

Field Engineering and Technology**Review of *Aeronautical Engineering* - Core unit standards**

Subfield	Domain	ID
Aeronautical Engineering	Aeronautical Engineering - Core	3894-99, 3900, 5428, 7245-47

The ServiceIQ has completed the review of the unit standards listed above.

Date new versions published

September 2013

Planned review date

December 2018

Summary

Please note that this is the first stage of several to review all of the unit standards in the Aeronautical Engineering subfield. The review was undertaken in consultation with Aeronautical Engineering industry as these unit standards were due for a review to ensure their relevance. The technology associated with aircraft has become more sophisticated. The industry identified certain skills that were not covered by existing unit standards. New unit standards have been developed to cover these skills.

Main changes

The review process has resulted in the following changes to the unit standards.

- Credit values for unit standards 3894, 3895 and 7247 have been changed to more accurately reflect the learning time required to gain the standards.
- Explanatory notes for unit standard 3896 have been expanded and a range has been added to Outcome 1.
- The levels of unit standards 3897, 3898, 3899, 3900, 5428, 7245 and 7247 have changed.
- Unit standard 3895 has had outcomes 1 and 6 removed.
- The prerequisites have been removed from unit standards 3896 and 3897.
- Outcome 2 of unit standard 3897 has been removed.
- Amendments have been made to outcomes, evidence requirements, range statements and explanatory notes.
- A last date for assessment of 31 December 2016 has been added for each of the previous versions of the revised unit standards.
- The reviewed unit standards have been updated onto the current template.
- SSB details have been updated following the merger the Aviation, Tourism and Travel Training Organisation into ServiceIQ.

Impact on registered qualifications

Key to type of impact	
Affected	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
Not materially affected	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following ServiceIQ qualifications are impacted by the outcome of this review and will

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be updated when they are reviewed in 2013. The classifications and/or standards that generated the status *Affected* are listed in **bold**.

Ref	Qualification Title	Classification or ID
0171	National Certificate in Aircraft Servicing	3894, 3895, 3896, 5428
0191	National Certificate in Aeronautical Engineering (Specialist Support) with optional strands in Aeronautical Composites; Aeronautical Electroplating; Aeronautical Machining; Aeronautical Non Destructive Testing; Aircraft Furnishings and Equipment; Aircraft Mechanical; Aircraft Painting; Aircraft Powerplant; Aircraft Structures; Armament; Avionics; and Rotocraft	3894, 3895, 3896, 5428
0192	National Certificate in Aeronautical Engineering with strands in Aeronautical Non Destructive Testing, Aircraft Mechanical, Aircraft Powerplant, Aircraft Structures, Armament, Avionic Electrical Repair, Avionic Instrument Repair, Avionic Radio Repair, and Rotocraft	3894, 3895, 3896, 5428, 7245, 7246
0381	National Certificate in Aeronautical Engineering (Related Technology)	3894, 3895, 3896, 5428
0742	National Certificate in Aeronautical Engineering (Aircraft Manufacture)	3894, 3896
1366	National Certificate in Aeronautical Engineering (Gas Turbine Overhaul)	3894, 3895, 3896

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Aeronautical Engineering > Aeronautical Engineering - Core

ID	Title	Level	Credit	Review Category
3894	Use aeronautical industry publications and documentation	3	6 10	B
3895	Apply aeronautical engineering maintenance practices	3	20 10	B
3896	Select, use, and maintain aeronautical engineering tools and equipment	3	10 12	B
3897	Apply avionic trade practices and locate defects Apply avionic trade practices	3 4	10	B
3898	Demonstrate knowledge of aircraft instrument systems	3 4	10	B
3899	Demonstrate knowledge of aircraft radio communications and navigation systems	3 4	10	B

ID	Title	Level	Credit	Review Category
3900	Demonstrate knowledge of aircraft electrical systems	3 4	10	B
5428	Demonstrate knowledge of aircraft construction and maintenance practices	2 3	14	B
7245	Demonstrate knowledge of avionic electronic theory	3 4	20	B
7246	Apply avionic repair skills	4	18	B
7247	Apply avionic maintenance practices	3 4	23 20	B
28030	Demonstrate knowledge of composite materials used in aircraft structure	3	6	New
28031	Demonstrate knowledge of human performance in aeronautical engineering	3	5	New
28032	Apply aeronautical engineering work and safety practices	3	10	New
28034	Interpret and use non-complex aircraft alternating current (AC) electrical load circuit diagrams to repair faults	3	4	New
28035	Interpret and use non-complex aircraft direct current (DC) electrical load circuit diagrams to repair faults	3	4	New
28037	Apply troubleshooting techniques to locate avionic defects	5	10	New
28038	Demonstrate knowledge of troubleshooting techniques to locate mechanical and electrical defects	3	5	New
28039	Apply troubleshooting techniques to locate mechanical defects	5	10	New

Engineering and Technology > Aeronautical Engineering > Aircraft Structures

28033	Identify and remove light corrosion from the surfaces of aircraft structure	3	4	New
28036	Fabricate non-complex sheet metal components for use on aircraft	3	15	New