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Australian Licenced Aircraft Engineers Association Response to CASA NPRM 0804MS

A PROPOSAL TO MODERNISE RULES FOR THE LICENSING OF MAINTENANCE PERSONNEL FOR SMALL AIRCRAFT

Addition of a small aircraft licence category in the proposed CASR Part 66 (as foreshadowed in NPRM 0604MS)

May 2009

The following response contains sections from the NPRM 0804MS (in *italics*) with comments inserted by the ALAEA. The response also contains excerpts from the ALAEA's previous submission to the pre-release draft NPRM0804MS that was withdrawn in September 2008 as they are still relevant to the final document.

At the end of the document is a response in CASA's preferred format.

Notice of Proposed Rule Making
A Proposal to Modernise Rules for the Licensing of Maintenance Personnel for Small Aircraft

Context of this NPRM

The purpose of this Notice of Proposed Rule Making (NPRM) is to publicly consult a proposal to:

• introduce a new small aircraft licensing structure into the proposed Civil Aviation Safety Regulation (CASR) Part 66;

• re-align licence structures to ensure best "fit" with the Aerial Work and General Aviation sector; and

• provide for an initial Aircraft Maintenance Engineer (AME) licence that covers the majority of small aircraft.

In this NPRM, any reference to a small aircraft licence means the proposed B3 or B3/B4 licence structures as detailed in Section 3.

Small aircraft are:

• aeroplanes (excluding turbojet powered) with a maximum take-off weight (MTOW) of 5700 kg or less; and

• single-engine helicopters.

1. Public consultation on this NPRM should require each and every stakeholder that CASA has contact details for being provided with details of the NPRM with adequate time to respond.

2. No mail out to Licenced Aircraft Engineers has occurred. Despite the ALAEA's efforts there are potentially several thousand LAMEs that have not been made aware of the proposed changes.

3. A stronger explanation of what "Aerial Work" is when compared to "General Aviation" and what the differences are in respect to maintenance requirements should be provided. The ALAEA considers Aerial Work as part of General Aviation and not a separate industry.

4. There must also be an explanation of why a realignment of the licence structure is actually necessary. No details of current "problems" have been noted in this NPRM with corresponding proposals to correct these problems.

Background

In 2006 NPRM 0604MS introduced maintenance regulations based on the European Aviation Safety Agency (EASA) Parts M, 66, 145 and 147 as follows:

• Part 42 – Continuing Airworthiness (EASA Part M);

• Part 66 – Maintenance Personnel Licensing;

• Part 145 – Approved Maintenance Organisations; and

• Part 147 – Maintenance Training Organisations.

At the time of publishing NPRM 0604MS, the Civil Aviation Safety Authority (CASA) foreshadowed further development work on a small aircraft licence structure to mesh with and supplement the proposed A/ B1/B2 /C licence structures.

This NPRM is the outcome of that further development work and describes proposals for a suitable licence structure and its inclusion in the draft CASR Parts 42, 66, 145 and 147.

The purpose of this NPRM is to invite members of the aviation community and the public to comment on the proposals.

Small aircraft in Australia - aeroplanes

82% of small aeroplanes in Australia are single-engine piston-powered aeroplanes with fixed undercarriage. Of these, the majority are of all-metal construction.
There are however, a significant number of composite aircraft in the fleet and more are coming on line as more "traditional" manufacturers take up the technology.

The global growth in small volume manufacturers and a steady increase in the sport aviation segment suggest future growth in wood and fabric types.

5. The percentages stated & aircraft types are misleading and subjective. Calculations based on the publicly available VH aircraft register indicate that the correct figure is closer to 65% of the "simple" type of aircraft noted, a difference of at least 1600 aircraft.

6. The previous ALAEA submissions asked the following questions that have not been answered.

    6.1. "What percentages are applicable to the CAO 100.66 covered aircraft?

    6.2. What is the breakdown of flying hours per year of the different aircraft groups?

    6.3. What are the percentage breakdowns of the other proposed elective mechanical systems applicable to this group of aircraft?

    6.4. What are the forecast numbers over the next 10 years?

    6.5. How many maintenance organisations carry out maintenance on both fixed wing and rotary aircraft and how many aircraft does this involve? Note that the proposed B3 licence pathway and extensions

would not allow the study of both types of aircraft during an apprenticeship. Will this exacerbate the skills shortage as some organisations will need to hire more people to cover the full scope of their operations?"

7. What the NPRM doesn't state is the actual flying hours of these types of aircraft compared to the others. CASA either does not or cannot supply these figures and as such no opinion or assumptions can be made about the actual maintenance requirements for the Australian General Aviation fleet. However assumptions nonetheless have been made and appear to be the basis for deciding licence structure.

8. Commercially the diversity must be considered on the basis that the operators, be they flying schools, aerial agriculture operators or charter operators, operate overall a very wide and diverse range of aircraft.

9. To maintain a commercially viable operation the majority of GA operator's maintenance organisations include flight training, charter and private hire as well as the inclusion of some form of MRO.

10. This requires of them to operate and maintain more than the basic Cessna C150 & C172 series of aircraft and therefore must be capable of maintaining and certifying for a wide range of aircraft and systems. Those that do not have a MRO attached must seek out such a facility that can cater for their maintenance and certification needs.

Helicopters

Of approximately 1300 single-engine helicopters registered in Australia:
• 70% are piston engine powered;
• 70% have hydraulically powered rotor controls; and
• approximately 60% are of all-metal construction.

Meeting the need

The aim of the proposed licence structure is to ensure that the maintenance needs of the predominant types are catered for within the initial licence(s), and to allow sufficient flexibility to cater for the aircraft that fall outside this general grouping.

The licence structure is also intended to cater for future developments in small aircraft technology and usage.

11. Refer ALAEA comment paragraph 5. If the statistics are considerably flawed then the needs cannot be established.

12. The ALAEA submits that the statistics used to determine licence structure need are both incorrect in number and incorrect in use.

13. The need is for quality trained trades people (AME's) who can do the work required. Licence issue is a personal decision & is separate in operation and task to that of carrying out the maintenance.

14. The current system already caters for future developments in technology and aircraft usage.

Implementation Schedule

It is intended to include the B3/B4 category in the proposed CASR Part 66 by way of amendment.

I would like to thank you for expressing interest in this proposal and emphasise that no rule changes will be undertaken until all NPRM responses and submissions to this NPRM received by the closing date ***5 June 2009*** *have been considered.*

3. Synopsis of Change Proposals

3.1 Purpose of this NPRM

3.1.1 In developing a new set of maintenance rules for Australia, CASA has consulted extensively with industry and the public via the previously published NPRM 0407MS and then NPRM 0604MS.

3.1.2 After considering Industry responses to the earlier NPRM, CASA introduced NPRM 0604MS and invited consultation on a revised approach to the previously proposed regulatory regime.

3.1.3 At the time of drafting NPRM 0604MS, CASA foreshadowed a further licence category for small aircraft maintenance in order to meet the requirements of the Aerial Work and General Aviation sectors and align small aircraft maintenance licences with Australian Government requirements including education policies, vocational training policies and integration of trade skills and licence training.

15. The "consultation" with the ALAEA during the development of the B1/B2 licences and this current B3/B4 proposal was not, as quoted extensive. The majority of the B3 consultation was behind closed doors with poor records of meetings kept.

16. Extensive consultation was not done regarding the GA industry.

17. What actually occurred was some lightning tours of CASA personnel to tell people what was going to happen and not ask what they wanted or needed.

18. Many meetings on these tours, for example the Jandakot airport meeting were poorly attended due to it being held during working hours & inadequate notification was given by CASA.

19. The government training policy is aimed at “TRADES” shortages. It is important to differentiate between the trades of aircraft maintenance that being the people trained with the skills to actually carry out maintenance of aircraft and the privileges of a licence to certify aircraft maintenance that being the people with both the competency in aircraft maintenance and the experience and training to plan, supervise and certify aircraft maintenance.

20. The proposals on the table do not address the issue of the shortage of trades people entering the system. The proposals do not look at sources of labour. They simply look at fast tracking the licence side of the equation to alleviate yet to be accurately identified licence category shortages.

21. A properly constructed policy to address the skills shortfall in aviation maintenance needs to be established and steps to enable the transfer of skills from other industries is required. This needs to encompass such items as the basic construction of the current aviation training packages to allow logical recognition of skills and competencies from other industry training packages and easy gap analysis to allow fast and efficient upskilling to take place. It should also include minimum standards required for trade levels and licence levels. It has already been established through MERSITAB by agreement with the stakeholders that the minimum trade level for an Aircraft Maintenance Engineer mechanical and avionic is AQTF Cert IV and the level for a Licenced Aircraft Maintenance Engineer is an AQTF Level V diploma.

22. Fundamentally the difference in actual hand skill and technical knowledge between an AME and A LAME is small. The difference between the two skill sets are in the managing, supervision, control and planning of aircraft maintenance. The skills obtained in a diploma level to reach the licence level should then easily align with other relevant engineering or managerial training courses. There should therefore still be the requirement that the minimum training levels for a LAME be they B1 airline or B3 GA regional is an AQTF Level IV for the trade skills and experience plus a Level V diploma for the licence component to account for the planning, management and administration elements.

23. The GA Lame is required to work in a very diverse workplace, often without the support available within a large organisation and to make the assumptions that they require less training and maturity than an airline LAME would be a fundamental mistake.

3.2 Background

3.2.1 The Chief Executive Officer of CASA, Bruce Byron, directed in late 2005 that future regulatory development be carried out by a joint CASA/Industry team. He said the team was to use advisers, consult with stakeholders, and have a result as soon as possible.

3.2.2 This process was followed in the development of NPRM 0604MS, and it was subsequently decided to form a supplementary (B3) team along similar lines to develop the proposed structures for an additional small aircraft licence category.

Process

3.2.3 The B3 team initially comprised two groups.

3.2.4 The B3 team commenced with the compilation of an Industry Priorities List. The priorities list was used to steer the workings of the team.

3.2.5 Meetings were held between May 2007 and March 2008. A licence proposal was generated and circulated among key stakeholders for comment.

3.2.6 In September 2008, the two groups were amalgamated into a B3 Working Group and the proposed licence structure was re-defined in light of feedback received.

See table 5 (Section 3) for a list of participating organisations.

24. As previously stated, despite being a "member" of one of these consultation groups the ALAEA was excluded from several meetings and minutes of those meetings were not supplied by CASA. For the purposes of consultation CASA did not consider LAMEs, especially those represented by the ALAEA as priority stakeholders.

Consultation

3.2.7 The new proposal was circulated within the B3 Working Group and among industry peak groups for further input at end-user level.

3.2.8 After almost two years of consultation, including industry seminars around Australia, this NPRM is now presented for general public consultation.

3.3 Reasons for change

3.3.1 The maintenance requirements of small aircraft are distinctly different from those of large aircraft and aircraft in airline operations.

25. This statement implies that the maintenance requirements are of a lesser level for small aircraft than that of large aircraft.

26. The Regulations (CARs & CASR's) do not reflect this other than the distinction between Class A & Class B & Transport category aircraft when referring to the need for a schedule or a system of maintenance to control its inspection requirements.

3.3.2 A licence structure that would be common to both sectors is regarded as impractical and would impose unjustifiable cost burdens on the Aerial Work and General Aviation sector.

27. This is a misleading statement as we presently have a viable & functioning licence system common to all sectors of aviation at minimal cost to the

industry as a whole. Also to look at a “building block” approach of licencing based on competency-based training is by default common to B1/B2 training requirements.

3.3.3 Changes in technology are rapid and continuous, and regulatory structures need to be better able to support timely adoption of new developments that enhance safety performance, economic or ecological aspects of the industry.

28. There is no advantage of the proposed system over the existing system to achieve these aspects.

3.3.4 The proposed small aircraft licensing structure is designed to:
• integrate with CASR Parts 42, 66, 145 and 147 policies as proposed in NPRM 0604MS;
• conform to national training policies;
• meet current industry needs; and
• provide flexibility for future developments.

29. The current system can easily;
- Be integrated with CASR Pt 42,66,145 & 147 policies as proposed by NPRM 0604MS.
- Conform to the national training policies by way of nationally standardized hours, funding and syllabus for AME trade certificate issue.

30. The current system does;
- Meet current industry needs.
- Provide flexibility for future industry developments

3.4 Options considered

3.4.1 Options initially considered by the B3 working groups were:
• retain a Civil Aviation Regulation (CAR) 31 style licence;
• adopt B1/B2 licence categories for small aircraft;
• adopt the proposed EASA B3 licence;
• create a small aircraft licence structure to fit Australian requirements; and
• permit licence endorsements to be granted by the employing Approved Maintenance Organisation (AMO).

3.4.2 Out of these considerations, the working group selected the following options:
• Option 1 – B3/B4 – Table 2;
• Option 2 –B3.1- B3.13 –Table 3; and
• Option 3 –B3.1- B3.8 –Table 4.

31. The ALAEA preferred option was and still is to keep the existing structure and rename it B3.

Option 1 – Table 2 – B3/B4

3.4.3 The subcategories B3.1 - B3.6 are stand-alone subcategories and any one of these subcategories can be an initial licence with the privileges as described in Table 1 above.

3.4.4 The B3 extensions are options that may be added to a B3 subcategory and they confer the privileges as described in Table 1 above. Extensions are not stand-alone privileges.

3.4.5 The subcategories B4.1 and B4.2 are stand-alone licence subcategories and either may be an initial licence. The subcategories B4.3 to B4.8 are not stand-alone and may only be added to a B4.1 or B4.2 subcategory. The privileges that attach to these subcategories are as described in Table 1 above

B3 (Mechanical)
B3.1 Basic Aeroplane
B3.2 Basic Helicopter
B3.3 Advanced Aeroplane
B3.4 Advanced Helicopter
B3.5 Piston Engine
B3.6 Turbine Engine

1. Hydraulics
2. Retractable
3. Wood/Fabric
4. Composites
5. Aircon/Pressurisation/Oxygen
6. Pneumatics
7. Structures
8. Schedule 8
9. Propellors and Governors
10. Supercharging
11. Diesel/2-Stroke
12. FADEC

B4 (Avionics)	
B4.1	Basic Avionics
B4.2	Advanced NAV/COM, INSTR
B4.3	Flight Guidance
B4.4	Advanced Electrical
B4.5	Pulse
B4.6	Aeroplane Autopilot
B4.7	Helicopter Autopilot
B4.8	Environmental

32. B3 Mechanical:

32.1. B3.1 Basic Aeroplane is less than the current basic licence of Gr 1 eng & airframe. This is too limiting. (See additional comments regarding aircraft numbers verses hours flown)

32.2. B3.2 Basic Helicopter has little differences to the current Group 2 eng & airframe licences.

32.3. B3.3 Advanced Aeroplane is no more than the current group 1 eng & airframe licence.

32.4. B3.4 Advanced Helicopter is no more than the current group 19 airframe and group 2 engine licences today.

32.5. B3.5 Piston Engine is no more than today's group 1 engine licence. The basic or advanced aeroplane licences are supposed to cover the piston engine.

32.6. Why is a stand-alone engine licence being proposed when a B3 Mechanical licence concept is being put forward?

32.7. B3.6 Turbine Engine is less than group 21

32.8. Why is a stand-alone engine licence being offered when the Mechanical licence concept is supposed to incorporate the engine and airframe in one? This may possibly be offered as an extension.

33. Avionics B4.

33.1. We understand that the AEA has had full input into the B4 avionics proposal in NPRM 0804MS and would seem to be happy with the Option 1 table 2 B4. We not propose anything different other to say that in line with the B3 Licence structure as presented the B4 licence should have basic licences with extensions. As it appears that a LAME is unable to hold the categories of B4.3, B4.5 through B4.8 without holding a Basic Avionic or Advanced Electrical licence first.

34. B3 Extensions.

34.1. Hydraulics is covered by the current Group 5 airframe fluid power systems licence.

34.2. Retractable is an unnecessary addition and complication and should be covered under any proposed basic aeroplane licence. It is currently covered in Group 1 airframe basic licence.

34.3. Wood/Fabric is both the current Groups 3 & 4 airframe licences. Putting both licences together makes it too difficult to attain if a LAME only requires one.

34.4. Composites is the current Group 7 airframe licence.

34.5. Aircon/Press'n/Oxygen are covered by the current Groups 1, 6, and 10 airframe licences. This makes it too difficult to attain if not all groups are required. Many aircraft that have air-conditioning do not have Oxygen or pressurisation systems.

34.6. Pneumatics is covered by the current Group 5 fluid power systems

34.7. Structures is covered by the current Group 1 airframe licence and should be included in any basic aeroplane licence. The licence is for certification & inspection privileges & not task qualifications. Mechanical and structures should not be separated in general aviation the way it is in the airline environment. There are only a few approval holders are big enough to have a structures section.

34.8. Schedule 8. All Schedule 8 tasks are covered by basic licences and as such is not required. The terms used in the NPRM say that Schedule 8 is a stand-alone licence, yet it has been listed as an extension.

34.9. Schedule 8 is a group of competencies to ensure pilots carry out basic maintenance tasks safely and legally and should be technically formulated to meet required training standards for the issue to a pilot as an MA attached to their licence, which should require them to meet ALL of the competencies for the issue thereof and as such should not be included in the proposed Part 66 licencing.

34.10. Props and Governors is covered by the current Group 1 engine and as such should be included in any basic aeroplane licence.

34.11. Supercharging is covered by the current group 3 engine.

34.12. Diesel/2 Stroke. Diesel should be a separate inclusion in the current system by way of Group 4 engines with Group 1 & 3 as a prerequisite. 2 stroke is not within the scope of the VH registered GA fleet.

34.13. FADEC is an interface and modular control unit like any other component covered by the airframe manufacturers maintenance manual. Our current Group 1 engine licence covers FADEC as installed on Cirrus aircraft.

Discussion of Options:
Option 1
3.4.12 This is the B3 Working Group's and CASA's preferred option. This structure delineates between the primarily mechanical (B3) and primarily avionic (B4) categories.
3.4.13 The principal benefits of Option 1 are:
• there would be a clear delineation between mechanical and avionics categories;
• an appropriate balance between complexity and flexibility would be provided;
• the small aircraft licences would be aligned with the structure of the proposed B1 and B2 categories;
• there would be simplified applicability and endorsement rules for licence extensions; and
• it would be more analogous to current industry employment practice.

The proposal is to include a licence structure based on Option 1 in the proposed CASR Part 66.

Licence prerequisites (all options)
3.4.16 In order to qualify for a B3 or B4 licence, an applicant will be required to demonstrate that he or she:
• is over 18 years of age;
• has been assessed by a CASR Part 147 Organisation as meeting the applicable competency requirements including the required underpinning knowledge modules;
• has attained 3 years aviation maintenance experience (inclusive of training); • possesses the necessary English language skills.
Note: *The 3 year experience requirement is not necessarily applicable to the Schedule 8 privileges.*

35. If the changes as outlined above were incorporated into the licence structure then it (the licence structure) may be acceptable for inclusion into CASR Part 66.

36. However the provisions also include proposals to reduce experience and exposure to the industry from the current 4 years minimum with a minimum of 2 years experience on the category sought for a CAR 31 licence to 3 years only inclusive of training.

37. The provisions also include a reduction of the minimum age for certification from 21 years in both the CAO 100.66 and CAR31 down to 18 years.

38. There is no safety basis to assume that persons working and certifying "small aircraft" as proposed under the new rules should be any less mature and experienced to those working on groups 19/20/21/22 classified aircraft.

39. Because the availability of a Certificate IV Institutional Course in Aeroskils (MEA40607, MEA40707, MEA40807) which allows a young person straight out of year 10 in high school to complete 12 months of the training course with limited exposure to the work environment, and then find

employment in the industry this could allow a that person to pick up the basic parts of a licence or indeed an engine only licence with full CRS privileges with only 2 years exposure to the workplace and prior to completing the basic trade course.

40. The preservation of the requirement to have 4 years experience with 2 years in the category sought; with the minimum age of 21 years is the only way to ensure that LAMEs will be able to have the necessary exposure and maturity to assume responsibility for the certification of aircraft maintenance as is currently the case.

41. There are sufficient experienced AMEs within Australian aviation to backfill the shortage of LAMEs in a reduced timeframe using Recognition of Prior Learning (RPL) for previously completed trade courses, successful completion of CASA Basics coupled with completed Schedule of Experience evidence.

42. There is currently no requirement for a person to hold an aircraft trade qualification prior to obtaining an AME licence. This would be an ideal opportunity to correct this and to enhance the skill and quality level of Australian LAMEs.

43. As mentioned previously; Schedule 8 is a group of competencies to ensure pilots carry out basic maintenance tasks safely and legally and should be technically formulated to meet required training standards for the issue to a pilot as an MA attached to their pilot licence, which should require them to meet ALL of the competencies for the issue thereof and as such should not be included in the proposed Part 66 licencing for B1/B2 B3/B4.

Privileges of a B3/B4 licence

3.4.17 The privilege of a B3/B4 licence is certifying for maintenance and/or issuing a Certificate of Release to Service (CRS) for small aircraft.
3.4.18 Small aircraft are:
• *non-turbojet aeroplanes with a MTOW of 5700 kg or less; and*
• *single engine helicopters.*

3.4.19 The basic and advanced aeroplane licences will include CRS privileges for metal, wood, fabric, and composite aircraft, not including structural repairs or replacement of full fabric envelopes.

3.4.20 The basic and advanced helicopter licences will include CRS privileges for composite airframes not including structural repairs.

3.4.21 The privileges of a B3 or B4 licence may be exercised in an AMO provided that the Licenced Aircraft Maintenance Engineer (LAME) has been authorised to do so in accordance with the organisation's CASA approved Exposition.

3.4.22 The privileges of a B3 or B4 licence may also be exercised outside of an AMO within limitations that will be published as an Appendix to CASR Part 42.

3.4.23 The B3 licence engine subcategories will provide for turboshaft and turbopropeller engine type ratings where required.

3.4.24 Typically, aircraft type ratings will not be required in respect of small aircraft.

44. The CRS privileges should include structural repairs as the current Group 1 airframe licence does.

3.5 Key change proposals

3.5.1 Create a small aircraft licence category using Option 1 as outlined in this document to form part of the proposed CASR Part 66.

3.5.2 Insert the small aircraft licence category into proposed CASR Part 66.

3.5.3 Make provisions within proposed CASR Parts 42 (Sub-Part F) and 145 for utilisation of small aircraft licenced individuals.

45. Why not just do the same for the current system?

46. This is the creation of a dual tiered trade and licensing system that will require expensive training to go from B3/B4 trade and licence to B1/B2 trade and licence at AME & LAME expense. This is the introduction of a restriction of trade by CASA, which is a regulatory body and not an industrial body. Note that at this stage in time CASA has made no attempt to assess the industrial implications of regulatory changes.

3.6 Benefits and impact of changes

3.6.1 The licence structure will provide maximum industry sector coverage within initial licence scope.

47. This is untrue. It is a restriction and contraction of the licence coverage. The current Group 1 Eng. Airframe provides for more than the B3 Option 1, 2 or 3. Group 1 Eng. Airframe can be achieved within the apprenticeship period for issue at present & it is being done with high regularity. What is limiting AME and therefore LAME numbers is that there are very few apprentices coming into the industry as the result of low numbers of training opportunities being offered by employers. Also refer submission on CASAs assessment of maximum industry sector coverage paragraph 5.

3.6.2 Apprentices will benefit from increased flexibility allowing a wide range of training options.

3.6.3 Training will be relevant to the industry sector in which the apprentice is employed allowing better targeting of skills development.

48. This is untrue. The narrow band training options will limit the skills of AME's and licence options to the industry in the medium to long term

3.6.4 Employers will benefit from the licence structure flexibility which allows an initial licence to be obtained after 3 years.

49. This will result a short term gain of low skilled and experienced AME's and LAME's resulting in medium and long term disadvantages to the industry.

3.6.5 The availability of Schedule 8 privileges after approximately 2 years will benefit employers of eligible employees.

50. This is untrue and will exacerbate the skills shortage. There is no safety case to be made to allow this. The arguments used to support this are along the lines that a 16 year old pilot can do these tasks, then so to an 18 year old apprentice should also be able to. We say both cases are unacceptable.

3.6.6 Licence issue will occur upon successful completion of training. This will benefit apprentices and employers by eliminating the existing post-training requirements to undergo CASA basic examinations and CASA assessment of Schedule of Experience (SOE).

51. Only the initial issue to the narrow band trained LAME at the completion of the training. Any further licencing needs will have to be met by the LAME at considerably higher expense than that of today's system because the self study option and CASA examination and Schedule of Experience assessment will not exist. The Recognised training organisations (RTO's) will have a commercial strangle hold over training of maintenance personnel.

3.7 Implementation and review

3.7.1 It is proposed to incorporate the B3/B4 licence into CASR Part 66 upon completion of the requisite consultation and approval processes.

52. This is an unacceptable proposal and therefore should not be incorporated into CASR Part 66.

3.8 Proposed transition

3.8.1 Existing LAMEs will retain existing privileges when their licences are converted to the proposed new format.

3.8.2 Upon implementation of the new licence structure, a 4-year phase-in period will commence during which time CASA will continue to offer basic examinations and SOE assessments for existing applicants, in parallel with the take-up by training organizations of the new CASR Parts 66 and 147 processes.

3.8.3 Individuals who had commenced doing basic examinations prior to theimplementation date will be able to continue with the process and gain a CAR 31 licence which will then be transitioned to a CASR Part 66 licence in the same manner and with the same protection of privileges as existing licence holders.

53. Ref 3.8.1. There is no simple cross relating of CAR 31 to the proposed B3/B4 to know or foresee the net result of licence privileges lost or retained. It could be argued that due to the “perceived” increased privileges as defined by the competencies for MEA07 trade training to support the B3 licence as proposed, all current airframe and engine licence holders do not meet the training requirements and therefore would be issued a “limited” B3 licence requiring them to do the “Gap” up training similar to that being undertaken by the airline industry for a B1/B2. However this would have to be paid for by the individual as the GA industry can ill afford such a corporate expense and neither can the individual AME’s and LAME’s

54. Ref 3.8.2. The rush has already begun by current apprentices and AME’s to attain a CAR 31 licence because it is widely held belief by the apprentices and their instructors that they will be better off than they would be if they waited for the new system as being proposed.

55. Ref 3.8.3.This is misleading as the future syllabus does not match the current one & there will be additional requirements and redundant modules will create gaps between the current system and the future one therefore creating an inequity between the two.

3.9 General information

Australian Training Requirements

3.9.1 Competency based training and assessment is Australian skills training policy and will be the Australian method of qualifying for initial issue of a CASR Part 66 licence.

3.9.2 Council of Australian Governments (COAG) has adopted a policy that skills training should include any necessary licence knowledge in order that successful completion of training leads to a licence result without further testing/training requirements.

56. The current system of theory plus practical assessment over a period of time is the essence of competency. This has been in existence for decades in the aviation industry for the issue of a licence well before the training bureaucrats decided to coin the phrase “competency based training”. To say that the CASA licence system is not competency based is not to understand the system. Just because it does not dove tail into a defined national framework does not mean that it is not acceptable. General Aviation presents a broad and divers scope of maintenance needs and therefore requires a broad and diverse skills and training base for apprenticeship training outcomes for the trade qualification at base level.

57. At face value of the statement contained therein ALL AME’s should receive training to cover ALL licences and extensions at the training organisation so they do not require any more than the training received during their apprenticeship for the rest of their career excepting the

introduction of new technology to the industry to facilitate the application for licence as sought when sought. This can actually be achieved if the full scope of theory was delivered and examined for fixed & rotary wing as well as piston and gas turbine in the mechanical and the full scope of the avionics were to be delivered during the apprenticeship training and it would then be up to the apprentice and subsequent AME trades person to seek the licence applicable to their practical exposure to the industry as their career progresses. Therefore the only limiting factor would be the actual aircraft being worked on in each enterprise.

Maintain vs Certify

3.9.3 In line with global practice, a CASR Part 66 licence structure is a licence to perform certifications for maintenance of aircraft and issue CRS.

58. This identifies that maintenance is different to certification.

3.9.4 A CASR Part 66 licence will not necessarily be required in order to perform maintenance however some maintenance certifications may only be made by CASR Part 66 licence holders, in particular, CRS.

59. CRS issue is NOT maintenance. The Regulations require that appropriately trained personnel carry out and perform maintenance. Only an appropriately licenced person can “Certify” maintenance. CASA will need to identify which possible certifications may not need an appropriately licenced person to certify and why this has been proposed.

3.9.5 It may generally be said that a CASR Part 66 licence holder is permitted by that licence to perform maintenance within the scope of the licence (subject to CASR Parts 42 and 145).

60. It may not <u>generally</u> be said. Either it is fact or not. A licence does not confer upon the holder the right to carry out the maintenance. The licence allows the holder the legal right to certify for the maintenance, which in legal terms states that the certifier carries the responsibility of having “performed” the work. This is also to be done within the limitations of maintenance permitted within and outside of an approved maintenance organisation as defined by the regulations. See CASR Parts 42 and 145 in NPRM0604MS

3.9.6 Readers should refer to proposed CASR Parts 42 and 145 in NPRM 0604MS for complete details of the requirements for performing/carrying out and certifying of maintenance.

3.9.7 In order to ensure maximum effectiveness of the new AME licensing proposals, CASR Parts 42 and 66 will include provisions for CASA to make determinations in respect of whether a particular aircraft type is to be treated as a large or a small aircraft (regardless of MTOW and/or number of engines) and whether or not a particular aircraft type requires to be type rated for maintenance licensing purposes.

A set of determination criteria and guidelines will be developed and included in the respective CASR Maintenance Parts or guidance material.

61. This presently exists within the current regulations.

3.9.8 Determination considerations will take into account aviation complexity factors including certificated maximum passenger seating capacity, operational ceiling, multicrew requirements, design philosophy, systems complexity, engine type, and technology such as fly-by-wire control systems.

The following is the CASA preferred response format.

As such there will be instances of the previous pages quoted throughout.

NPRM Response Form

Please complete your response by 5 June 2009 and return it

Key Change Proposals (refer to NPRM Section 3)
CASA invites you to advise your comments on the subject matter proposed in this NPRM by indicating your preference by ticking [ ] the appropriate box and commenting
below:

Create a B3/B4 Option 1 licence structure comprising Subcategories and Extensions as detailed in Section 3.4 including Table 2 of this NPRM
[ ] proposal is acceptable without change
[ ] changes would improve it, but it is acceptable (please provide details below)
[] changes would make it acceptable (please provide details below)
[X] not acceptable under any circumstances
Comments or suggested changes (including an estimate of additional costs/impacts if applicable):

Option 1 Table 2 B3/B4 Pg 14 of 26:
B3 Mechanical:

62. B3.1 Basic Aeroplane is less than the current basic licence of Gr 1 eng & airframe. This is too limiting. (See additional comments regarding aircraft numbers verses hours flown)

63. B3.2 Basic Helicopter has little differences to the current Group 2 eng & airframe licences.

64. B3.3 Advanced Aeroplane is no more than the current group 1 eng & airframe licence.

65. B3.4 Advanced Helicopter is no more than the current group 19 airframe and group 2 engine today with the exception of twin engine helicopters.

66. B3.5 Piston Engine is no more than today's group 1 engine licence. The basic or advanced aeroplane licences are supposed to cover the piston engine.

67. Why is a stand-alone engine licence being proposed when a B3 Mechanical licence concept is being put forward?

68. B3.6 Turbine Engine is less than group 21

69. Why is a stand alone engine licence being offered when the Mechanical licence concept is supposed to incorporate the engine and airframe in one? This may possibly be offered as an extension.

70. B3 Extensions.

71. Retractable is an unnecessary addition and complication and should be covered under any proposed basic aeroplane licence. It is currently covered in Group 1 airframe basic licence.

72. Wood/Fabric is both the current Groups 3 & 4 airframe licences. Putting both licences together makes it too difficult to attain if a LAME only requires one.

73. Aircon/Press'n/Oxygen are covered by the current Groups 1, 6, and 10 airframe licences. This makes it too difficult to attain if not all groups are required. Many aircraft that have air-conditioning do not have Oxygen or pressurisation systems.

74. Structures is covered by the current Group 1 airframe licence and should be included in any basic aeroplane licence. The licence is for certification & inspection privileges & not task qualifications.

75. Schedule 8. All Schedule 8 tasks are covered by basic licences and as such is not required. The terms used in the NPRM say that Schedule 8 is a stand-alone licence, yet it has been listed as an extension.

76. Schedule 8 is a group of competencies to ensure pilots carry out basic maintenance tasks safely and legally and should be technically formulated to meet required training standards for the issue to a pilot as an MA attached to their licence, which should require them to meet ALL of the competencies for the issue thereof and as such should not be included in the proposed Part 66 licencing.

77. Props and Governors is covered by the current Group 1 engine and as such should be included in any basic aeroplane licence.

78. Diesel/2 Stroke. Diesel should be a separate inclusion in the current system by way of Group 4 engines with Group 1 & 3 as a prerequisite. 2 stroke is not within the scope of the VH registered GA fleet.

79. FADEC is an interface and modular control unit like any other component covered by the airframe manufacturers maintenance manual. Our current Group 1 engine licence covers FADEC as installed on Cirrus aircraft.

Insert the B3/B4 licence provisions into proposed CASR Part 66
[ ] proposal is acceptable without change
[ ] changes would improve it, but it is acceptable (please provide details below)
[ ] changes would make it acceptable (please provide details below)
[X] *not acceptable under any circumstances*

Comments or suggested changes (including an estimate of additional costs/impacts if applicable):

80. The provisions include proposals to reduce experience and exposure to the industry from the current 4 years minimum with a minimum of 2 years experience on the category sought for a CAR 31 licence to 3 years only inclusive of training.

81. The provisions also include a reduction of the minimum age for certification from 21 years in both the CAO 100.66 and CAR31 down to 18 years.

82. There is no safety basis to assume that persons working and certifying “small aircraft” as proposed under the new rules should be any less mature and experienced to those working on groups 19/20/21/22 classified aircraft.

83. Because the availability of a Certificate IV Institutional Course in Aeroskils (MEA40607, MEA40707,MEA40707) which allows a young person straight out of year 10 in high school to complete 12 months of the training course with limited exposure to the work environment, and then find employment in the industry this could allow a that person to pick up the basic parts of a licence or indeed an engine only licence with full CRS privileges with only 2 years exposure to the workplace and prior to completing the basic trade course.

84. The preservation of the requirement to have 4 years experience with 2 years in the category sought, with the minimum age of 21 years is the only way to ensure that LAMEs will be able to have the necessary exposure and maturity to assume responsibility for the certification of aircraft maintenance as is currently the case.

85. There are sufficient experienced AMEs within Australian aviation to backfill the shortage of LAMEs in a reduced timeframe using Recognition of Prior Learning for previously completed trade courses, successful completion of CASA Basics coupled with completed Schedule of Experience evidence.

86. There is currently no requirement for a person to hold an aircraft trade qualification prior to obtaining an AME licence. This would be an ideal opportunity to correct this and to enhance the skill and quality level of Australian LAMEs

87. As mentioned previously (paragraphs 75 & 76); Schedule 8 is a group of competencies to ensure pilots carry out basic maintenance tasks safely and legally and should be technically formulated to meet required training standards for the issue to a pilot as an MA attached to their pilot licence, which should require them to meet ALL of the competencies for the issue thereof and as such should not be included in the proposed Part 66 licencing for B1/B2 B3/B4.

Make provisions within CASR Parts 42, 42 Sub-Part F and 145 for utilisation of B3/B4 licenced individuals
[ ] proposal is acceptable without change
[ ] changes would improve it, but it is acceptable (please provide details below)
[ ] changes would make it acceptable (please provide details below)
*[**X**] not acceptable under any circumstances*

Comments or suggested changes (including an estimate of additional costs/impacts if applicable):

General and Specific Comments

Your response to the draft B3/B4 licence structure:
*Having read the draft B3/B4 Licence structure (**NPRM Section 3**), are there specific issues that you wish to see addressed? Please indicate by specifying the relevant Regulation Number, any change to that Regulation you believe will add value to the draft B3/B4 licence structure, and a short explanation of your reason for proposing the change.*

88. Below is a very simple and workable starting point to offer up as an alternative to the proposals in OPTION 1 Table 2. The B3 numbering system has been used to EASAfy the names.

89. Mechanical B3

B3.1. Basic Aeroplane (Fixed Wing):
Scope of certification:

Engines normally aspirated.
Propellers and governors.
Airframes
Retractable undercarriage
Basic Elec. Power generation and distribution (basic Component R & I with simple functional operational test, security and attachment.).
Instrument. Inspection for security and attachment, operation, indication, component R & I, fundamental Pitot static test and calibration, no other external test equipment operation.
Radio. Security and attachment of components basic function test of coms, no external test equipment.

90. B3.2. Basic Aeroplane (Rotary wing)
Scope of Certification:

As above for B3.1. excepting props and governors but including transmissions and gearboxes.

91. Extensions:

Fluid Power systems (Hydraulics & Pneumatics) Current group 5 AF

Wooden Structures Current group 3 AF

Fabric Covering Current group 4 AF

Structural Composites Current group 7 AF

Airconditioning systems Current group 6 AF

Pressurization systems Current group 10 AF

Supercharging systems Current group 3 Eng.

Diesel engines Prerequisite would be B3.1 Extension 7.

Rotary wing power assisted flight controls. Current group 19 AF

92. Avionics B4.

We understand that the AEA has had full input into the B4 avionics proposal in NPRM 0804MS and would seem to be happy with the Option 1 table 2 B4. We not propose anything different other to say that in line with the B3 Licence structure as presented the B4 licence should have basic licences with extensions. As it appears that a LAME is unable to hold the categories of B4.3, B4.5 through B4.8 without holding a Basic Avionic or Advanced Electrical licence first.

Any Additional Comments

Australian training requirements.

93. In relation to Para 3.9.1 it is important firstly to separate training and skill from licencing.

94. The current system of theory plus practical assessment over a period of time for qualifying for a licence is the essence of competency. This has been in existence for decades in the aviation industry for the issue of a licence well before it was decided to coin the phrase “competency based training”. To say that the CASA licence system is not competency based is not to understand the system. Just because it does not dove tail into a defined national framework (AQTF) at this stage does not mean that it is not acceptable. General Aviation presents a broad and diverse scope of maintenance needs and therefore requires a broad and diverse skills and training base for apprenticeship training outcomes for the trade qualification at base level.

95. CASA should be looking at the obvious option of recognising competency based trade courses and the components that make up that course as the equivalent of CASA basic examinations and not doing away with the current basics system and Schedule of Experience requirements.

96. To do this greatly reduces the expected financial impacts on a LAME or a business in broadening scope for certification privileges or gaining initial licences post trade.

97. In relation to 3.9.2. At face value of the statement contained therein ALL AME’s should receive training to cover ALL licences and extensions at the RTO so they do not require any more than the apprenticeship training for the rest of their career excepting the introduction of new technology to the industry to facilitate the application for licence as sought when sought. This can actually be achieved if the full scope of theory was delivered and examined for fixed & rotary wing as well as piston and gas turbine in the mechanical and the full scope of the avionics were to be delivered during the apprenticeship training and it would then be up to the apprentice and subsequent AME trades person to seek the licence applicable to their practical exposure to the industry as their career progresses. Therefore the only limiting factor would be the actual aircraft being worked on in each enterprise.

98. To use an analogy; If a plumber that employed an apprentice only used plastic pipes and snap together fittings does that mean the apprentice never learns how to work with copper and other types of fittings? Would the apprentice come out as a licenced plastic pipe plumber? If this were the case this would make the apprentice almost unemployable outside of that particular employer.

99. It would be no different in aviation.

100. This legislation should focus on producing a workable group of licences to suit and complement the existing lower group system.

101. It should focus on rectifying the anomaly that an aviation trade qualified person must sit CASA basics to prove that they are knowledgeable in aviation systems.

102. It should not be about replacing the CASA basic examination system.

103. It should maintain the safety levels of the current system.

104. It should not be about change for change sake.

105. If the purpose is to create a combine engine and airframe “Mechanical” licence to suit CAO Part 66 framework, then simply state that and combine Group 1 A/F and Engine licences and call it a B3.1 If the Airframe only is held – call it a B3.1 limited to Airframe. Likewise for engine, a B3.1 limited to engine. Then add the other current groups as extensions. Address the current problem of VFR IFR split and there you have it.

Thank you

Your response ensures balanced consideration by CASA of the interests of the industry
and consumers.

Additional information is available from:

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