

Level 3 Diploma in Aeronautical Engineering Survival Equipment Maintenance (4808-30)

Version 1 (September 2017)

Qualification Handbook

Qualification at a glance

Subject area	Mechanical
Age group approved	16-19, 19+
Entry requirements	None
Assessment types	Centre Devised
Approvals	This product is restricted to centres that work with the Ministry of Defence. Centres wishing to deliver this should contact their City & Guilds local office.
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	GLH	TQT	City & Guilds qualification number	Ofqual accreditation number
Level 3 Diploma in Aeronautical Engineering Survival Equipment Maintenance	498	535	4808-30	603/2444/2

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1 Introduction

This document tells you what you need to do to deliver the qualification:

Area	Description
Who is the qualification for?	This certificate is aimed at learners who work in the Aerospace and Aviation sector as an survival equipment maintenance engineer within the Military.
What does the qualification cover?	The qualification allows candidates to learn, develop and practise the knowledge and skills required for employment and/or career progression in the Aerospace and Aviation sector within the Military.
What opportunities for progression are there?	On successful completion of the standard, candidates are able to progress to the Higher Technician Family of Apprenticeships, such as the Aircraft Maintenance Certifying Engineer Standard.
Who did we develop the qualification with?	These qualifications were developed by the Aerospace Engineering Trailblazer Employer Group led by BAE systems.
Is it part of an apprenticeship framework or initiative?	The qualification is included in the Apprenticeship standard Aircraft Maintenance Fitter/Technician (Fixed and Rotary Wing).

Structure

Level 3 Diploma in Aeronautical Engineering Survival Equipment Maintenance

City & Guilds unit number	Unit title	GLH
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Learners must complete the mandatory unit and 7 units from the optional group.

Mandatory

301	Human Factors (HF) in a military aviation environment	35
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Optional

302	Survival equipment engineering trade knowledge	120
303	Survival equipment sewing tasks and maintenance of harnesses	60
304	Survival equipment Aircrew Equipment Assemblies (AEA)	100
305	Maintenance of rescue equipment and liferafts	90
306	Maintenance of protective helmets and Night Vision Goggles (NVG)	50
307	Introduction to survival equipment electrics and maintenance	80
308	Maintaining aircrew oxygen systems	40
309	Maintenance and packing of parachutes	40

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Title and level	GLH	TQT
Level 3 Diploma in Aeronautical Engineering Survival Equipment Maintenance	498	535

2 Centre requirements

Approval

This product is restricted to centres that work with the Royal Air Force. Centres wishing to deliver this should contact their City & Guilds local office.

To offer these qualifications, new centres will need to gain both centre and qualification approval. Please refer to the Centre Manual - Supporting Customer Excellence for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualifications before designing a course programme.

Resource requirements

Centre staffing

Staff delivering these qualifications must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be occupationally competent or technically knowledgeable in the area[s] for which they are delivering training and/or have experience of providing training. This knowledge must be to the same level as the training being delivered
- have recent relevant experience in the specific area they will be assessing
- have credible experience of providing training.

Centre staff may undertake more than one role, eg tutor and assessor or internal verifier, but cannot internally verify their own assessments.

Learner entry requirements

City & Guilds does not set entry requirements for these qualifications. However, centres must ensure that candidates have the potential and opportunity to gain the qualifications successfully.

Age restrictions

City & Guilds cannot accept any registrations for learners under 16 as these qualifications are not approved for learners under 16.

3 Delivering the qualification

Initial assessment and induction

An initial assessment of each candidate should be made before the start of their programme to identify:

- if the candidate has any specific training needs
- support and guidance they may need when working towards their qualifications
- any units they have already completed, or credit they have accumulated which is relevant to the qualifications
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the candidate fully understands the requirements of the qualification, their responsibilities as a candidate, and the responsibilities of the centre. This information can be recorded on a learning contract.

Support materials

Recording documents

Candidates and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds endorses several ePortfolio systems, including our own, Learning Assistant, an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: www.cityandguilds.com/eportfolios.

City & Guilds has developed a set of *Recording forms* including examples of completed forms, for new and existing centres to use as appropriate. Recording forms are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which must be approved for use by the external verifier, before they are used by candidates and assessors at the centre. Amendable (MS Word) versions of the forms are available on the City & Guilds website.

4 Assessment

Summary of assessment methods

Candidates must:

- • successfully complete centre devised assessment for each unit

Centre set and marked assessments

City & Guilds has provided separate guidance for writers of centre based assessments which should be read in conjunction with this document, entitled, '**GM1 - Developing centre devised assessments – guidance for centre based assessment writers**'.

A set of generic recording forms is also provided as follows:

- Assessment tasks (AD1)
- Assessment grading criteria (AD2)
- Assessment sign off form (AD3)
- Evidence recording form (GF1)
- Assessment unit front and mark sheet (GF2)
- Assessment task front sheet (GF3)
- Assessment unit mark sheet (GF4)
- Assessment feedback and action plan form (GF5)
- Qualification assessment tracking form (GF6)
- Group assessment tracking form (GF7)

A full explanation of the use of these forms can be found in the centre devised assessment writing guidance. All of this material is available to download from the City & Guilds website at <http://www.cityandguilds.com/delivering-our-qualifications/centre-development/quality-assurance/quality-assurance-documents>.

All centre devised assessments need to be signed off by an EQA prior the candidate sitting the assessment.

Recognition of prior learning (RPL)

Recognition of prior learning means using a person's previous experience, or qualifications which have already been achieved, to contribute to a new qualification.

For this qualification, RPL is allowed and is not sector specific.

Grading of Qualification

This qualification is graded Pass/Merit/Distinction, through the aggregation of the individual unit assessments graded Pass/Merit/Distinction.

Grading can be of use both as a motivational tool within the learning environment and also to learners presenting evidence of their knowledge to prospective employers.

All assessments must be achieved at a minimum of Pass for the qualification to be achieved. All assessments are graded Pass/Merit/Distinction and contribute equally to the overall qualification grade.

Centres will need to calculate the qualification grade as follows:

- Centre will mark and grade each graded assessment using the model answer mark scheme provided by City & Guilds and available on www.cityandguilds.com
- The grade achieved by a learner will need to be converted into points as follows:

Individual assessment grade	Grade points
Pass	4
Merit	6
Distinction	8

Grade points for each assessment need to be added together and the overall qualification grade determined using the following conversion table:

Total grade points	Overall qualification grade
32 – 39	Pass
40 – 55	Merit
56 – 64	Distinction

5 Units

Structure of the units

These units each have the following:

- City & Guilds reference number
- Title
- Level
- Guided learning hours (GLH)
- Learning outcomes, which are comprised of a number of assessment criteria

Centres must deliver the full breadth of the range. Specialist equipment or commodities may not be available to all centres, so centres should ensure that their delivery covers their use. This may be covered by a practical demonstration (e.g. video). For the practical assessments for this qualification, centres should ensure that there are sufficient resources to complete the task but are not required to use all the equipment or commodities in the range.

Unit 301

Human Factors (HF) in a military aviation environment

Unit level:	Level 3
GLH:	35
Unit aim:	This unit aims to give a working knowledge of the influence of HF in a military aerospace environment.
Relationship to NOS:	This unit is linked to the Aeronautical Engineering Level 2 NOS Units 001, 002 etc
Endorsed by	This unit is endorsed by SEMTA.

Learning outcome

The learner will:

- 1 know human factors and human performance limitations

Assessment criteria

The learner can:

- 1.1 state the meaning of the term Human Factors (HF)
- 1.2 describe the effects HF have on performance
- 1.3 describe the military requirements for HF
- 1.4 describe psychological limitations and their effects
- 1.5 describe physiological limitations and their effects
- 1.6 describe environmental limitations and their effects

Range

(AC1.1) **To include:**

Definition
Scope
Workable solutions

(AC1.2) **To include:**

Safety
Damage
Inefficiency

(AC1.3) **To include:**

Safety of Personnel
Safety of Assets
Long term health

- Efficiency
 - Training
 - (AC1.4) **To include:**
 - Individual and group responsibility
 - Motivation
 - Peer pressure
 - Culture
 - Stress
 - (AC1.5) **To include:**
 - Illness
 - Injury
 - Tiredness
 - (AC1.6) **To include:**
 - Noise
 - Heat
 - Light
 - Fumes
 - Vibration
-

Learning outcome

The learner will:

- 2 understand managing factors in human factors

Assessment criteria

The learner can:

- 2.1 describe 'managing factors' and their effect on performance
 - 2.2 describe the importance of checklists, procedures and documentation in HF management
 - 2.3 describe techniques for effective management of emergencies and conflicts
 - 2.4 describe techniques for effective management of workload
 - 2.5 describe techniques to enhance the team's performance
-

Range

- (AC2.1) **To include:**
 - Individual
 - Organisational
 - Techniques
 - Processes
 - (AC2.2) **To include:**
 - Rational
 - Context
 - Appropriate use
 - (AC2.3) **To include:**
 - Training
-

- Priorities
 - Reporting
 - (AC2.4) **To include:**
 - Resource management
 - Planning
 - Monitoring
 - Managing distraction
 - (AC2.5) **To include:**
 - Team dynamics
 - Appropriate behaviour
 - Own effect
 - Leadership
 - Fellowship
 - Situational awareness
 - Decision making
 - Communication
-

Learning outcome

The learner will:

- 3 know potential factors

Assessment criteria

The learner can:

- 3.1 explain the effect potential factors have on performance
 - 3.2 describe the interrelation between potential factors
 - 3.3 describe why errors are made
 - 3.4 describe the factors that contribute to errors being made
-

Range

- (AC3.1) **To include:**
 - Explain the effect potential factors have on performance
 - Describe the interrelation between potential factors
 - Describe why errors are made
 - Describe the factors that contribute to errors being made
 - (AC3.2) **To include:**
 - Case studies
 - Combinations
 - Impact
 - Risk Assessment
 - (AC3.3) **To include:**
 - Types of error
 - Error processes
 - Pressure
-

- Reporting
 - (AC3.4) **To include:**
 - Individual
 - Organisational
 - Error management
 - Error reduction techniques
-

Learning outcome

The learner will:

- 4 know organisational regulation and guidance

Assessment criteria

The learner can:

- 4.1 describe the organisation's Safety Management System
 - 4.2 describe the organisation's health and safety policy
 - 4.3 describe the organisation's Just Culture and Disciplinary Policy
 - 4.4 describe the components of effective safety reporting
-

Range

- (AC4.1) **To include:**
 - Location
 - Contents
 - Responsibilities
 - Tools
 - (AC4.2) **To include:**
 - Location
 - Contents
 - Responsibilities
 - How to mitigate error
 - Risk
 - (AC4.3) **To include:**
 - Location
 - Contents
 - Responsibilities
 - Error reporting
 - (AC4.4) **To include:**
 - Necessity
 - System
 - Processes
-

Unit 301

Human Factors (HF) in a military aviation environment

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military aircraft.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 302

Survival equipment engineering trade knowledge

Unit level:	Level 3
GLH:	120
Unit aim:	This unit aims to give a working knowledge of military Survival Equipment (SE) trade skills.

Learning outcome

The learner will:

- 1 understand the use of measuring equipment required for the Survival Equipment (SE) trade

Assessment criteria

The learner can:

- 1.1 identify and explain the purpose of basic measuring equipment
- 1.2 identify and describe the use of, and procedure for reading measuring equipment
- 1.3 explain the general purpose of non-adjustable gauges
- 1.4 identify and describe the use of non-adjustable gauges
- 1.5 explain the need for careful handling and storage of non-adjustable gauges

Learning outcome

The learner will:

- 2 know, select, use and control basic, torque and cutting tools required for the SE trade

Assessment criteria

The learner can:

- 2.1 describe the regulations for the management of hand tools in a Military Air Environment (MAE)
- 2.2 describe why hand tools are permanently marked, stored and how this is carried out
- 2.3 identify and explain the purpose of basic hand tools
- 2.4 explain the definition of torque and the purpose of the various types of torque loading tools
- 2.5 explain the need for the correct torque loading of threaded fasteners
- 2.6 describe the procedure for checking and setting the various types of torque wrenches / tools to specific torque loads

Learning outcome

The learner will:

- 3 understand the types and properties of engineering materials

Assessment criteria

The learner can:

- 3.1 describe the characteristics, properties and identification of engineering materials
- 3.2 describe how the composition and quality of metals used, are controlled by various authorities
- 3.3 identify the types and causes of corrosion

Learning outcome

The learner will:

- 4 understand the processes used to mark out, cut, shape, and drill materials required for the SE trade

Assessment criteria

The learner can:

- 4.1 explain the purpose of and use workshop drawings
- 4.2 set up and use suitable equipment to mark out supplied materials
- 4.3 select and use correct tools and equipment to measure, mark, cut and shape different materials
- 4.4 explain the main elements of the drilling process

Learning outcome

The learner will:

- 5 understand the different types of, and uses for, rivets, fasteners and screw threads

Assessment criteria

The learner can:

- 5.1 explain the differences in rivet materials and markings
- 5.2 explain the differences between commonly used rivet joints
- 5.3 describe the procedure for performing a simple riveting task at the bench using the correct tools and rivets
- 5.4 identify and explain the causes and effects of common riveting faults
- 5.5 describe the use of standard equipment locking devices
- 5.6 identify and describe selected nuts, bolts, screws, studs and washers
- 5.7 explain commonly used screw thread terminology

Unit 302

Survival equipment engineering trade knowledge

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military aircraft.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 303

Survival equipment sewing tasks and maintenance of harnesses

Unit level:	Level 3
GLH:	60
Unit aim:	This unit aims to give a working knowledge of military Survival Equipment (SE) sewing tasks and maintenance of harnesses.

Learning outcome

The learner will:

- 1 understand the techniques required to carry out sewing machine repairs

Assessment criteria

The learner can:

- 1.1 explain the need for machine-sewn repairs and the procedures, legislation and precautions to be observed when carrying them out
- 1.2 identify and explain the purpose of the components and tools required to complete a sewing machine task
- 1.3 carry out sewing machine repairs to survival equipment

Range

(AC1.1) **To include:**

- Repairs
- Modifications
- Manufacture or attachment
- Current, relevant Digital Air Publications
- Modifications, Routine Technical Instruction & Special Technical Instructions
- Tool control procedures
- Safety precautions:
 - electric shock
 - snagging hazard
 - cuts and punctures
 - CoSHH hazards

(AC1.2) **To include:**

- Components of typical machine in current use:
 - machine arm and bed
 - table and electric motor
 - pulley
 - thread guides

- regulator
- reverse lever
- take up arm
- needle thread tension regulator
- presser bar, lever and foot
- needle
- needle bar

Authorised tools for machine and task

(AC1.3) **To include:**

Basic operation:

- posture
- eye line
- power application
- speed control
- basic lines on lined paper

Loading lower thread bobbin

Threading upper thread

Sew straight lines onto material

Overstitching

Corners

Common stitch patterns

Machine adjustments for correct sewing patterns

Adjustment of machine timing

Perform patch repair

Construction techniques

Learning outcome

The learner will:

- 2 understand the techniques required to carry out knot work on survival equipment

Assessment criteria

The learner can:

- 2.1 identify different cords and threads and understand their different uses
- 2.2 be able to construct a range of knots and ties

Range

(AC2.1) **To include:** Cords

Breaking strength

Threads

Thread count

Knots

Tie

- Binding
 - Sealing
 - (AC2.2) **To include:**
 - Reef Knot
 - Double Reef knot
 - Thumb and stop knots
 - Bowline
 - Half hitch
 - Clove hitch
 - Larks head knot
 - Whipping
-

Learning outcome

The learner will:

- 3 understand the techniques required to carry out hand sewn and hardware repairs

Assessment criteria

The learner can:

- 3.1 understand the procedures, safety precautions and regulations to be adhered to when carrying out hand sewn and hardware repairs
 - 3.2 describe the techniques required for relevant hand sewn repairs
 - 3.3 carry out hardware repairs
-

Range

(AC3.1) **To include:**

Health and Safety Precautions:

- hand drill
- needles
- press fastener
- scissors

Tool control

Documentation

Current, relevant digital air publications

modifications, routine technical instruction & special technical instructions

(AC3.2) **To include:**

Stitching knots

Stitching pockets

Minor repairs

Darning

Herringbone stich

(AC3.3) **To include:**

Pack attachment devices

Press fasteners

Learning outcome

The learner will:

- 4 understand the techniques required to carry out maintenance on a restraint harness systems

Assessment criteria

The learner can:

- 4.1 understand the purpose and operation of the component parts of typical restraint harnesses
- 4.2 explain the principles of maintaining typical aircrew harness assemblies
- 4.3 explain the principles of maintaining typical passenger restraint harness assemblies

Range

(AC4.1) **To include:**

Typical safety harness, for example:

- Type Z

Typical shoulder harness

Lap and diagonal straps

Passenger seat belts

Dispatcher safety harnesses

Stretcher harnesses

Ejection seat harness

Full body harness

Helicopter harnesses

Quick release buckles

Quick Release Fittings (QRFs)

(AC4.2) **To include:**

Current relevant DAPs

QRFs

Inertia reels

Safety precautions:

COSHH

Cadmium

Torsion springs

Dismantling and assembly

(AC4.3) **To include:**

Current relevant DAPs

Lap straps

Safety precautions:

COSHH

Cadmium

Lubrication

Dismantling and assembly

Unit 303

Survival equipment sewing tasks and maintenance of harnesses

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military aircraft.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Speaking and listening
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 304

Survival equipment Aircrew Equipment Assemblies (AEA)

Unit level:	Level 3
GLH:	100
Unit aim:	This unit aims to give a working knowledge of military Survival Equipment (SE) Aircrew Equipment Assemblies (AEA).

Learning outcome

The learner will:

- 1 Understand the requirement for different types of life preserver and the precautions and techniques involved in their maintenance

Assessment criteria

The learner can:

- 1.1 Identify and explain the uses of the different life preservers currently in service
- 1.2 Explain the specific safety precautions and procedures to be observed whilst carrying out the maintenance of life preservers
- 1.3 Explain the requirements of different types of maintenance on a modular aircrew life preserver
- 1.4 Carry out maintenance on a life preserver

Range

(AC1.1) **To include:**

Fast jet flight jacket
Modular life preserver
Load carrying Jerkin
Current aircrew life preserver, for example:
- Mk 25, Mk 60, etc.
Passenger life preserver

(AC1.2) **To include:**

Pyrotechnics
COSHH
Maintenance data sheets
Current relevant DAPs
Avoidance of inadvertent activation of the emergency beacon

(AC1.3) **To include:** Scheduled maintenance

After last flight daily servicing

Out of phase maintenance

(AC1.4) **To include:**

Main component parts:

- waistcoat assembly
- waist adjustment
- lifting beackets
- crotch strap
- sleeves (if fitted)
- floatation assembly
- pouch
- water activated light/battery
- inflation equipment

Current relevant DAPs

Safety precautions

Tool control

Dismantle and reassembly

Aircrew cutter

Learning outcome

The learner will:

- 2 be able to undertake maintenance of Personal Locator Beacons (PLB)

Assessment criteria

The learner can:

- 2.1 explain the specific safety precautions and procedures to be observed whilst carrying out the maintenance of personal locator beacons
- 2.2 identify the component and describe the operation parts of typical locator beacons and associated test sets
- 2.3 carry out maintenance on typical locator beacons, including a pressure test

Range

(AC2.1) **To include:**

Tool control procedures

COSHH

Lithium manganese dioxide battery packs

Current relevant DAPs

Informing ATC prior to transmission testing

Avoidance of inadvertent activation of the emergency beacon

(AC2.2) **To include:**

Covert emergency locator beacons

Electronics unit

Antenna

Battery pack

PLB Test Cabinet

Battery test unit
GPS facilities
Programming of codes and waypoints
Automatic operation
Manual operation

(AC2.3) **To include:**

Maintenance schedule
Signs of damage
Expiry date on battery pack
Self-test
Pressure test
Programming of codes and waypoints

Learning outcome

The learner will:

- 3 know the maintenance procedures for the maintenance of aircrew and Passenger Short Term Air Supply Systems (P/STASS)

Assessment criteria

The learner can:

- 3.1 explain the requirement of STASS and PSTASS and the differences between them
 - 3.2 explain the purpose of component parts of a PSTASS assembly
 - 3.3 explain the procedures and processes involved in the maintenance of a PSTASS
-

Range

(AC3.1) **To include:**

Current relevant DAPs
Short term Air supply (STASS)
Passenger Short Term Air Supply (PSTASS)

(AC3.2) **To include:**

Cylinder
Valve/ first stage reducer
Pressure gauge
Charging connection
Second stage regulator

(AC3.3) **To include:**

Current relevant DAP
Safety precautions
Tool control
Spares kit

Learning outcome

The learner will:

- 4 know the procedures for the maintenance of Immersion Protective Garments (IPG)

Assessment criteria

The learner can:

- 4.1 describe in-service Immersion protective garments and their uses
- 4.2 perform maintenance on an Immersion Protective Garment (IPG)

Range

(AC4.1) **To include:**

- Quick-don coverall
- Winch-man aircrew immersion garment
- Aircrew immersion coverall
- Immersion Protection Garment
- Clothing layers
- Materials
- Hood
- Relief valves
- Boots
- Fasteners
- Straps
- Valise
- Folding and Packing

(AC4.2) **To include:**

- Current, relevant DAPs
- Tool control
- Safety precautions
- Immersion suit layers
- Scheduled maintenance
- After last flight daily servicing
- Out of phase maintenance

Learning outcome

The learner will:

- 5 know the procedures for the maintenance of pressure garment and limb restraint systems

Assessment criteria

The learner can:

- 5.1 explain the operation of typical in-service limb restraint systems including active and passive systems

- 5.2 explain the specific procedures and safety precautions to be observed whilst carrying out the maintenance of pressure garments
- 5.3 describe the component parts of a typical in-service pressure garment and their uses
-

Range

(AC5.1) **To include:**

- Single leg restraint
- Single attachment ring
- Double attachment ring
- Arm restraint lines

(AC5.2) **To include:**

- Current, relevant DAPs
- COSHH
- PPE
- Pre-use checks
- Risk assessments
- Tool control
- Documentation

(AC5.3) **To include:**

- Full Coverage Anti-G trousers
- Inflatable Foot Bladders
- Anti-G trousers
- Inflation systems
- Sliding fasteners
- Bladder cover
- Bladder
- Waistband

Unit 304

Survival equipment Aircrew Equipment Assemblies (AEA)

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military aircraft.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 305

Maintenance of rescue equipment and liferafts

Unit level:	Level 3
GLH:	90
Unit aim:	This unit aims to provide learners with a detailed understanding of what is involved in the care and maintenance of liferafts and associated rescue equipment.
Relationship to NOS:	This unit is linked to the Aeronautical Engineering suite Level 3 NOS Unit 201.
Endorsed by	This unit is endorsed by SEMTA.

Learning outcome

The learner will:

- 1 be able to undertake maintenance of in-service aircraft liferaft container assembly

Assessment criteria

The learner can:

- 1.1 identify in-service multi-seat liferafts and their components
- 1.2 perform maintenance and testing of a multi-seat liferaft
- 1.3 explain the operation of operating heads used to initiate inflation of multi-seat liferafts

Range

(AC1.1) **To include:**

- Current Relevant DAPs
- Current multi-seat liferaft types
- Container types
- Container Base
- Cover flaps
- Painter/operating line
- Wing stowage
- Bouyancy chamber
- Floor
- Canopy
- Boarding ramp
- Inflation equipment
- Sea anchor

Integral bailers
Lamps
Rain water collection
Survival aids container

(AC1.2) **To include:**

Requirement
Safety precautions
Preparation
Dismantling
Disposal
Assembly
Temperature/Pressure tests
Buoyancy chamber pressure tests
Buoyancy chamber pressure relief valve test
Floor and seat ring pressure tests
Leak detection and repair procedures
Flashing beacon
Water activated lamp
Post testing requirements

(AC1.3) **To include:**

Operating head and valve assemblies
Release units
Discharge indicator
Operation

Learning outcome

The learner will:

- 2 know the maintenance procedures for an in-service Personal Survival Pack Assembly

Assessment criteria

The learner can:

- 2.1 describe in-service Personal Survival Packs (PSP) and their associated components
2.2 understand the procedures required to carry out maintenance of in-service PSP equipment
2.3 describe the maintenance and testing of in-service soft pack stowed single seat liferaft assembly

Range

(AC2.1) **To include:**

Current, relevant DAPs
Different types currently in service, their components and function:
1. Helicopter PSP
2. Ejection Seat PSP
Distress Signal
Water pouch

Automatic Liferaft Inflation Unit (ALIU)

Automatic Deployment Unit (ADU)

Single seat liferaft:

1. Buoyancy chamber
2. Floor
3. Canopy
4. Ancillary equipment

(AC2.2) **To include:**

Current, relevant DAPs

Types of maintenance:

1. Interim
2. Scheduled

Survival Aids maintenance:

1. Emergency rations and water
2. Medical kits
3. Matchless fire sets
4. Batteries
5. Reverse osmosis pump

Temperature/ Pressure tests

Procedures with test failures

(AC2.3) **To include:**

Current, relevant DAPs

Scheduled maintenance:

1. Liferaft
2. Survival aids
3. Inflation equipment
4. Temperature/ Pressure correction
5. Buoyancy chamber tests
6. PSP Packing
7. ADU

Learning outcome

The learner will:

- 3 understand in-service Aircraft Survival Pack and Emergency Escape Slide Assemblies

Assessment criteria

The learner can:

- 3.1 explain the uses, make up and maintenance of a survival pack
- 3.2 describe the use and maintenance of an in-service emergency escape slide assembly components
- 3.3 describe the use and maintenance of an in-service Survival Cot and its component parts

Range

(AC3.1) **To include:**

- Types of survival pack currently in service
- Different survival aids currently used
- Materials
- Design
- Webbing and handles
- Types of emergency pack
- Current, relevant DAPs
- Operation
- Maintenance
- Deficiencies
- Component life

(AC3.2) **To include:**

- Operational requirement
- Slide assembly
- Container assembly
- Cylinder and valve assembly
- Aspirator
- Inspection
- Testing
- Current, relevant DAPs

(AC3.3) **To include:**

- Buoyancy chamber
- Arch assembly restrainer
- Inflation system
- Water activated battery and lamp assembly
- Water pocket
- Strop and tether
- Current, relevant DAPs
- Inspection

Learning outcome

The learner will:

- 4 be able to undertake maintenance of Search and Rescue (SAR) equipment

Assessment criteria

The learner can:

- 4.1 explain the requirement for Airborne Search and Rescue Apparatus (ASRA) and the function of the major components
- 4.2 explain the use and maintenance of in-service helicopter rescue equipment

Range

- (AC4.1) **To include::** Used in Search and rescue aircraft
- Dropped to survivors
 - Liferaft container
 - Supplies container
 - Inflation equipment
 - Operation
 - Triple sets

- Double sets
- (AC4.2) **To include:**
- Helicopter Rescue Harnesses (HRH) currently in service
 - Current, relevant DAPs
 - Harness
 - Suspension strop
 - Extension strop
 - QRF Fasteners
 - Grabbit hook
 - Hi line transfer assembly
 - Stretcher assemblies
 - Safety precautions to be observed:
 - COSHH
 - PPE
 - Risk assessments
-

Learning outcome

The learner will:

- 5 be able to undertake gas charging

Assessment criteria

The learner can:

- 5.1 explain in general terms the operation of a gas charging on an in-service cylinder
- 5.2 perform gas charging using an in-service charging rig
-

Range

- (AC5.1) **To include:**
- Hazards:
- Oxygen deficient environment
 - heavy cylinders
 - cold burn risk
 - noise hazard
 - skin penetration risk
- Safety precautions:
- PPE
 - local exhaust ventilation
 - restraining cylinders
 - COSHH Assessments
 - current, relevant DAPs

- (AC5.2) **To include:**
- Purging
 - Blow down method
 - Charging rig eg Type PN 1959
-

Procedures
Testing for leaks
CO2/N2 charging
Sequence charging
Causes and consequences adiabatic compression

Unit 305

Maintenance of rescue equipment and liferafts

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military NVG equipment.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 306

Maintenance of protective helmets and Night Vision Goggles (NVG)

Unit level:	Level 3
GLH:	50
Unit aim:	This unit aims to provide learners with a detailed understanding of what is involved in the care and maintenance of NVG and associated equipment.
Relationship to NOS:	This unit is linked to the Aeronautical Engineering suite Level 3 NOS Unit 201.
Endorsed by	This unit is endorsed by SEMTA.

Learning outcome

The learner will:

- 1 know the safety precautions applicable to NVG

Assessment criteria

The learner can:

- 1.1 state the hazards related to handling NVG Batteries
- 1.2 state the hazardous materials that can be found within the Image Intensifier Tube (IIT)
- 1.3 state the precaution to be taken when handling NVG IITs

Learning outcome

The learner will:

- 2 understand the different types of NVG equipment, their principle of operation and their uses

Assessment criteria

The learner can:

- 2.1 understand the uses of current in-service NVG equipment
- 2.2 explain the principles of operation of an Aircrew NVG
- 2.3 explain the control and usage of current in-service Image Intensifier Tubes (IIT)

Learning outcome

The learner will:

- 3 know the types of maintenance applicable to NVG

Assessment criteria

The learner can:

- 3.1 explain the types of maintenance applicable to NVGs and interpret the supporting documentation
 - 3.2 carry out testing of NVG systems
 - 3.3 remove and replace components of NVG systems
-

Learning outcome

The learner will:

- 4 be able to undertake the maintenance processes applicable to protective helmets

Assessment criteria

The learner can:

- 4.1 understand the requirement for protective helmets and their uses
- 4.2 explain the specific safety precautions and procedures to be observed whilst carrying out the maintenance of a protective helmet
- 4.3 describe the maintenance of a typical, in-service, protective helmet assembly
- 4.4 explain the uses, component parts and maintenance procedures applicable to headset assemblies

Unit 306

Maintenance of protective helmets and Night Vision Goggles (NVG)

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military NVG equipment.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 307

Introduction to survival equipment electrics and maintenance

Unit level:	Level 3
GLH:	80
Unit aim:	This unit aims to provide learners with a detailed understanding of basic electric theory and basic maintenance techniques.
Endorsed by	This unit is endorsed by SEMTA.

Learning outcome

The learner will:

- 1 know the electrical principles that underpin survival equipment working practices

Assessment criteria

The learner can:

- 1.1 understand basic electrical theory
- 1.2 explain the sources of dc and ac power
- 1.3 measure current, voltage and resistance safely
- 1.4 carry out cable maintenance and termination tasks
- 1.5 carry out standard electrical serviceability tests required by the SE trade
- 1.6 comply with Test and Measuring Equipment (TME) procedures in an SE environment

Range

(AC1.1) **To include:**

The definitions, units, symbols and relationships between:

- current
- voltage
- resistance
- power

Common circuit symbols

Circuit protection

Cables

Hazards when working with electricity

Safety precautions

(AC1.2) **To include:**

Direct Current:

- batteries
- solar cells

- thermocouples

Alternating current
Battery types and uses

(AC1.3) **To include:**

Use of an ammeter
Use of a voltmeter
Use of an ohmmeter
Power on/off
Testing circuits containing explosive cartridges
Multimeter use
Safety ohmmeter use
Current, in-service DAPs

(AC1.4) **To include:**

Types of cable damage and their causes:

- scuffing
- abrasions
- cuts
- corrosion
- contamination
- overheating

Heat Shrink
Current in-service terminals and connectors
Crimping
Go-NoGo gauge
Wire stripping
Soldering:

- specific health and safety considerations
- techniques
- use of flux
- solder sleeve
- soldapull tool

PTT policy and regulations
Correct documentation
Correct tool control procedures

(AC1.5) **To include:**

Use a headset tester:

- continuity
- insulation resistance
- microphone sensitivity
- earphones
- battery self-check

(AC1.6) **To include:**

TME policy and regulations
Tool control measures
Loose articles
Calibration policy and process

Hand torque tool policy
TME Maintenance:
- before use
- after use
- battery safety tests
- three monthly checks
Labelling
Documentation

Learning outcome

The learner will:

- 2 understand survival equipment policy and documentation procedures

Assessment criteria

The learner can:

- 2.1 describe current air safety and engineering policy applicable to the SE trade
 - 2.2 describe current documentation and its uses
 - 2.3 understand key information required to record maintenance
-

Range

(AC2.1) **To include:**

Current, relevant policy documentation e.g. MAP01, 02,

Define:

- air safety management systems
- airworthiness

Roles and responsibilities of:

- Continuing Airworthiness Management Organisation
- Duty holders
- SQEP
- Chief Air Engineer (CAE)
- Principal Engineer
- Subordinate Engineer

(AC2.2) **To include:**

Current, relevant policy documentation e.g. MAP01, 02

Define:

- flight safety
- airworthiness integrity
- individual responsibility
- full accountability

Maintenance document signature significance:

- individual responsibilities
 - legally binding certificates
 - signature implications
-

- electronic certification
- signature levels
- authorisations

Function of documentation:

- the serviceability state
- certify and record that work has been carried out
- historical record
- maintenance forecasts
- asset management and tracking

Role of continuous improvement and quality audit processes

(AC2.3) **To include:**

Servicing

Scheduled Maintenance

Condition-based Maintenance

Anticipation of scheduled maintenance

Deferment of scheduled maintenance

Information required for the family of maintenance documentation:

- Register of Controlled MOD Forms
- Non/Off Aircraft Maintenance Work Order Log
- Maintenance Work Order
- SE (Drill) Maintenance Record
- After Last Flight Daily Servicing (ALFDS) Register
- ALFDS Certificate
- Conditioning Labels
- Night Vision Goggle Record Card

Shift handovers

Task handovers

Role changes

Use of Logistics Information Systems (LIS)

Recording of Special Instructions (SI) and Aviation Local Technical Instructions (ALTI)

Learning outcome

The learner will:

- 3 know the health & safety policies and the hazards present in a survival equipment workplace

Assessment criteria

The learner can:

- 3.1 describe the role of station/unit health and safety organisation
- 3.2 identify radiation hazards in the workplace and describe the effects of radiation on the human body
- 3.3 explain health and safety activity guidance within an SE & AEA maintenance area

Range

(AC3.1) **To include:**

Unit Health, Safety and Environmental (HS&EP) Policy

Purpose of the H&S at Work Act

Responsibility of the employers

Responsibility of the employees

Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDOR):

- requirement
- policy
- process

(AC3.2) **To include:**

Ionising radiation:

- X - Rays
- Gamma rays
- Alpha particles
- Beta particles

No-Ionising radiation:

- Optical radiation
- Electromagnetic fields

Effects of ionising radiation:

Impair function of tissues and/or organs

- skin redness
- hair loss
- radiation burns
- acute radiation syndrome
- long term risk of cancer

Effects of non-ionising radiation:

- skin burns
- damage tissue

Risk assessments

Current relevant publications

(AC3.3) **To include:**

Definition of Hazard

Relevant symbols and signage:

- prohibition
- warning:
 - aircraft armed
 - explosives
 - non-ionising radiation
- mandatory
- safety harness
- escape or first aid
- Foreign Object Damage/Debris (FOD)
- danger areas

Definition of Risk

ALARP

Manual Handling Operations Regulations (1992):

- employers must: avoid, assess, reduce

- manual handling technique

Relevant areas:

- parachute bays
- liferaft bay
- stretchers

Working at Height Regulations 2005 (WAHR)

Fire Safety:

- training
- prevention

Noise

Dangerous engineering substances:

- relevant maintenance data sheets
- current relevant hazardous substances information system e.g. JSP 515
- COSHH
- risks and associated first aid measures
- Personal Protective Equipment (PPE)
- ventilation

Airfield hazards:

- danger areas
- moving surfaces
- propellers and rotors
- arrestor hooks
- aerials
- engine intakes
- engine exhausts
- refuelling
- taxiing

Learning outcome

The learner will:

- 4 know the associated safety implications when working with gases

Assessment criteria

The learner can:

- 4.1 describe the health and safety implications of gas charging processes
- 4.2 explain the uses and handling processes required by the different gases encountered by an SE tradesman

Range

(AC4.1) **To include:**

Hazards:

- Oxygen deficient environment
- heavy cylinders
- cold burn risk

- noise hazard
- skin penetration risk

Safety precautions:

- PPE
- local exhaust ventilation
- restraining cylinders
- COSSH assessments
- manual handling

- current, relevant DAPs

(AC4.2) **To include:**

Different types of gas:

- Carbon Dioxide

- Nitrogen

- Oxygen

- breathing air

Cylinder identification

Direct inflation cylinders:

- disc bushing

- integral valve

- integral operating head

- life limitations

Cylinder markings

Charging bay requirements

Purging

Methods

Charging rigs

Liquid detection devices

Unit 307

Introduction to survival equipment electrics and maintenance

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the servicing of military aircraft.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 308

Maintaining aircrew oxygen systems

Unit level:	Level 3
GLH:	40
Unit aim:	This unit aims to give a working knowledge of military Survival Equipment (SE) maintained aircrew oxygen systems.
Endorsed by	This unit is endorsed by SEMTA.

Learning outcome

The learner will:

- 1 understand the requirement for the different types of oxygen mask assemblies

Assessment criteria

The learner can:

- 1.1 identify and explain the uses of the different oxygen mask assemblies currently in service
- 1.2 explain how oxygen mask assemblies work

Range

(AC1.1) **To include:**

Current in service oxygen masks

Platform specific oxygen masks, for example:

- Typhoon, (Advanced Dynamic Oxygen Mask (ADOM))

Life Support Oxygen Mask

Emergency Oxygen Masks, for example:

- Emergency Escape Breathing Device (EEBD)

- Walk Around Oxygen Mask

- Fire-fighters Oxygen Mask

- Quick Don Oxygen Mask

(AC1.2) **To include:**

Life support Oxygen Masks

Emergency Oxygen Masks

Learning outcome

The learner will:

- 2 know the maintenance process applicable to an oxygen mask assembly

Assessment criteria

The learner can:

- 2.1 identify the component parts and describe the operation of a typical in service oxygen mask
 - 2.2 explain how oxygen mask assemblies work
 - 2.3 explain the specific safety precautions and procedures to be observed whilst carrying out the maintenance of oxygen mask assemblies
 - 2.4 carry out maintenance on a typical oxygen mask assembly
-

Range

(AC2.1) **To include:**

- Face Piece
- Inspiratory & Expiratory components
- Anti-Suffocation Valve
- Harness assembly
- Exoskeleton
- Tubing
- Microphone
- Bayonet connector

(AC2.2) **To include:**

- Delivery of O₂ / Air mix

(AC2.3) **To include:**

- Oils, Grease and Dust
- Adhesives
- Solvents, for example Methyl-ethyl-ketone (MEK)
- Cleaning solutions
- Use of tools/ Tool segregation
- Current, relevant Digital Air Publications (DAPs)
- COSHH assessments:

(AC2.4) **To include:**

- Maintenance schedule e.g. After Last Flight Daily (ALFD)
- Dismantle/reassemble
- Examine component parts
- Testing, for example:
 - Leak Test
 - Connection load tests
 - Inspiratory/Expiratory valve tests
- TME Pre-use checks
- Tool control procedures
- Maintenance documentation completion

Learning outcome

The learner will:

- 3 know the maintenance of Personal Equipment Connectors (PEC) and oxygen hose assemblies
-

Assessment criteria

The learner can:

- 3.1 identify in service Personal Equipment Connectors (PEC)
 - 3.2 identify an Oxygen Hose Assembly and its component parts
 - 3.3 explain how hose assemblies work
 - 3.4 explain the procedures and processes involved in the maintenance of an Oxygen Hose assembly
 - 3.5 carry out the maintenance of a Personal Equipment Connector (PEC)
 - 3.6 carry out the maintenance of oxygen hose assembly
-

Range

(AC3.1) **To include:**

- Aircrew Portion PEC
- Aircraft Portion PEC
- Seat Portion PEC

(AC3.2) **To include:**

- Aircrew Portion
- Aircraft Portion
- Seat Portion
- Hose Connector
- Anti G/AVS connector
- Mic/Tel Cable
- Charging connection
- Second stage regulator

(AC3.3) **To include:**

- All services gathered together
- Single action connection
- Single action detachment during ejection sequence

(AC3.4) **To include:**

- Current relevant DAP
- Scheduled maintenance
- Out of Phase maintenance
- Safety precautions
- Tool control

(AC3.5) **To include:**

- Current relevant DAP
- Cleaning & Degreasing
- Examination
- Tool control
- Testing, for example:
 - EDL test set
 - AEA test cabinet
- Maintenance Documentation completion

(AC3.6) **To include:**

Current relevant DAP

Cleaning

Examination

Tool control

Testing, for example:

- Robin insulation tester

- Fluke

Maintenance Documentation completion

Unit 308

Maintaining aircrew oxygen systems

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of how to maintain aircrew oxygen systems on military aircraft.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Unit 309

Maintenance and packing of parachutes

Unit level:	Level 3
GLH:	50
Unit aim:	This unit aims to provide learners with a detailed understanding of what is involved in the care and maintenance of parachutes and associated equipment.
Endorsed by	This unit is endorsed by SEMTA.

Learning outcome

The learner will:

- 1 understand the processes involved in maintaining in-service emergency escape parachute assemblies

Assessment criteria

The learner can:

- 1.1 identify the component parts of a head box parachute assembly
- 1.2 explain the processes required to inspect, fit and remove and test components from an ejection seat head box
- 1.3 explain how the gas bladder inflation assembly affects the opening sequence of the head box parachute
- 1.4 explain the processes involved to fold, stow and pack the parachute assembly

Range

(AC1.1) **To include:**

Specific parachute assembly information location
Canopy and rigging lines
Harness
Container
Drogue assembly
Deployment sleeve

(AC1.2) **To include:**

IAW current relevant publications
Removing twists and tangles
Stains and contamination:
- actinic degradation
- mildew
- salt water

- unidentified
 - testing
- Tool control procedures

(AC1.3) **To include:**

- Container Bladder System
- 1. Bladder tray assembly
- 2. Bladder inflation assembly
- Function of drogues
- Operation of the time release mechanism

(AC1.4) **To include:**

- Current relevant Digital Air Publications (DAPs)
- Canopy folding
- Installation into the deployment bag
- Operation of the parachute packing press:
 - load
 - stroke
 - stroke rate
 - soak mode
 - head assembly
 - press table and base assembly
 - parachute support box
- Folding pressures, times and soak rate
- Relevant safety precautions

Learning outcome

The learner will:

- 2 understand the processes involved in maintaining brake parachute assemblies

Assessment criteria

The learner can:

- 2.1 describe a typical, in-service brake parachute assembly
- 2.2 carry out basic maintenance on a typical, in-service brake parachute assembly
- 2.3 describe the recovery and packing process of a typical, in-service brake parachute assembly

Range

(AC2.1) **To include:**

- Auxiliary parachute
- Deployment bag
- Main strop assembly
- Connector gaiters
- Main canopy
- Rigging lines
- Shackle

(AC2.2) **To include:**

- Current relevant Digital Air Publications (DAPs)
- Scheduled inspections
- After stream maintenance
- Cleaning
- Drying
- Lifed items
- Deterioration
- Contamination
- Testing

(AC2.3) **To include:**

- Deployment
- Drying
- Recovery safety precautions:
 - PPE
 - suitable gloves
 - FOD
 - contamination
- Airfield regulations
- Local orders
- Current, relevant DAPs

Unit 309

Maintenance and packing of parachutes

Supporting Information

Unit guidance

This unit has been produced to meet military aviation training requirements.

On completion of this unit the learner will be able to show a comprehensive knowledge of the aviation policy and regulation relating to the care and maintenance of parachutes and associated equipment.

Functional Skills

This unit may help candidates to gain confidence in, and possibly generate portfolio evidence for, the following Functional Skills:

- Communication
- Information and Communication Technology
- Improving Own Learning and Performance
- Problem Solving
- Working with Others

Assessment is to be designed to demonstrate underpinning knowledge across the Unit.

Appendix 1 Relationships to other qualifications

Links to other qualifications

Centres are responsible for checking the different requirements of all qualifications they are delivering and ensuring that candidates meet requirements of all units/qualifications.

Literacy, language, numeracy and ICT skills development

This qualification can develop skills that can be used in the following qualifications:

- Functional Skills (England) – see www.cityandguilds.com/functionalskills
- Essential Skills (Northern Ireland) – see www.cityandguilds.com/essentialskillsni
- Essential Skills Wales – see www.cityandguilds.com/esw

Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the Centres and Training Providers homepage on www.cityandguilds.com.

Centre Manual - Supporting Customer Excellence contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues.

Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

Our Quality Assurance Requirements encompasses all of the relevant requirements of key regulatory documents such as:

- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

Access to Assessment & Qualifications provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information on such things as:

- **Walled Garden:** how to register and certificate candidates on line
- **Events:** dates and information on the latest Centre events
- **Online assessment:** how to register for e-assessments.

Centre Guide – Delivering International Qualifications contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification.

Specifically, the document includes sections on:

- The centre and qualification approval process and forms

- Assessment, verification and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Frequently asked questions.

Useful contacts

UK learners

General qualification information

E: learnersupport@cityandguilds.com

International learners

General qualification information

F: +44 (0)20 7294 2413

E: intcg@cityandguilds.com

Centres

Exam entries, Certificates, Registrations/enrolment, Invoices, Missing or late exam materials, Nominal roll reports, Results

F: +44 (0)20 7294 2413

E: centresupport@cityandguilds.com

Single subject qualifications

Exam entries, Results, Certification, Missing or late exam materials, Incorrect exam papers, Forms request (BB, results entry), Exam date and time change

F: +44 (0)20 7294 2413

F: +44 (0)20 7294 2404 (BB forms)

E: singlesubjects@cityandguilds.com

International awards

Results, Entries, Enrolments, Invoices, Missing or late exam materials, Nominal roll reports

F: +44 (0)20 7294 2413

E: intops@cityandguilds.com

Walled Garden

Re-issue of password or username, Technical problems, Entries, Results, e-assessment, Navigation, User/menu option, Problems

F: +44 (0)20 7294 2413

E: walledgarden@cityandguilds.com

Employer

Employer solutions, Mapping, Accreditation, Development Skills, Consultancy

T: +44 (0)121 503 8993

E: business@cityandguilds.com

Publications

Logbooks, Centre documents, Forms, Free literature

F: +44 (0)20 7294 2413

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