Aerospace Industry Reference Committee (IRC)

Supplementary Information to support the 2018 Case for Change

Alignment of VET qualification standards to CASA licensing regulations

Administrative Information

Name of Industry Reference Committee (IRC): Aerospace

Name of Skills Service Organisation (SSO):
Innovation and Business Skills Australia (IBSA Manufacturing)

Industry Reference Committee

The Aerospace Industry Reference Committee comprises fourteen members and was constituted in August 2017. The supplementary information to support the *2018 Alignment of VET qualification standards to CASA licensing regulations Case for Change* was reviewed and approved by the membership below:

Mr Russell Burgess (Chair)	Mr Michael Evans
Mr Ken Cannane	Mr Mike Higgins
Ms Lynda Douglas	Mr Douglas Hendry
Mr Stephen Re	Mr Paul Baxter
Mr Matt Murphy	Mr Mark Fagan
Mr Michael McGill	Mr Warren Bossie
Ms Mary Brown	Mr Steven Wright

Industry Reference Committee Signoff

The supplementary information to support the 2018 *Alignment of VET qualification standards to CASA licensing regulations* Case for Change was agreed as the result of a properly constituted IRC decision and was approved by:

IRC Chair: Russell Burgess

Date: February 2019

Background

The *2018 Alignment of VET qualification standards to CASA licensing regulations Case for Change* was submitted by the Aerospace IRC in May 2018 for AISC consideration (refer Attachment A).

In September 2018 the AISC requested supplementary information to further support the Case for Change including:

- An overview of how the IRC proposes to alter units of competency/qualifications to align with CASA requirements.
- Industry support for products which have low current enrolments but for which there is either future demand or where the product services a niche but critical sector.
- Further detail on proposed rationalisation and/or removal of obsolete products.

Introduction

The final report by an expert panel on aviation skills and training, convened by the Department of Infrastructure, Regional Development and Cities, highlighted the dire need for Licensed Aircraft Maintenance Engineers (LAMEs) by the Australian Aerospace Industry.

> *Shortages of aircraft maintenance engineers are apparent. While a large proportion of applicants are qualified and licensed (where applicable), few employers are able to find applicants with the correct licence type or aircraft rating required for their vacancies. Employment and advertised vacancy data suggest that the demand for these workers has increased over the past year, while new supply through apprenticeship training is at historically low levels.*[1]

The expert panel report also identified the link between growth opportunities for aviation in the Asia Pacific Region and the need to develop workforce capability to meet" i*mpending maintenance skills shortfall and developing a maintenance training export industry.*" The report identifies the following requirements as key to achieve this:

- Reform and the rebuild maintenance repair organisation (MRO) training to ensure that the new generation of qualified engineers will be available to replace the current generation as they retire; and
- Harmonisation of training and career paths across sectors (civilian, defence, airline and general Aviation).

The training package review and development activities included in the Aerospace IRC *2018 Alignment of VET qualification standards to CASA licensing regulations Case for Change* and this supplementary information support the recommendations in the expert panel report.

The supplementary information in this document provides further evidence, industry support and additional analysis to support the Aerospace IRC *2018 Alignment of VET qualification standards to CASA licensing regulations Case for Change*.

This supplement has been informed by research, further analysis of NCVER data and feedback from key industry stakeholders and presents:

- An overview of how the IRC proposes to alter units of competency/qualifications to align with CASA requirements.
- Industry support for products which have low current enrolments but for which there is either future demand or where the product services a niche but critical sector.
- Further detail on proposed rationalisation and/or removal of obsolete products.

[1] Department of Jobs and Small Business – Document library, Australian Government, *ANZSCO 3231-11, 12 Aircraft Maintenance Engineers - Australia,* 2017.

Alignment with Regulatory Requirements

As detailed in the Case for Change the current licensing qualifications within the MEA Aeroskills Training Package do not enable clear and transparent linkages between the VET system and the Aircraft Maintenance Engineer (AME) licensing systems.

The Aerospace IRC is proposing the review of 217 existing **units of competency** to identify gaps in their alignment to the two licensing regulations within Australia, namely:

- Civil Aviation Safety Regulation (CASR) Part 66 Manual of Standards (MOS)
- Defence Aviation Safety Regulation (DASR) Part 66 Manual of Standards (MOS).

This work will be undertaken in two stages as follows:

- **Stage 1:** Industry assessment to identify the gap in existing training package components against aviation regulatory licensing requirements and contemporary workplace practices and assess the impact of any proposed changes on qualifications in other training packages which import these units. An outline of training package development work to meet industry needs will be prepared and agreed by the IRC.

  If the review at Stage 1 identifies the requirement to develop new units of competency the IRC expects to submit a request for variation to the Activity Order.

- **Stage 2:** Undertake training package development work to address the identified gaps.

The intent of this work is not only to ensure that units of competency address these standards but apply more broadly to all appropriate standards which impact the skills requirements for the industry. This work could also reflect the licensing requirements under the European Aviation Safety Agency (EASA) thus enabling students to meet the licensing requirements in Australia which will also enhance graduate mobility whilst providing training providers with the potential to package and deliver qualifications targeted at the international market.

The Aviation (AVI) Training Package and the Maritime (MAR) Training Package provide potential models for alignment of the regulatory requirements which will be further considered by the Aerospace IRC and Technical Advisory Committees during this project. For each relevant component information will be provided in either the qualification description or the application field of the unit which describes how the training package component maps to the licence. This information will be further supplemented in the Companion Volume Implementation Guide.

Industry Support for Critical and Niche Qualifications

The following qualifications have been identified as either having **no** Total VET Activity (TVA) enrolments in 2017 or **low** TVA enrolments for 2014-17 but are critical to the industry.

Qualification Title	No Enrolment 2017	**Low Enrolment 2014-17
Certificate II in Aircraft Surface Finishing	✓	✓
Certificate III in Aircraft Surface Finishing		✓
Certificate IV in Aircraft Surface Finishing		✓
Certificate IV in Aircraft Life Support and Furnishing	✓	✓
Certificate IV in Aeroskills (Armament)	✓	
Certificate III in Aeroskills (Mechatronics)	✓	✓
Certificate IV in Aeroskills (Mechatronics)	✓	✓
Diploma of Aeroskills (Non-Destructive Testing)	✓	✓

**Low enrolments have less than 20 enrolments per year over the past 4 years

It is important to note that the NCVER enrolment data in the above table excludes Defence enrolments. This is because Defence, who use the MEA Aeroskills Training Package, do not make their enrolment data publicly available. Therefore, low NCVER enrolment data does not necessarily signify that qualifications in this specialist sector are not being used.

Further justification and industry support for the Aircraft Surface Finishing, Aircraft Life Support and Furnishing, Aeroskills Mechatronics, Armament and Non-Destructive Testing qualifications follows.

Aircraft Surface Finishing

These qualifications are applicable to employees of Aircraft Maintenance Organisations (AMOs), specialist aircraft surface finishing organisations or Defence. The job roles involve the preparation of surfaces of aircraft (and aircraft components) for the application of: surface finishes, paint, specialist finishes and decals or stencils or the supervision of aircraft surface finishing activities.

The 2018 Industry Skills Forecast identifies this stream of qualifications as critical to the industry and not fit for purpose as they need updating to reflect new technologies, advancements in materials and also include a new unit on ageing aircraft fundamentals.

These qualifications play a key role in Defence but are thin markets for RTOs. While enrolments have been low, enrolments in Certificate III doubled from 2016 to 2017 which may reflect the cyclical nature of enrolments in the sector.

	2014	2015	2016	2017
Certificate III in Aircraft Surface Finishing	1	1	5	10

Whilst the enrolment numbers are low the skills required to maintain aircraft surface finishing is critical to the aerospace sector to maintain large numbers of ageing aircraft still in operation. With airline fleets in Australia ageing rapidly, the workforce requires skills in understanding how to maintain this fleet which services a vast majority of the population, particularly regional areas.

A review of these qualification will provide an opportunity to explore and consider options to revise and rationalise the aircraft surface and finishing qualifications including:

- Rationalise the Certificate II to IV in Aircraft Surface Finishing qualifications by potentially reducing to one qualification most likely at certificate at AQF level III.
- Develop a supervisory skill set which may replace the Certificate IV in Aircraft Surface Finishing.

Aircraft Life Support and Aeroskills Armament

The Certificate IV in Aircraft Life Support and Furnishing qualification, redeveloped in 2018 to form the Certificate IV in Aeronautical Life Support Equipment, applies to members of Defence and to employees of civil Aviation Maintenance Organisations (AMOs) who work on the maintenance of aircraft and personal life support equipment and on the fabrication and maintenance of aircraft furnishings.

This Certificate IV in Aeroskills Armament qualification applies to members of Defence who perform scheduled inspections, fault diagnosis and repair, and modification of aircraft egress, stores management and stores suspension systems and system components, and maintenance of guided weapons.

Both these qualifications are critical to Defence.

Aeroskills Mechatronics and Non-Destructive Testing qualifications

The Aeroskills Mechatronics qualifications are for job roles within the General Aviation industry sector on the maintenance of small aircraft. The Certificate IV level qualification was aligned with the proposed Civil Aviation Safety Regulation (CASR) Part 66 Manual of Standards (MOS) that was to introduce a new small aircraft licensing system – this regulation/licensing system is still under review.

The Aeroskills Non-Destructive Testing qualifications, were developed to meet Defence requirements, apply to individuals who perform non-destructive testing (NDT) on aircraft and aircraft components in accordance with Australian Standards and in compliance with CASA regulatory requirements.

Critical Units of Competency

Further analysis of units of competency which have low or no current enrolments has identified 44 existing units of competency which are critical to the industry (refer Attachment B).

The units related to the nature of the work undertaken by Aircraft Maintenance Engineers (AMEs) across both ageing aircrafts and new aircrafts for commercial, general and defence aviation applications demand highly specialised skills and knowledge that service niche but highly critical sectors of industry such as Defence.

The IRC is recommending review and modification of these units as appropriate.

Proposed Rationalisation of Training Package Components

Qualifications

The following qualifications have been identified as either having **NO** Total VET Activity (TVA) enrolments in 2017 or **LOW** TVA enrolments for 2014-17 with the potential for rationalisation.

Qualification Title	No Enrolment 2017	**Low Enrolment 2014-17
Diploma of Aviation Maintenance Management (Mechanical)		✓
Advanced Diploma of Aviation Maintenance Management (Mechanical)	✓	✓
Diploma of Aviation Maintenance Management (Avionics)		✓
Advanced Diploma of Aviation Maintenance Management (Avionics)	✓	✓
Diploma of Aeronautical Engineering	✓	✓
Advanced Diploma of Aeronautical Engineering	✓	✓
Diploma of Avionic Engineering	✓	✓
Advanced Diploma of Avionic Engineering	✓	✓
Advanced Diploma of Aviation Non-Destructive Testing	✓	✓

**Low enrolments have less than 20 enrolments per year over the past 4 years

The 2018 Industry Skills Forecast identified significant overlap between some Diplomas and Advanced Diplomas within the Aeroskills Training Package.

The proposed redevelopment work could potentially:

- Identify the need for higher level qualifications and explore opportunities to consolidate qualifications at the same AQF level.
- Review qualifications and where possible:
    - Reduce the higher Aviation Maintenance Management with appropriate streams.
    - Reduce the higher Engineering qualifications with appropriate streams.
- Consult with Defence to confirm which qualifications are being used and the impact of rationalisation such as the need for the higher AQF level non-destructive testing qualification.

Skills Sets

There are 213 skill sets in MEA which actively support movement between sectors and industries by providing pathways for individuals in allied trades. However, analysis indicates that skill sets appear to have been developed for the following purposes:

- Workshop Skills – 26
- Removal of B1 and B2 licence exclusions and for the grant of A licences to qualified Avionic and Mechanical AMEs – 77
- Individual maintenance authorisations – 69
- Small aircraft licence ratings and removal of the small aircraft limitation from B1.1 and B1.3 licences – 41.

The review will:

- test and confirm relevance and use of all skill sets and redevelop accordingly.

- identify and remove redundant skill sets.

Units

In total there are 262 native units of competency in MEA that require redevelopment to improve compliance with the Standards for Training Packages 2012 and to reflect and support licensing or regulatory requirements.

Improve quality and clarity of all units, in particular:

- Review the existing units of competency identified as having low or no current enrolments listed in Attachment C which and identify opportunities to rationalise or remove units.
- Sort and categorise all MEA units of competency, through coding and other mapping documentation.
- Revise all aspects of units not previously updated to ensure compliance with the Standards for Training Packages 2012.

Please note that 217 units form part of this project and the remaining units were part of previous projects.

Additional Work as Identified by the IRC

At the IRC meeting on 3 October 2018, it was agreed that the scope of the Case for Change should be broadened to include **all** future activities listed on the 2018 Proposed Schedule of Work to ensure that this Case for Change:

- Encompasses all known future priorities to reduce the need to review any qualifications for at least two years.
- Streamlines qualifications and units of competency to enable future changes to be simpler.
- Supports the Australian Aerospace sector to build capacity and capitalise on growth opportunities in the Asia Pacific Region.
- Uses a well-planned consultation process to engage with the geographically dispersed aerospace industry stakeholders (metropolitan, regional, remote and Defence) in an efficient and effective way.

These priorities include:

- The addition of one new unit CPPFES2043A – Prevent ozone depleting substance and synthetic greenhouse gas emissions as an elective unit for Aeroskills qualifications for LAMEs and AMEs as regulatory requirements call for all LAMEs to have competency in this unit
- Reviewing the three aircraft surface finishing qualifications (see below) to ensure they are required to meet industry need and, the development of a new unit on ageing aircraft fundamentals to be included in two of these qualifications MEA30118 and MEA40918:
    - MEA20618 Certificate II in Aircraft Surface Finishing
    - MEA30118 Certificate III in Aircraft Surface Finishing
    - MEA40918 Certificate IV in Aircraft Surface Finishing
- The incorporation of Defence priorities into the MEA training package.
- Review of B1.1 Licence exclusion removal skill sets:
    - Skill Set LME001 Electrical - B1.1 Licence Exclusions E1 and E4 Removal (Release 1)
    - Skill Set LME019 Instrument - B1 Licence Exclusions E5 and E7 Removal (Release 1).
- Redevelopment and Rationalisation of Higher Level Qualifications to ensure they deliver the skills and knowledge required for the identified occupational outcomes and improve pathways into higher education.

Summary

The 2018 Case for Change identified the need for the review and redevelopment of the following training package components to enable clearer alignment with aviation regulatory licensing requirements, reflect contemporary workplace practices and where practical be rationalised to reduce duplication in the national system:

- 25 existing qualifications be revised
- 211 skill sets are to be reviewed and modified or deleted
- 217 existing native units of competency to be revised and redeveloped
- 121 imported units of competency to be reviewed for suitability and currency as many have been superseded.

This work will be undertaken in two stages as follows:

- **Stage 1:** Full review and further industry assessment to identify the gap in existing training package components against aviation regulatory licensing requirements and contemporary workplace practices and assess the impact of any proposed changes on qualifications in other training packages which import these units. An outline of training package development work to meet industry needs will be prepared and agreed by the IRC.

  If the review at Stage 1 identifies the requirement to develop new units of competency the IRC expects to submit a request for variation to the Activity Order.

- **Stage 2:** Undertake training package development work to address the identified gaps.

A summary of the training package components covered in this review are:

Qualifications

A key objective of the qualification redevelopment is to simplify their structure as follows,

- Redevelop 3 to align to licensing requirement:
  - MEA20518 Certificate II in Aircraft Line Maintenance
  - MEA50118 Diploma of Aeroskills (Avionics)
  - MEA50218 Diploma of Aeroskills (Mechanical).
- Review and redevelop 14 to meet industry needs:
  - MEA20418 Certificate II in Aeroskills
  - MEA20618 Certificate II in Aircraft Surface Finishing
  - MEA30118 Certificate III in Aircraft Surface Finishing
  - MEA30218 Certificate III in Aeroskills (Mechatronics)
  - MEA30318 Certificate III in Aircraft Life Support and Furnishing
  - MEA40618 Certificate IV in Aeroskills (Avionics)
  - MEA40718 Certificate IV in Aeroskills (Mechanical)
  - MEA40918 Certificate IV in Aircraft Surface Finishing
  - MEA41018 Certificate IV in Aeroskills (Mechatronics)
  - MEA41118 Certificate IV in Aeronautical Life Support Equipment
  - MEA41218 Certificate IV in Aeroskills (Armament)
  - MEA41318 Certificate IV in Aeroskills (Structures)

    - MEA50418 Diploma of Aviation Maintenance Management (Mechanical)
    - MEA50518 Diploma of Aeroskills (Non-Destructive Testing).
- Review and potentially rationalise 8 qualifications due to significant overlap:
    - MEA50318 Diploma of Aviation Maintenance Management (Avionics)
    - MEA50618 Diploma of Aeronautical Engineering
    - MEA50718 Diploma of Avionic Engineering
    - MEA60118 Advanced Diploma of Aviation Maintenance Management (Avionics)
    - MEA60218 Advanced Diploma of Aviation Maintenance Management (Mechanical)
    - MEA60318 Advanced Diploma of Aviation Non-Destructive Testing
    - MEA60418 Advanced Diploma of Aeronautical Engineering
    - MEA60518 Advanced Diploma of Avionic Engineering.

Skill Sets

- Redevelop 102 skill sets to align to licensing requirements.

Units of Competency

- Review, redevelop and potentially rationalise 217 units not reviewed in Release 2.0 and 3.0.

  Some of the 45 units reviewed or redeveloped in Release 2.0 may require some minor refinement to align with revised licensing requirements, however these units will not incur a development cost.

It is anticipated that the development and packaging of these units will enable the removal of duplicated content across the suite of MEA units of competency. This work may also provide the ability to remove obsolete qualifications and units of competency. Imported units of competency to be reviewed for suitability and currency as many have been superseded.

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Attachment A: 2018-19 Case for Change

Aerospace Industry Reference Committee (IRC)

MEA Aeroskills Training Package

Contact details: Russell Burgess, IRC Chair

Date submitted to Department of Education and Training: May 2018

Alignment of VET qualification standards to CASA licensing regulations

Description:	Aircraft maintenance licensing training is regulated by the Civil Aviation Safety Authority (CASA), under Civil Aviation Safety Regulations (CASR) Part 147, as well as by ASQA (the Australian Skills Quality Authority) which operate under different frameworks. The lack of harmonisation with the International Aviation Safety Assessment (IASA) standards is costing the industry money and limits opportunities. The biggest issue is the current rigidity of the VET system to absorb the Civil Aviation Safety Authority (CASA)/European Aviation Safety Agency (EASA) regulations. The main difficulty is in trying to match the theoretical regulatory outcomes of CASA/EASA to the current vocational education competency-based model. This project will investigate and develop a framework for qualifications for LAMEs that accommodates the CASA/EASA regulations and VET standards.
Rationale:	Australian Government policy requires that licensing requirements be included in Australian Qualifications Framework (AQF) Training Packages. Accordingly, CASA licensing requirements are met through the MEA Aeroskills Training Package. To achieve this, for the A Licence (A1, A2, A3 and A4), the Certificate II in Aircraft Line Maintenance has been developed and for B1 and B2 Licences two Diploma qualifications have been developed and all are included in the MEA Aeroskills Training Package, as follows: • MEA 20515 Certificate II in Aircraft Line Maintenance • MEA50115 Diploma of Aeroskills (Avionics) for the grant of a B2 Licence • MEA50215 Diploma of Aeroskills (Mechanical) for the grant of a B1 Licence in sub-categories B1.1, B1.2, 1.3 and B1.4[2] • a range of elective units is also provided to meet the requirements of additional ratings related to small aircraft maintenance with units required for each additional rating listed in Skill Sets. In addition to the application of AQF procedures associated with these qualifications, CASA has additional requirements that have to be met in order for them to maintain alignment with the EASA for other than small aircraft licensing, and to meet international obligations specified by the International Civil Aviation Organisation (ICAO). Attempts have been made to accommodate these two different frameworks into the current licence qualifications, adding much complexity, inconsistency with current VET standards and potential for interpretation while at the same time lacking the rigour required to provide assurance to the aviation industry that licence holders will have the necessary skills and knowledge to undertake the work required to ensure safety.

[2] Note the Diploma of Aeroskills (Mechanical) is the subject of a current activity order to reinstate units of competency leading to B1.2 and B1.4 licences.

Alignment of VET qualification standards to CASA licensing regulations

The MEA Aeroskills Training Package Companion Volume provides an interface between the AQF qualifications and the additional CASA requirements that have to be met before a licence can be granted by:

- referencing the CASA requirements in addition to the AQF for RTOs to be able to deliver training leading to the grant of a licence;
- providing an alignment between the CASA licensing syllabus and the MEA Aeroskills Training Package units of competency;
- providing additional explanation of knowledge requirements for units of competency that are aligned with the CASA licensing requirements; and
- highlighting the more rigorous theory examination pass mark requirements specified by CASA for theory examinations for units leading to the grant of a licence.

Training leading to Aeroskills qualifications can be delivered by any RTO that has the Aeroskills Training Package on its Certificate of Registration. However, if the training is to lead to a licensing outcome, the RTO delivering the training must also be a CASR Part 147 Maintenance Training Organisation (MTO). The requirements that must be met to become a MTO can be found in CASR Part 147 Maintenance Training Organisations and the following associated publications:

- CASR Part 147 Manual of Standards (MOS); and
- Acceptable Means of Compliance (AMC) and Guidance Material (GM) for CASR Part 147 Maintenance Training Organisations.

Aircraft maintenance licensing training is regulated by CASA (under CASR Part 147) as well as by ASQA (the Australian Skills Quality Authority) which operate under different frameworks. CASA operates under a knowledge and experience framework and ASQA operates under a competency framework.

The CASA Basic examination sets out 17 knowledge modules detailed in a knowledge syllabus and three levels of knowledge linked to different licence categories. Training package standards do not specify syllabus or assessment standards but rather knowledge and performance evidence.

Attempts have been made to accommodate these different frameworks into the current licence qualifications and linked qualifications resulting in the following:

- the packaging rules are rigid (make little use of importing units from other packages) and highly complex to accommodate licensing and different ratings;
- qualifications in the Training Package share a significant number of units;
- extensive use of pre-requisites which link lower-level qualifications to higher-level qualifications;
- a lack of alignment with the Australian Qualification Framework;
- extensive referencing to CASA requirements;
- mutual recognition means the recognition and acceptance by an RTO of Australian Qualifications Framework (AQF) qualifications and Statements of Attainment issued by other RTOs enabling individuals to receive national recognition of their achievements which is not consistent with CASA's requirement that only Part 147 organisations (MTOs) deliver competencies for licensing purposes; and
- the Standards for Training Packages detail the Assessment Requirements for evidence and required conditions of assessment to include the performance evidence, the knowledge evidence and the assessment conditions for each unit of competency; it does not detail curriculum which is required by CASA.

From July 2020, CASA will no longer administer the licence examinations or set a central bank of questions, which will potentially set the scene for RTOs to set and use a wide variation in examinations and interpretation of assessment. CASA will issue the licence on the recommendation of an approved Part 147 organisation, rather than play a role in the

Alignment of VET qualification standards to CASA licensing regulations

assessment of competence, theoretical knowledge, or experience. Additionally, CASA will no longer use the Schedule of Experience to scrutinise a prospective licensee's records of their experience; this will fall to the RTO/MTO that may interpret competence for experience.

This project will investigate vocational education frameworks used by other licence occupations and consult widely with key stakeholder groups to develop a framework that accommodates the CASA requirements, the AQF and the Training Package standards. Once the framework is approved, the licence qualifications will be developed using this new framework.

Current industry feedback indicates that qualifications are needed to cover a range of specialist job roles in the sector such as rotary wing, fixed wing and turbine, which are currently not evident in the packaging rules of the Training Package. Core units need to be expanded and each specialist group needs to align to a qualification descriptor. This work aims to strengthen the vocational outcomes for each qualification and enhance portability.

Currently the CASA Basic Examinations (CASA Basics) and completion of the Schedule of Experience (SOE) provide an alternate means of securing licences but this pathway will only be available until 3 July 2020. Following this date, the MEA Aeroskills Training Package qualifications will provide the only means in Australia to gain a licence to maintain aircraft.

The licensed qualifications are:

MEA20515 Certificate II in Aircraft Line Maintenance

MEA50215 Diploma of Aeroskills (Mechanical) (Release 2) B1 Licence in sub-categories B1.1 and B1.3

MEA50115 Diploma of Aeroskills (Avionics) (Release 1) B2 Licence

A total MEA Aeroskills Training Package review is necessary to identify clear vocational licensed and unlicensed outcomes that are aligned with the skill requirements of the AQF levels by addressing the following issues:

- these licensed qualifications include core units that are utilised as core units across all the other MEA Aeroskills qualifications; and
- these two Diplomas included nested Certificate IVs and are nested in the Advanced Diplomas.

Without a new and radical approach to the entire Aeroskills Training Package to ensure alignment with the CASA/EASA standards and clear vocational outcomes:

- the current disenfranchisement of the industry will grow as it meets its needs using alternative approaches, including sourcing workers from overseas;
- student enrolments and completions will decline;
- Australian industry will not be well positioned to capitalise on global growth forecasts; and
- Australia risks no longer being well regarded globally in the provision of aircraft maintenance engineering services.

Without this review, the current industry expects that the inadequate and complex training standards will increasingly impact on the Australian aviation industry. With greater alignment between CASA and DASA (civil and military regulators), leading to better transferability, it is important that this is reflected in the MEA training package products.

Ministers' Priorities Addressed:

This case for change addresses the following Ministers' Priorities:

Obsolete qualifications removed from the system

This proposed work will provide a complete review of all MEA Aeroskills qualifications, skills sets and units of competency which will result in alignment with vocational outcomes, streamlining and rationalising of some training package products. Qualifications with low enrolments will be reviewed for options to remove, merge or strengthen packaging.

Alignment of VET qualification standards to CASA licensing regulations

More information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed choices

The MEA Aeroskills qualifications include variations in the number of units required depending upon the stream being chosen and are often restrictive and complex. This approach will be reviewed to simplify the packaging rules and ensure they are consistent with the intention of the standards to specify unambiguously the total number of units of competency required to achieve the qualification.

The Companion Volume will be updated to ensure that RTOs can better navigate the package and promote career pathways by engaging all sectors including regionally based businesses.

The training system better supports individuals to move more easily between related occupations

CASA licensing requirements, while very specific, also provide for sharing of many common units of competency and are aligned with international standards. The review will enable students who undertake a licensed pathway to find it easier to transition from one sub-category to another within the aircraft maintenance industry and from general aviation to commercial aviation. This should also reduce the cost of training for thin markets for RTOs/MTOs and students.

The current qualifications currently make little use of units from other training packages. This will be reviewed and, wherever possible, units from other industries will be utilised to enable individuals to more easily move between related occupations, e.g. Heavy-duty vehicle mechanic and aircraft maintenance engineering.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

Listed units will need to be transitioned to comply to the current training package standards as part of this Case for Change. The current extensive use of pre-requisite units will be reviewed to ensure they are necessary. Removal of pre-requisites will thereby increase the ability for other industry sectors to use MEA Aeroskills units. It must be noted, use by other industries is likely to be limited given the specialised nature of regulatory requirements associated with the MEA Aeroskills units of competency.

Foster greater recognition of skill sets

There are 213 skill sets used extensively for employment of individuals with Certificate III or Certificate IV qualifications in an allied trade in aircraft component maintenance workshops on electrical component repair and overhaul and to differentiate licence subcategories.

Consultation Plan:

IBSA Manufacturing Training Development Projects follow the Training Package Development and Endorsement Process Policy and use a five-phase methodology. The IBSA Aerospace Industry Manager will coordinate the project and keep the IRC informed on progress.

Phase 1 – Initial research and analysis

Establishment of a Technical Advisory Committee (TAC) to validate the project scope and plan, contribute to the investigation and interrogation of data and assist in determining industry needs and job role functional analysis. The IRC will appoint a Technical Advisory Committee that will have current skills and knowledge across a broad range including the aviation industry, industry aircraft maintenance engineers, industry and member associations and regulatory authorities to inform this work.

Proposed membership will include representatives from:

- Government Regulators (CASA)/Defence Aviation Safety Authority (DASA)
- One or more employee representatives
- One or more employers of various sizes and employer representatives
- One or more RTOs/MTOs
- One or more technical experts.

Detailed mapping of all relevant units and qualifications will be undertaken.

Extensive consultation will take place to develop a new licensed occupation framework that accommodates CASA requirements and the VET standards. This will be developed into a Discussion Paper with consultation planned in each jurisdiction to understand the challenges, test alternate frameworks, identify concerns to be addressed and understand any issues including implementation matters.

The proposed framework will be developed under the direction of the TAC and then reviewed and approved by the IRC. Further formal approval will be sought from CASA to ensure it meets their requirements.

Once approved the proposed framework will be open for feedback from the broader stakeholder community and that will be considered and incorporated with IRC approval prior to adoption.

Phase 2 – Draft 1 and public consultation

Develop first draft of training package components for feedback from the TAC and then the broader aerospace industry and RTOs.

Phase 3 – Draft 2 and public consultation

Respond to feedback and develop second draft of training package components. Feedback to be sought from the broader aerospace industry and RTOs.

Phase 4 – Approval process

Adjust training package components in response to further feedback and seek approval from respective committees, namely the TAC and IRC and endorsement from state training authorities.

Phase 5 – Submission to Department

Submit to the Department of Education and Training for AISC approval.

Consultation Plan

IBSA will create a project web page to provide project updates, gather feedback from stakeholders and validate training package components.

National consultations are proposed with:

- general and commercial aviation employers operating in regions and metropolitan areas to identify industry and job requirements, and trends and work opportunities;
- relevant associations including the Civil Aviation Safety Authority regarding licensing regulations and knowledge requirements;
- industry associations including Aviation Maintenance Repair Overhaul Business Association (AMROBA), Australian Licensed Aircraft Engineers Association;
- industry training boards;
- unions;
- RTOs with these qualifications on scope and recent or current students if accessible to gain feedback on the actual qualifications and employment outcomes;

Alignment of VET qualification standards to CASA licensing regulations

- Australian Industry Standards (AIS), to explore how the 'Maritime and AVI' training packages address licence requirements;
- State Training Authorities to ensure all jurisdictions are engaged.

Scope of Project

Timing

Estimated Project Duration: 22 months

If approved, the project would be undertaken in stages.

Anticipated Start Date: August 2018

Anticipated Completion Date: Case for Endorsement to be submitted to the Department May 2020 (these dates will ensure a seamless transition from the CASA Basics exam pathway which finishes in July 2020.)

Training Package

Training Package to be developed/revised:

MEA Aeroskills Training Package

Qualifications

A total of **25 qualifications** to be redeveloped as part of this project.

The first phase of this work will determine if any **new qualifications** will be required.

25 existing qualifications to be revised:

- MEA20415 Certificate II in Aeroskills
- MEA20515 Certificate II in Aircraft Line Maintenance
- MEA20615 Certificate II in Aircraft Surface Finishing
- MEA30115 Certificate III in Aircraft Surface Finishing
- MEA30215 Certificate III in Aeroskills (Mechatronics)
- MEA30315 Certificate III in Aircraft Life Support and Furnishing
- MEA40615 Certificate IV in Aeroskills (Avionics)
- MEA40715 Certificate IV in Aeroskills (Mechanical)
- MEA40915 Certificate IV in Aircraft Surface Finishing
- MEA41015 Certificate IV in Aeroskills (Mechatronics)
- MEA41115 Certificate IV in Aircraft Life Support and Furnishing
- MEA41215 Certificate IV in Aeroskills (Armament)
- MEA41315 Certificate IV in Aeroskills (Structures)
- MEA50115 Diploma of Aeroskills (Avionics)
- MEA50215 Diploma of Aeroskills (Mechanical)
- MEA50315 Diploma of Aviation Maintenance Management (Avionics)
- MEA50415 Diploma of Aviation Maintenance Management (Mechanical)
- MEA50515 Diploma of Aeroskills (Non-Destructive Testing)
- MEA50615 Diploma of Aeronautical Engineering
- MEA50715 Diploma of Avionic Engineering
- MEA60115 Advanced Diploma of Aviation Maintenance Management (Avionics)
- MEA60215 Advanced Diploma of Aviation Maintenance Management (Mechanical)
- MEA60315 Advanced Diploma of Aviation Non-Destructive Testing
- MEA60415 Advanced Diploma of Aeronautical Engineering
- MEA60515 Advanced Diploma of Avionic Engineering

Skill Sets

The first phase of this work will determine if any **new skill sets** are required.

A total of **213 existing Skill Sets to be reviewed and redeveloped**:

- MEASS00245 AMW001 Electrical component repair/overhaul
- MEASS00246 AMW002 Mechanical and electro-mechanical instrument component

repair/overhaul

- MEASS00247 AMW003 Aircraft display, control and distribution system component repair/overhaul
- MEASS00248 AMW004 Oxygen system component repair/overhaul
- MEASS00249 AMW005 Aircraft radio frequency communication and navigation system component repair/overhaul
- MEASS00250 AMW006 Aircraft pulse system component repair/overhaul
- MEASS00251 AMW007 Aircraft audio and visual system and reproducer repair/overhaul
- MEASS00252 AMW008 Hydraulic system component repair/overhaul
- MEASS00253 AMW009 Electro-hydraulic component repair/overhaul
- MEASS00254 AMW010 Pneumatic system component repair/overhaul
- MEASS00255 AMW011 Electro-pneumatic component repair/overhaul
- MEASS00256 AMW012 Fuel system component repair/overhaul
- MEASS00257 AMW013 Gas turbine engine air inlet and compressor module/component repair/overhaul
- MEASS00258 AMW014 Gas turbine engine combustion section module/component repair/overhaul
- MEASS00259 AMW015 Gas turbine engine turbine and exhaust module/component repair/overhaul
- MEASS00260 AMW016 Gas turbine engine ancillary section module/component repair/overhaul
- MEASS00261 AMW017 Piston engine disassembly for repair/overhaul
- MEASS00262 AMW018 Repair and/or overhaul aircraft piston engine cylinder assembly components
- MEASS00263 AMW019 Repair and/or overhaul aircraft piston engine crankcase assembly components
- MEASS00264 AMW020 Reassemble aircraft piston engines
- MEASS00265 AMW021 Assemble aircraft piston engine quick engine change unit
- MEASS00266 AMW022 Test aircraft piston engines after repair or overhaul
- MEASS00267 AMW023 Propeller repair/overhaul
- MEASS00268 AMW024 Rotary wing dynamic component repair/overhaul
- MEASS00269 AMW025 Mechanical system component repair/overhaul
- MEASS00270 AMW026 Composite structure maintenance
- MEASS00271 LME001 Electrical – B1.1 Licence Exclusions E1 and E4 Removal
- MEASS00272 LME002 Electrical B1.1 Licence Exclusions E1 and E4 Removal (small aircraft with gas turbine engine)
- MEASS00273 LME003 Electrical – B1.2, B1.3 or B1.4 Licence Exclusions E1 and E4 Removal
- MEASS00274 LME004 Electrical – B1.2 or B1.4 Licence Exclusions E1 and E4 Removal (small aircraft/helicopters)
- MEASS00275 LME005 Electrical – B2 Licence Exclusions E1 and E4 Removal
- MEASS00276 LME006 Electrical – B2 Licence Exclusions E1 and E4 Removal (small aircraft or helicopters)
- MEASS00277 LME007 Airframe – B1.1 Licence Exclusion E2 Removal
- MEASS00278 LME008 Airframe – B1.1 Licence Exclusion E2 Removal (small aircraft with gas turbine engine)
- MEASS00279 LME009 Airframe – B1.2 Licence Exclusion E2 Removal
- MEASS00280 LME010 Airframe – B1.2 Licence Exclusion E2 Removal (working on small aircraft)
- MEASS00281 LME011 Airframe – B1.3 and B1.4 Licence Exclusion E2 Removal
- MEASS00282 LME012 Airframe – B1.4 Licence Exclusion E2 Removal (working on basic helicopters)
- MEASS00283 LME013 Power Plant – B1.1 Licence Exclusion E3 Removal
- MEASS00284 LME014 Power Plant – B1.2 Licence Exclusion E3 Removal

- MEASS00285 LME015 Power Plant – B1.2 Licence Exclusion E3 Removal (working on small aircraft)
- MEASS00286 LME016 Power Plant – B1.3 Licence Exclusion E3 Removal
- MEASS00287 LME017 Power Plant – B1.4 Licence Exclusion E3 Removal
- MEASS00288 LME018 Power Plant – B1.4 Licence Exclusion E3 Removal (working on basic helicopters)
- MEASS00289 LME019 Instrument – B1 Licence Exclusions E5 and E7 Removal
- MEASS00290 LME020 Instrument – B1.2 and B1.4 Licence Exclusions E5 and E7 Removal (small aircraft/helicopters)
- MEASS00291 LME021 Instrument – B2 Licence Exclusions E5 and E7 Removal
- MEASS00292 LME022 Instrument and Radio – B1 Licence Exclusion E6 Removal
- MEASS00293 LME023 Instrument and Radio – B1.2 and 1.4 Licence Exclusion E6 Removal (small aircraft/helicopters)
- MEASS00294 LME024 Instrument and Radio – B2 Licence Exclusion E6 Removal
- MEASS00295 LME025 Instrument and Radio – B2 Licence Exclusion E6 Removal (non-type rated aircraft/helicopters)
- MEASS00296 LME026 Radio – B1 Licence Exclusion E8 Removal
- MEASS00297 LME027 Radio – B1.2 and B1.4 Licence Exclusion E8 Removal (working on small aircraft/helicopters)
- MEASS00298 LME028 Radio – B2 Licence Exclusion E8 Removal
- MEASS00299 LME029 Radio – B2 Licence Exclusion E8 Removal (non-type rated aircraft and helicopters)
- MEASS00300 LME030 Airframe – B1 Licence Exclusion E9 and E43 Removal
- MEASS00301 LME031 Airframe – B1 Licence Exclusion E10 Removal
- MEASS00302 LME032 Radio – B2 Licence Exclusion E11 Removal
- MEASS00303 LME033 Airframe/Engine – B1.1 and B1.2 Licence Exclusion E12 Removal
- MEASS00304 LME034 Airframe – B1 Licence Exclusion E13 Removal
- MEASS00305 LME035 Airframe – B1 Licence Exclusion E14 Removal
- MEASS00306 LME036 Airframe – B1.1 and B1.3 Licence Exclusion E15 Removal
- MEASS00307 LME037 Airframe – B1.1 Licence Exclusion E15 Removal
- MEASS00308 LME038 Airframe – B1.1 Licence Exclusion E16 Removal
- MEASS00309 LME039 Airframe – B1.2 Licence Exclusion E16 Removal
- MEASS00310 LME040 Radio – B2 Licence Exclusion E18 Removal
- MEASS00311 LME041 Radio – B2 Licence Exclusion E19 Removal
- MEASS00312 LME042 Radio – B2 Licence Exclusion E20 Removal
- MEASS00313 LME043 Radio – B2 Licence Exclusion E21 Removal
- MEASS00314 LME044 Radio – B2 Licence Exclusion E22 Removal
- MEASS00315 LME045 Radio – B2 Licence Exclusion E23 Removal
- MEASS00316 LME046 Radio – B2 Licence Exclusion E24 Removal
- MEASS00317 LME047 Radio – B2 Licence Exclusion E25 Removal
- MEASS00318 LME048 Radio – B2 Licence Exclusion E26 Removal
- MEASS00319 LME049 Instrument – B2 Licence Exclusion E27 Removal
- MEASS00320 LME050 Instrument – B2 Licence Exclusion E28 Removal
- MEASS00321 LME051 Instrument – B2 Licence Exclusion E29 Removal
- MEASS00322 LME052 Instrument – B2 Licence Exclusion E30 Removal
- MEASS00323 LME053 Instrument – B2 Licence Exclusion E31 Removal
- MEASS00324 LME054 Electrical – B2 Licence Exclusion E32 Removal
- MEASS00325 LME055 Engine – B1.2 or B1.4 Licence Exclusions E33 and E38 Removal
- MEASS00326 LME056 Electrical/Instrument/Radio – B2 Licence Exclusion E34 Removal
- MEASS00327 LME057 Airframe – B1.1 or B1.2 Licence Exclusion E35 Removal
- MEASS00328 LME058 Engine – B1.2 or B1.4 Licence Exclusions E36 and E37

Removal

- MEASS00329 LME059 Engine – B1.2 or B1.4 Licence Exclusions E36 and E37 Removal (small aircraft/helicopters)
- MEASS00330 LME060 Airframe – B1.1 or B1.3 Licence Exclusions E39 Removal
- MEASS00331 LME061 Airframe – B1.2 or B1.4 Licence Exclusion E39 Removal (small aircraft/helicopters)
- MEASS00332 LME062 Airframe – B1 Licence Exclusion E40 Removal
- MEASS00333 LME063 Airframe – B1 Licence Exclusion E41 Removal
- MEASS00334 LME064 Airframe – B1 Licence Exclusion E42 Removal
- MEASS00335 LME065 Electrical – B1 Licence Exclusion E44 Removal
- MEASS00336 LME066 Units of competency for A1 licence if Certificate IV in Aeroskills (Mechanical) is held
- MEASS00337 LME067 Units of competency for A2 licence if Certificate IV in Aeroskills (Mechanical) is held
- MEASS00338 LME068 Units of competency for A3 licence if Certificate IV in Aeroskills (Mechanical) is held
- MEASS00339 LME069 Units of competency for A4 licence if Certificate IV in Aeroskills (Mechanical) is held
- MEASS00340 LME070 Units of competency for A1 licence if Certificate IV in Aeroskills (Avionics) is held
- MEASS00341 LME071 Units of competency for A2 licence if Certificate IV in Aeroskills (Avionics) is held
- MEASS00342 LME072 Units of competency for A3 licence if Certificate IV in Aeroskills (Avionics) is held
- MEASS00343 LME073 Units of competency for A4 licence if Certificate IV in Aeroskills (Avionics) is held
- MEASS00344 LME074 Units of competency for A1 licence if a B2 licence is held
- MEASS00345 LME075 Units of competency for A2 licence if a B2 licence is held
- MEASS00346 LME076 Units of competency for A3 licence if a B2 licence is held
- MEASS00347 LME077 Units of competency for A4 licence if a B2 licence is held
- MEASS00348 MTA001 Aircraft egress system maintenance
- MEASS00349 MTA002 In-flight entertainment system maintenance
- MEASS00350 MTA003 Borescope inspection approval
- MEASS00351 MTA004 Aircraft composite structure repair/modification using hot and cold bonding
- MEASS00352 MTA005 Aircraft composite structure repair/modification using cold bonding only
- MEASS00353 MTA006 Aircraft welding using the gas welding process – aluminium alloys
- MEASS00354 MTA007 Aircraft welding using the gas welding process – magnesium alloys
- MEASS00355 MTA008 Aircraft welding using the gas welding process – carbon and low alloy steels
- MEASS00356 MTA009 Aircraft welding using the gas welding process – corrosion and heat resisting steels
- MEASS00357 MTA010 Aircraft welding using the gas welding process – nickel alloys
- MEASS00358 MTA011 Aircraft welding using the gas welding process – copper based alloys
- MEASS00359 MTA012 Aircraft welding using the gas welding process – titanium alloys
- MEASS00360 MTA013 Aircraft welding using the braze welding process - aluminium alloys
- MEASS00361 MTA014 Aircraft welding using the braze welding process - magnesium alloys
- MEASS00362 MTA015 Aircraft welding using the braze welding process - carbon and low alloy steels

- MEASS00363 MTA016 Aircraft welding using the braze welding process - corrosion and heat resisting steels
- MEASS00364 MTA017 Aircraft welding using the braze welding process - nickel alloys
- MEASS00365 MTA018 Aircraft welding using the braze welding process - copper based alloys
- MEASS00366 MTA019 Aircraft welding using the braze welding process - titanium alloys
- MEASS00367 MTA020 Aircraft welding using the gas metal arc welding process - aluminium alloys
- MEASS00368 MTA021 Aircraft welding using the gas metal arc welding process - magnesium alloys
- MEASS00369 MTA022 Aircraft welding using the gas metal arc welding process - carbon and low alloy steels
- MEASS00370 MTA023 Aircraft welding using the gas metal arc welding process - corrosion and heat resisting steel
- MEASS00371 MTA024 Aircraft welding using the gas metal arc welding process - nickel alloys
- MEASS00372 MTA025 Aircraft welding using the gas metal arc welding process - copper based alloys
- MEASS00373 MTA026 Aircraft welding using the gas metal arc welding process - titanium alloys
- MEASS00374 MTA027 Aircraft welding using the gas tungsten arc welding process - aluminium alloys
- MEASS00375 MTA028 Aircraft welding using the gas tungsten arc welding process - magnesium alloys
- MEASS00376 MTA029 Aircraft welding using the gas tungsten arc welding process - carbon and low alloy steels
- MEASS00377 MTA030 Aircraft welding using gas tungsten arc welding process - corrosion and heat resisting steel
- MEASS00378 MTA031 Aircraft welding using the gas tungsten arc welding process - nickel alloys
- MEASS00379 MTA032 Aircraft welding using the plasma arc welding process - aluminium alloys
- MEASS00380 MTA033 Aircraft welding using the plasma arc welding process - magnesium alloys
- MEASS00381 MTA034 Aircraft welding using the plasma arc welding process - carbon and low alloy steels
- MEASS00382 MTA035 Aircraft welding using the plasma arc welding process - corrosion and heat resisting steels
- MEASS00383 MTA036 Aircraft welding using the plasma arc welding process - nickel alloys
- MEASS00384 MTA037 Aircraft welding using the plasma arc welding process - copper based alloys
- MEASS00385 MTA038 Aircraft welding using the plasma arc welding process - titanium alloys
- MEASS00386 MTA039 Aircraft welding using the manual metal arc welding process - aluminium alloys
- MEASS00387 MTA040 Aircraft welding using the manual metal arc welding process - magnesium alloys
- MEASS00388 MTA041 Aircraft welding using the manual metal arc welding process - carbon and low alloy steels
- MEASS00389 MTA042 Aircraft welding using manual metal arc welding process - corrosion and heat resisting steels
- MEASS00390 MTA043 Aircraft welding using the manual metal arc welding process - nickel alloys
- MEASS00391 MTA044 Aircraft welding using the manual metal arc welding process - copper based alloys

- MEASS00392 MTA045 Aircraft welding using the manual metal arc welding process - titanium alloys
- MEASS00393 MTA046 Liquid penetrant inspection approval for aerospace
- MEASS00394 MTA047 Magnetic particle inspection approval for aerospace
- MEASS00395 MTA048 Eddy current inspection approval for aerospace
- MEASS00396 MTA049 Ultrasonic inspection approval for aerospace
- MEASS00397 MTA050 Radiographic inspection approval for aerospace
- MEASS00398 MTA051 Basic visual liquid dye penetrant inspection approval for aerospace
- MEASS00399 MTA052 Basic magnetic particle inspection approval for aerospace
- MEASS00400 MTA053 Basic eddy current inspection approval for aerospace
- MEASS00401 MTA054 Ultrasonic thickness testing inspection approval for aerospace
- MEASS00402 MTA055 Basic radiographic inspection approval for aerospace
- MEASS00403 MTA056 Electroplate aeronautical product component parts
- MEASS00404 MTA057 Produce anodised film on aluminium alloy components
- MEASS00405 MTA058 Metal spray aeronautical product component parts
- MEASS00406 MTA059 Machine aeronautical product component parts (general)
- MEASS00407 MTA060 Grind aeronautical product component parts
- MEASS00408 MTA061 Precision jig boring of aeronautical product component parts
- MEASS00409 MTA062 Complex milling of aeronautical product component parts
- MEASS00410 MTA063 Machine aeronautical product component parts using horizontal and/or vertical boring machines
- MEASS00411 MTA064 Machine aeronautical product component parts using NC/CNC machines
- MEASS00412 MTA065 Machine aeronautical product component parts using NC/CNC machining centres
- MEASS00413 MTA066 Machine plastic aeronautical product component parts
- MEASS00414 MTA067 Aeronautical product component parts – metal spinning lathe operations
- MEASS00415 MTA068 Aircraft tyre retreading (basic)
- MEASS00416 MTA069 Aircraft tyre retreading (advanced)
- MEASS00417 SAL001 B1 Small aircraft elementary maintenance
- MEASS00418 SAL002 Mechanical/Avionic - B1 and B2 Electrical systems multi-generator - Rating 2
- MEASS00419 SAL003 Mechanical – B1.2 Wooden structures – Rating 3
- MEASS00420 SAL004 Mechanical – B1.2 Fabric surfaces - Rating 4
- MEASS00421 SAL005 Mechanical – B1 Hydraulic systems - Rating 5
- MEASS00422 SAL006 Mechanical – B1 Vapour cycle air conditioning systems - Rating 6A
- MEASS00423 SAL007 Mechanical – B1.1 and B1.3 Air cycle air conditioning systems - Rating 6B
- MEASS00424 SAL008 Mechanical/Avionics – B1 and B2 Oxygen systems – Rating 8
- MEASS00425 SAL009 Mechanical – B1.1 and B1.2 Pressurisation and pneumatic systems – Rating 10
- MEASS00426 SAL010 Mechanical – B1.3 and B1.4 Helicopter powered flight control systems – Rating 11
- MEASS00427 SAL011 Mechanical – B1 Boosted induction systems – Rating S
- MEASS00428 SAL012 Mechanical – B1.2 Constant speed and variable pitch propeller - Rating V
- MEASS00429 SAL013 Avionics – B2 Electrical 1 Rating
- MEASS00430 SAL014 Avionics – B2 Instrument 1 Rating
- MEASS00431 SAL015 Avionics – B2 Radio 1 Rating
- MEASS00432 SAL016 Avionics – B2 Autopilot and flight control systems – Aeroplane – Rating 12
- MEASS00433 SAL017 Avionics – B2 Autopilot and flight control systems – Helicopter -

Alignment of VET qualification standards to CASA licensing regulations

Rating 13

- MEASS00434 SAL018 Avionics – B2 Glass cockpit - Rating 14
- MEASS00435 SAL019 Avionics – B2 Navigation systems – Rating 15
- MEASS00436 SAL020 Avionics – B2 Flight management systems – Rating 16
- MEASS00437 SAL021 Avionics – Inertial navigation systems - Rating 17
- MEASS00438 SAL022 Avionics – B2 Secondary radar - Rating 18
- MEASS00439 SAL023 Avionics – B2 Weather radar - Rating 19
- MEASS00440 SAL024 Avionics – B2 Cockpit voice recorder - Rating 20
- MEASS00441 SAL025 Avionics – B2 Flight data recorder systems - Rating 21
- MEASS00442 SAL026 Avionics – B2 High frequency radio systems - Rating 22
- MEASS00443 SAL027 B1.1 Removal of small aircraft limitation
- MEASS00444 SAL028 B1.3 Removal of small aircraft limitation
- MEASS00445 SAL029 B2 Removal of small aircraft limitation
- MEASS00446 SAL030 Attainment of a B1.2 licence by holders of a B1.1 small aircraft licence
- MEASS00447 SAL031 Attainment of a B1.3 licence by holders of a B1.1 small aircraft licence
- MEASS00448 SAL032 Attainment of a B1.4 licence by holders of a B1.1 small aircraft licence
- MEASS00449 SAL033 Attainment of a B1.1 small aircraft licence by holders of a B1.2 licence
- MEASS00450 SAL034 Attainment of a B1.3 small aircraft licence by holders of a B1.2 licence
- MEASS00451 SAL035 Attainment of a B1.4 licence by holders of a B1.2 licence
- MEASS00452 SAL036 Attainment of a B1.1 small aircraft licence by holders of a B1.3 small aircraft licence
- MEASS00453 SAL037 Attainment of a B1.2 licence by holders of a B1.3 small aircraft licence
- MEASS00454 SAL038 Attainment of a B1.4 licence by holders of a B1.3 small aircraft licence
- MEASS00455 SAL039 Attainment of a B1.1 small aircraft licence by holders of a B1.4 licence
- MEASS00456 SAL040 Attainment of a B1.2 licence by holders of a B1.4 licence
- MEASS00457 SAL041 Attainment of a B1.3 small aircraft licence by holders of a B1.4 licence

Units of Competency

A total of **383 units of competency** to be redeveloped as part of this project.

The first phase of this work will determine if there are any new units of competency required.

262 existing units of competency to be revised and redeveloped:

- MEA101 Interpret work health and safety practices in aviation maintenance
- MEA103 Plan and organise aviation maintenance work activities
- MEA105 Apply quality standards applicable to aviation maintenance processes
- MEA107 Interpret and use aviation maintenance industry manuals and specifications
- MEA108 Complete aviation maintenance industry documentation
- MEA109 Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance
- MEA111 Perform administrative processes to prepare for certification of civil aircraft maintenance
- MEA112 Plan and implement civil aircraft maintenance activities
- MEA113 Supervise civil aircraft maintenance activities and manage human resources in the workplace
- MEA114 Certify aeronautical product maintenance
- MEA115 Plan and implement aeronautical product maintenance activities
- MEA116 Apply occupational health and safety procedures at supervisor level in

aviation maintenance

- MEA117 Apply self in the aviation maintenance environment
- MEA118 Conduct self in the aviation maintenance environment
- MEA119 Perform administrative processes to prepare for certification of civil aircraft A level line maintenance
- MEA120 Manage an aviation maintenance quality system
- MEA121 Manage aircraft/aeronautical product configuration
- MEA122 Manage aircraft/equipment system performance testing
- MEA123 Manage aviation maintenance work environment policy and practices
- MEA124 Coordinate change programs in the aviation maintenance environment
- MEA125 Develop aviation maintenance personnel
- MEA126 Manage aircraft maintenance activities
- MEA127 Provide technical advice in the maintenance and management of aircraft and aeronautical product
- MEA128 Provide engineering advice in the modification, maintenance and management of aircraft systems
- MEA129 Investigate technical aspects of aviation occurrences
- MEA130 Manage deployed/detached aviation maintenance activities
- MEA131 Manage the custody, transfer and disposal of aircraft, aeronautical product and support equipment
- MEA132 Manage budgetary resources in the aviation maintenance environment
- MEA133 Communicate aviation technical and maintenance management knowledge
- MEA134 Establish, maintain and evaluate the organisation's work health and safety system
- MEA135 Use computers in aviation maintenance-related integrated logistic support activities
- MEA136 Assess aviation maintenance spares and manage repairable items
- MEA137 Write aviation technical publications
- MEA138 Perform aviation technical publication management activities
- MEA139 Perform aviation maintenance – related integrated logistic support
- management activities
- MEA140 Supervise aviation maintenance teams and perform maintenance quality inspections
- MEA141 Manage risk in aviation maintenance
- MEA142 Manage self in the aviation maintenance environment
- MEA143 Develop and manage maintenance error management programs
- MEA145 Conversion from allied trades for employment in aviation maintenance workshops
- MEA146 Prepare and manage aviation maintenance organisation budgets and financial plans
- MEA147 Perform airworthiness management and maintenance program tasks
- MEA148 Apply mathematics and physics in aviation maintenance
- MEA201 Remove and install miscellaneous aircraft electrical hardware/components
- MEA202 Remove and install basic aircraft electrical system components
- MEA203 Remove and install advanced aircraft electrical system components
- MEA204 Remove and install basic aircraft instrument system components
- MEA205 Remove and install advanced aircraft instrument system components
- MEA206 Remove and install aircraft basic radio communication and navigation system components
- MEA207 Remove and install aircraft electronic system components
- MEA208 Remove and install aircraft pressurisation control system components
- MEA209 Remove and install aircraft oxygen system components
- MEA210 Inspect, test and troubleshoot basic aircraft electrical systems and components

- MEA211 Inspect, test and troubleshoot advanced aircraft electrical systems and components
- MEA212 Inspect, test and troubleshoot basic aircraft instrument systems and components
- MEA213 Inspect, test and troubleshoot advanced aircraft instrument systems and components
- MEA214 Inspect, test and troubleshoot aircraft basic communication and radio navigation systems and components
- MEA215 Inspect, test and troubleshoot advanced aircraft communications systems and components
- MEA216 Inspect, test and troubleshoot instrument landing systems and components
- MEA217 Inspect, test and troubleshoot fixed wing autopilot systems and components
- MEA218 Inspect, test and troubleshoot rotary wing autopilot systems and components
- MEA219 Inspect, test and troubleshoot aircraft pressurisation control systems and components
- MEA220 Inspect, test and troubleshoot aircraft primary radar systems and components
- MEA221 Inspect, test and troubleshoot aircraft secondary radar systems and components
- MEA222 Inspect, test and troubleshoot aircraft oxygen systems and components
- MEA223 Inspect aircraft electrical systems and components
- MEA224 Inspect aircraft instrument systems and components
- MEA225 Inspect fixed wing aircraft automatic flight control systems and components
- MEA226 Inspect aircraft electronic systems and components
- MEA227 Test and troubleshoot aircraft electrical systems and components
- MEA228 Test and troubleshoot aircraft instrument systems and components
- MEA229 Test and troubleshoot aircraft radio frequency navigation and communications systems and components
- MEA230 Test and troubleshoot fixed wing aircraft automatic flight control systems and components
- MEA231 Inspect, test and troubleshoot rotary wing aircraft automatic flight control systems and components
- MEA232 Test and troubleshoot aircraft pulse systems and components
- MEA233 Inspect, test and troubleshoot aircraft inertial navigation and reference systems and components
- MEA234 Inspect, test and troubleshoot aircraft global navigation systems and components
- MEA235 Perform advanced troubleshooting in aircraft avionic maintenance
- MEA238 Perform routine removal and installation of miscellaneous aircraft electrical hardware/components
- MEA239 Fabricate aircraft electrical looms and harnesses
- MEA240 Use electrical test equipment to perform basic electrical tests
- MEA241 Perform aircraft weight and balance calculations as a result of modifications
- MEA246 Fabricate and/or repair aircraft electrical hardware or parts
- MEA252 Test, align and troubleshoot aircraft synchro and servo system components
- MEA260 Use electrical test equipment
- MEA261 Use electronic test equipment
- MEA262 Modify/repair aircraft component single layer printed circuit boards
- MEA263 Modify/repair aircraft component multi-layer printed circuit boards
- MEA264 Remove and install aircraft electrical/avionic components during line maintenance
- MEA265 Remove and install general aircraft electrical hardware
- MEA266 Terminate and repair aircraft optical fibre cable
- MEA270 Lay out avionic systems
- MEA271 Lay out avionic flight management systems
- MEA274 Maintain basic light aircraft electrical systems and components

- MEA275 Maintain basic light aircraft instrument systems and components
- MEA276 Maintain basic aircraft communication and radio navigation systems and components
- MEA277 Maintain twin engine aircraft electrical systems and components
- MEA278 Inspect, test and troubleshoot instrument display systems and components
- MEA279 Inspect, test and troubleshoot full authority digital engine control systems
- MEA280 Inspect, test and troubleshoot flight management systems and components
- MEA281 Maintain light aircraft AC powered instrument systems and components
- MEA282 Repair or overhaul aircraft pulse system components
- MEA283 Repair or overhaul aircraft display, control and distribution system components
- MEA284 Repair or overhaul aircraft instrument system components
- MEA285 Repair or overhaul aircraft radio frequency communication and navigation system component
- MEA286 Repair or overhaul aircraft electrical/electro-mechanical components
- MEA287 Repair or overhaul aircraft oxygen system components
- MEA288 Repair or overhaul aircraft audio and visual systems and reproducers
- MEA289 Maintain basic light aircraft avionic systems and components
- MEA290 Fit avionic modification sheet metal components
- MEA291 Inspect, test and troubleshoot fixed wing single axis autopilot systems and components
- MEA301 Perform aircraft flight servicing
- MEA302 Remove and install aircraft hydro-mechanical and landing gear system components
- MEA303 Remove and install aircraft pneumatic system components
- MEA304 Remove and install non-pressurised aircraft structural and non-structural components
- MEA305 Remove and install aircraft fixed wing flight control system components
- MEA306 Remove and install engines and engine system components
- MEA307 Remove and install propeller systems and components
- MEA308 Remove and install rotary wing rotor and flight control system components
- MEA309 Inspect, test and troubleshoot aircraft hydro-mechanical and landing gear systems and components
- MEA310 Inspect, test and troubleshoot aircraft pneumatic systems and components
- MEA312 Inspect, test and troubleshoot aircraft fixed wing flight control systems and components
- MEA313 Inspect, test and troubleshoot piston engine systems and components
- MEA314 Inspect, test and troubleshoot gas turbine engine systems and components
- MEA315 Inspect, test and troubleshoot propeller systems and components
- MEA316 Inspect, test and troubleshoot rotary wing rotor and control systems and components
- MEA317 Remove and install pressurised aircraft structural and non-structural components
- MEA318 Inspect aircraft hydro-mechanical, mechanical, gaseous and landing gear systems and components
- MEA319 Inspect gas turbine engine systems and components
- MEA320 Test and troubleshoot aircraft hydro-mechanical, gaseous and landing gear systems and components
- MEA321 Test and troubleshoot aircraft fixed wing flight control systems and components
- MEA322 Test and troubleshoot gas turbine engine systems and components
- MEA323 Perform advanced troubleshooting in aircraft mechanical maintenance
- MEA325 Weigh aircraft and perform aircraft weight and balance calculations as a result of modifications
- MEA327 Fabricate and/or repair aircraft mechanical components or parts

- MEA328 Maintain and/or repair aircraft mechanical components or parts
- MEA329 Maintain aircraft basic hydraulic and pneumatic components or parts
- MEA330 Maintain aircraft non-primary structural removable components or parts and internal fittings
- MEA331 Maintain aircraft gas turbine engine components or parts
- MEA332 Maintain aircraft mechanical components or parts
- MEA333 Maintain aircraft piston engine components or parts
- MEA339 Inspect, repair and maintain aircraft structures
- MEA340 Lay out and set up aircraft systems
- MEA341 Apply basic aircraft design characteristics
- MEA342 Apply basic aircraft power plant design characteristics
- MEA343 Remove and install avionic system components
- MEA344 Remove and install aircraft components
- MEA345 Perform scheduled line maintenance activities on gas turbine engine fixed wing aircraft
- MEA346 Perform scheduled line maintenance activities on gas turbine engine rotary wing aircraft
- MEA347 Perform scheduled line maintenance activities on piston engine fixed wing aircraft
- MEA348 Perform scheduled line maintenance activities on piston engine rotary wing aircraft
- MEA351 Maintain airframe systems of basic light fixed wing aircraft
- MEA352 Maintain basic rotary wing aircraft systems
- MEA353 Maintain basic light aircraft engines and propellers
- MEA354 Maintain light aircraft pneumatic systems
- MEA355 Maintain light aircraft air cycle air conditioning systems
- MEA356 Maintain light piston engine aircraft pressurisation systems
- MEA357 Inspect, test and repair aircraft fabric surfaces
- MEA358 Re-cover aircraft fabric surfaces
- MEA359 Inspect and repair aircraft wooden structures
- MEA360 Maintain aircraft diesel engines
- MEA361 Maintain aircraft two stroke petrol engines
- MEA362 Maintain aircraft vapour cycle air conditioning systems
- MEA364 Maintain and/or repair small aircraft mechanical components or parts
- MEA365 Assess structural repair/modification requirements and evaluate structural repairs and modifications
- MEA366 Perform borescope inspections
- MEA367 Repair/modify aircraft composite structure using cold bonding
- MEA368 Shot peen aircraft components
- MEA369 Inspect and maintain structures and related components of non-pressurised small aircraft
- MEA370 Repair the structure of non-pressurised small aircraft
- MEA371 Perform major repairs and modifications to small aircraft metal structure
- MEA372 Perform mechanical elementary maintenance
- MEA380 Repair and/or overhaul aircraft hydraulic system components
- MEA381 Repair and/or overhaul aircraft pneumatic system components
- MEA382 Repair and/or overhaul aircraft fuel system components
- MEA383 Repair and/or overhaul gas turbine engine air inlet and compressor components and/or modules
- MEA384 Repair and/or overhaul gas turbine engine combustion section components and/or modules
- MEA385 Repair and/or overhaul gas turbine engine turbine and exhaust section components

- MEA386 Repair and/or overhaul gas turbine engine ancillary section components
- MEA387 Test gas turbine engines and engine modules after overhaul or repair
- MEA389 Repair and/or overhaul propellers
- MEA390 Repair and/or overhaul rotary wing dynamic components
- MEA391 Repair and/or overhaul aircraft mechanical system components
- MEA392 Disassemble aircraft piston engines
- MEA393 Repair and/or overhaul aircraft piston engine cylinder assembly components
- MEA394 Repair and/or overhaul aircraft piston engine crankcase assembly components
- MEA395 Reassemble aircraft piston engines
- MEA396 Assemble aircraft piston engine quick engine change unit
- MEA397 Test aircraft piston engines after repair or overhaul
- MEA401 Inspect aircraft structures
- MEA405 Repair/modify aircraft composite material structure/components
- MEA406 Repair/modify aircraft non-primary structural sheet metal components
- MEA407 Repair/modify aircraft non-primary structural non-metallic components
- MEA410 Maintain aircraft structure/components
- MEA411 Remove surface coatings from aircraft or aircraft components
- MEA412 Pre-treat aluminium alloy surfaces
- MEA413 Seal aircraft and aircraft component structural seams
- MEA414 Remove light corrosion from aircraft
- MEA415 Paint aircraft surfaces
- MEA416 Apply aircraft identification markings, graphics and decals
- MEA417 Apply specialty coatings to aircraft
- MEA418 Perform basic repair of aircraft internal fittings during line maintenance
- MEA419 Inspect and repair/modify aircraft cabin/cockpit non-primary structure components
- MEA420 Fabricate basic structural components for aircraft
- MEA421 Fabricate advanced structural components for aircraft
- MEA422 Repair/modify aircraft metal structure
- MEA423 Aircraft structure major disassembly and reassembly
- MEA424 Evaluate aircraft non-destructive tests
- MEA425 Perform bolted composite skin repairs
- MEA430 Gas weld aircraft components
- MEA431 Braze weld aircraft components
- MEA432 Weld aircraft components using the gas tungsten arc welding process
- MEA433 Weld aircraft components using the gas metal arc welding process
- MEA434 Weld aircraft components using the plasma arc welding process
- MEA435 Weld aircraft components using the manual metal arc welding process
- MEA501 Maintain and fit anti-G suits
- MEA502 Maintain and fit helmets
- MEA503 Maintain and fit immersion suits
- MEA504 Maintain and fit oxygen masks
- MEA505 Maintain and pack parachutes
- MEA507 Maintain, pack and fit survival inflatable buoyancy vests
- MEA508 Maintain, install and remove restraint systems
- MEA509 Manufacture, repair and alter aircraft related fabric components
- MEA510 Maintain seat and pod electrical and electronic systems
- MEA511 Operate and maintain sewing machines and overlockers
- MEA512 Maintain general aviation recovery devices with ballistic parachute systems
- MEA513 Maintain and pack survival inflatable life rafts
- MEA514 Maintain and pack escape slides

- MEA601 Maintain aircraft egress systems
- MEA602 Remove and install aircraft stores management system components
- MEA603 Remove and install aircraft stores suspension system components
- MEA604 Inspect, test and troubleshoot aircraft stores management systems and components
- MEA605 Inspect, test and troubleshoot aircraft stores suspension systems and components
- MEA701 Produce aeronautical engineering related graphics
- MEA702 Produce avionics engineering related graphics
- MEA703 Apply aeronautical modelling for computer-aided engineering
- MEA704 Apply avionic modelling for computer-aided engineering
- MEA705 Apply basic scientific principles and techniques in aeronautical engineering situations
- MEA706 Apply basic scientific principles and techniques in avionic engineering situations
- MEA707 Select and test aeronautical engineering materials
- MEA708 Select and test avionic engineering materials
- MEA709 Apply aeronautical structure design techniques
- MEA710 Apply aeronautical system design techniques
- MEA711 Apply avionic analogue design techniques
- MEA712 Apply avionic digital design techniques
- MEA713 Integrate aeronautical fundamentals into an engineering task
- MEA714 Integrate avionic fundamentals into an engineering task
- MEA715 Evaluate aeroplane flight control systems
- MEA716 Evaluate avionic analogue systems
- MEA717 Evaluate avionic digital systems
- MEA718 Evaluate rotorcraft flight control systems
- MEA719 Evaluate aircraft electrical systems
- MEA720 Evaluate aircraft gas turbine engine power plants
- MEA721 Evaluate aircraft hydro-mechanical systems
- MEA722 Evaluate aircraft piston engine power plants
- MEA723 Evaluate aircraft pneumatic systems
- MEA724 Evaluate aircraft structure
- MEA725 Apply advanced scientific principles and techniques in avionic engineering situations
- MEA726 Apply aircraft electrical system design techniques
- MEA727 Apply calculus in avionic engineering situations
- MEA729 Apply configuration management procedures in airworthiness engineering management
- MEA730 Apply systems engineering procedures to airworthiness engineering design project management

121 imported units of competency to be reviewed for suitability and currency as many have been superseded

- AURVTP2003 Prepare spray painting materials and equipment
- AURVTP3012 Apply air dry and polyurethane enamel refinishing materials
- AURVTT2004 Trim vehicle components
- AURVTT2005 Select and apply trim and fabric materials
- AURVTT2006 Select and apply trim and fabric adhesives
- AVIF3016A Marshal aircraft
- DEFEO101D Work safely with explosive ordnance
- DEFEO301D Package ammunition
- DEFEO302D Unpackage ammunition

- DEFEO501D Conduct explosive ordnance inspection
- DEFEO718C Maintain cartridge operated fire extinguisher systems
- LMTTF2008A Use adhesives
- MEM05004C Perform routine oxy acetylene welding
- MEM05006C Perform brazing and or silver soldering
- MEM05007C Perform manual heating and thermal cutting
- MEM05012C Perform routine manual metal arc welding
- MEM05015D Weld using manual metal arc welding process
- MEM05016C Perform advanced welding using manual metal arc welding process
- MEM05017D Weld using gas metal arc welding process
- MEM05018C Perform advanced welding using gas metal arc welding process
- MEM05019D Weld using gas tungsten arc welding process
- MEM05020C Perform advanced welding using gas tungsten arc welding process
- MEM05022C Perform advanced welding using oxy acetylene welding process
- MEM05026C Apply welding principles
- MEM05043B Perform welds to code standards using gas metal arc welding process
- MEM05044B Perform welds to code standards using gas tungsten arc welding process
- MEM05046B Perform welds to code standards using manual metal arc welding process
- MEM05049B Perform routine gas tungsten arc welding
- MEM05050B Perform routine gas metal arc welding
- MEM05051A Select welding processes
- MEM05052A Apply safe welding practices
- MEM06003C Carry out heat treatment
- MEM07001B Perform operational maintenance of machines/equipment
- MEM07002B Perform precision shaping/planing/slotting operations
- MEM07005C Perform general machining
- MEM07006C Perform lathe operations
- MEM07007C Perform milling operations
- MEM07008D Perform grinding operations
- MEM07009B Perform precision jig boring operations
- MEM07010B Perform tool and cutter grinding operations
- MEM07011B Perform complex milling operations
- MEM07012B Perform complex grinding operations
- MEM07013B Perform machining operations using horizontal and/or vertical boring machines
- MEM07015B Set computer controlled machines/processes
- MEM07016C Set and edit computer controlled machines/processes
- MEM07018C Write basic NC/CNC programs
- MEM07019C Program NC/CNC machining centre
- MEM07020C Program multiple spindle and/or multiple axis NC/CNC machining centre
- MEM07021B Perform complex lathe operations
- MEM07022C Program CNC wire cut machines
- MEM07024B Operate and monitor machine/process
- MEM07028B Operate computer controlled machines/processes
- MEM07030C Perform metal spinning lathe operations (basic)
- MEM07031C Perform metal spinning lathe operations (complex)
- MEM07032B Use workshop machines for basic operations
- MEM08001B Perform wire, jig and barrel load/unload work
- MEM08002C Pre-treat work for subsequent surface coating
- MEM08003C Perform electroplating operations
- MEM08004B Finish work using wet, dry and vapour deposition methods
- MEM08006B Produce clear and/or coloured and/or sealed anodised films on aluminium

- MEM08018B Electroplate engineering coatings
- MEM09002B Interpret technical drawing
- MEM09003B Prepare basic engineering drawing
- MEM09009C Create 2D drawings using computer aided design system
- MEM12001B Use comparison and basic measuring devices
- MEM12003B Perform precision mechanical measurement
- MEM12023A Perform engineering measurements
- MEM12024A Perform computations
- MEM13003B Work safely with industrial chemicals and materials
- MEM13013B Work safely with ionizing radiation
- MEM15004B Perform inspection
- MEM15010B Perform laboratory procedures
- MEM15017B Use and maintain reference standards
- MEM16002C Conduct formal interviews and negotiations
- MEM16006A Organise and communicate information
- MEM16008A Interact with computing technology
- MEM16010A Write reports
- MEM17002B Conduct workplace assessment
- MEM18001C Use hand tools
- MEM18002B Use power tools/hand held operations
- MEM22013A Coordinate engineering projects
- MEM23004A Apply technical mathematics
- MEM23007A Apply calculus to engineering tasks
- MEM234019A Apply finite element analysis in engineering design
- MEM234022A Apply advanced calculus to technology problems
- MEM24001B Perform basic penetrant testing
- MEM24002B Perform penetrant testing
- MEM24003B Perform basic magnetic particle testing
- MEM24004B Perform magnetic particle testing
- MEM24005B Perform basic eddy current testing
- MEM24006B Perform eddy current testing
- MEM24007B Perform ultrasonic thickness testing
- MEM24008B Perform ultrasonic testing
- MEM24009B Perform basic radiographic testing
- MEM24010B Perform radiographic testing
- MEM24011B Establish non-destructive tests
- MEM24012C Apply metallurgy principles
- MEM30007A Select common engineering materials
- MEM30012A Apply mathematical techniques in a manufacturing engineering or related environment
- MSAENV272B Participate in environmentally sustainable work practices
- MSAENV472B Implement and monitor environmentally sustainable work practices
- MSAENV672B Develop workplace policy and procedures for environmental sustainability
- MSFSF2001 Cut single layer fabric
- MSFSF2002 Machine sew materials
- MSFUP3012 Apply marine sewing and installation techniques
- PMBPROD262B Operate tyre curing equipment
- PMBPROD263B Operate retread curing equipment
- PMBPROD264C Check recycle wash process
- PMBPROD265C Operate portable vulcanising equipment
- PMBPROD266B Prepare tyre casings for retreading

Alignment of VET qualification standards to CASA licensing regulations

- PMBPROD324B Inspect tyres for retreading
- PMBPROD325B Lay on tyre retreads
- PMBPROD326B Inspect tyres
- PSPMNGT610A Manage public sector financial resources
- TAEASS401B Plan assessment activities and processes
- TAEASS402B Assess competence
- TAEASS403B Participate in assessment validation
- TAEASS502B Design and develop assessment tools
- TAEDEL301A Provide work skill instruction
- TAEDEL402A Plan, organise and facilitate learning in the workplace
- TAEDES401A Design and develop learning programs

Attachment B – MEA units of competency which service niche and critical sectors

	Unit Code	Unit Title
1.	MEA115	Plan and implement aeronautical product maintenance activities
2.	MEA140	Supervise aviation maintenance teams and perform maintenance quality inspections
3.	MEA210	Inspect, test and troubleshoot basic aircraft electrical systems and components
4.	MEA212	Inspect, test and troubleshoot basic aircraft instrument systems and components
5.	MEA213	Inspect, test and troubleshoot advanced aircraft instrument systems and components
6.	MEA214	Inspect, test and troubleshoot aircraft basic communication and radio navigation systems and components
7.	MEA215	Inspect, test and troubleshoot advanced aircraft communications systems and components
8.	MEA216	Inspect, test and troubleshoot instrument landing systems and components
9.	MEA217	Inspect, test and troubleshoot fixed wing autopilot systems and components
10.	MEA220	Inspect, test and troubleshoot aircraft primary radar systems and components
11.	MEA233	Inspect, test and troubleshoot aircraft inertial navigation and reference systems and components
12.	MEA234	Inspect, test and troubleshoot aircraft global navigation systems and components
13.	MEA252	Test, align and troubleshoot aircraft synchro and servo system components
14.	MEA266	Terminate and repair aircraft optical fibre cable
15.	MEA278	Inspect, test and troubleshoot instrument display systems and components
16.	MEA280	Inspect, test and troubleshoot flight management systems and components
17.	MEA282	Repair or overhaul aircraft pulse system components
18.	MEA283	Repair or overhaul aircraft display, control and distribution system components
19.	MEA284	Repair or overhaul aircraft instrument system components
20.	MEA285	Repair or overhaul aircraft radio frequency communication and navigation system components
21.	MEA333	Maintain aircraft piston engine components or parts
22.	MEA357	Inspect, test and repair aircraft fabric surfaces
23.	MEA368	Shot peen aircraft components
24.	MEA380	Repair and/or overhaul aircraft hydraulic system components
25.	MEA382	Repair and/or overhaul aircraft fuel system components
26.	MEA383	Repair and/or overhaul gas turbine engine air inlet and compressor components and/or modules

	Unit Code	Unit Title
27.	MEA384	Repair and/or overhaul gas turbine engine combustion section components and/or modules
28.	MEA385	Repair and/or overhaul gas turbine engine turbine and exhaust section components
29.	MEA386	Repair and/or overhaul gas turbine engine ancillary section components
30.	MEA387	Test gas turbine engines and engine modules after overhaul or repair
31.	MEA392	Disassemble aircraft piston engines
32.	MEA393	Repair and/or overhaul aircraft piston engine cylinder assembly components
33.	MEA413	Seal aircraft and aircraft component structural seams
34.	MEA416	Apply aircraft identification markings, graphics and decals
35.	MEA417	Apply specialty coatings to aircraft
36.	MEA425	Perform bolted composite skin repairs
37.	MEA432	Weld aircraft components using the gas tungsten arc welding process
38.	MEA502	Maintain and fit helmets
39.	MEA503	Maintain and fit immersion suits
40.	MEA504	Maintain and fit oxygen masks
41.	MEA507	Maintain, pack and fit survival inflatable buoyancy vests
42.	MEA509	Manufacture, repair and alter aircraft related fabric components
43.	MEA706	Apply basic scientific principles and techniques in avionic engineering situations
44.	MEA708	Select and test avionic engineering materials

Attachment C – MEA units of competency with low enrolments

	Unit Code	Unit Title
1.	MEA114	Certify aeronautical product maintenance
2.	MEA120	Manage an aviation maintenance quality system
3.	MEA123	Manage aviation maintenance work environment policy and practices
4.	MEA125	Develop aviation maintenance personnel
5.	MEA126	Manage aircraft maintenance activities
6.	MEA127	Provide technical advice in the maintenance and management of aircraft and aeronautical product
7.	MEA128	Provide engineering advice in the modification, maintenance and management of aircraft systems
8.	MEA130	Manage deployed/detached aviation maintenance activities
9.	MEA131	Manage the custody, transfer and disposal of aircraft, aeronautical product and support equipment
10.	MEA132	Manage budgetary resources in the aviation maintenance environment
11.	MEA134	Establish, maintain and evaluate the organisation's work health and safety system
12.	MEA135	Use computers in aviation maintenance-related integrated logistic support activities
13.	MEA139	Perform aviation maintenance-related integrated logistic support management activities
14.	MEA141	Manage risk in aviation maintenance
15.	MEA143	Develop and manage maintenance error management programs
16.	MEA145	Conversion from allied trades for employment in aviation maintenance workshops
17.	MEA146	Prepare and manage aviation maintenance organisation budgets and financial plans
18.	MEA202	Remove and install basic aircraft electrical system components
19.	MEA218	Inspect, test and troubleshoot rotary wing autopilot systems and components
20.	MEA263	Modify/repair aircraft component multi-layer printed circuit boards
21.	MEA270	Lay out avionic systems
22.	MEA271	Lay out avionic flight management systems
23.	MEA274	Maintain basic light aircraft electrical systems and components
24.	MEA275	Maintain basic light aircraft instrument systems and components
25.	MEA276	Maintain basic aircraft communication and radio navigation systems and components
26.	MEA277	Maintain twin engine aircraft electrical systems and components
27.	MEA279	Inspect, test and troubleshoot full authority digital engine control systems
28.	MEA281	Maintain light aircraft AC powered instrument systems and components
29.	MEA286	Repair or overhaul aircraft electrical/electro-mechanical components
30.	MEA287	Repair or overhaul aircraft oxygen system components
31.	MEA288	Repair or overhaul aircraft audio and visual systems and reproducers
32.	MEA290	Fit avionic modification sheet metal components
33.	MEA291	Inspect, test and troubleshoot fixed wing single axis autopilot systems and components

	Unit Code	Unit Title
34.	MEA330	Maintain aircraft non-primary structural removable components or parts and internal fittings
35.	MEA346	Perform scheduled line maintenance activities on gas turbine engine rotary wing aircraft
36.	MEA348	Perform scheduled line maintenance activities on piston engine rotary wing aircraft
37.	MEA351	Maintain airframe systems of basic light fixed wing aircraft
38.	MEA352	Maintain basic rotary wing aircraft systems
39.	MEA353	Maintain basic light aircraft engines and propellers
40.	MEA354	Maintain light aircraft pneumatic systems
41.	MEA355	Maintain light aircraft air cycle air conditioning systems
42.	MEA358	Re-cover aircraft fabric surfaces
43.	MEA359	Inspect and repair aircraft wooden structures
44.	MEA360	Maintain aircraft diesel engines
45.	MEA361	Maintain aircraft two stroke petrol engines
46.	MEA364	Maintain and/or repair small aircraft mechanical components or parts
47.	MEA366	Perform borescope inspections
48.	MEA369	Inspect and maintain structures and related components of non-pressurised small aircraft
49.	MEA370	Repair the structure of non-pressurised small aircraft
50.	MEA371	Perform major repairs and modifications to small aircraft metal structure
51.	MEA372	Perform mechanical elementary maintenance
52.	MEA381	Repair and/or overhaul aircraft pneumatic system components
53.	MEA389	Repair and/or overhaul propellers
54.	MEA390	Repair and/or overhaul rotary wing dynamic components
55.	MEA391	Repair and/or overhaul aircraft mechanical system components
56.	MEA394	Repair and/or overhaul aircraft piston engine crankcase assembly components
57.	MEA395	Reassemble aircraft piston engines
58.	MEA396	Assemble aircraft piston engine quick engine change unit
59.	MEA397	Test aircraft piston engines after repair or overhaul
60.	MEA406	Repair/modify aircraft non-primary structural sheet metal components
61.	MEA407	Repair/modify aircraft non-primary structural non-metallic components
62.	MEA412	Pre-treat aluminium alloy surfaces
63.	MEA424	Evaluate aircraft non-destructive tests
64.	MEA430	Gas weld aircraft components
65.	MEA431	Braze weld aircraft components
66.	MEA433	Weld aircraft components using the gas metal arc welding process
67.	MEA434	Weld aircraft components using the plasma arc welding process
68.	MEA435	Weld aircraft components using the manual metal arc welding process
69.	MEA501	Maintain and fit anti-G suits
70.	MEA505	Maintain and pack parachutes

	Unit Code	Unit Title
71.	MEA508	Maintain, install and remove restraint systems
72.	MEA510	Maintain seat and pod electrical and electronic systems
73.	MEA512	Maintain general aviation recovery devices with ballistic parachute systems
74.	MEA513	Maintain and pack survival inflatable life rafts
75.	MEA514	Maintain and pack escape slides
76.	MEA601	Maintain aircraft egress systems
77.	MEA602	Remove and install aircraft stores management system components
78.	MEA603	Remove and install aircraft stores suspension system components
79.	MEA604	Inspect, test and troubleshoot aircraft stores management systems and components
80.	MEA605	Inspect, test and troubleshoot aircraft stores suspension systems and components
81.	MEA701	Produce aeronautical engineering related graphics
82.	MEA702	Produce avionics engineering related graphics
83.	MEA703	Apply aeronautical modelling for computer-aided engineering
84.	MEA704	Apply avionic modelling for computer-aided engineering
85.	MEA709	Apply aeronautical structure design techniques
86.	MEA710	Apply aeronautical system design techniques
87.	MEA711	Apply avionic analogue design techniques
88.	MEA712	Apply avionic digital design techniques
89.	MEA713	Integrate aeronautical fundamentals into an engineering task
90.	MEA714	Integrate avionic fundamentals into an engineering task
91.	MEA715	Evaluate aeroplane flight control systems
92.	MEA716	Evaluate avionic analogue systems
93.	MEA717	Evaluate avionic digital systems
94.	MEA718	Evaluate rotorcraft flight control systems
95.	MEA719	Evaluate aircraft electrical systems
96.	MEA720	Evaluate aircraft gas turbine engine power plants
97.	MEA721	Evaluate aircraft hydro-mechanical systems
98.	MEA722	Evaluate aircraft piston engine power plants
99.	MEA723	Evaluate aircraft pneumatic systems
100.	MEA724	Evaluate aircraft structure
101.	MEA725	Apply advanced scientific principles and techniques in avionic engineering situations
102.	MEA726	Apply aircraft electrical system design techniques
103.	MEA727	Apply calculus in avionic engineering situations
104.	MEA729	Apply configuration management procedures in airworthiness engineering management
105.	MEA730	Apply systems engineering procedures to airworthiness engineering design project management