

FIELD ENGINEERING AND TECHNOLOGY**Reclassification and Revision of *Avionic Repair* and *Avionic Maintenance* unit standards****Existing classification**

Subfield	Domain	Id
Aeronautical Engineering	Avionic Maintenance	3898-3900, 7247
	Avionic Repair	3955, 3956, 3964-3967, 3978, 3979, 3981-3984, 3994, 3996, 3998, 3999, 4065, 7245, 7246, 22546-22577, 22929-22943, 22968

New classification

Subfield	Domain	Id
Aeronautical Engineering	Aeronautical Engineering - Core	3898-3900, 7245-7247
	Avionic Electrical Repair	3955, 3965, 3966, 3978, 3982, 3999, 4065, 22553-22556, 22565-22568, 22577, 22934, 22937, 22941-22943
	Avionic Instrument Repair	3956, 3964, 3967, 3981, 3983, 3984, 3994, 22557-22564, 22931-22933, 22935, 22939, 22940, 22968
	Avionic Radio Repair	3979, 3996, 3998, 22546-22552, 22569-22576, 22929, 22930, 22936, 22938

The Aviation, Tourism and Travel Training Organisation (ATTTO) has reclassified the unit standards listed above.

Date new versions published

September 2007

Planned review date

December 2011

Rationale for the change

The avionic industry indicated that the National Certificate in Aeronautical Engineering with strands in Aeronautical Non Destructive Testing, Armament, Avionics, Aircraft Mechanical, Aircraft Powerplant, Rotorcraft, and Aircraft Structures [Ref: 0192] did not give trainees the opportunity to develop their skills, or have them properly recognised, within the different specialisations of the avionic trade. Initial work to correct this anomaly was started in 2004, and a full review was carried out in 2005 of all the standards within the Avionic Maintenance and Avionic Repair domains. This resulted in the splitting of many of the large standards into user-friendly sizes, more suited to industry requirements.

Due to the complexity of the aeronautical engineering review, the standards were reviewed in 2006 where the requirement for three new domains (Avionic Electrical Repair, Avionic Instrument Repair, and Avionic Radio Repair) was identified. The new domains were registered, however the final location of the standards was not confirmed until the qualification review was completed in 2007.

The development of the three new domains forms the preliminary foundation for the structure of the reviewed National Certificate in Aeronautical Engineering with strands [Ref: 0192]. The new qualification structure will allow for more industry specialisation, which should in turn increase the flexibility, attraction, and take up rate of the qualification.

The three new domains would also feature within the National Certificate in Aeronautical Engineering (Support) with strands in Aeronautical Composites, Aeronautical Machining, Aeronautical Non Destructive Testing, Aircraft Furnishings and Equipment, Aircraft Mechanical, Aircraft Painting, Aircraft Powerplant, Aircraft Structures, Armament, Avionics, Metal Surface Finishing, and Rotorcraft [Ref: 0191], although they would not affect the structure.

Consideration was given to listing the standards across the new strands in the reviewed National Certificate in Aeronautical Engineering with strands [Ref: 0192], but this was ruled out as it would make the qualification untidy and difficult to understand, but most importantly, as a result of rapid advances in industry technology, the qualifications would become maintenance heavy.

All development work has been carried out with full consultation and guidance from the Avionic Advisory Group.

Impact on existing provider accreditations

None.

Impact on Accreditation and Moderation Action Plan (AMAP)

AMAP 0028 has been updated to reflect the changes made to the standards.

Impact on existing qualifications

Qualifications that contain the standards or classifications are tabled below.

Affected	The qualification lists a changed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits
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 ATTTO qualifications are affected by the changes and will be reviewed in 2007.

Qualification title	Classification or standard in the qualification
National Certificate in Aeronautical Engineering (Support) with strands in Aeronautical Composites, Aeronautical Machining, Aeronautical Non Destructive Testing, Aircraft Furnishings and Equipment, Aircraft Mechanical, Aircraft Painting, Aircraft Powerplant, Aircraft Structures, Armament, Avionics, Metal Surface Finishing, and Rotorcraft [Ref: 0191]	Avionic Maintenance, Avionic Repair
National Certificate in Aeronautical Engineering with strands in Aeronautical Non Destructive Testing, Armament, Avionics, Aircraft Mechanical, Aircraft Powerplant, Rotorcraft, and Aircraft Structures [Ref: 0192]	Avionic Maintenance, Avionic Repair
National Certificate in Aviation (Introductory) (Level 2) [Ref: 1105]	Avionic Maintenance

Summary of main changes

There have been no changes to the titles, levels, credits, or content of the unit standards.

All changes are in **bold**.

Subfield Aeronautical Engineering

Id	Domain	Title	Level	Credit
3898	Avionic Maintenance Aeronautical Engineering - Core	Demonstrate knowledge of aircraft instrument systems	3	10
3899	Avionic Maintenance Aeronautical Engineering - Core	Demonstrate knowledge of aircraft radio communications and navigation systems	3	10
3900	Avionic Maintenance Aeronautical Engineering - Core	Demonstrate knowledge of aircraft electrical systems	3	10
7245	Avionic Repair Aeronautical Engineering - Core	Demonstrate knowledge of avionic electronic theory	3	20
7246	Avionic Repair Aeronautical Engineering - Core	Apply avionic repair skills	4	18
7247	Avionic Maintenance Aeronautical Engineering - Core	Apply avionic maintenance practices	3	23
3955	Avionic Repair Avionic Electrical Repair	Repair and/or fabricate aircraft wiring loom and harness assemblies	4	12
3965	Avionic Repair Avionic Electrical Repair	Repair aircraft electrical anti-icing and de-icing system components	4	15
3966	Avionic Repair Avionic Electrical Repair	Repair aircraft automatic electronic braking system components	4	10
3978	Avionic Repair Avionic Electrical Repair	Repair aircraft fire detection and protection system components	4	15
3982	Avionic Repair Avionic Electrical Repair	Repair aircraft lighting system components	4	30
3999	Avionic Repair Avionic Electrical Repair	Repair avionic printed circuit boards	4	9
4065	Avionic Repair Avionic Electrical Repair	Fabricate aeronautical printed circuit boards by etching	4	6
22553	Avionic Repair Avionic Electrical Repair	Repair aircraft galley heating equipment	4	10
22554	Avionic Repair Avionic Electrical Repair	Repair aircraft galley chilling equipment	4	15
22555	Avionic Repair Avionic Electrical Repair	Repair aircraft lead-acid batteries	4	5
22556	Avionic Repair Avionic Electrical Repair	Repair aircraft nickel-cadmium batteries	4	5

Id	Domain	Title	Level	Credit
22565	Avionic Repair Avionic Electrical Repair	Repair aircraft electronic power control and distribution system components	4	20
22566	Avionic Repair Avionic Electrical Repair	Repair aircraft solid state invertors	4	15
22567	Avionic Repair Avionic Electrical Repair	Repair aircraft transformer rectifier units	4	5
22568	Avionic Repair Avionic Electrical Repair	Repair aircraft electromechanical regulators	4	10
22577	Avionic Repair Avionic Electrical Repair	Repair and/or fabricate aircraft fibre optic conductors and harness assemblies	4	12
22934	Avionic Repair Avionic Electrical Repair	Repair aircraft electrical and electronic switching equipment	4	10
22937	Avionic Repair Avionic Electrical Repair	Repair aircraft reciprocating engine ignition system components	4	10
22941	Avionic Repair Avionic Electrical Repair	Repair aircraft gas turbine engine ignition system components	4	20
22942	Avionic Repair Avionic Electrical Repair	Repair aircraft electric cabin heating system components	4	15
22943	Avionic Repair Avionic Electrical Repair	Repair and/or recondition aircraft electrical rotating machines	4	30
3956	Avionic Repair Avionic Instrument Repair	Repair commercial aviation optical system components	4	38
3964	Avionic Repair Avionic Instrument Repair	Repair aircraft navigation computing system components	4	20
3967	Avionic Repair Avionic Instrument Repair	Repair and/or recondition aircraft autopilot system components	4	30
3981	Avionic Repair Avionic Instrument Repair	Repair aircraft inertial navigation system components	4	40
3983	Avionic Repair Avionic Instrument Repair	Repair aircraft optical system components	4	40
3984	Avionic Repair Avionic Instrument Repair	Repair aircraft pitot static system components	4	10
3994	Avionic Repair Avionic Instrument Repair	Repair aeronautical electronic test equipment	4	40
22557	Avionic Repair Avionic Instrument Repair	Repair aircraft digital computer equipment	4	40
22558	Avionic Repair Avionic Instrument Repair	Repair aircraft digital computer peripheral equipment	4	25
22559	Avionic Repair Avionic Instrument Repair	Repair electromechanical air data instruments	4	30
22560	Avionic Repair Avionic Instrument Repair	Repair mechanical air data instruments	4	30
22561	Avionic Repair Avionic Instrument Repair	Repair aircraft pressure sensing digital air data computers	4	25
22562	Avionic Repair Avionic Instrument Repair	Repair aircraft electronic instrument displays	4	25
22563	Avionic Repair Avionic Instrument Repair	Repair aircraft electronic multifunction displays	4	25

Id	Domain	Title	Level	Credit
22564	Avionic Repair Avionic Instrument Repair	Repair aircraft electronic character and/or symbol generators	4	25
22931	Avionic Repair Avionic Instrument Repair	Repair aircraft electronic engine control system components	4	25
22932	Avionic Repair Avionic Instrument Repair	Repair aircraft compass system components	4	20
22933	Avionic Repair Avionic Instrument Repair	Repair aircraft flight data recording equipment	4	10
22935	Avionic Repair Avionic Instrument Repair	Repair and/or recondition aircraft gyroscopic instrument system components	4	50
22939	Avionic Repair Avionic Instrument Repair	Repair aircraft direct reading instrument system components	4	20
22940	Avionic Repair Avionic Instrument Repair	Repair aircraft remote reading quantitative instruments and components	4	45
22968	Avionic Repair Avionic Instrument Repair	Repair aircraft remote reading flight instruments and components	4	50
3979	Avionic Repair Avionic Radio Repair	Repair aircraft global positioning system components	4	30
3996	Avionic Repair Avionic Radio Repair	Repair aircraft cockpit voice recorders and area microphones	4	30
3998	Avionic Repair Avionic Radio Repair	Repair aircraft weapons radar system components	4	20
22546	Avionic Repair Avionic Radio Repair	Repair aircraft passenger address system components	4	10
22547	Avionic Repair Avionic Radio Repair	Repair aircraft passenger entertainment system components	4	10
22548	Avionic Repair Avionic Radio Repair	Repair aircraft high frequency (HF) communication system components	4	20
22549	Avionic Repair Avionic Radio Repair	Repair aircraft very high frequency (VHF) communication system components	4	20
22550	Avionic Repair Avionic Radio Repair	Repair aircraft ultra high frequency (UHF) communication system components	4	20
22551	Avionic Repair Avionic Radio Repair	Repair aircraft video tape players	4	10
22552	Avionic Repair Avionic Radio Repair	Repair aircraft in-flight entertainment video display units	4	15
22569	Avionic Repair Avionic Radio Repair	Repair aircraft primary airborne radar transceivers	4	55
22570	Avionic Repair Avionic Radio Repair	Repair aircraft primary radar antenna drive units and control panels	4	25
22571	Avionic Repair Avionic Radio Repair	Repair aircraft distance measuring equipment	4	35
22572	Avionic Repair Avionic Radio Repair	Repair aircraft tactical air navigation system components	4	35

Id	Domain	Title	Level	Credit
22573	Avionic Repair Avionic Radio Repair	Repair aircraft transponder system components	4	35
22574	Avionic Repair Avionic Radio Repair	Repair aircraft very high frequency (VHF) omnidirectional range system components	4	30
22575	Avionic Repair Avionic Radio Repair	Repair aircraft instrument landing system components	4	30
22576	Avionic Repair Avionic Radio Repair	Repair aircraft automatic direction finder system components	4	20
22929	Avionic Repair Avionic Radio Repair	Repair aircraft audio system components	4	20
22930	Avionic Repair Avionic Radio Repair	Repair aircraft LORAN navigation system components	4	25
22936	Avionic Repair Avionic Radio Repair	Repair aircraft ground proximity warning system components	4	20
22938	Avionic Repair Avionic Radio Repair	Repair aircraft radio and radar altimeter system components	4	30