

Qualification Title: New Zealand Diploma in Aeronautical Engineering (European Regulations) (Level 5) with strands in Mechanical and Avionics

Qualification number: 2133

Date of review: 20 February 2017

Final decision on consistency of the qualification: National Consistency Confirmed

Threshold:

The threshold to determine sufficiency with the graduate profile was determined as evidence of:

Graduates being able to demonstrate and apply sufficient theoretical knowledge, as specified in the graduate profile, as established by their ability to successfully pass the European Aviation Safety Agency (EASA) module exams as specified under Rule Part 66¹.

Tertiary Education Organisations with sufficient evidence

Tertiary Education Organisation	Final rating
Service IQ	Sufficient
Air New Zealand Aviation Institute	Sufficient

Introduction

The New Zealand Diploma in Aeronautical Engineering (Level 5) was developed specifically to align with the EASA rules and regulations for the training of licenced aviation maintenance engineers. All licenced aviation maintenance engineers who work at organisations employing EASA's Part 145 processes, must have passed the examinations that form the summative assessment events for the programme that leads to this qualification. All unit standards are mapped to the knowledge requirements for the EASA exams. To gain the licence, there is also a work experience requirement, although this may be gained separately from the qualification.

Air New Zealand Aviation have graduated 18 trainees, 10 in 2015 and 8 in 2016. Nine graduated with the Mechanical Strand, 7 graduated with the Avionics strand and two graduates completed the requirements for both strands. Most (16) of these graduates are working under supervision within a maintenance organisation that employs EASA's Part 145 processes. After two years, these graduates will be eligible to apply for their licence. This will enable them to certify aircraft or components safe to fly and supervise unlicensed maintenance engineers. Service IQ have one graduate, who gained accreditation through

¹ <https://www.easa.europa.eu/>

the recognition of current competency (RCC) process, having passed the module exams successfully overseas.

Evidence

The education organisations provided a range of evidence to demonstrate that their graduates met the graduate profile outcomes.

The criteria used to judge the evaluation question were (p10 NZQA consistency guidelines):

- The nature, quality and integrity of the evidence presented by education organisation
- How well the organisation has analysed, interpreted and validated the evidence, and used the understanding gained to achieve actual or improved consistency
- The extent to which the education organisation can reasonably justify and validate claims and statements relating to the consistency of graduate outcomes, including in relation to other providers of programmes leading to the qualification

How well does the evidence provided by the education organisation demonstrate that its graduates match the graduate outcomes at the appropriate threshold?

A key factor in determining sufficiency for this programme was understanding the regulatory framework that sits around the EASA rules for the licensing of aeronautical maintenance engineers. The evidence supplied by both education organisations was based on this framework. This included the approval certificate for Air New Zealand Institute giving them EASA Part 147 accreditation as a maintenance training organisation. To maintain this accreditation, organisations must conduct regular internal audits to ensure necessary rules and regulations are complied with and participate in 6 monthly EASA audits conducted by international auditors. Any issues identified must be remedied in a timely manner.

The curriculum is highly regulated and all examinations are pre-moderated and undergo highly secure post-moderation processes. Further evidence was supplied showing that 16 of the 18 graduates are currently employed as maintenance engineers within workshops employing Part 145 processes, as required by EASA. An attestation from the supervisor of some graduates was also supplied, confirming their knowledge of engineering fundamentals.

Service IQ underwent a robust process to validate and verify evidence submitted by the graduate who was requesting recognition of current competency. The candidate had passed all necessary module examinations as per EASA regulations. These align directly with qualification graduate outcomes. As per regulations the achievement of the module examinations hold validity for up to 10 years.

The reviewer notes that the examinations, test not only the knowledge components but also the candidate's ability to combine the separate elements of knowledge in a logical manner, as per the graduate outcome statement.

While the evidence was largely based on inputs to the programme, this heavily regulated environment is key to assuring graduates match the graduate profile. The programme is mapped to the international EASA regulations that govern the training of licensed

aeronautical engineers, the organisations accredited to deliver the training meet strict standards and undergo regular audits, and examinations are pre- and post-moderated to ensure their robustness. Even though this qualification sits at level 5 on NZQA's framework, most graduates will work under supervision for two years before they can apply to be licensed.