inquiry into the Administration of CASA in 2008 but has not been implemented.

6. Workplace protection for reporting obligations (ToR 1)

- a. Currently there are no workplace regulatory protections under the Fair Work Act in place for an employee who fulfils their obligations under the Civil Aviation Act by reporting a defect if their employer has directed (or applied indirect pressure) that the defect should not be reported.

7. Licencing reciprocity (ToR 2)

- a. A review is required of the reciprocity of recognition of the Australian aircraft maintenance engineers licence and training with the equivalent qualifications of the European Union;
 - i. Despite both Australia and the EU having aircraft maintenance engineer licenses based on the same ICAO standards (and the professional standards of the licenses being equal) the EU will not recognise the qualifications of Australian engineers and requires them to recomplete their entire professional training if EU accreditation is sought;
 - ii. Australia on the other hand fully recognises the EU license qualifications and, subject to a minor legislation/differences exam, issues EU license holders with an equivalent Australian Part 66 license;
 - iii. This obvious protectionist action by the EU is hampering the skill development and career opportunities of Australian engineers as they are denied by the EU the same opportunities that Australia is providing to their license holders;
 - iv. Australia must press the EU to recognise Australian LAME qualifications or cease recognising EU licenses as valid basis for issue of Australian CASR Part 66 qualification.

8. Clear and Concise Regulation (ToR 2)

- a. The RRP has failed to produce clear and definitive regulations in relation to aircraft maintenance engineer licencing and aircraft maintenance activities.
 - i. The resulting confusion and uncertainty is having a disastrous effect on small General Aviation operations as they struggle to comply with contradictory, opaque and complex rules;
 - ii. In High Capacity RPT engineers are inadvertently breaching the regulations due to large grey areas that have replaced what used to be a clear scope and system of licence privileges.
- b. A Post Implementation Review (**PIR**) of the maintenance and maintenance licensing regulations is required as soon as possible;
- c. A review into CASA's internal processes for regulatory development is essential.

9. Diminution of professional licencing standards (ToRs 2 &3)

- a. The introduction of CASRs Part 66 has provided for a significant drop in the standards required for an entry level LAME from 2400 hrs training and 4 years experience to 800 hrs and 2 years experience;
- b. The introduction of the CASR Part 145 and current proposals to amend the Part 145 Manual of Standards (**MOS**) has reduced professional oversight and provided for the wide use of non-licenced, non-trade level qualified individuals to certify and supervise maintenance on aircraft;
- c. This trend of "specialised" maintenance tasks is accelerating and is directly replacing oversight by licensed personnel who understand the interconnected nature of complex aviation systems. By removing "specialist" tasks from LAME authority the wider oversight quality of maintenance and repair is undermined.

Part 3 - Detail of ALAEA Observations

1. Outcome based regulation places more oversight responsibility on industry permission holders

1. Focus is required on CASA's structures, effectiveness and processes (ToR 1) as the aviation industry goes through a state of change and uncertainty.

2. As highlighted in the submission's introduction, Australia's regulatory framework is undergoing a fundamental shift from prescriptive/bureaucratic system to a modern outcome based model that places greater levels of responsibility for safety oversight and regulatory compliance upon industry participants. The scope of these industry responsibilities are set to sharply increase in the near future as the next phase of Australia's outcome based Regulatory Reform Program (**RRP**) is implemented.

3. As the ALAEA understands it, outcome based principles require the regulator to move away from the role of sole developer of safety rules and utilise the wider experience of industry, stakeholders and aviation personnel to generate alternative methods of achieving safety outcomes. CASA will continue to develop Acceptable Means of Compliance (**AMC**) rules for those not wishing develop their own safety strategies and Guidance Material (**GM**) to aid regulatory compliance and interpretation. This outcome based approach recognises the experience of the wider industry and calls upon those wider safety resources to contribute to the development of better safety outcomes.

4. The Association does not oppose the outcome based philosophy per se but cautions the government to be mindful of the significant structural change required for CASA to effectively supervise the industry in this new and collaborative environment. In particular the government must be mindful of the need for retargeting of CASA resources and priorities when shifting from a prescriptive to outcome based regulator.

5. The first change requirement for CASA is to develop far more efficient consultation mechanisms and partnerships with industry, stakeholders and aviation personnel in order to access the wider expertise that is the first principle of outcome based approaches. As the outcome base philosophy depends upon far closer liaison than the former prescriptive/bureaucratic system CASA must discard its former—institutional—approach to rule making and develop new methods to better attract external

knowledge resources. Under an outcome based rule set CASA is as much an ideas facilitator as a regulatory content developer and industry supervisor. The new system focuses on better external safety outcomes, not bureaucratic process.

6. Unfortunately, CASA has not fundamentally altered its organisational or consultation structures from those used in the previous prescriptive system. The Standards Consultative Committee (**SCC**) remains the focus of consultation and essentially has the same long standing mode of operation and consultation. The ALAEA is disappointed that CASA management apparently have not understood the critical necessity for organisational restructure required to realign with the new regulatory environment – even though constantly highlighting the virtues of the new outcome based system. This concern is not directed at consultation conducted by CASA personnel; rather, we refer to the failure to align organisational structures to the new regulatory environment.

7. As alternative outcome based strategies are approved by CASA, two further issues arise for the regulator. The first is that while CASA still conducts surveillance of the industry, much of the immediate compliance responsibility is passed on to operators' own quality process management systems. As highlighted above, this increase in self compliance responsibility is occurring in parallel with industry liberalisation, which increases the level of commercial pressure operators.

8. Secondly, to ensure the outcome based system has integrity, CASA must be a strong enforcement body that clamps down hard on regulatory breaches. Failure to do so could easily undermine the benefits of the new outcome based system and essentially allow “the inmates to run the asylum” to coin an apt colloquial phrase. CASA however does not appear inclined to use the type of sanctions regularly used, for example, by the FAA in the US. The Association is aware that the FAA has recently handed out multiple fines for safety breaches of ten million dollars and more; in one current case American Airlines is being threatened with a one hundred and ten million dollar fine for serious safety breaches¹. Why have no large fines ever been issued by CASA in Australia?

9. Regrettably, engineers have witnessed far too many instances of Civil Aviation Safety Authority (**CASA**) being unable or unprepared to confront the largest aviation organisations when breaches are brought to its attention. Consequently, Australia's LAMEs are not able to express

¹ <http://abcnews.go.com/US/story?id=94807> ; <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=avFzkpTRRnHc&refer=us> ; <http://www.mailtribune.com/apps/pbcs.dll/article?AID=/20080307/BIZ/803070316/-1/rss05> Accessed 28 January 2014. <http://www.dallasnews.com/business/airline-industry/20120807-faa-may-seek-up-to-162.4-million-in-fines-from-american-airlines.ece> Accessed 28 January 2014.

confidence to the Review Board that CASA is acting as an effective counterweight to the commercial pressures threatening to reduce Australia's traditional world's-best-practice safety outcomes.

10. As CASA moves further away from the coal face of aircraft maintenance to "desktop" style auditing, stronger mechanisms are required to help ensure compliance. With advances in technology available to all organisations, CASR Part 42 (that dictates Continuing Airworthiness Systems) should require that any electronic system of recording certification for maintenance must be able to delineate and identify a person and their authorised certification privileges in relation to the work being certified and prevent unauthorised certification.

11. There needs to be a refocus on Operations and Airworthiness. Too much time and resources has been devoted to the Regulatory Review and CASA organisational issues. CASA needs to enter a new phase of practical implementation, audit, inspection and compliance action. CASA needs to lift its game in the detail of audits, frequency of audits, spot checks, its investigations of complaints and to ensure the paperwork systems approach reflects the actual airworthiness and operations. For example the last audit CASA carried out for Qantas was in 2008 when CASA told the airline *"to produce a plan to address deficiencies in meeting some of its own maintenance performance targets."*

2. CASA not properly policing maintenance operations.

12. A measure of CASA's effectiveness (ToR 1) is how it approves and polices the industry it regulates. Unfortunately ALAEA's experience is that in maintenance oversight CASA's performance is often substandard.

13. The ALAEA has provided examples to CASA of maintenance organisations having CASA approved Maintenance Organisation Expositions that do not meet the mandatory regulatory requirements and examples of a maintenance organisation attempting to authorise staff to certify outside of the scope permitted by the regulations by hiding the intent within CASA approved training. CASA were not aware of these breaches.

14. The ALAEA has had to ask CASA to investigate why a major organisation's maintenance exposition was approved by them when it did not meet regulatory requirements. The exposition in

question contained provisions that permitted the organisation to authorise non-licensed individuals to certify for a range of maintenance work and to supervise other personnel (an increasingly typical example of commercial pressure driving an operator to replace higher cost licensed personnel with lower skilled replacements and reducing safety outcomes). CASA was unaware it had approved a major Maintenance Organisation Exposition (**MOE**) that did not comply with its own rules. The CASA investigation is on-going.

15. In addition, CASA has also been asked to investigate that same organisation's process for approving the range of activities able to be performed and certified by its Category A LAMEs. The organisation has authorised a wide scope of activities to be performed – including some for which CASA had published direct advice stating they are not permitted to be performed by those personnel.

16. The ALAEA has also expressed concern to CASA that there are many instances of LAMEs certifying work illegally out of category. We are unaware of all of the reasons for these instances, but we are aware that at least some are caused by confusion with the new licensing system, while some appear deliberate?

17. The ALAEA made representation to CASA that we believed one particular company's electronic recording system was directly contributing to these types of problems and was not robust enough to prevent problems we were aware were occurring. However, we were informed that CASA were satisfied that the company's Quality system would pick any the problems. This CASA advice was accompanied by a reminder that it was the LAMEs responsibility to certify in within their privileges and that strong penalty applied to breaches.

18. CASA did not do an audit of the system as a result of our information; rather, they "reviewed" the company's quality system. Almost immediately after we received this CASA advice we were advised by our members that more similar instances had been discovered.

19. The ALAEA has been active for a number of years in bringing reported (alleged) breaches of regulations to CASA's attention on behalf of our members. We act on behalf of our members to prevent the possibility of retribution against them for reporting safety concerns and/or breaches. At

no stage during any of the investigations has the CASA investigator responsible ever come back to the ALAEA to ask for more information if they were unable to find what they were looking for.

20. The ALAEA requested CASA to investigate a Singaporean and a Malaysian Aviation Maintenance Organisation (**AMO**) that maintain Australian registered aircraft. Our members had reported that important fuselage inspections had been done by either unqualified personnel or worse had knowingly utilised damaged equipment that could not be calibrated correctly, and was subsequently revealed to be providing inaccurate measurements.

21. This investigation involved a large amount of complex information that would have been best served with a face to face discussion with CASA. The ALAEA made technical representatives available for this purpose and supplied a sample of the information in the Association's possession, however CASA rejected for further assistance.

22. CASA reported to us that they were satisfied that no aircraft flew with the defect in question or which had not been inspected properly. They would not further elaborate on that and subsequent Freedom of Information requests were firstly denied and then on review partly approved for release. Some documents were released; however, the release of the remaining documents is being challenged by the Singaporean AMO as commercial in confidence. This opacity and secrecy is inimical to an open, transparent Australian safety system.

23. In the ALAEA's view, CASA has a dubious history of approving overseas organisations and has admitted they are not able to inspect them with the same freedom that that they inspect an Australian facility. One of the best examples of this concern was the facility audits of the Singapore Airlines maintenance facility (**SIAEC**). To approve SIAEC to work on Australian registered Qantas Aircraft in 2006 audits were carried at the facility. However, CASA inspectors on site did not inspect the work being carried out on a Qantas aircraft that was undergoing a heavy maintenance check at that time. The CASA auditors' reports didn't even mention that the aircraft was undergoing maintenance at the location. The Qantas internal inspector on site at the same time produced a scathing report on the quality of the work and the facility. CASA nevertheless approved the facility. How that happened and what has changed since that time remains unknown?

24. It is probably relevant to note at this point that Singapore AMOs now have a green light to work on Australian aircraft under their Singaporean approval. CASA foreign oversight is no longer required of Singapore AMOs. This point must be clearly understood; despite a huge range of documented concerns, work conducted and certified by any Singaporean AMOs now has the same status/authority as work conducted by an Australian AMO.

3. Disproportionate enforcement action taken against soft-targets

25. A measure of CASA's effectiveness and the standard of its processes (ToR 1) is the consistency in which it undertakes its duties.

26. The ALAEA is concerned about reports that some CASA officers have exercised a heavy handed approach to regulatory enforcement on a large number of smaller General Aviation operations. The ALAEA attended a meeting of small maintenance organisations and operators in 2013 (also attended by Senator Ian McDonald) where a number of these actions were discussed. Some organisations had said that they were going to close down because they could no longer bear the stress and financial burden of meeting vague and often contradictory new standards. Aircraft were being grounded late on Friday afternoon over administrative errors and reputations were being trashed.

27. GA operators were finding that issues that had been sanctioned by CASA officers for decades had suddenly become no-go items with CASA taking an increasingly hard and inflexible line. On the other hand, CASA appears to be allowing larger operators to regulate themselves and seems extraordinarily concerned with any cost imposition the more powerful operators might have to bear. ALAEA questions the disparity in enforcement activity that appears to be taking place between the industry's segments.

4. Whistleblower Protection Program

28. To increase the effectiveness of aviation safety agencies investigative and enforcement duties (ToR1) increased reporting is required.

29. The ALAEA has long acted as a conduit between our members and CASA to report aviation safety matters for many years. One of our primary goals is to protect the anonymity of the reporter to prevent discrimination against the reporter and subsequent reluctance by other to report safety issues or breaches. Without such protection safety information is not provided.

30. Unfortunately the ALAEA has received threats from a major company after the Association provided information to CASA in relation to an audit CASA was conducting. CASA handed the information provided by the ALAEA, knowing it to be confidential, to the company, including the names of the informants!

31. The ALAEA is prepared to face up to this type of intimidation and strong-arm tactics; however, it is fundamentally safety adverse that individuals simply complying with their professional obligations should face such pressures. Such pressure directly undermines the availability of safety information.

32. The ALAEA therefore calls for the establishment of a Whistleblower Protection Program (WPP) similar to that operated by the US Federal Aviation Authority (FAA)². The Whistleblower Protection Program provides protection from discrimination for air carrier, industry and FAA (regulator) employees who report information related to air carrier safety. The program is supported by a dedicated reporting hotline, FAA policy and federal legislation. According to the FAA the WPP ensures:

Employees of air carriers, their contractors, and their subcontractors, are protected from retaliation, discharge or otherwise being discriminated against for providing information relating to air carrier safety violations to their employer or to the Federal Government. This includes information filed, testified, or assisted in a proceeding against the employer relating to any violation or alleged violation of any order, regulation, or standard of the Federal Aviation Administration or any other Federal law relating to air carrier safety.

33. The ALAEA believes that in the context of increasing commercial pressures, and operator self-oversight responsibility as outlined above, an Australian WPP is critical as both a safety initiative and a measure to restore confidence in Australian regulatory compliance.

² <http://www.faa.gov/about/initiatives/whistleblower/>

5. CASA Industry complaints commissioner requires statutory independence

34. To increase the effectiveness of CASA's internal investigative and enforcement duties (ToR 1) greater independence is required.

35. The creation of independent statutory authority for the ICC would also increase confidence of all stakeholders in regard to the ability of an independent ombudsman, with the requisite industry and technical understanding, to review decisions made by CASA. This would provide a balanced mechanism for stakeholders to take issue with operational decisions made by CASA that is currently lacking.

36. At present, industry stakeholders have very limited means of taking issue with decisions and actions (or non-actions) made by CASA outside of political or legal processes. Similarly, decisions of an industry specific nature, due either to context or technical complexity require a specialised review channel.

37. In the ALAEA's experience, the current CASA Industry Complaints Commissioner (**ICC**) provides a valuable service although one which could be significantly improved. In the past when the ALAEA has made a complaint about a high level CASA manager through the ICC, the matter was responded to by the very same manager that was the subject of the complaint!

38. Additionally, the Australian and International Pilots Association's (**AIPA**) dealings with the ICC on the issue of Flight Deck Duty time demonstrate that the ICC lacks a means of implementing or enforcing his/her decisions upon CASA . While there is a fine line in such matters, the ALAEA believes that enforcement powers are not appropriate but that a statutory basis for the office including powers in regard to access to documents and decision makers and the power to report to the CASA board and Minister would be appropriate.

6. Workplace protection for reporting obligations

39. To increase the effectiveness of aviation safety agencies investigative and enforcement duties (ToR1) increased reporting is required by industry participants.

40. There are no workplace regulatory protections that allow an employee to fulfil legal obligations placed on an aviation employee by the Civil Aviation Act and associated regulations in the workplace without threat to their employment.

41. CASR 42.355 requires that an individual that is carrying out maintenance on an aircraft and is or becomes aware of a defect to record that information in the aircraft techlog. However, there is no protection for an employee if their employer directs them not to record that maintenance and subsequently terminates their employment or discriminates against them.

42. Refer the relevant decision in *Australian Licenced Aircraft Engineers Association v Sunstate Airlines (Qld) Pty Ltd* (2012) 208 FCR 386; [2012] FCA 1222. The applicant in that case argued that regulations 51 and 215(9) of the Civil Aviation Regulations 1988, made under the Civil Aviation Act 1988, were workplace laws. Those regulations relevantly provided:

51 Reporting of defects in Australian aircraft — general

- i. *(1) Where a person who, in the course of his or her employment with an employer, is engaged in the maintenance of an Australian aircraft becomes aware of the existence of a defect in the aircraft, the person shall report the defect to his or her employer.*
- ii. *(4) If the holder of the certificate of registration for an Australian aircraft becomes aware of the existence of a defect in the aircraft, he or she must:*
 - 1. *(a) have an investigation made of the defect;*

215 Operations manual

- iii. *(9) Each member of the operations personnel of an operator shall comply with all instructions contained in the operations manual in so far as they relate to his or her duties or activities.*

Penalty: 25 penalty units

The court found that the obligation to report defects was not a “workplace right” pursuant to the Fairwork Act 2009, the implication is that an employee may not be protected from dismissal for reporting a defect as required by the Civil Aviation Act 1988.

7. Licencing reciprocity

43. The outcomes from the Regulatory Reform Process (**RRP**) (ToR 1) and where the Australian Maintenance Engineers Licence now sits in relation to overseas jurisdictions (ToR 2).

44. The Australian Government has spent an extraordinary amount of time and money on its RRP creating what it calls a harmonised regulatory system for aviation. One of its main goals was that there would be freedom for aircraft and engineers to be able to move within like country regulatory systems with a minimum of problems. In doing this CASA developed a system whereby an engineer that holds an EASA authority (equivalent of an Australian Part 66 licence) and has exercised its privileges for a period of 6 months may apply to have an Australian Part 66 licence of equivalent privileges issued.

45. This has permitted many maintenance organisations to bring EASA qualified engineers into Australia. However due to a major CASA blunder the reverse is not possible – despite the Australian and EU licenses being based upon the same International Civil Aviation Organisation (**ICAO**) standards. EASA has blocked the recognition of aviation maintenance qualifications that were not physically obtained within an EU Member State for the purposes of applying for an EASA authority. Essentially it means that within the EU a highly qualified Australian LAME must retrain from scratch if they wish to work in Europe, ironically this is regardless of whether or not the training was done in a facility that had been approved by EASA to provide the training if the facility was located outside of the EU.

46. To further illustrate the illogicality of the current standing of the “so called” harmonised licence system CASA will not recognise an Aircraft Type training qualification gained in an EASA approved training facility if that facility does not also have CASA approval – unless that individual holds an EASA licence. Yet an EASA based aircraft operator flying into Australia may authorise an Australian licence holder that has completed the EASA training to work on and certify their EU aircraft (as our standards are the same!), but that individual is not able to be issued with an EASA licence. Australia does however recognise that same type training qualification for the issue of an Australian licence if the holder has an EASA licence – while EASA won’t recognise the reverse case of involving an Australian licence for the purposes of issuing an EASA licence.

47. Another consideration is that this appears to suggest is that CASA does not have confidence that the Australian new Part 66 licence is equal to the EASA licence, otherwise they would give equal recognition to the aircraft type training qualification issued by the EASA approved training organisation. If CASA's position is that they do not have confidence in the quality of the qualification issued by the EASA approved facility as it is not CASA approved, then why do they recognise it when issuing a licence to a European applicant? Either way, unacceptable regulatory action by CASA! Licensing reciprocity should have been sorted out by CASA well in the development phase.

8. Clear and Concise Regulation

48. Outcomes and direction of the regulatory reform process being undertaken by CASA (TOR 2) and the effectiveness of CASA processes and structure (TOR 1) to ensure regulation is clear and concise.

49. One of CASA's main functions as set out in s9 of the Civil Aviation Act 1988 (Cth) ('the act') amongst others is to develop and promulgate appropriate, clear and concise aviation standards. Interestingly, no amendment has been suggested to the Act to better align CASA's functions with the new outcome based policy of the government.

50. Unfortunately the regulatory reform program for airworthiness and maintenance has not satisfied the requirement for clear and concise aviation standards. The ALAEA has spent a considerable amount of resources in the two and a half years since the new maintenance regulations were introduced attempting to clarify and define numerous ambiguous clauses within the regulations, manuals of standards and regulatory supporting material. CASA was unable to answer any of our questions in a concise response, appearing themselves to also not understand the regulations they created. Subsequently very few matters that the ALAEA raised have actually been resolved.

51. There are a number of factors that have contributed to the problems we have today. Firstly the choice of harmonising with the EASA system put the RRP on the back foot due to the differences in the Australian legal system and those in Europe. Although similar in look and feel the Australian regulation is actually significantly different. This move by CASA away from prescriptive regulation towards a more outcome based system compounded these problems. When regulation used in

aviation safety can be interpreted in multiple ways it needs to be supported by robust Guidance Material to set the intent and context of the regulation.

52. Aviation safety regulations as they were read yesterday, if unchanged should mean the same thing today and tomorrow and so on until a change is made to them to alter their intent. With the way the current maintenance regulations and support material have been written, interpretation of the intent by CASA officers is in many cases is given with reference to “CASA policy” or “CASA considers” rather than being clear from the regulation. But the CASA policy/s referred to can’t be produced. What this infers is that there are internal unofficial policy/s that CASA officers use to make determinations of regulatory interpretation that may vary between CASA officers and over time.

53. A prime example of ambiguity and confusion relates to the changes in licence privileges for Mechanical and Avionic LAMEs. CASR Part 66 created new licence classifications and a complex exercise was carried out to convert the existing licence holders across to the new system. In respect of Avionic (Electrical, Instrument and Radio) qualified engineers the transition was fairly straight forward to a new B2 category, however the creation of a Mechanical category of licence that included electrical privileges meant that existing LAMEs that held an Engine or Airframe licence (usually both) were converted to a B1 category licence with multiple restrictions applied as generally they were not fully trained for electrical work.

54. The new B1 licence has additional privileges added for a Mechanical LAME to certify work within aircraft systems that are covered by the B2 (Avionic) category LAME. These additional privileges are restricted to certain types of work. What is of paramount importance here is that this delineation of privileges is the fundamental underpinning principle that drives the Australian licencing system.

55. Where a major problem lies is that the wording of these additional privileges is ambiguous to the point that no one in the industry, CASA included, can adequately describe or explain the limitations.

56. For example, the Manual of Standards (**MOS**) for CASR Part 66 contains the certification privileges afforded to licence categories. In relation to the privileges for a B1 category the Part 66 MOS 66.A.20 in part, provides the following

(ii) the maintenance was any of the following:

- (A) work on an aircraft system designated in Table 1, as structural, powerplant, mechanical or electrical;*
- (B) unless the licence is specifically subject to an avionics LRU exclusion, replacement of an avionic line replaceable unit that requires only **simple tests** to prove its serviceability;*

(c) category A licence tasks of a kind mentioned in Appendix II of the Part 145 MOS for the aircraft type rating or ratings held

*(D) functional checks of avionic systems that can be conducted as a **simple test**;*

In this example the scope of the licence privileges, or in other words what maintenance work a B1 LAME can legally perform and certify is determined by the interpretation of what constitutes an “avionic LRU” and what constitutes “a simple test”.

CASA provides a definition of “simple test” within the Part 66 MOS

simple test means a test described in approved maintenance data that meets all of the following criteria:

- 1. the serviceability of the system can be verified using aircraft controls, switches, built-in test equipment (**BITE**), central maintenance computer (**CMC**) or external test equipment **not involving special training**;*
- 2. the outcome of the test is a unique go – no go indication or parameter. No interpretation of the test result or interdependence of different values is allowed;*
- 3. the test troubleshooting does not involve multiple LRU changes in pursuit of a system fault, unless the LRU changes are made in accordance with a published maintenance procedure (e.g. fault isolation procedure).*

This introduces a new variable which is that a test does not involve “special training”, and it also introduces “test troubleshooting”.

57. Special training is not defined in the MOS and reading of the published Acceptable Means of Compliance and Guidance Material (**AMC and GM**) is required to make an interpretation.

58. The AMC and GM is also required to be read for the definition of an Avionic LRU

An “Avionic Line Replaceable Unit (LRU)” is described as a unit which has no mechanical input or output mechanism, but contains electrical, electronic, instrument or radio parts that provide control, monitor or display functions; where the unit does not require specialist equipment, knowledge or techniques to secure, connect or test. (Avionic LRUs mentioned do not include any item that requires rigging - involving functional tests and adjustments - requiring the use of external specialised test equipment).

59. But despite the AMC and GM providing a definition/guidance on what an LRU actually is, it also adds additional information that “the process of updating/transferring software” is treated as an Avionic LRU replacement, but then applies a different set of restrictions to it in relation to testing.

The process of updating/transferring software data, using on board data loaders, is treated as an Avionic LRU replacement as long as LRU replacement serviceability can be established by using a simple test. Software transfer is not to be treated as an LRU replacement if the software installation does not have a discrete test outcome/result or if affected systems serviceability cannot be verified.

60. The AMC and GM are not enforceable documents. They provide information and guidance on how to comply with the regulations and MOS, but under no circumstances are they to direct an individual or organisation to act contrary to those standards. It had to be demonstrated to CASA that what they considered to be a legitimate form of writing legislation was incorrect. CASA are in process of moving these definitions and privileges correctly into the MOS. But have only done so after the ALAEA made numerous representations to them and LAMEs struggled to understand their legal obligations.

61. What checks and balances are in place to ensure that non-enforceable AMC and Guidance Material does not become the substitute or surrogate for proper regulation? It is not clear how CASA’s internal quality processes vet AMC and GM. Currently there is an amendment of the Part 145

MOS in progress and the draft has been published for comment and consultation, however the accompanying AMC and GM that supports the amended MOS has not been produced! The words of the AMC and GM can drastically alter the intent (and/or interpretation) of the regulation and there is no consultative mechanism in place for scrutiny by the industry. It should also be noted that an 18 month old draft Advisory Circular (AC 145-3-0) that contains training standards directly relating to the Part 145 MOS is still circulating, despite being outdated by the proposed amendments to the MOS. In short it's all a dog's breakfast...

62. The new B1 category LAME also includes a new range of privileges to enable them to carry out a range of tasks in addition to the traditional scope of this license. These are identified as Category A tasks listed in the Part 145 MOS and involve a variety of work across all aircraft systems. However, in transitioning the licences CASA has made no provisions to ensure that the B1 category LAMEs have the training or the competency to undertake the new category A tasks - that may fall outside of the qualifications they previously held; for example Electrical work. This is despite the LAME having restrictions to carry out work on the aircraft systems that the Category A tasks relate to.

63. For example, a B1 LAME may have Airframe systems and Electrical systems exclusions applied to their licence rating – essentially meaning that they are trained to work on engines, but the privileges stated on their licence have no apparent restriction on airframe and electrical system work listed as a Category A task. CASA have advised the ALAEA that restrictions do apply yet they have not published material or proposed amendments to regulations to clarify this. Most LAMEs and maintenance organisations would not be aware of the restrictions. When questioned, the Manager of Engineering Quality and Safety for one of Australia's largest maintenance providers was also completely unaware that this was the case.

64. The following illustrates the difficulty in interpreting or applying some regulations and in the example below better wording is needed to eliminate the ambiguity or uncertainty (our emphasis):

Pursuant to CASR 66, the 66 MOS references:

- “66.A.20 (a) 1. – The category A LAME may **perform a maintenance certification** if:
 - i. he/she carries out the maintenance themselves; and
 - ii. the maintenance is line maintenance of a kind mentioned in Appendix II of Part 145 MOS

- 66.A.20 (a) 2. - The category A LAME may **issue a CRS** for line maintenance if:
 - i. he/she carried out the maintenance; or
 - ii. the maintenance and its maintenance certification was carried out by another category A licence holder (with the appropriate subcategory); and
 - iii. the maintenance is line maintenance of a kind mentioned in Appendix II of Part 145 MOS; and
 - iv. the aircraft being maintained is covered by the subcategory of licence held.
- 66.A.20 (a) 3. (i) – the maintenance mentioned above does not include the supervision of maintenance.”

65. However for the sections that covers “Offences” in relation to the above, Part 66 of the CASR refers:

- **66.155 – Maintenance certification offences –**
 - **66.155 (2)** A category A licence holder **commits an offence if:**
 - he/she performs a maintenance certification on behalf of a Part 145 AMO; and
 - the maintenance is not line maintenance; and/or
 - not mentioned in Appendix II of 145 MOS; and/or
 - he/she did not carry out the maintenance; and/or
 - he/she carried out the maintenance but on an aircraft system or sub-system excluded from their licence.
 - **66.155 (3) – maintenance mentioned above does not include the supervision of maintenance** (Our emphasis added)
- **66.160 Certificate of release to service offences**
 - **66.160 (2)** A category A licence holder **commits an offence if:**
 - he/she issues a CRS on behalf of a Part 145 AMO; and
 - the maintenance is not line maintenance; or
 - not mentioned in Appendix II of 145 MOS
 - **66.160 (3) – maintenance mentioned above does not include the supervision of maintenance**

66. The problem here is that CASA’s intent is that a Category A licence holder can only certify for work that they have personally performed. However, the regulations as written above appear to

remove the offence provision and allow a Category A LAME to supervise and certify another person's work. When questioned CASA standards department advised the ALAEA that this isn't the case as follows:

Note: every mention of maintenance in the regs and MOS's includes the supervision of maintenance, with exception given to the category A licence – where supervision of maintenance is not a privilege for that licence category. That is why regulations 66.155 and 66.160 are written the way they are written, to highlight the fact that maintenance (for the cat A) does not include supervision of maintenance.

66.155 (3) and 66.160 (3) does not mean supervision of maintenance is excluded from the offence.

67. The poor drafting still leaves an open interpretation nevertheless. This is an example of the type of poor drafting that has lead to significant confusion across the industry. Confusion that not only results in inadvertent breaches of regulations by LAMEs but leads to reduced safety outcomes. Confusion that did not exist under the previous Australian system.

68. To follow on with the confusion around the Category A licence permissions and scope, the CASR 66 MOS prescribes that an Cat A license holder cannot supervise maintenance; however they are permitted to have assistance from another person when performing maintenance tasks The term "supervision" is defined in the CASR Dictionary.

Meaning of supervising

A person (the supervisor) is supervising the carrying out of maintenance done by another person if the supervisor:

(a) is physically present at the place that the maintenance is being carried out; and

(b) is observing the maintenance being carried out to the extent necessary to enable the supervisor to form an opinion as to whether the maintenance is being carried out properly; and

(c) is available to give advice to, and answer questions about the maintenance from, the person carrying it out.

69. This definition would appear more relevant to fully licensed Cat B LAMEs conducting general team oversight supervision rather than to the direct and immediate supervision of an assistant helping an Category A LAME.

70. However in contrast, advice received from the Director of Aviation Safety³ states:

The fact that certain tasks, particularly on large aircraft, may physically require the assistance of another person to perform (e.g. large and heavy items such as wheels and brakes) has more to do with the physical rather than the technical completion of the task.

In such cases, the Category A licence holder is responsible for the technical performance and completion of the task, ensuring compliance with the Instructions for Continuing Airworthiness (ICAW), and is therefore eligible to perform maintenance certification and issue a Certificate of Release to Service (CRS) for the task.

If the Category A licence holder does not physically perform the task in accordance with the ICAW, but acts in a 'supervisory or assisting' capacity only, he/she is not entitled to make a maintenance certification or issue a CRS, as this would exceed the privileges of a Category A licence holder.

71. This advice appears contradictory to both the Part 66 MOS and the advice above from CASA standards department; in that it suggests that provided the Category A LAME is physically involved in the task they are permitted to act in a wider supervisory role.

72. However, in practical terms the Director's advice does make sense; clearly a Category A LAME does provide some level of supervision as the actions of the assistant are being controlled by the Category A LAME during the performance of the task. Furthermore a supervisor is required to be ultimately responsible for the actions of the assistant; this responsibility was previously provided by a B Category LAME. The point is some level of supervision and responsibility has always been, and will continue to be, required by a certifying LAME. Currently the regulations do not provide for this.

³ Letter from the Director of Aviation Safety to Steve Purvinas 16 February 2011 Trim ref G/11152

73. There is no easy solution to untangle the maintenance regulations. It is going to require a lot of work, but the first step is to complete a thorough Post Implementation Review (PIR) of the CASR Parts 42, 66, 145 and 147 as soon as possible.

74. CASA needs to undertake a review of its quality systems and the processes it uses to create and maintain the regulations and other material, including but not limited to the training of staff, interdepartmental consultation and legal review of draft material prior to enablement.

9. Diminution of professional licencing standards

75. The RRP outcomes (ToR 2) have introduced lower safety and training standards into Australian aviation (ToR 3 & 4)

76. The introduction of the CASR Part 66 Licencing regime introduced a new category of licence to Australia that reduced the level of training required for a Licenced aircraft maintenance engineer to be licenced to carry out maintenance and declare an aircraft airworthy. The Part 66 licence reduced training from a 2400 hour Diploma level qualification including at least 4 years maintenance experience down to a (approximately) 800 hour Certificate II level qualification and 2 years experience (less any time spent in classroom training).

77. The Certificate II qualification permits an individual to carry out maintenance on their own and release high capacity aircraft such as the Airbus A380 back into service full of passengers. They do this with no technical assistance or scrutiny. The training standards for a Australian Quality Framework (AQF) Certificate II level qualification ⁴ is for a person that works as part of a team, demonstrates limited autonomy and has limited accountability for their work. In other words in any other industry a Certificate II level qualified person does not work alone and certainly does not take SOLE responsibility for the lives of 500 or more people. Under Australia's previous licencing regime bestowing this level of authority on a relatively low level of qualification would have been considered unthinkable!

⁴ [Australian Qualifications Framework Second Edition January 2013 - AQF specification for the Certificate II](#)

78. These new qualifications appear to be more about providing commercially pressed airlines with access cheaper maintenance certification costs; replacing higher level qualified licensed personnel with less qualified, lower skilled personnel than maintaining long held Australian safety standards. This is a very good example of the ALAEA's concern that CASA demonstrates commercial bias in the development of the new Part 66 license rules.

79. CASA made a fundamental error when implementing the federal government's directive to integrate training required for licences into the Australian Qualification Framework (AQF). When they introduced the Category A concept they determined that approximately 900 hrs of training was appropriate. They were advised that 900 hrs training equated to the hours typically associated with an AQF Certificate II outcome. As a consequence the skills training council, Manufacturing Skills Australia (MSA) constructed a training qualification at Certificate II level, but CASA thought incorrectly that the training would be components of the higher level training for a trade apprenticeship and would produce the same level of knowledge and skill.

80. CASA spruiked to the industry that the new Cert II was a pathway to the higher qualification required for a Category B licence (i.e. Diploma Cert V). However, due to limited experience and knowledge of the complex rules and construction of the AQF, CASA and much of the industry didn't understand that Cert II delivers lower learning outcomes than existing Cert IV trade or diploma licence qualifications in accordance with the rules of the AQF. As such, all of the technical training elements undertaken for a Category A licence are not transferrable to a higher level licence or trade certificate and therefore cannot be considered a pathway as CASA insisted.

81. The ALAEA has put to CASA on numerous occasions (and has support from a wide sector of the industry) that the qualification level for a Category A licence needs to be raised. Despite our numerous requests (and industry support) CASA has not responded or taken action. Again, CASA appears more concerned with providing commercial support to airlines in the form of permitting lower qualified personnel to carry out and certify maintenance work than maintain safety standards. This is not a CASA function under section 9A of the Civil Aviation Act 1988.

82. CASA designates the standards required to hold a category of licence by mandating the AQF competency units required to be attained by a candidate. CASA therefore has the ability to raise the standard of the training for a Category A licence holder by requiring the attainment of technical units

from the AQF Cert IV or V training qualification. This would ensure a genuine pathway for progression within the licencing system as well as boosting the competency and quality of the Category A LAME.

83. The reforms to training have been detrimental to the standards and outcomes for Licenced Engineers due CASA handing over assessment to the commercial RPT training sector who now compete against each other to produce shorter and shorter training course to win business by providing a cheaper service, with a corresponding reduction in quality. As there are only a few training providers available in Australia CASA is reticent to come down on them or close them because it would leave no training facilities in Australia.

84. The change to competency based training and the way it has been managed has also had a detrimental outcome on the standards of apprentices progressing through their training. Insufficient hand skills and poor basic and system knowledge are now evident in newly qualified tradespeople.

85. What is of great concern to the ALAEA is advice we have received from our European engineering associates that the EASA Technical Committee have recently decided that the requirements to pick up a first Part 66 EASA licence are considered too onerous and they are intending to drop their standards for On Job Training. We assume if implemented there will be pressure for these [even] lower [& cheaper] standards to flow through to Australia.

86. Our next issue of concern is a new trend of designating “specialist” maintenance. This, again, is a thinly disguised method of allowing lower qualified personnel to conduct the certification duties of higher qualified fully licensed engineers. The ALAEA is very concerned with the safety implications of this trend. However, CASA has appeared to strongly support the commercial benefit this reduction in certifying qualification it introduces.

87. CASA has provision within the Part 145 MOS for companies to authorise non-licenced individuals to perform complex or specialised tasks or processes on an aircraft. These are tasks such as aircraft welding, non-destructive testing and structural repairs. CASA has always required additional qualifications outside that which a LAME holds to perform these “specialised” tasks as they are safety critical and are not covered in-depth in the basic and aircraft specific training for AMEs and LAMES.

88. However, CASA has now made provision to widen the scope of specialist maintenance to include a number of other items. For once there is clear guidance material published that has been carried over from the previous regulatory system that says that maintenance that is normally performed and certified by a LAME is not to be considered as specialist maintenance. Refer MOS GM 145.A.30 (f)

*Specialist Maintenance personnel are trained and qualified in the specialist field and may not have a holistic understanding of the interrelationship of an aircraft's systems, or airworthiness implications, such that a Maintenance Certification Licence holder should have. **For this reason, the Maintenance Certification for Specialist Maintenance work will only be for the scope of the specialist maintenance and is not intended to cover work normally performed and certified for by a Part 66 Maintenance Certification Licence holder** who is a Certification Authorisation holder. (Our emphasis added)*

89. Despite this published guidance, in an insidious move CASA has proposed to include a range of work that is normally performed and certified by Part 66 licence holders into the range of activities that a maintenance organisation can declare as "specialist maintenance". Their briefing documents published to describe the changes have been vague and almost sneaky in nature. The following extract relating to "specialist maintenance" is from the Briefing Document distributed to the industry and also published on the CASA website, for CASA Project MS 12/37 - *Amendment of the CASR Part 145 Manual of Standards (MOS) - various amendments*

*(7) CASA intends to approve Part 145 Organisations for specialist maintenance 'D' Ratings for Non Destructive Testing (D1) or Welding (D2) or for other specialist maintenance fields such as composite repair and aircraft finishing (including painting & plating) under a 'D3' Rating. CASA may also approve IFE software, on-wing engine maintenance, borescope inspections and **interior furnishing (seats)** as specialist maintenance for organisations for specialist maintenance under their 'A', 'B' or 'C' rating.*

The list of specialist maintenance fields for which CASA would issue approval at paragraph 145.A.30 (f) has been updated and detail added for clarity. (Our emphasis added)

90. Not only does CASA state they intend to approve maintenance organisations to authorise their [non licensed] employees to perform and certify work (in contradiction to their guidance material) that is **normally performed and certified by Part 66 licence holders** they also understate the range of activities that they intended to put into the actual MOS.

91. For example the briefing document describes “interior furnishings (seats)” giving the impression that approval for interior furnishings specialist maintenance would be confined to “seats”. But the draft MOS contains the following provision

*(viii) general interior furnishing, trim and décor, **including** seats, curtains, carpets and panelling but not including:*

(A) any structural or electrical maintenance; or

(B) any maintenance to seat floor fittings or in-flight entertainment equipment; or:

(C) any maintenance or matter otherwise mentioned in this subparagraph;

92. That list is markedly different and far more expansive than outlined in the briefing document supplied to the industry. But once again and importantly these types of activities have always been required to be performed by certified Part 66 LAMEs or by trade qualified AMEs supervised by LAMEs. CASA intends to permit them to be certified by non-licensed personnel trained by an employer.

93. There is no transparency of why CASA chooses to ignore their own Guidance Material, in fact in communications the ALAEA has had with CASA Standards division we have found that CASA are reticent to even acknowledge what the AMC and GM says in relation to specialist maintenance. At best CASA’s attitude shows a fundamental misunderstanding of the high level principles articulated by the guidance material, and at worst a deliberate intent to ignore them.

94. What has become evident is CASA’s bloody minded determination to follow EASA’s regulatory content, even when it is unsuited to Australian application or when the existing Australian rules are clearly superior. It must be remembered that there are significant structural differences between the EU and the Australian aviation industries (particularly in relation to the respective General Aviation sectors) and in many instances each rule set has developed to suit specific national needs. The ALAEA rejects CASA’s apparent view that European rules are somehow fundamentally better than Australian rules - in many cases our Australian rule set is far more appropriate.

95. In demonstrating our concerns with uncritical adoption of European standards we highlight the latest EASA maintenance amendments, which have introduced provisions that permit maintenance organisations to authorise any non-licensed person to perform, supervise and certify

for any task as long as the company trains them for that task. This completely undermines the concept underpinning independent professional licences and knowledge of the complex interconnected nature of modern aircraft systems. A high level principle that underpins safety and is dealt with in detail by the Australian CASR Part 145 AMC and GM 145.A.30 (above).

96. The ALAEA considers this an extremely dangerous concept that has the potential to totally undermine professional safety oversight. Under the EASA system the licence authority is removed from the individual licenced engineer and transferred to the company; the formally independent engineer is then only able to exercise the privileges granted to them by their employer and as such is totally dependent on the good will of the company, as their approval is not transportable.

97. The original EASA proposal, driven by the maintenance organisation representatives also took B category LAMEs completely out of heavy maintenance facilities. Strong action through the consultative process was required by the ALAEA Affiliate organisation- Aircraft Engineers International (AEI) to preserve a requirement that B category LAMEs were at least required to make an airworthiness declaration at the completion of maintenance. Although CASA have not said they intend reduce the standards of certified maintenance down to this level , the trend towards erosion of our high standards is becoming increasingly visible in the incremental dilution of the standard in the proposed amendment to the part 145 MOS and in the attitudes of those responsible for making those amendments. To date only the Guidance Material from our previous regulatory system has prevented carte blanche internal Company training and approvals replacing independent licenced aircraft engineers in Australia. However we remain extremely concerned about this looming prospect.

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Part 4 - ALAEA Recommendations

1. Based upon extensive professional experience Australia's Licensed Aircraft Maintenance Engineers recommend:
 2. That CASA realign its organisational structure and priorities to the primary auditing and oversight role required as the supervisor of an outcome based aviation rule framework;
 3. That in order to address the inherent conflict arising from outcome based approaches in a liberalised (commercially focused) industry, CASA must increase the strength of its enforcement activities and penalties (similar to the enforcement policy of the US FAA);
 4. That CASA be required to respond in an official, open and timely manner to breaches and safety concerns brought to its attention and advise the outcomes of investigations or the reasons for non-action;
 5. That the Government develop legislation supporting an aviation Whistleblower Protection Program. And that CASA develop the policy for the WPP and administer the program and an associated Whistleblower Hotline service;
 6. That the CASA Industry Complaints Commissioner be established as a separate statutory office and be given powers to investigate and report to the CASA board and Minister on complaints in regard to aviation safety regulation administration;
 7. That the Government consider amendments to the Fair Work Act to support employees acting in accordance with their professional reporting obligations under the Civil Aviation Act 1988;
 8. That the government and CASA ensure reciprocity of Australian Part 66 engineering maintenance licensed with the EU or remove the recognition of the EU aircraft maintenance license as the basis for issue of an Australian part 66 license;

9. That the government reassess the replacement of Australian regulatory content with EASA rules where the Australian rules are more appropriate for our specific national requirements and industry;
10. That in any ongoing process of ICAO regulatory harmonisation, Australia adhere to the long held principle of independent professional license holders and not allow the transfer of certifying authority from license holders to non-licensed personnel or company authorisations;
11. That CASR 42 should require a CAMO to ensure that any system of recording certification for maintenance (including an electronic system) must be able to delineate and identify a person and their authorised certification privileges in relation to the work being certified; to ensure unauthorised persons are not certifying for work outside their scope of qualifications and authorisation.


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ALAEA member submissions

AVIATION SAFETY REVIEW REPLIES

NAME	RESPONSE
██████████	<p>Hi,</p> <p>I was employed by qantas as an apprentice GEM, in 1989 and picked up my first type license in October 2001. I understand that change and those that adapt to change is paramount in all fields and even greater in the aviation game, however under the new regulations I find it difficult to understand how easy it is for engineers to become both B1 and B2 licensed. Many systems and ATA's overlap under the new system but to take on all Chapters in what I feel is a short amount of time is a big undertaking. There are a small amount of engineers out there who's knowledge and ability is enviable, but young engineers around 25-30 years old holding both groups, can they certify systems with confidence like, radar, flight control rigging, IFE, fuel tank leaks, navigation systems, major structural repairs, to name a few. I know in 25 years of aviation I am still learning daily, and I am sure it won't stop.</p> <p>Mr Truss you said that Australia has a world class aviation record and we have to keep it that way and you can be assured that myself and my fellow engineers are doing just that. But now the dust has settled a little and the new system of maintenance is almost in full swing I suggest it is time for a full audit of how it was implemented, how it is being utilized, how it will be used in the future and how it is going to be maintained and complied with.</p>
██████████	<p>I'm involved with the FIFO charter airline over in the West, Perth and surprised that passengers checking in are not scanned and baggage is not screened before boarding and baggage loaded onto aircraft. I believe that this is the case because of a charter operation and not RPT?</p> <p>Can this be clarified?</p> <p>LAME</p> <p>Perth, WA</p>
██████████	<p>ATTENTION</p> <p>Re CASA Draft Paper Amendment to Part 66 Manual of Standards new proposal 66.A.23 (a) paragraph 8 Section 2</p> <p>Dear Sir,</p> <p>As a member of the ALAEA for the past 14 years I would like to express my deep concern about the draft proposal (66.A.23) especially the wording "exercising those privileges. " This specific proposal would effect over 35% of the current LAMES.</p> <p>1. This amendment would disadvantage all engineers, who have moved into Administrative / Managerial positions and who are</p>

	<p>still very much involved in the day to day operations of the industry, but who on rare occasions are required to exercise the privileges of their licences i.e. if the LAME calls in sick or is on holidays or as it often happens the Administrative or Senior Engineers are called upon for breakdowns or licensed coverage in the field / out stations.</p> <p>2. In my own personal situation I am giving licence coverage to a small General Aviation Company that is moving into helicopter maintenance. I also give helicopter type coverage to a large Helicopter Company which does not have engineers with the needed type coverage on their licence As these types are rare in Australia it is not possible for the engineers to obtain sufficient SOE experience.</p> <p>3. This new proposed legislation will deprive me of my earning capacity as a LAME. I also am involved in auditing and consulting work, which is preferable for me to be a LAME.</p> <p>4. This legislation would disadvantage LAMES, who wish to move into Administrative or Senior Engineer positions as companies would keep them as working Engineers rather than promote them, as under this proposed legislation engineers would be forced to forfeit their Licences if they move into these positions. This loss of licence would further cause a shortage of experienced engineers in Australia.</p> <p>I would like to point out that as much as this legislation has been drafted with safety in mind it has not taken into account the adverse implications further down the line that will affect 35% of the LAMES. This lose of LAMES in Australia cannot be in the best interest of the industry. The most experience Engineers, who have spent years gaining knowledge and expertise in their field, will be penalised. This matter needs to be attended to prior to the closure of submissions on 31st January 2014.</p>
<p>██████████</p>	<p>Hello ALAEA</p> <p>Working for and overseas operation here in Syd we are experiencing problems with additional ratings post Part 66 change over. Previously under CAR 31 I could provide my EASA 145 VAA Approval plus 6 months certification and have the additional rating added to my CASA Licence. Now under PART 66 I require Aircraft Registration, Approval and Licence all from the same origin to allow the additional rating to the Australian Licence to take place (basically impossible) Therefore we are unable to employ Australian LAMEs as we would like to. However a university student from over seas can walk into Oz without experience and have all rating added to an Australian Licence.</p> <p>Best Regards</p>
<p>██████████</p>	<p>Hi,</p> <p>I'm a LAME, Mechanical.</p> <p>I believe the following needs to communicated in this Safety review:</p>

	<p>1) The changes CASA have made allow for far more self regulation by companies themselves, with CASA now spending less time walking around the aircraft and airports and more time just auditing the paperwork. So more thorough investigations are going to occur AFTER an incident.</p> <p>I can see this benefitting large companies who shift heavy maintenance off-shore, as that is all CASA will be able to do! Meanwhile the offshore maintenance will be performed in cheaper environments, perhaps with lower overall standards and potentially masked by 'in-order' paperwork. But for the smaller companies based in Australia, the onus is more than ever on employing more office staff, to document, control and report on the activities of less engineers on the floor. (IE top heavy management)</p> <p>In less diligent companies, this paperwork may be used to mask deficiencies in maintenance standards, if the paperwork looks OK, CASA will walk away whistling.</p> <p>2) Also the continuous chipping away of LAME responsibilities, (to appease the big companies bottom line) with the issue of 'A' cat licenses.</p> <p>And giving Pilots the ability to make more and more maintenance decisions is only going to lower the overall standard of maintenance our industry currently provides.</p> <p>3) Its getting to the stage, where by assumed skills and knowledge are discounted because they cannot be quantified (usually by someone who has spent their entire lives behind a desk.)</p> <p>4) Its surely a priority to make our industry more efficient, especially with increased global competition there is really no choice.</p> <p>But it is wrong to allow those who do not understand the complexities of aircraft maintenance, to decide that it is the best place to start cutting costs!</p> <p>Instead I think the men at the top need to seriously look at what is more important, the safe transport of paying customers or the highest returns possible for the shareholders.</p> <p>In my view there is no option!</p> <p>Thanks for the opportunity to make a comment</p> <p>Regards</p>
	<p>Attention : David Forsyth</p> <p>I am currently employed by Qantas Airways as a B2 LAME and have aircraft industry experience extending over 28 years. During this time I have seen many changes, including the combining of once individual trade groups into two categories. Namely, Electrical/Instrument/Radio , Airframe/Engine trade groups become Avionics and Mechanical. This now under the Part 66 licensing system called B1 & B2. This whole process occurring over a ten to fifteen year period. The new Part 66</p>

	<p>licensing system from Draft legislation to completion in 2015 will have occurred in less than seven years and involve far greater changes to the aircraft licensing system. For example, a B1.1 Mechanical Lame after only completing a compressed Theory/Practical Course of less than 6 months, is now able to do 80% of a B2 Avionics LAME work. To put this in perspective, it takes a B2 Avionics LAME to have completed a four year apprenticeship. Followed by several years in Heavy Maintenance before completing their first aircraft type license. In total a B2, or B1 LAME will have taken approximately six to seven years to get their first type license. The new Cat "A" Tier II Type License will enable a person having completed only a two year training course and a two week company course to carry out and sign for multiple aircraft component changes/ overnight aircraft checks. This makes a mockery of the four year apprenticeship currently undertaken by many trades people.</p> <p>Everyone in the aircraft industry acknowledges efficiencies and changes must happen going forward. However, the speed and the process at which this occurs must be controlled, planned and monitored. Apprentices completing the Cert IV in Aviation, must know there is a viable and valuable future in the Australian Aviation Industry. This training must involve Workshop and Heavy Maintenance experience over an extended period, before entering the high pressure environment of Line maintenance. The Cat A Tier II License should be delayed and only introduced over an extended period.</p> <p>Overnight aircraft checks will in the future be completed by less experienced personnel and not checked again for another 30 hours. Weekly checks soon to be extended out to 15 day checks. More aircraft maintenance to be outsourced overseas and only the bare basics completed.</p> <p>The aircraft industry is highly competitive and in a global sense becoming smaller as amalgamation occurs. The challenge for the Australian Airline industry is to remain competitive while maintaining safety in the sky. This is only achieved through transparency, honesty and open consultation from and between all parties. The ALAEA has a proud history and a future investment in delivering safety in the skies for every Australian and Overseas traveller.</p> <p>Kind regards</p>
	<p>The text of the preamble talks of our past safety record and yet, without any proper analysis they have arbitrarily installed a system which is patently unsuitable for Australia and is only designed to reduce the skill level and training for the persons carrying out maintenance. It is also unlikely to improve or maintain our safety record.</p> <p>The thinly veiled self regulation system allows for flights to be carried out with a reduced standard of inspection and relies heavily on management systems. Initially this may reduce short term costs but in the process destroys the skill level and experience of the maintenance</p>

	<p>professional.</p> <p>The deficits of the EASA system are;</p> <p>The Australian LAME licence is not accepted in Europe so the potential for technical knowledge interchange is removed.</p> <p>Persons releasing aircraft to service may now have one quarter of the training and experience of the current LAME.</p> <p>The EASA system relies on the individual NAA to police it's own nationally registered carriers but Australia does not belong to the common market so CASA is the sole regulator, where is the benefit in that? CASA is already our only regulator.</p> <p>The career path for an aviation apprentice is destroyed and the future prospects for employment are negligible particularly with the headlong rush to outsource overseas to largely unsupervised groups and organisations that can contract out the work to persons or organisations who may not comply with Australian standards.</p> <p>When the aircraft start crashing in a few years it is possible a future government may wish to return to our proven system but by then the mentoring of trainees will have disappeared and the knowledge gained by generations of LAMES will be lost and impossible to regain.</p> <p>The General Aviation System is still uncertain as the various proposals by CASA have proved unworkable and unsuitable.</p> <p>Regulation of aviation was introduced because of the unacceptable rate of fatalities, crashes were investigated and regulations altered to prevent a reoccurrence. Aircraft can now operate and have a fatal crash but are never investigated by CASA or the ATSB. The largely self regulated RAAus group operate outside the GA mould and even operate flying schools in direct competition with CASA regulated schools, undercutting the people who obey the CASA regs.</p> <p>The false claim that new aircraft require less maintenance ignores the fact that the same environment of tyre defect, FOD damage and flight induced defects confronts all aircraft.</p> <p>Questions have been asked about some of the 147 training organisations and graduates from one particular organisation have been rejected by many employers as having insufficient knowledge to perform in the workplace.</p> <p>I am available for further comment if necessary.</p>
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