
CIVIL AVIATION SAFETY REGULATION

PART 66

AIRCRAFT MAINTENANCE LICENCE

PROPOSAL TO REMOVE CONFUSION

BY

REMOVING EXCLUSIONS

JULY 2013



EXECUTIVE SUMMARY

On 27 June 2011 new regulations pertaining to Aircraft Maintenance Engineers licensing were enabled. This resulted in the then existing licensing scheme administered under Civil Aviation Regulation 31(CAR 31) that recognised five categories of licences, those being Airframe, Engine, Electrical, Instrument and Radio, to be realigned into two basic category licences, those being B1Mechanical and B2 Avionic. The new regulation is Civil Aviation Safety Regulation Part 66 (CASR Part 66) and includes a Category 'A' line maintenance licence to replace licence extensions used in airline operations.

These changes were driven by a desire to align the Australian aviation regulatory system with the European Aviation Safety Agency (EASA) like many other Asian/Pacific countries.

Australian licensed aircraft maintenance engineers (LAMEs) were typically licensed in two broad categories of "*Mechanical*" consisting of Airframe and Engine and "*Avionic*" consisting of Electrical, Instrument and Radio categories. However, there were avionic and mechanical LAMEs in the non airline industry that held one or two categories.

Within each category of licensing there were a series of licence ratings applied. This rating could either be for an entire aircraft (specific aircraft rating) within a category or it could be for generic "groups" of aircraft types and/or systems within the category, for example hydraulic systems or weather radar systems, that could be used on multiple different aircraft that had similar technology systems. This structure of licensing complied with the preferred methods of licensing described by ICAO Annex 1, Chapter 4, paragraph, 4.2.2.2.

In Australia aircraft that were classed as small and non complex with less than 30/38 seats, could be certified using "group" ratings for aircraft and/or aircraft/avionic systems.

A key component of the EASA system was the classification of the B1 Mechanical licence as a single category that included the systems covered by Airframe, Powerplant and Electrical. And the classification of the B2 Avionic licence as a single category that covered the Electrical, Instrument and Radio systems.

Essentially the CAR 31 system was a licence that was added to as additional ratings were gained and privileges were shown on the licence or by reference to the CAO.

In contrast the EASA style Part 66 licence assumed that the holder had all of the privileges and employed a system of "exclusions" on the licence to exclude the holder for certifying for sub categories or systems they had not gained.

In order to transition the LAME licences from the CAR 31 system to the CASR Part 66 system as an equivalent privilege licence CASA also needed to adopt a system of "exclusions" that could be applied to a licence.

Additionally, at the same time the licence system was converted, the regulations also reduced the weight limit for a large aircraft that required a specific type rating to 5,700 kg. This removed a number of aircraft types from the "group" ratings system – aircraft that CASA's predecessors had, based on experience, actually removed from specific type ratings.

This new system had the unfortunate effect of immediately adding a large amount of data to engineer's licences and also a large amount of exclusions. Understandably this has led to considerable confusion amongst LAMEs, particularly those that predominantly held licences with group ratings that mainly service the general aviation and aerial work, and the non airline sectors of aviation. Small airline aircraft were also covered by the 'group' ratings.

To overcome this confusion and to return to a licence with limitations stating what privileges the licence covers and to better explain the scope of a licence rating, AMROBA, concentrating on the non airline MRO sector developed this proposal.

This proposal seeks to provide a solution by creating a licence rating system suitable for the Australian aviation environment whilst still following the ICAO licensing requirements and maintaining the CASR Part 66 A, B and C structure.

The goal of this proposal is to produce a licence system that is simple to understand, simple to add additional scope (rating) and meets the needs of the non major airline aviation sector. This proposal makes no attempt or recommendations to change the current licence structure for RPT aircraft or those that would have been previously Type Rated Group 20/22.

In simple terms this proposal uses the framework provided by the CASR Part 66 A, B and C categories and provides for maintenance certification of aircraft and aircraft systems and sub-systems of those base categories. In essence an alignment of proposed CAR 31 group ratings beneath the respective B1 and B2 categories.

The authors are cognisant of a large section of the non airline sectors that would prefer a straight reversion to the CAR 31 licensing system, and it would be tempting and popular to make a proposal along those lines. However, this would be an overly simplistic approach in that there were identified problems with the CAR 31 system that needed to be addressed; e.g., within several areas of avionic coverage, new technologies had not been included in the scope of group ratings. The proposed avionic groups include these new technologies.

This is a very real opportunity to reform, simplify and improve the licence system for non airline aircraft maintenance. This proposal does not include the use of the category C licence rating in the non airline sector but recognises that it could be used for a chief engineer rating. Currently there is no CASA approved chief engineer training course to underpin the position of chief engineer/engineering manager in the non airline sectors.

It is essential, as part of this licence reform process, that the ICAO requirements for licensing and privileges are thoroughly understood and incorporated as the basis of the licence structure for the non airline sectors.

This proposal will address identified shortcomings with the current non airline aircraft maintenance engineer licence structure and put forward recommendations to ensure ICAO compliance is front and centre of the licence. The authors cannot stress how important ICAO compliance is for the viability of industry sectors that interact with international markets.

The proposal will also provide this industry with national vocational education training standards developed and provided by recognised training organisations under the national vocational education training regulator (NVR).

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BACKGROUND

ICAO ANNEX 1 COMPLIANCE – INDUSTRY PERSPECTIVE

ICAO Annex 1, Chapter 4 privileges

4.2.2. Privileges of the holder of the licence and the conditions to be observed in exercising such privileges

4.2.2.1. Subject to compliance with the requirements specified in 4.2.2.2 and 4.2.2.3, the privileges of the holder of an aircraft maintenance licence **shall** be to **certify the aircraft or parts of an aircraft as airworthy after** an authorised repair, modification or installation of a powerplant, accessory, instrument, and/or item of equipment, and to **sign a maintenance release** following inspection, maintenance operations and/or routine servicing.

The Annex 1 'privileges' are further limited by 4.2.2.2.

4.2.2.2. The privileges of the holder of an aircraft maintenance licence specified in 4.2.2.1 **shall** be exercised only:

- a) in respect of such:
 - 1) aircraft as are entered on the licence in their entirety either specifically or under broad categories; or
 - 2) airframe **and** powerplants **and** aircraft systems or components as are entered on the licence specifically or under broad categories, and/or
 - 3) aircraft avionic systems or components as are entered on the licence either specifically or under broad categories;
- b) **provided** the licence holder **is familiar with** all the relevant information relating to the maintenance and airworthiness of the particular aircraft for which the licence holder is **signing a** Maintenance Release, or such airframe, powerplant, aircraft system or component and avionic system or component which the licence holder is **certifying airworthy**; and
- c) **on condition that**, within the preceding 24 months, the licence holder has **either** had **experience in** the inspection, servicing or maintenance of an aircraft or components in accordance with the privileges granted by the licence held for not less than six months, or has met the provision for the issue of a licence with the appropriate privileges, to the satisfaction of the Licensing Authority .

Privileges and Scope

Under ICAO the privileges of the licence are to "certify" as airworthy after a repair, modification, engine installation etc has been carried out and to sign a maintenance release.

The scope of the ICAO licence privileges are the aircraft, airframes, powerplants, aircraft or avionic systems or components that are entered on the licence.

The conditions of exercising the privileges within the scope of the licence are that the licence holder is familiar with all the relevant information in relation to maintenance and airworthiness and that they have had at least 6 months experience in the inspection, servicing or maintenance of an aircraft or aircraft components.

This proposal supports continuation of the Part 66 B1/B2 concept but limits the licence to specified "group" ratings similar to those of the CAR31 licence ratings based on the needs of the various sectors of the non airline sectors.

Currency

To be compliant with ICAO, a LAME must retain experience in the issue of a certificate of release to service and to also airworthy stage maintenance, etc. iaw the ICAO Annex requirements. Though the making of maintenance task certifications is not an Annex 1 LAME 'privilege', it is an acceptable practice used by many countries. E.g. the FAA A&P mechanic.

The preferred option is that the CASR is read as 6 months experience in inspection, servicing or maintenance of an aircraft or components which includes comparative work such as planners, managers, supervisors, auditors, etc. Basically, retaining what was in place as closely as possible.

CASA should reprint this Annex standard paragraph in the Part 66 MoS. The two Annex "privileges" require currency to maintain proficiency. The Annex 1 'privileges' are further limited by paragraph 4.2.2.2., to ensure relevant currency and experience.

B1/B2 Delineation

The Part 66 licence is very different to the CAR31 licence as it has added "maintenance certifications" instead of "completion of maintenance" privileges. This change has been taken into account in this proposal by expanding the ATA Chapter to include sub chapters assignment of prime responsibility of the B1 and/or B2 licence holder.

This provides more clarity for licence holders whilst recognising that there will always be areas of maintenance where either the B1 or B2 can perform the maintenance and sign for performing that maintenance.

This proposal addresses these issues and provides clarity to bring about a safer aircraft maintenance culture for this sector of aviation.

PROPOSAL FOR REMOVAL OF EXCLUSIONS

This proposal will remove confusion and provide AME licences that tell the holder what he/she can do, whilst remaining ICAO compliant. This can be done by complying with the ICAO requirements whilst not losing the Part 66 regulatory change to a full avionic [B2] and mechanical [B1] licence as had been proposed for many years.

CASA and industry now understand that the previous AME licence group rating was more workable as an ICAO compliant licence for this sector than the current licence format with exclusions. ICAO states the licence issued by the State should prescribe what the “scope” of the privileges is in terms of complexity or by reference to another document. Australia has traditionally promulgated the ‘scope’ of the licence by reference to the CAOs.

ICAO Annex 1, 4.2.2.3. A Contracting State **shall** prescribe the scope of the privileges of the licence holder in terms of complexity of the tasks to which the certification relates.

4.2.2.3.1. **Recommendation.**— *details of the certification privileges **should** be endorsed on or attached to the licence, either directly or by reference to another document issued by the Contracting State.*

Solution:

A simple way for CASA to meet these requirements is to endorse the licence with a reference to the Part 66 MoS.

This proposed “group” rating system can provide positive ‘limitations’ for a licence without the need for the current exclusions.

The non airline sectors were conventionally based on “group” ratings and holders understood the boundaries of the ‘scope’ of those group ratings although there were some issues within this system regarding non standardisation of application by CASA staff and holders.

In addition, B1 ‘specific ratings’ now apply to > 5700Kgs therefore, it is not completely practical to implement the previous ‘group’ system as Part 66 increased the specific aircraft/systems ratings to cover > 5700Kgs aircraft.

Preferably, CASA could once again identify non complex type rated aircraft above 5700Kg in the MoS that could be certified with a group based licence.

The ‘scope’ of each of the proposed groups is based closely on the previous groups except some of the ‘minor’ problems are eradicated where issues with interpretation of the CAO 100.90 series privileges caused confusion, mainly in remote and rural Australia.

Clarification of Rating Scope:

To eliminate perceived 'demarcation' matters, it is recommended alignment with the full ATA chapter system is the preferred method. Task related issues of the past can be eliminated by showing the prime responsibility within an ATA Chapter or Subchapter and, when applicable, the other category as secondary responsibility. Where no secondary maintenance certification privileges exist, then there are no secondary privileges.

An initial draft ATA chapter, including sub chapters, is documented in this proposal at Appendix A. Appendix B lists a past AEA project to align ATA responsibilities within the B2 category. The CASA Part 66 MoS ATA is also referenced at Appendix C.

This proposal addresses the difference between the Part 66 licences issued based on achieving a competency based academic standard and the previous CAR31 experience related licence rating system. To implement this proposal there is an assumption that previous formal training was recognised in the CAOs by the breadth of cross category privileges that were allowed to the airframe, engine, electrical, instrument and radio ratings.

We also recommend that CASA should not issue an initial licence until the applicant has completed the same period of experience as EASA post obtaining the academic qualifications.

PROPOSED PART 66 GROUP RATING DEFINITIONS

The proposed reintroduction of group ratings to CASR Part 66 for the non airline sectors will provide the industry with improved skills associated with each group rating. This will meet the demand of employers as well providing flexibility to the licensed aircraft maintenance engineer who can better manage their qualifications and careers. Part 66 B1/2 retained.

The proposed group ratings apply to both avionic and mechanical categories and are based on providing aircraft maintenance engineers with qualification electives that individuals can select to manage their career paths and obtain CASA AME licences and ratings.

The three proposed groups, A, B & C, apply to both the avionic and mechanical categories. The purpose is to provide the initial LAME, a Group A rating. The scope of each rating provides basic aircraft system skills to obtain employment in the non airline sector. Group A is not intended for in-depth base maintenance, major repairs and modifications.

For example, a minimum training package would encapsulate all competencies associated with the Group A rating to provide a basic systems based LAMEs. To meet employer demand the Group A would add at least one sub group from Group B. The charts show a sub group in Group B as mandatory as an example. In addition, the employer may identify additional sub groups that they need the LAME to hold to support their business. These sub groups are added to the training package so the LAME holds the appropriate skills needed by the employer. The LAME could also add electives to improve his/her chances of employment.

EACH GROUP IS DEFINED BELOW.

Group A: This is a basic avionic or mechanical systems licence of basically stand alone avionic and/or mechanical systems that are fundamental for the maintenance of aircraft. The listing of systems covered by this group is in chart 1 for mechanical and chart 2 for avionics.

Group B: This group adds complexity to Group A that enables more complex systems and structures to be maintained. Within the group there are basically three sub groups that are provided as electives. These additional maintenance classifications include more integrated and automated type aircraft/avionic systems requiring additional skills to perform maintenance. For example, in the mechanical field it enables structural maintenance to be performed and, in the avionic field, integrated avionic systems. The listing of systems covered by this group is in chart 1 for mechanical and chart 2 for avionics.

Group C: This group adds more complex systems to Group A that are associated with more complex aircraft. In addition, Group B elective classifications may need to be held to underpin some of the Group C electives. This enable LAMEs to obtain qualifications that also meet individual employer needs or improves employability prospects.

TRANSITION

Chart 3 lists where CAO 100.90 series groups would transition to each proposed group or sub group. What is important to recognise is that a LAME holding a new group or sub group may have a limitation by reference to the CAO 100.90 series groups. To remove any Limitation that references previous group rating[s] held, Manufacturing Skills Australia will need to develop bridging training packages if new training is required or CASA to provide LAME examinations to cover the subject matter not covered by previous ratings. Alternatively, RTOs could provide bridging training to meet local needs.

FUTURE TRAINING

Some changes may be needed to the MSA competencies and this should be part of the normal improvement program. It may take a 5 to 10 year program to transition those that want to remove limitations from their AME licences. Some of this should be done by assessment guidelines promulgated by CASA to obtain a national standard.

This proposal will meet the variable needs of specific employers if they specialised in wood, composite or metal aircraft base maintenance. Avionic employers can also identify the skill base needed to meet their business needs.

Some electives will be post initial training and the costs will be on the employer and individual.

It is also important to read these tables in conjunction with the ATA table at Appendix A. The ATA table needs further refinement if CASA accepts this proposal.

The ATA table at Appendix A provides greater clarity than the current Part 66 MoS Table 1. In addition, using the 'group' rating system makes it easier for CASA to determine aircraft above 5700Kg to be non complex therefore it is proposed that maintenance certifications could be made by 'group' rated LAMEs.

These proposed 'groups' will support the non airline sectors, including historical and ex-military aircraft, and enable training packages to meet the needs of the non airline MRO industry.

Proposed Non Airline Group Rating System	
Aircraft Type	Specific aircraft type training – may also apply to a Group A, B, C LAME
Diploma	Additional electives to obtain a Diploma
Group C rating	These are electives that are added or done post initial training
Group B ratings	At least one elective from this level required as part of basic training
Group A rating	This is a basic non airline licence that enables the majority of maintenance of VFR type FAR Part 23 type aircraft

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

Chart 1					
Mechanical Aircraft Maintenance Engineer Proposal					
Ratings ↓→	Specific Aircraft Ratings (Aircraft &/or Engine)				
Diploma →	Additional modules to achieve diploma.				
Groups ↓	Mandatory/Elective Sub Groups				Limitations
Group C Systems Electives	1 Hydraulics	2 Pressurisation	3 Airconditioning	4 Turbine Engines	Group Ratings <i>Limitation is previous CAO100.90 series rating identifiers.</i> Group A is the initial Part 66 licence group rating.
Group B Structures Electives	1 Metal (e.g. mandatory)	2 Composite		3A Wood 3B Fabric	
Group A General	General airframe/piston engine systems including minor repairs, modifications, etc (mandatory)				
Part 66	B1.1	B1.2	B1.3	B1.4	

e.g. Sample B1.1 Grps A, B1, C1, 2 & 4, P&W PT6

B1.2 Grps A, B1, B3A.

Limitations, if applicable: add CAO 100.90 series Group ratings that are within the scope of the above group ratings. Limitation is what you do have, not an exclusion system.

Chart 2					
Avionics Aircraft Maintenance Engineer Licence Proposal					
Ratings ↓→	Specific Aircraft Avionic Ratings				
Diploma →	Additional modules to achieve diploma.				
Groups ↓	Mandatory/Elective Sub Groups				Limitations
Group C Systems Electives	1 Pulse Radar, Doppler, Radalt, DME, Traffic, TCAS.	2 Flight Guidance EFIS, FMS, INS, FD		3 Environmental Air Conditioning/Heating, Oxygen, Pressurisation	Group Ratings <i>Limitation is previous CAO100.90 series rating identifiers.</i>
Group B Advanced Electives	1 Advanced Electrical Multi Generator DC & AC Systems (includes multi bus distribution) & Advanced Electrical systems. (e.g. mandatory)	2 Advanced/Integrated HF, Audio, GPS (Integrated), TAWS, NAV, IFE, FDR, CVR, ADC, Remote Comp, Advanced Instrument and all basic avionics.		3A Autopilot Aeroplane 3B Autopilot Rotorcraft	
Group A General	General avionic stand alone systems VHF, UHF, ICS, Audio, Nav, ADF, TXP(ADSB & Mode S), GPS(Stand alone), Press/Vac Insts, Eng Ind, Single DC Elect (mandatory)				Group A is the initial Part 66 licence group rating.
Part 66	B2				

All current avionic LAMEs would transition at advanced levels.

Current avionic LAMEs should all hold Group A; B1, 2 & 3A/3B, and C1, 2 & 3 even if each group is limited to previous CAR31 Groups.

Any limitation shown on licence as previous rating held – e.g. B2, Group A, B1 & 2, with Limitations Elect G 1, Inst G 1, 3, 5, etc. Limitation restricts Part 66 to previous licence ratings.

Most Avionic LAMEs should have a small number of limitations.

Gap training/examination is essential for both avionic and mechanical training.

Many have had the training, only need to do the examination or competency assessment.

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

The chart below lists previous CAO100.90 series ratings.

Chart 3		
CAR 31 Group Ratings	Transitions to	Limitation Sample
Group 1 - Aeroplane Airframe Systems	B1.1/2 Groups A, B1	No Eng, limitation A/F G1
Group 2 - Helicopter Airframe Systems	B1.3/4 Groups A, B1	No Eng, limitation A/F G2
Group 3 - Wooden structures	Group B3A	No Eng, limitation A/F G1, 3
Group 4 - Fabric Covering	Group B3B	No Eng, limitation A/F G1, 4
Group 5 - Power Driven Fluid Systems	Group C1	No Eng, limitation A/F G1, 5
Group 6 - Airconditioning Systems	Group C3	No Eng, limitation A/F G1, 6
Group 7 - Composite Aircraft	Group B2	No Eng, limitation A/F G1, 7
Group 10 - Pressurisation Systems	Group C2	No Eng, limitation A/F G1, 10
Group 19 - Helicopter Airframe Systems	Groups A, B1, C1	No Eng, limitation A/F G2, 19
Group 1 - Piston Engines and Systems Aeroplanes	B1.2 Group A	No A/F B1.2 limitation Eng G1
Group 2 - Piston Engines and Systems Rotorcraft	B1.4 Group A	No A/F, B1.4 limitation Eng G2
Group 3 - Supercharging Systems	B1.2 Group A	No A/F B1.2 limitation Eng G3
Group 1 - Communications Systems	B2 Group A,	Only Group,B2 limitation Rad G1
Group 2 - Audio CVR Systems	B2 Group A, B2	Only Group,B2 limitation Rad G2
Group 3 - ADF Systems	B2 Group A, B2	Only Group,B2 limitation Rad G3
Group 4 - VOR Systems	B2 Group A,	Only Group,B2 limitation Rad G4
Group 5 - ILS Systems	B2 Group A,	Only Group,B2 limitation Rad G5
Group 6 - Weather Radar Systems	B2 Group A,	Only Group,B2 limitation Rad G6
Group 7 - ATC Transponder Systems	B2 Group A,	Only Group,B2 limitation Rad G7
Group 8 - VLF Navigation Systems	Remove	No longer used in aviation
Group 9 - Radio Altimeter Systems	B2 Group A,	Only Group,B2 limitation Rad G9
Group 10 - DME Systems	B2 Group A,	Only Group,B2 limitation Rad G10
Group 11 - Doppler Systems	B2 Group A,	Only Group,B2 limitation Rad G11
Group 12 - Sat Nav Systems	B2 Group A,	Only Group,B2 limitation Rad G12
Group 1 – Aircraft General Instruments	B2 Group A,	Only Group, B2 limitation Inst G1
Group 3 - Autopilots/Flight Directors – Single Axis	B2 Group B3A	Only Group, B2 limitation Inst G3 or 5
Group 5 - Autopilots/Flight Directors – Multi Axis	B2 Group B3A	
Group 7 - Autopilots/Flight Directors – Helicopters	B2 Group B3B	Only Group, B2 limitation Inst G7
Group 8 - Remote Indicating Compass Systems	B2 Group B2	Only Group, B2 limitation Inst G8
Group 9 - Inertial Navigation and Reference Systems	B2 Group C2	Only Group, B2 limitation Inst G9
Group 10 - Pressurisation Systems	B2 Group C3	Only Group, B2 limitation Inst G10
Group 1 Electrical systems in aircraft equipped with single generator power systems.	B2 Group A	Only Group,B2 limitation Elect G 1
Group 2 Electrical systems in aircraft equipped with multi-generator power systems.	B2 Group A, B1	Only Group, B2 limitation Elect G 2
Groups 20, 21	Specific Ratings	A/C 5700Kg to 8000Kgs added to other G20 aircraft.

Moving to this structure as proposed by AEA will enable current LAMEs to fit into each proposed group rating. All would hold Group A limited to CAO 100.90 series E, I and/or R ratings.

Avionic proposed Group B and/or C would also restrict each Group rating to past E, I and/or R.

Assumption is that previous AME training covered most of the competencies so transitional gap training should be available on-line so limitations can be removed.

The biggest benefit to the future aviation non airline sector is the ability for a LAME to hold B1 ratings and also obtain a B2 – Group A rating. This would lift the skill base and improve the quality of the maintenance standards being applied in rural Australia.

Transitional Process.

When Part 66 was introduced, the other categories privileges from the CAOs were included into the Part 66 MoS – a benefit recognised by industry of providing ‘standards’ in the MoS. However, there is still confusion with the wording of the MoS as it appears to state some supported benefits for the non airline LAMEs but lack of standardisation in interpretation has caused confusion. Amending the MoS could clarify these issues. The adoption of the full ATA chart attached will assist in this area.

The transitional provisions actually added to the confusion when a LAME looks at the licence that excludes them from a category and the transitional provisions state that despite what was published in Table 1, a person can perform maintenance in categories that also are exclusions on their licence. The licence does not refer to the Part 66 MoS. This is an issue that can be rectified without too much problem when licences are re-issued to implement “group” ratings.

For any such system to work in the non airline sectors there must be recognition of the need for both the avionic and mechanical categories to be able to perform minor maintenance tasks in each others category so that effective and efficient maintenance can be carried out.

To ensure clarification is available in the cross category privileges, it is proposed that representatives of AEA & AMROBA be co-opted by CASA as part of a CASA/Industry committee to develop very clear cross category delineations that will work within the non airline maintenance system.

This will enable CASA to promulgate cross category privileges that will enable a safer environment for the future of aviation maintenance. This must be based on a vision for the future base on the current proposed training as being formulated by MSA for the non airline sectors.

Assistance of AEA and AMROBA to streamline a transitional process to adopt this group rating system will also assist CASA managing the change process in a manner that industry can meet their obligations. This is essential considering the confusion the industry currently is trying to manage.

This proposal enables a building block approach to training.

Transitional Provisions Comparison.

Basically, none of the provisions included in the CASR Part 66 MoS and EASA Part 66 privileges provide the clarity that is needed to remove the current confusion. The following show the differences between CASA, EASA, approaches to cross category privileges.

Current Part 66 Transitional privileges

Despite Table 1 and the exclusions annotated on a licence issued under Part 66 of CASR 1998, and to be without doubt:

1. a person who held an aircraft maintenance engineer licence under regulation 31 of CAR 1988 to which regulation 202.341 applies; or
2. a person who, in accordance with subregulation 202.343 (2) or 202.344 (2), is taken to be entitled to the issue of an aircraft maintenance engineer licence:
 - (1) by previously holding, or becoming qualified for, an engine category *GROUP* 1 or 2 rating, or an airframe category *GROUP* 1, 2 or 19 rating, may perform maintenance certifications and issue certificates of release to service in relation to any of the following kinds of maintenance to which that licence or rating applied or would have applied:
 - (A) *FOR A CATEGORY B1 LICENCE, ON AIRCRAFT:*
 - (I) *FITTED WITH A SINGLE GENERATOR; AND*
 - (II) *APPROVED ONLY FOR V.F.R. OPERATIONS;*
 - ALL ELECTRICAL MAINTENANCE;*
 - (B) *FOR A CATEGORY B1 LICENCE, ON AIRCRAFT APPROVED ONLY FOR V.F.R. OPERATIONS:*
 - (I) *FOR AIRCRAFT GENERAL INSTRUMENTS (EXCLUDING RMI, INERTIAL NAVIGATION AND MULTI-AXIS AUTOPILOTS), ALL INSTRUMENT SYSTEM MAINTENANCE; AND*
 - (II) *FOR AIRCRAFT RADIO SYSTEMS, PERIODIC INSPECTIONS;*
 - (2) by previously holding, or becoming qualified for, an engine or airframe category rated licence, may perform maintenance certifications and issue certificates of release to service in relation to any of the following kinds of maintenance to which that licence and rating applied:
 - (A) *FOR A CATEGORY B1 LICENCE, FOR STRUCTURAL, POWERPLANT, MECHANICAL, ELECTRICAL AND AVIONIC SYSTEMS ON AIRCRAFT COVERED BY THE LICENCE:*
 - (I) *DAILY OR MANUFACTURERS' EQUIVALENT INSPECTION; AND*
 - (II) *CHECK OF THE CONDITION OF SECURITY OF ATTACHMENT OF WIRING, PLUMBING, PARTS AND APPLIANCES; AND*
 - (III) *MAINTENANCE OF INSTRUMENT, OR ELECTRICAL, PARTS AND APPLIANCES FORMING PART OF THE POWERPLANT, MECHANICAL OR STRUCTURAL SYSTEMS, WHERE THE MAINTENANCE:*
 - A. *IS LIMITED TO EXTERNAL MECHANICAL ADJUSTMENTS TO FACILITATE CORRECT OPERATION OF POWERPLANT OR MECHANICAL OR STRUCTURAL SYSTEMS; OR*
 - B. *IS LIMITED TO REPLACEMENT OF INSTRUMENT, OR ELECTRICAL, PARTS AND APPLIANCES, CONNECTED BY SIMPLE TWIST OR TERMINAL CONNECTORS; AND*
 - C. *EXCLUDES INSTRUMENT OR ELECTRICAL PARTS AND APPLIANCES, WHERE MAINTENANCE INVOLVES FUNCTIONAL TESTS AND ADJUSTMENTS REQUIRING THE USE OF EXTERNAL SPECIALISED TEST EQUIPMENT.*

EASA AME Licence Privileges

- (a) Subject to compliance with paragraph (b), the following privileges shall apply:
1. A category A PART-66 /JAR-66 Aircraft Maintenance License permits the holder to issue certificates of release to service following minor scheduled line maintenance and simple defect rectification within the limits of tasks specifically endorsed on the authorization. The certification privileges shall be restricted to work that the Licence holder has personally performed in a Part-145 organization.
 2. A category B1 PART-66 /JAR-66 Aircraft Maintenance License shall permit the holder to issue certificates of release to service following maintenance, including aircraft structure, powerplant and mechanical and electrical systems. Replacement of avionic line replaceable units, requiring simple tests to prove their serviceability, shall also be included in the privileges. Category B1 shall automatically include the appropriate A subcategory.
 3. A category B2 PART-66 /JAR-66 Aircraft Maintenance License shall permit the holder to issue certificates of release to service following maintenance on avionic and electrical systems.
 4. A category C PART-66 /JAR-66 Aircraft Maintenance Licence shall permit the holder to issue certificates of release to service following base maintenance on aircraft. The privileges apply to the aircraft in its entirety in a Part-145 organization.
- (b) The holder of a PART-66 /JAR-66 Aircraft Maintenance License may not exercise certification privileges unless:
1. in compliance with the applicable requirements of Part-M and/or Part-145.
 2. in the preceding two-year period he/she has, either had six months of maintenance experience in accordance with the privileges granted by the PART-66 /JAR-66 Aircraft Maintenance Licence or, met the provision for the issue of the appropriate privileges.
 4. he/she is able to read, write and communicate to an understandable level in the language(s) in etc, etc.

CONCLUSIONS

It is accepted that CASR Part 66 and Part 42 has implemented a licensing system more akin to the FAA's A&P mechanic licensing system – i.e. 'maintenance task' certification and signing the release to service. The outcome of current training under the CASRs is providing LAMEs that are, under CARs, able to certify maintenance tasks either as an independent LAME or working for a CASR Part 145 AMO & CAR 30 AMO until the CARs are repealed.

What the non airline MRO industry needs is a LAME that can certify that the aircraft conforms to its design standards post maintenance. To do this, regulatory demarcation must be kept to a minimum.

B2 Avionic Systems	B1/B2 Multi-group Tasks	B1 Mechanical
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Utilisation of the full ATA system better identifies category responsibilities than the current wording in most regulatory systems.

However, the return to 'group' ratings will provide the non airline sectors with LAMEs skilled in the kinds of aircraft that employers are maintaining and training can be tailored to match the sectors.

One of the biggest problems is advertising for the appropriate rated LAMEs for this industry.

This proposal will enable the employer, for example, to advertise for:

Aeroplane:

B1.1 Group A, + (add B/C groups) & (engine specific rating)

B1.2 Group A, + (add B/C groups)

Rotorcraft:

B1.3 Group A, + (add B/C groups) & (engine specific rating)

B1.4 Group A, + (add B/C groups)

Avionics:

B2 Group A, + (add B/C groups).

CASA NB: Licence Issue Date Concern:

From an employer's perspective, the licence "issue date" should be the date the licence, in whatever format, was first issued by CASA or its predecessors.

Having the 'initial issue date' on the licence immediately informs an employer of the LAME's years of experience. It prevents wasteful time when reviewing job applications. It also conforms to foreign licence holders applying for jobs in Australia via the internet who email copies of their licence – they also have initial issue date on the licence.

In conclusion, a return to group ratings, referenced in the Part 66 MoS for licence/rating limitations, utilisation of the full ATA system for maintenance certification privileges, and including the initial issue date on the licence will provide the non airline sector with AME licences that will be better understood and relate to their employable skills.

Adoption of these proposed changes will be beneficial to the non airline sectors.

ATA Allocation of LAME Category Responsibilities – Avionic (B2) / Mechanical (B1) (Responsibilities/Conditions can be expanded in conjunction with CASA)					
Chapter	Sub Chapter & Title.		Responsibilities	MoS	Condition
00	Introduction				
01	Operations Information				
05	Periodic Inspections				
	00	General	RO/B1		
	10	Time Limits	RO/B1		
	20	Scheduled Maintenance Checks	RO/B1/B2		
	30	[As Required]			
	40	[As Required]			
	50	Unscheduled Maintenance Checks	RO/B1/B2		
06	Dimensions & Areas				
07	Lifting & Shoring				
	00	General	B1		
	10	Jacking	B1		
	20	Shoring	B1		
08	Levelling & Weighing				
	00	General	B1		
	10	Weighing & Balancing	B1		
	20	Levelling	B1		
09	Towing & Taxiing				
	00	General	B1		
	10	Towing	B1		
	20	Taxiing	B1		
10	Parking, Mooring, Storage & Return To Service				
	00	General	B1		
	10	Parking / Storage	B1/B2		
	20	Mooring	B1		
	30	Return To Service	B1/B2	B1/B2	B1 Aircraft/B2 System
11	Placards & Markings				
	00	General	B1		
	10	Exterior Colour Schemes & Markings	B1		
	20	Exterior Placards & Markings	B1		
	30	Interior Placards	B1		
12	Servicing Routine Maintenance				
	00	General	B1		
	10	Replenishing	B1		
	20	Scheduled Servicing	B1		
	30	Unscheduled Servicing	B1		
18	Vibration & Noise Analysis (Helicopter Only)				
	00	General	B1		
	10	Vibration Analysis	B1		
	20	Noise Analysis	B1		
GROUP DEFINITION - AIRFRAME SYSTEMS					
20	Standard Practices - Airframe		B1/B2		
21	Air Conditioning				
	00	General	B1/B2	B1	
	10	Compression	B1	B1	
	20	Distribution	B1	B1	
	30	Pressurisation Control	B1/B2	B1	B2 Press Control

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

	40	Heating	B1	B1	
	50	Cooling	B1	B1	
	60	Temperature Control	B1/B2	B1	B1 components
	70	Moisture / Air Contaminant Control	B1/B2	B1	B2 control systems
	97	Wiring Discrepancies	B2/B1		Major/Minor
22	Auto Flight				
	00	General	B2	B2	
	10	Autopilot	B2	B2	
	20	Speed - Attitude Correction	B2	B2	
	30	Auto Throttle	B2/B1	B2	B1 components
	40	System Monitor	B2	B2	
	50	Aerodynamic Load Alleviating	B2	B2	
	97	Wiring Discrepancies	B2		Major/Minor
23	Communications				
	00	General	B2	B2	
	10	Speech Communications	B2	B2	
	15	SATCOM	B2	B2	
	20	Data Transmission & Automatic Calling	B2	B2	
	30	Passenger Address, Entertainment, & Comfort	B2	B2	
	40	Interphone	B2	B2	
	50	Audio Integrating	B2	B2	
	60	Static Discharging	B2/B1	B2	
	70	Audio & Video Monitoring	B2	B2	
	80	Integrated Automatic Tuning	B2	B2	
	97	Wiring Discrepancies	B2	B2	Major/Minor
24	Electrical Power				
	00	General	B1/B2	B2 B1	
	10	Generator Drive	B1/B2	B2 B1	
	20	AC Generation	B1/B2	B2 B1	
	30	DC Generation	B1/B2	B2 B1	
	40	External Power	B2	B2 B1	
	50	AC Electrical Load Distribution	B2	B2 B1	
	60	DC Electrical Load Distribution	B2	B2 B1	
	70	Primary & Secondary Power	B2	B2 B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
25	Equipment / Furnishings				
	00	General	B1/B2	B1	
	10	Flight Compartment	B1/B2	B1	
	20	Passenger Compartment	B1/B2	B1	
	30	Buffet / Galley	B1/B2	B1	
	40	Lavatories	B1/B2	B1	
	50	Cargo Compartments	B1/B2	B1	
	60	Emergency	B2/B1	B2	Avionic controls
	70	Accessory Compartments	B1/B2	B1	
	80	Insulation	B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
26	Fire Protection				
	00	General	B1/B2	B1	
	10	Detection	B2/B1	B1	
	20	Extinguishing	B1/B2	B1	
	30	Explosion Suppression	B1/B2	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
27	Flight Controls				
	00	General	B1/B2	B1	

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

	10	Aileron & Tab	B1	B1	
	20	Rudder & Tab	B1	B1	
	30	Elevator & Tab	B1	B1	
	40	Horizontal Stabilizer / Stabilators	B1	B1	
	50	Flaps	B1	B1	
	60	Spoiler, Drag Devices & Variable Aerodynamic Fairings	B1	B1	
	70	Gust Lock & Damper	B1	B1	
	80	Lift Augmenting	B1	B1	
	97	Wiring Discrepancies	B2/B1		
		Fly by Wire	B2/B1	B2	Avionic controls
28	Fuel				
	00	General	B1	B1	
	10	Storage	B1	B1	
	20	Distribution - Drain Valves	B1	B1	
	30	Dump	B1/B2	B1	
	40	Indicating	B2/B1	B2	
29	Hydraulic Power				
	00	General	B1	B1	
	10	Main	B1	B1	
	20	Auxiliary	B1	B1	
	30	Indicating	B2/B1	B2	
	97	Wiring Discrepancies	B2/B1		Major/Minor
30	Ice & Rain Protection				
	00	General	B1	B1	
	10	Airfoil	B1	B1	
	20	Air Intakes	B1	B1	
	30	Pitot & Static	B2	B2	
	40	Windows, Windshields, & Doors	B1/B2	B1	
	50	Antennas & Radomes	B1/B2	B1	
	60	Propellers / Rotors	B1	B1	
	70	Water Lines	B1	B1	
	80	Detection	B2/B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
31	Indicating / Recording Systems				
	00	General	B2	B2	
	10	Instrument & Control Panels	B2	B2	
	20	Independent Instruments	B2	B2	
	30	Recorders	B2	B2	
	40	Central Computers	B2	B2	
	50	Central Warning Systems	B2	B2	
	60	Central Display Systems	B2	B2	
	70	Automatic Data Reporting Systems	B2	B2	
	97	Wiring Discrepancies	B2	B2	Major/Minor
32	Landing Gear				
	00	General	B1	B1	
	10	Main Gear & Doors	B1	B1	
	20	Nose Gear / Tail Gear & Doors	B1	B1	
	30	Extension & Retraction	B1	B1	
	40	Wheels & Brakes	B1	B1	
	50	Steering	B1	B1	
	60	Position and Warning	B2/B1	B2/B1	
	70	Supplementary Gear	B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
33	Lights				
	00	General	B2/B1	B1 B2	

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

	10	Flight Compartment	B2/B1	B1 B2	
	20	Passenger Compartment	B2/B1	B1 B2	
	30	Cargo & Service Compartments	B2/B1	B1 B2	
	40	Exterior Lighting	B2/B1	B1 B2	
	50	Emergency Lighting	B2		
	97	Wiring Discrepancies	B2/B1		Major/Minor
34	Navigation				
	00	General	B2	B2	
	10	Flight Environment Data	B2	B2	
	20	Attitude & Direction	B2	B2	
	30	Landing & Taxiing Aids	B2	B2	
	40	Independent Position Determining	B2	B2	
	50	Dependent Position Determining	B2	B2	
	60	Flight Management Computing	B2	B2	
	97	Wiring Discrepancies	B2		Major/Minor
35	Oxygen				
	00	General	B1/B2	B1	
	10	Crew	B1/B2	B1	
	20	Passenger	B1/B2	B1	
	30	Portable	B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
36	Pneumatic				
	00	General	B1/B2	B1	
	10	Distribution	B1/B2	B1	
	20	Indicating	B2/B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
37	Vacuum				
	00	General	B1		
	10	Distribution	B1/B2		
	20	Indicating	B2/B1		
	97	Wiring Discrepancies	B2/B1		
38	Water / Waste				
	00	General	B1	B1	
	10	Potable	B1	B1	
	20	Wash	B1	B1	
	30	Waste Disposal	B1	B1	
	40	Air Supply	B1/B2	B1	
39	Electrical Electronic Panels & Multipurpose Compartments - UNASSIGNED 2006				
	00	General	B2		
	10	Instrument & Control Panels	B2		
	20	Electrical & Electronic Equipment Racks	B2		
	30	Electrical & Electronic Junction Boxes	B2		
	40	Multipurpose Electronic Components	B2		
	50	Integrated Circuits	B2		
	60	Printed Circuit Card Assemblies	B2		
41	Water Ballast				
	00	General	B1		
	10	Storage	B1		
	20	Dump	B1/B2		
	30	Indication	B2/B1		
42	Integrated Modular Avionics				
	00	General	B2	B2	
	20	Core System	B2	B2	
	30	Network Components	B2	B2	
44	Cabin Systems				

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

	00	General	B2	B2	
	10	Cabin Core System	B2	B2	
	20	Inflight Entertainment System	B2	B2	
	30	External Communication System	B2	B2	
	40	Cabin Mass Memory System	B2	B2	
	50	Cabin Monitoring System	B2	B2	
	60	Miscellaneous Cabin System	B2	B2	
	97	Wiring Discrepancies	B2	B2	Major/Minor
45	Central Maintenance System (CMS)				
	00	General	B2/B1	B2	
	05	CMS / Aircraft General	B2/B1	B2	
	19	CMS / Aircraft General	B2/B1	B2	
	20	CMS / Airframe Systems	B2/B1	B2	
	44	CMS / Airframe Systems	B2/B1	B2	
	45	Central Maintenance System	B2/B1	B2	
	50	CMS / Structures	B2/B1	B2	
	59	CMS / Structures	B2/B1	B2	
	60	CMS / Propellers	B2/B1	B2	
	69	CMS / Propellers	B2/B1	B2	
	70	CMS / Power Plant	B2/B1	B2	
	89	CMS / Power Plant	B2/B1	B2	
	97	Wiring Discrepancies	B2/B1	B2	Major/Minor
46	Information Systems				
	00	General	B2	B2	
	10	Airplane General Information Systems	B2	B2	
	20	Flight Deck Information Systems	B2	B2	
	30	Maintenance Information Systems	B2	B2	
	40	Passenger Cabin Information Systems	B2	B2	
	50	Miscellaneous Information Systems	B2	B2	
47	Inert Gas System				
	00	General	B1/B2	B1	
	10	Generation/Storage	B1/B2	B1	
	20	Distribution	B1	B1	
	30	Control	B1/B2	B1	
	40	Indicating	B2/B1	B2	
49	Airborne Auxiliary Power				
	00	General	B1	B1	
	10	Power Plant	B1	B1	
	20	Engine	B1	B1	
	30	Engine Fuel & Control	B1/B2	B1	
	40	Ignition / Starting	B2/B1	B1	
	50	Air	B1	B1	
	60	Engine Controls	B1	B1	
	70	Indicating	B2/B1	B1	
	80	Exhaust	B1	B1	
	90	Oil	B1	B1	
50	Cargo and Accessory Compartments				
	00	General	B1	B1	
	10	Cargo Compartments	B1/B2	B1	
	20	Cargo Loading Systems	B1/B2	B1	
	30	Cargo Related Systems	B1/B2	B1	
	40	Unassigned	B1	B1	
	50	Accessory Compartments	B1	B1	
	60	Insulation	B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

GROUP DEFINITION - STRUCTURES				
51	Standard Practices & Structures General			
	00	General	B1	B1
	10	Investigation, Cleanup & Aerodynamic Smoothness	B1	B1
	20	Processes	B1	B1
	30	Materials	B1	B1
	40	Fasteners	B1	B1
	50	Support of Airplane for Repair & Alignment Check Procedures	B1	B1
	60	Control-Surface Balancing	B1	B1
	70	Repairs	B1	B1
	80	Electrical Bonding	B1	B1
52	Doors			
	00	General	B1	B1
	10	Passenger / Crew	B1	B1
	20	Emergency Exit	B1	B1
	30	Cargo	B1/B2	B1
	40	Service	B1/B2	B1
	50	Fixed Interior	B1	B1
	60	Entrance Stairs	B1/B2	B1
	70	Monitoring & Operation	B2/B1	B1
	80	Landing Gear	B1/B2	B1
53	Fuselage			
	00	General (10 through 90 Fuselage Sections)	B1	B1
	10	Main Frame	B1	B1
	20	Auxiliary Structure	B1	B1
	30	Plates-Skin	B1	B1
	40	Attach Fittings	B1	B1
	50	Aerodynamic Fairings	B1	B1
	60	[As Required]		
	70	[As Required]		
	80	[As Required]		
	90	[As Required]		
54	Nacelles / Pylons			
	00	General	B1	B1
	10	Nacelle	B1	B1
	20	Nacelle	B1	B1
	30	Nacelle	B1	B1
	40	Nacelle	B1	B1
	50	Pylon	B1	B1
	60	Pylon	B1	B1
	70	Pylon	B1	B1
	80	Pylon	B1	B1
55	Stabilizers			
	00	General	B1	B1
	10	Horizontal Stabilizer / Stabilator Or Canard	B1/B2	B1
	20	Elevator	B1	B1
	30	Vertical Stabilizer	B1	B1
	40	Rudder	B1	B1
56	Windows			
	00	General	B1	B1
	10	Flight Compartment	B1/B2	B1
	20	Passenger Compartment	B1	B1
	30	Door	B1	B1

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

	40	Inspection & Observation	B1	B1	
57	Wings				
	00	General	B1	B1	
	10	Center Wing	B1	B1	
	20	Outer Wing	B1	B1	
	30	Wing Tip	B1	B1	
	40	Leading Edge & Leading Edge Devices	B1	B1	
	50	Trailing Edge & Trailing Edge Devices	B1	B1	
	60	Ailerons & Elevons	B1	B1	
	70	Spoilers	B1	B1	
	80	[As Required]			
	90	Wing Folding System	B1/B2		Major/Minor
GROUP DEFINITION PROPELLER / ROTOR					
60	Standard Practices - Propeller / Rotor		B1	B1	
61	Propellers / Propulsion				
	00	General	B1	B1	
	10	Propeller Assembly	B1	B1	
	20	Controlling	B1	B1	
	30	Braking	B1	B1	
	40	Indicating	B1/B2	B1	
	50	Propulsor Duct	B1	B1	
	97	Wiring Discrepancies	B2/B1		
62	Rotors				
	00	General	B1	B1	
	10	Rotor Blades	B1	B1	
	20	Rotor Head(S)	B1	B1	
	30	Rotor Shaft(S) / Swashplate Assembly(ies)	B1	B1	
	40	Indicating	B2/B1		
63	Rotor Drive(s)				
	00	General	B1/B2	B1	
	10	Engine / Gearbox Couplings	B1	B1	
	20	Gearbox(es)	B1	B1	
	30	Mounts, Attachments	B1	B1	
	40	Indicating	B2/B1		
64	Tail Rotor				
	00	General	B1/B2	B1	
	10	Rotor Blades	B1	B1	
	20	Rotor Head	B1	B1	
	30	[Unassigned]			
	40	Indicating	B2/B1		
65	Tail Rotor Drive				
	00	General	B1/B2	B1	
	10	Shafts	B1	B1	
	20	Gearboxes	B1	B1	
	30	[Unassigned]			
	40	Indicating	B2/B1		
66	Folding Blades & Tail Pylon				
	00	General	B1	B1	
	10	Rotor Blades	B1/B2	B1	
	20	Tail Pylon	B1	B1	
	30	Controls & Indicating	B1/B2	B1	
67	Rotors Flight Control				
	00	General	B1	B1	
	10	Rotor Control	B1/B2	B1	
	20	Anti-Torque Rotor Control (Yaw Control)	B1/B2	B1	

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

	30	Servo-Control System	B1/B2	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
GROUP DEFINITION - POWER PLANT					
70	Standard Practices Engine		B1	B1	
71	Power Plant General				
	00	General	B1	B1	
	10	Cowling	B1	B1	
	20	Mounts	B1	B1	
	30	Fireseals	B1	B1	
	40	Attach Fittings	B1	B1	
	50	Electrical Harness	B1/B2	B1	
	60	Air Intakes	B1	B1	
	70	Engine Drains	B1	B1	
72	Engine Turbine/Turboprop, Ducted Fan/Unducted Fan				
	00	General	B1	B1	
	10	(Turboprop &/Or Front Mounted Driven Propulsor)	B1	B1	
	20	Air Inlet Section	B1	B1	
	30	Compressor Section	B1	B1	
	40	Combustion Section	B1	B1	
	50	Turbine Section	B1	B1	
	60	Accessory Drives	B1	B1	
	70	By-Pass Section	B1	B1	
	80	Propulsor Section (Rear Mounted)	B1	B1	
73	Engine Fuel & Control				
	00	General	B1	B1	
	10	Distribution	B1	B1	
	20	Controlling	B1/B2	B1	
		FADEC	B2/B1	B2	
	30	Indicating	B2/B1	B2	
	97	Wiring Discrepancies	B2/B1		Major/Minor
74	Ignition				
	00	General	B1/B2	B1	
	10	Electrical Power Supply	B1/B2	B1	
	20	Distribution	B1/B2	B1	
	30	Switching	B1/B2	B1	
	97	Wiring Discrepancies	B2/B1	B1	Major/Minor
75	Air				
	00	General	B1	B1	
	10	Engine Anti-Icing	B1/B2	B1	
	20	Cooling	B1/B2	B1	
	30	Compressor Control	B1	B1	
	40	Indicating	B2/B1	B1	
76	Engine Controls				
	00	General	B1/B2	B1	
	10	Power Control	B1/B2	B1	
	20	Emergency Shutdown	B1/B2	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
77	Engine Indicating				
	00	General	B2/B1	B1 B2	
	10	Power	B2/B1	B1 B2	
	20	Temperature	B2/B1	B1 B2	
	30	Analysers	B2/B1	B1 B2	
	40	Integrated Engine Instrument Systems	B2/B1	B1 B2	
	97	Wiring Discrepancies	B2/B1	B2	Major/Minor

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

78	Exhaust				
	00	General	B1/B2	B1	
	10	Collector - Nozzle	B1/B2	B1	
	20	Noise Suppressor	B1/B2	B1	
	30	Thrust Reverser	B1/B2	B1	
	40	Supplemental Air	B1/B2	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
79	Oil				
	00	General	B1	B1	
	10	Storage	B1	B1	
	20	Distribution	B1	B1	
	30	Indicating	B2/B1	B1	
	97	Wiring Discrepancies	B2/B1		Major/Minor
80	Starting				
	00	General	B1/B2	B1	
	10	Cranking	B1/B2	B1	
81	Turbines				
	00	General	B1	B1	
	10	Power Recovery	B1	B1	
	20	Turbo-Supercharger	B1	B1	
82	Water Injection				
	00	General	B1	B1	
	10	Storage	B1	B1	
	20	Distribution	B1/B2	B1	
	30	Dumping & Purging	B1	B1	
	40	Indicating	B2/B1		
83	Accessory Gear Boxes				
	00	General	B1	B1	
	10	Drive Shaft Section	B1	B1	
	20	Gear Box Section	B1	B1	
84	Propulsion Augmentation				
	00	General	B1	B1	
	10	Jet Assist Takeoff	B1/B2	B1	
91	Charts		B2/B1	B1 B2	
115	Flight Simulator Systems				
116	Flight Simulator Cuing Systems				

Wiring deficiencies B1 minor maintenance tasks such as security of wiring, maintenance covered by CAO 100.90 privileges, replacement of on/off switches with screw connections not related to navigation systems, etc need to be recognised as acceptable practices.

Whenever an area on confusion is identified, adding or removing a 'condition' to the ATA subchapter will enable CASA a clearer system to remove industry confusion.

Allocation of Avionic Capabilities as developed by AEA.

Avionics Licence	Topics Covered	ATA Chapters Covered	ATA Topic Covered
B2.1 Basic avionics	VHF/UHF/ICS/Audio/Nav/ADF/TXP/GPS/PressVac Insts/Eng Ind/Single DC Elect Basic and not integrated. Stand alone systems.	23.00/.10/.40/.50/.60 24.00/.10/.30/.40/.60 28.40/ 29.30/ 31.00/.10/.20/.50/ 33.00/.10/.20/.30/.40/.50 34.00/.10/.20 37.00/.10/.20 39.00/.10/.20/.30/.40/.50/.60 52.70/ 63.00/.40 64.00/.40 65.00/.40 71.00/.50 74.00/.10/.20/.30 77.00/.20 79.00/.30 80.00/.10	Communications Electrical Power Fuel Hydraulics Indicating and recording Lights Navigation Vacuum Electrical panels, racks, Jboxes, Multipurpose components, Integrated Circuits, Printed CCT Card Assemblies Door Warning Main rotor Drive Tail Rotor Tail Rotor Drive Power Plant (electrical harness) Ignition Engine Indicating (CHT) Oil Starting
B2.2 Advanced Electrical	Multi Generator DC & AC Systems (includes multi bus distribution) & Advanced Elec systems.	24.20/.50 57.00/.90 61.00/.20/.30/.40/. 62.00/.10/.40 63.00/.40 64.00/.40 66.00/.10/.20/.30 73.00/.20/.30 75.00/.10/.20/.40 76.00/.10/.20 78.00/.10/.20/.30/.40 82.20/.30	Electrical power Wings Propellers Rotor Blades Main Rotor Drive Tail Rotor Rotor Blade and Tail Pylon Folding Engine fuel Bleed Air Engine controls Exhaust Water Injection
B2.3 Advanced NAV/COMM/INST	HF/Integrated Audio/GPS/NAV/IFE/FDR/CVR/ADC/Remote Comp/Advanced INST and all basic avionics. (Advanced / Integrated)	23.10/.15/.20/.30/.70/.80 27.00/.10/.20/.30/.40/.50/.60/.70/.80 30.30/.40/.50 31.30/.40/.60/.70 32.00/.30/.40/.60 34.10/.20/.30/.40/.50/.60 36.00/.10/.20 61.00/.20/.30/.40/ 62.00/.10/.40 73.00/.30 75.00/.40 77.10/.20/.30/.40 78.00/.10/.20/.30/.40 82.40/ 91	Communication Flight Controls Ice and Rain Protection Indicating and recording Landing gear Navigation Pneumatic Propellers Main Rotors Engine fuel Bleed Air Engine Indicating Exhaust Water Injection Charts
B2.4 Pulse.	Radar, Doppler, Radalt, DME, Traffic, TCAS, TAWS.	34.00/.40/.50	Navigation
B2.5 Flight Guidance	EFIS, FMS, INS, FD	34.10/.20/.40/.60	Navigation
B2.6 Aeroplane Autopilot	Fixed wing aircraft autopilot	22.00/.10/.20/.30/.40/.50	A/P
B2.7 Helicopter Autopilot	Rotary wing aircraft autopilot	22.00/.10/.20/.30/.40/.50	A/P
B2.8 Environmental	B2.8 Environmental	21.00/.10/.20/.40/.50/.60/.70 35.00/.10/.20/.30 21.30	Air Conditioning/Heating Oxygen Pressurisation

CASR Part 66 MoS Table 1

Aircraft system (and ATA chapter reference)	Designation of system	Conditions or limitations
Pressurisation, air-conditioning and equipment cooling systems (ATA21)	Mechanical (B1)	For a Category B2 licence, pressurisation control systems.
Autopilot (ATA22)	Avionic (B2)	
Communications (ATA23), including ELT and underwater locating beacon (ATA25-60)	Avionic (B2)	
Generator and/or constant speed drive/IDG systems (ATA24)	Electrical (B1/B2) and Powerplant (B1)	
Electrical power supply systems, including a ram air turbine, if electrical (ATA24)	Electrical (B1 and B2)	
Equipment, furnishings and emergency equipment (ATA25)	Mechanical (B1)	
Fire, smoke, overheat detecting and extinguishing systems (ATA26)	Mechanical (B1)	
Flight control systems (ATA27)	Mechanical (B1)	
Flight control systems – system operation – fly-by-wire (ATA27)	Avionic (B2)	For a Category B2 licence — limited to the avionic subsystem of the flight control system.
Fuel systems (ATA28)	Mechanical (B1)	
Hydraulic power systems, including ram air turbine (ATA29)	Mechanical (B1)	
Ice and rain protection systems (ATA30)	Mechanical (B1)	
Ice and rain protection systems (ATA30-20)	Mechanical and Powerplant (B1)	Powerplant — for powerplant cowling anti-icing.
Indicating and recording systems (ATA31)	Avionic (B2)	
Landing gear (ATA32)	Mechanical (B1)	
Wheels and brakes (ATA32-40)	Mechanical (B1)	
Lighting (ATA33)	Electrical (B1 and B2)	
Navigation systems: <ul style="list-style-type: none"> • General • Radio interface • ACARS, SELCAL, INS/IRS • Compass • Flight management system • Doppler systems (ATA34)	Avionic (B2)	For a Category B1 licence — compass swings, if endorsed on the licence.
Oxygen system (ATA35)	Mechanical (B1)	For a Category B2 licence, if endorsed on the licence.
Pneumatic system (ATA36)	Mechanical (B1)	
Vacuum (ATA37)	Mechanical (B1)	
Waste water (ATA38)	Mechanical (B1)	
Cabin intercom data and network systems (ATA42)	Avionic (B2)	
Cabin systems (ATA44)	Avionic (B2)	
Central maintenance system (ATA45)	Avionic (B2)	
Information systems (ATA46) <ul style="list-style-type: none"> • ATIMS • Network server 	Avionic (B2)	
Nitrogen generation system or inert gas system (ATA47)	Mechanical (B1)	
APU (ATA49)	Powerplant (B1)	
Cargo and accessory compartments (ATA50)	Mechanical (B1)	

NON AIRLINE AIRCRAFT MAINTENANCE ENGINEER LICENCE GROUPS PROPOSAL

CASR Part 66 MoS Table 1

Aircraft system (and ATA chapter reference)	Designation of system	Conditions or limitations
Structures — General (ATA51)	Structural (B1)	Structures — general, but excluding wooden structures and fabric surfaces unless: (a) for wooden structures — the holder has obtained the relevant optional units of competency mentioned in section 66.A.25 of this MOS; or (b) for fabric surfaces — the holder has obtained the relevant optional units of competency mentioned in section 66.A.25 of this MOS. <i>Note</i> These optional units of competency are marked Z in Appendix IV.
Doors (ATA52)	Structural (B1)	
Fuselage (ATA53)	Structural (B1)	
Nacelles and pylons (ATA54)	Structural (B1)	
Stabilisers (ATA55)	Structural (B1)	
Windows (ATA56)	Structural (B1)	
Wings (ATA57)	Structural (B1)	
Propeller — rotor (ATA60)	Mechanical (B1)	
Propeller — propulsion (ATA61)	Powerplant (B1)	For a Category B1 licence, only if the holder has obtained the relevant optional units of competency mentioned in section 66.A.25 of this MOS. <i>Note</i> These optional units of competency are marked P in Appendix IV.
Rotor (ATA62)	Mechanical (B1)	
Rotor drives (ATA63)	Mechanical (B1)	
Tail rotor (ATA64)	Mechanical (B1)	
Tail rotor drive (ATA65)	Mechanical (B1)	
Folding blades and pylon (ATA66)	Mechanical (B1)	
Rotor flight control (ATA67)	Mechanical (B1)	
Powerplant (ATA71)	Powerplant (B1)	
Engine turbine/ turbo-prop and fans (ATA72)	Powerplant (B1)	
Engine-mounted accessories: gear boxes, gears, pumps and attached engine-mounted and driven components (ATA72-60)	Powerplant (B1)	
Engine fuel and control — carburation/injection system (ATA73)	Powerplant (B1)	
FADEC (ATA73A)	Avionic (B2)	
Ignition system (ATA74)	Powerplant (B1)	
Air systems and control (ATA75)	Powerplant (B1)	
Engine control system (ATA76)	Powerplant (B1)	
Engine indicating system (ATA77)	Powerplant (B1) and Avionic (B2)	
Exhaust — thrust reverser (ATA78)	Powerplant (B1)	
Lubrication system (ATA79)	Powerplant (B1)	
Starting system (ATA80)	Powerplant (B1)	
Supercharging system (ATA81)	Powerplant (B1)	
Power augmentation (ATA82)	Powerplant (B1)	
Accessory drives (ATA83)	Powerplant (B1)	