



Defence Awarding
Organisation

Qualification Handbook

DAO Level 4 Certificate in Applied
Aviation Studies (Fixed Wing Aircraft
Loadmaster)

QN: 603/0925/8

The Qualification

Overall Objective for the Qualifications

This handbook relates to the following qualification:

DAO Level 4 Certificate Applied Aviation Studies (Fixed Wing Aircraft Loadmaster)

This Level 4 Certificate provides the standards that must be achieved by individuals that are working within the Armed Forces.

Pre-entry Requirements

Entry requirements are detailed in the Course prospectus.

Learners who are taking this qualification should be employed in the WSOp trade

Unit Content and Rules of Combination

This qualification is made up of a total of 16 mandatory units and no Optional units. To be awarded this qualification the candidate must achieve a total of 35 credits as shown in the table below.

URN	Unit of assessment	Level	TQT	GLH	Credit Value
D/615/4342	Duties of the WSOp CMN Fixed Wing and associated aircraft	3	7	7	1
K/615/4344	WSOp Regulations	3	16	10	2
T/615/4346	Weight and balance in fixed wing aircraft	4	46	40	5
A/615/4347	Loading and Restraint of Aircraft Cargo	4	42	42	5
F/615/4348	Cargo and Mail in Fixed Wing Operations	4	38	36	4
J/615/4349	Dangerous Goods (DG) on AT & ARR aircraft	4	45	45	5
A/615/4350	Passengers in the AT & ARR aircraft	3	6	6	1
J/615/4352	In-flight catering for WSOp	2	9	9	1
K/615/4361	Regulations of AT & ARR operations	3	25	25	3
M/615/4362	Pre Flying Exercise checks	4	14	14	2
T/615/4363	Radio operation (Crewman)	4	6	6	1
A/615/4364	WSOp (CMN) during aircraft operations (Simulator)	4	6	6	1
F/615/4365	WSOp Crewman procedures	4	9	9	1
J/615/4366	Duties of the WSOp CMN Fixed Wing when away from home base	4	5	5	1
L/615/4367	Principles of aircraft servicing (WSOp)	4	8	8	1
R/615/4368	Agencies associated with WSOP (CMN) operations	3	7	7	1

Age Restriction

This qualification is available to learners aged 18+.

Opportunities for Progression

This qualification creates a number of opportunities for progression through career development and promotion.

Exemption

No exemptions have been identified.

Glossary

For the purposes of this qualification the definitions below apply.

Analyse	Studies parts, elements, or factors of a situation or problem in detail to determine course of action, solution, or outcome
Calculate	Determines by mathematical processes, implies highly intricate processes as against computes.
Carry out	Takes action on basis of
Check	Reviews, controls, tests, verifies, investigates
Compile	Collects into proper or designated form; compiled data into a report. Composes out of materials from other documents, reports and statistical summaries
Define	Determines or sets down the boundaries of, sets down or show the precise outlines of; determines and states the limits and nature of; describes exactly.
Demonstrate	Gives evidence of, displays; shows with the intent of proving explains or illustrates; demonstrates results an analysis.
Describe	Tells or writes about; gives a detailed account of.
Detail	Give particulars of, relate circumstantially; assign for special duty
Determine	Sets bounds or limits to, comes to a decision concerning, obtains definite and first-hand knowledge.
Explain	Makes something clear or intelligible; interprets to assure understanding.
Extract	Draws out, pulls out; deduces, derives
Identify	Establishes the identity of, distinguishes or discriminates.
Interpret	Examines or tells the meaning of;
List	Make a list of; enter in list
Outline	Summaries more significant features of, or gives preliminary or general sketch of, as systems, regulations
Prepare	Make ready or get ready for
Produce	Bring forward for consideration or inspecting etc.; bring in existence; cause or bring about
Solve	Finds or provides a satisfactory answer or explanation for, makes clear, explains
State	Say or express, fully or clearly, in speech or writing.

Qualification Units

URN:	D/615/4342
Title:	Duties of the WSOp CMN Fixed Wing and associated aircraft
Level:	3
Credit value:	1
GLH	7
TQT	7
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the main operational roles of AT & ARR aircraft	1.1 describe operational roles of AT & ARR aircraft 1.2 describe aircraft and their uses 1.3 define 'Air transport Operations' and their sub-divisions 1.4 explain the concepts and advantages/ disadvantages of air transport methods
2. Describe the role of the WSOp (CMN) on AT & AAR aircraft	2.1 describe the duties of the WSOp (Cmn) on AT & AAR aircraft during the stages of flight
3. Interpret Pertinent Information for the WSOP (CMN)	3.1 identify information pertinent to WSOp (Cmn) 3.2 Interpret the information in a Task Diary 3.3 compile the various sections and forms in a Task Diary relevant to the WSOp (Cmn) 3.4 interpret and extract the information required by the WSOp (CMN) from a Transop / Flight Notification 3.5 outline the contents and composition of the following documents that are pertinent to the FW CMN
4. Interpret the information pertinent to the WSOP (CMN) from the AC F700	4.1 state the purpose of the F700 Series 4.2 extract information from specific servicing documents within the F700
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know the roles of AT & ARR aircraft and the information required for the duties of a Weapons Systems Operator crewman
Unit expiry date	2 Years
Details of the relationship between	No comparable NOS found

the unit and relevant national occupational standards	
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	K/615/4344
Title:	WSOp Regulations
Level:	3
Credit value:	1
GLH	10
TQT	16
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Interpret the publications associated with AT & ARR operations	1.1 state the various publications associated with AT & ARR operations 1.2 extract information pertinent to the WSOp (CMN) from publications
2. Describe the service and National regulations governing aircrew and AT & ARR operations	2.1 list the categories of personnel eligible to travel aboard AT & AAR aircraft 2.2 state who may authorise the carriage of passengers and cargo from within the UK and abroad 2.3 state who may authorise the carriage of passengers and cargo when no formal authority exists and what conditions must be satisfied 2.4 define the categories of crew 2.5 define the categories of supplementary crew 2.6 state the regulations regarding the carriage of supplementary crew 2.7 define and state the limitations for crew time terms 2.8 state the factors that affect the normal CRP limitations
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know about the regulations and publications pertinent to weapons systems operators where passengers and cargo are being carried.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS PPLAOG32 Plan the loading of aircraft
Details of the relationship between the unit and other	Royal Air Force WSOp Fixed Wing Training Course

standards or curricula	
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	T/615/4346
Title:	Weight and balance in fixed wing aircraft
Level:	4
Credit value:	5
GLH	40
TQT	46
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Describe the effects of incorrect aircraft loading	1.1 state the importance of AUW and C of G to the safety and efficiency of an aircraft in flight 1.2 describe the effects of loading an aircraft with the C of G too far forward, or too far aft 1.3 review and analyse documented aircraft (AC) incidents and accidents involving weight and balance issues
2. Determine the AUW and CoG of a loaded aircraft	2.1 calculate the C of G of an item of load 2.2 state the terminology associated with aircraft loading 2.3 solve Beam - Balance System problems 2.4 describe and interpret the contents of the main section of the Weight and Balance Data Book (-9) 2.5 calculate the basic weight and balance condition of an aircraft 2.6 define the terms associated with aircraft loading 2.7 calculate the weight and balance condition of an aircraft loaded by compartments 2.8 calculate the true trim of a loaded aircraft
3. Compile a Trimsheet to calculate the weight and Balance condition of a loaded aircraft	3.1 produce a manual trimsheet to calculate the weight and balance of a loaded aircraft 3.2 compile trim variation to calculate the weight and balance of a loaded aircraft 3.3 complete a trimsheet for a variety of aircraft types and role/load configurations
4. Extract and Utilise information from computerised trimsheets and conduct FRC checks in the cockpit emulator	4.1 describe the individual sections of a computerised trimsheet 4.2 identify the distribution of cargo on a computerised trimsheet 4.3 complete the FRC checks for the emulation software and the GALMT cockpit and Cargo compartment
5. State the structural limitations of	5.1 explain the two related groups of aircraft structural limitations 5.2 describe the double cantilever concept of airframe structure and the overall structural effects of excessive loading

cargo carrying aircraft	<p>5.3 identify and describe the 3 types of limitation that may be encountered, which protect an aircraft fuselage from excessive bending</p> <p>5.4 explain the purpose and use of individual and cumulative compartment loading limitations</p>
6. State the AC floor structural limitations	<p>6.1 state the 2 related types of floor loading limitation</p> <p>6.2 explain the purpose of linear loading limitations</p> <p>6.3 state the 2 sub-divisions of area loading limitations</p> <p>6.4 explain the difference between types of load</p> <p>6.5 explain the relationship between concentrated loads and linear loading limitations</p> <p>6.6 state the basic principles that must be followed to determine an acceptable loading location for a single item of load and a complete ac load</p>
7. Determine if an item of load complies with AC floor structural limitations	<p>7.1 calculate and solve problems of actual bending moments</p> <p>7.2 calculate and solve problems of actual linear loading</p> <p>7.3 determine the acceptability of an item of load within UD and Concentrated limitations</p> <p>7.4 determine the minimum separation distances between concentrated loads and all other load items</p>
8. Calculate floor loading intensities	<p>8.1 calculate the floor contact areas and floor loading intensities of different types of container</p>
9. Describe the requirement for AC floor protection	<p>9.1 state the need for and demonstrate the requirement for ac floor protection</p> <p>9.2 state the difference between load spreaders and dunnage</p> <p>9.3 explain the principles of load spreaders</p> <p>9.4 describe the standard load spreaders in current RAF use</p> <p>9.5 state who has responsibility for load spreaders</p> <p>9.6 explain when plywood load spreaders should be used</p> <p>9.7 state which limitation may not be met by the use of load spreaders</p> <p>9.8 calculate the effect of a load spreader</p> <p>9.9 describe the effect of 'g' loading upon a tyre contact length</p> <p>9.10 state the minimum size of a load spreader used with a pneumatic tyre</p> <p>9.11 state the regulations and limitations of bridge type load spreaders</p>
10. Describe the factors that affect utilisation of an AC payload	<p>10.1 determine the available payload capacity of an aircraft using the different methods</p> <p>10.2 explain the basic principles of relevant terms</p> <p>10.3 state when it is permissible to exceed Normal Maximum Take Off Weight</p> <p>10.4 identify and explain the main factors that may restrict the full utilisation of available payload capacity</p>
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know about loading methods to correctly balance an aircraft and describe how to

	arrange loads to protect the aircraft.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS PPLAOG32 Plan the loading of aircraft
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	A/615/4347
Title:	Loading and Restraint of Aircraft Cargo
Level:	4
Credit value:	5
GLH	42
TQT	42
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the requirements for restraining cargo	1.1 state the effects that may cause a load to move in flight 1.2 detail the requirements for balanced load restraint and state the ramifications of incorrect application
2. State the loading clearance limitations for an item of cargo loaded onto an AC	2.1 state the minimum clearances required between an item of load and the aircraft structure during loading and for flight 2.2 state the minimum requirements for the Rules of Ready Access 2.3 state the amplifications and easements that may be applied to Ready Access requirements 2.4 state and demonstrate the basic principles that must be followed to determine an acceptable loading location for an item of load
3. Demonstrate the basic principles of load restraint	3.1 define the term 'restraint factor' 3.2 state the minimum restraint factors for the restraint of internal aircraft loads 3.3 describe how the amount of restraint offered by a tie down varies according to the angle(s) at which it is applied 3.4 state the advantages and disadvantages of 'Up and Over' restraint 3.5 describe and demonstrate the rule of thumb method of estimating the number of tie downs required to secure an item of load 3.6 describe the term 'orthogonal restraint' 3.7 explain the term 'rotational restraint' and how it is most effectively provided 3.8 explain how some types of orthogonal restraint may not satisfy the requirements of rotational restraint 3.9 state the benefits of 3-way orthogonal restraint 3.10 calculate load restraint using restraint tables
4. Demonstrate the practical application of the principles of load	4.1 state and demonstrate the precautions to be taken when attaching tie downs to vehicles 4.2 state and demonstrate the precautions to be taken when

<p>restraint</p>	<p>applying more than one tie-down to a vehicle, trailer, or equipment-mounted attachment point</p> <p>4.3 define terms relevant to loading and restraint</p> <p>4.4 explain and demonstrate the application of the requirements for restraint on the equipment items</p> <p>4.5 explain and demonstrate the normal practice for the orientation and restraint of 2-wheel trailers inside aircraft</p> <p>4.6 explain and demonstrate the necklace system of restraint and its layered application</p> <p>4.7 state the essential requirements that must be met when constructing a load stack</p> <p>4.8 explain and demonstrate the 'Daisy Chain' technique of attaching tie downs and state the restrictions applying to its use</p> <p>4.9 explain and demonstrate the standard method of overcoming an unserviceable floor point</p> <p>4.10 explain and demonstrate how the angle of tie downs may be measured when no protractor is available</p> <p>4.11 calculate the amount of restraint offered by a tie down according to the angles of its application</p>
<p>5. Explain and demonstrate the use of specified restraint equipment</p>	<p>5.1 explain and demonstrate the limitations and restrictions governing the use of restraint equipment</p> <p>5.2 state the precautions for the use of webbing tie downs</p> <p>5.3 describe the standard method for the identification and location of aircraft floor tie down points</p> <p>5.4 state and demonstrate the precautions to be taken when using tie down chains</p> <p>5.5 state the particulars of the 4DB/8204896 '463L' pallet</p> <p>5.6 demonstrate the use and application of pallets currently in RAF use</p> <p>5.7 state the regulations and limitations governing the use of different size nets</p> <p>5.8 demonstrate the flat floor application of the following size nets</p> <p>5.9 demonstrate the application of a net on an 'S' type trailer</p> <p>5.10 demonstrate the application of a 4535 kg net with pallets currently in RAF use</p>
<p>6. Explain the limitations and use of Tie Down Scheme (TDS) and Standard load</p>	<p>6.1 state the information provided on a TDS</p> <p>6.2 state the differences between types of TDS</p> <p>6.3 state the deviation criteria for a TDS</p> <p>6.4 state the loading factors which are not covered by 'single item' TDS</p> <p>6.5 state the difference between TDS weights</p> <p>6.6 demonstrate the application of a printed TDS given the required load item(s) and necessary restraint equipment</p> <p>6.7 check the implementation of a given TDS</p> <p>6.8 state the purpose of a Tie Down Note (TDN) and describe</p>

	<p>the type of information provided</p> <p>6.9 state and demonstrate the use of a printed Standard Load (SL) and describe the documents required to support its use</p> <p>6.10 demonstrate an understanding of rapid on/off load restraint schemes</p>
7. Demonstrate standard marshalling signals to marshal a vehicle into a confined space or an aircraft freight bay	<p>7.1 demonstrate accurate use of marshalling techniques whilst manoeuvring vehicles and equipment</p> <p>7.2 state and demonstrate the safety requirements whilst manoeuvring vehicles and equipment within the confined space of an aircraft freight bay</p>
8. Describe the limitations and use of an AC cargo winch	<p>8.1 state the basic safety precautions and limitations to be followed when using the ac winches</p> <p>8.2 demonstrate the use of a loaded ac winch</p>
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to demonstrate how to load and restrain cargo in an aircraft.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS PPLAOG32 Plan the loading of aircraft
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	F/615/4348
Title:	Cargo and Mail in Fixed Wing Operations
Level:	4
Credit value:	4
GLH	36
TQT	38
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Describe the principles of air cargo	<ul style="list-style-type: none"> 1.1 define the air cargo terms 1.2 list and describe the categories of air cargo 1.3 state the WSOp CMN's responsibility towards the carriage of air cargo 1.4 state the principles of packaging and labelling for air cargo 1.5 describe the priority system for air cargo 1.6 decode and demonstrate an understanding of selected special handling codes for air cargo
2. State the regulations governing the carriage of mail on RAF aircraft	<ul style="list-style-type: none"> 2.1 list and describe the different types of mail carried by air 2.2 state the documentation required for the carriage of mail 2.3 state the security and stowage regulations for the carriage of mail 2.4 state the procedures to be adopted if mail is delayed or lost en-route
3. Describe the Aircraft Handling Equipment (ACHE) used to load items of cargo	<ul style="list-style-type: none"> 3.1 explain the advantages, disadvantages and inherent dangers of ACHE 3.2 state the dangers and precautions necessary for the use of ACHE in the vicinity of an ac
4. State the specific conditions of carriage applying to selected items of cargo	<ul style="list-style-type: none"> 4.1 define air cargo terms 4.2 state the documentation, security and stowage regulations governing the carriage of items of air cargo 4.3 state the regulations and documentation required for the carriage of indulgence cargo 4.4 state the procedures and documentation required when repatriating the remains of deceased Service personnel 4.5 state the procedures and documentation required when carrying plants and animals in AT & AAR aircraft
5. State the regulations governing the documentation of non-Dangerous	<ul style="list-style-type: none"> 5.1 state the regulations and documentation required for the carriage of Cargo on different types of flights 5.2 compile and check the relevant documents for different types of flight

Goods (DG) freight	5.3 state the reasons for, and recognise the changes to, documentation for split consignments 5.4 compile a full set of non-DG load documentation check the accuracy of a completed set of aircraft load documentation
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know about the principles behind equipment used to Load aircraft and documentation required when carrying mail and non-dangerous goods, including repatriation of deceased service persons.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS PPLAOG32 Plan the loading of aircraft
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	J/615/4349
Title:	Dangerous Goods (DG) on AT & ARR aircraft
Level:	4
Credit value:	5
GLH	45
TQT	45
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Detail the general regulations governing the carriage of DG on AC	1.1 define the term 'Dangerous Goods' 1.2 describe the UN classification system for DG 1.3 state the general regulations for the carriage of DG 1.4 describe the general principles of packaging and labelling for DG 1.5 define the 2 roles of an aircraft in relation to the carriage of DG 1.6 state the conditions for carriage of DG on different types of flight 1.7 describe the WSOp (CMN)'s responsibilities in relation to DG
2. State the responsibilities for WSOp (CMN) handling DG	2.1 explain the requirements and identify the information required for pilot notification 2.2 state the consignor's responsibilities in the preparation of DG 2.3 explain the procedures for DG emergency response
3. Describe the measures for UN classes 1 to 9 DG	3.1 define UN classifications 1 to 9 DG and sub-divisions 3.2 explain and demonstrate the identification and acceptance procedures for the clearance of DG 3.3 explain and demonstrate the state and operator variations associated with the carriage of DG
4. State the specific differences associated with UN Class 1 DG	4.1 state the 6 hazard divisions relating to explosives. 4.2 describe the compatibility grouping division 4.3 state the WSOp (CMN)'s responsibilities towards explosives
5. State the specific differences associated with UN Class 2 & 3 DG	5.1 list the different states of gases 5.2 list the 3 categories of gas 5.3 define flammable liquids
6. State the specific differences associated with UN Class 4 & 5 DG	6.1 define the terms and state the conditions of carriage for Class 4 & 5 DG 6.2 define the terms and state the conditions of carriage for the following
7. State the specific	7.1 define the terms and state the conditions of carriage of Class

differences associated with UN Class 6 DG	6 DG
8. State the specific differences associated with UN Class 7 DG	8.1 define the terms and state the conditions of carriage for Class 7 DG
9. State the specific differences associated with UN Class 8 DG	9.1 define the terms and state the conditions of carriage associated with Class 8 DG
10. State the specific differences associated with UN Class 9 DG	10.1 define the terms and state the conditions of carriage associated with Class 9 DG 10.2 state the conditions and regulations governing the carriage of selected items of miscellaneous cargo
11. State the regulations governing the documentation of DG	11.1 detail and compile the documentation required for the carriage of DG on the different types of flight 11.2 compile a full set of DG load documentation 11.3 check for accuracy a completed set of aircraft DG load documentation
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to state the regulations pertaining to carriage of dangerous goods, the different classes of dangerous goods and compile the required load documentation for the carriage of dangerous goods
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS PPLAOG32 Plan the loading of aircraft
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	A/615/4350
Title:	Passengers in the AT & ARR aircraft
Level:	3
Credit value:	1
GLH	6
TQT	6
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the regulations governing the carriage of Passengers and Troops	<p>1.1 list the passenger categories permitted to travel by air in AT & AAR AC</p> <p>1.2 state the regulations and conditions governing the carriage of passengers and troops on the different types of flight</p> <p>1.3 describe the following passenger categories and relate the regulations and restrictions on their carriage</p> <p>1.4 state the planned and assumed weights for all passengers/supplementary crew</p> <p>1.5 explain the passenger coding system</p> <p>1.6 state the regulations and restrictions regarding the carriage of different groups of passenger</p> <p>1.7 state the general principles applicable when dealing with passenger psychology</p> <p>1.8 state the contents of aircraft passenger briefs</p> <p>1.9 state the regulations for the carriage of items by passengers/crew</p> <p>1.10 state the general seating regulations for passengers on AT & AAR ac</p> <p>1.11 list the conditions and state the precautions to be observed when it may be necessary to refuel an ac with passengers on board</p> <p>1.12 state the general regulations on the use of child car seats in AT & AAR AC</p>
2. State the regulations for the carriage of Aeromed patients on AT and AAR AC	<p>2.1 state the classifications of Aeromed patient</p> <p>2.2 state the regulations and restrictions on carriage of Aeromed patients</p> <p>2.3 list the conditions and state the precautions to be observed when it may be necessary to refuel an AC with Aeromed patients on board</p>
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to state the

	regulations for the carriage of passengers and aeromed patients on AT & ARR aircraft
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	No comparable NOS found
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	J/615/4352
Title:	In-flight catering for WSOp
Level:	2
Credit value:	1
GLH	9
TQT	9
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the regulations governing In Flight Catering	<p>1.1 state why and demonstrate how feeding plans are compiled</p> <p>1.2 state the regulations governing the in-flight feeding of crews and passengers</p> <p>1.3 state the regulations for rationing of supplementary crewmembers</p> <p>1.4 state the procedures for rationing from RAF and non-RAF sources</p> <p>1.5 state the general principles to be adhered to when checking rations</p> <p>1.6 state the health considerations to be applied to in-flight catering</p> <p>1.7 compile the documentation associated with in-flight catering using the appropriate forms</p> <p>1.8 state the catering requirements for different types of passenger</p>
2. State the procedures and catering requirements for rationing from RAF and non – RAF sources	2.1 state the procedures and catering requirements for rationing from RAF and non – RAF sources
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to state the requirements of and regulations for inflight catering.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	No comparable NOS found

Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	K/615/4361
Title:	Regulations of AT & ARR operations
Level:	3
Credit value:	3
GLH	25
TQT	25
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the health regulations that are applicable to the flying environment	<p>1.1 summarise the responsibilities of the WHO</p> <p>1.2 list the minimum crew inoculation requirements laid down by the WHO</p> <p>1.3 list the current areas of health implications defined by the WHO</p> <p>1.4 state the restrictions applied to crewmembers on flying after receiving specified medical treatment</p> <p>1.5 state the restrictions applied to the consumption of alcohol and the use of narcotics by crew and passenger</p> <p>1.6 state the following WHO specified areas</p> <p>1.7 state the personal precautions to be undertaken when travelling in yellow fever and malarial areas</p>
2. State the regulations governing disinsection of an ac	<p>2.1 state the aim of ac Disinsection</p> <p>2.2 state the occasions when ac Disinsection is necessary</p> <p>2.3 state the current method of ac Disinsection in use by the RAF</p> <p>2.4 state the stages of ac Disinsection and the documentation required to verify the process</p> <p>2.5 describe vehicle Disinsection as carried out by Movements personnel</p>
3. State the regulations governing security of an ac	<p>3.1 list and define the terms used in connection with physical security measures for the protection of aircraft</p> <p>3.2 state the responsibilities of the aircraft captain, or his delegated representative, in relation to aircraft security</p> <p>3.3 define the categories of aircraft security</p> <p>3.4 state the measures to be taken to minimise the risk of aircraft hijack or sabotage</p>
4. State the customs regulations governing military aircraft and crew	<p>4.1 state the Customs procedures when departing or arriving any combination of different conditions</p> <p>4.2 state the current customs allowances applicable to military aircrew/passengers</p> <p>4.3 state the procedure to be followed when using any format of</p>

	<p>'permit to proceed'</p> <p>4.4 list and describe the documentation required for clearing customs on entry into the UK and specified other countries</p> <p>4.5 compile a set of customs paperwork</p>
5. State the requirements for the completion of the services rendered form (F6840)	5.1 complete form F6840
6. State the procedures for operating in an Arctic area	<p>6.1 define an Arctic flight</p> <p>6.2 state the Arctic areas</p> <p>6.3 state the types and contents of arctic survival pack carried on AT & AAR aircraft</p>
7. Describe the sections of the RAF Movements organisation	<p>7.1 describe the structure of an Air Movements Squadron (AMS)</p> <p>7.2 describe the function of the parts of the RMO</p>
8. State the types of safety equipment available on 2 GP aircraft	8.1 list and describe the items of safety equipment carried on 2 Gp ac
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to state the requirements of health, security and customs regulations relevant to AT & ARR aircraft movements.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	<p>No comparable NOS Found.</p> <p>World Health Organisation regulations apply in part.</p>
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	M/615/4362
Title:	Pre Flying checks
Level:	4
Credit value:	2
GLH	14
TQT	14
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Conduct aircraft and cargo pre-flight checks	1.1 conduct aircraft & cargo pre-flight checks 1.2 ensure each load item is prepared correctly for movement by air 1.3 ensure the item of load complies with given structural limitations 1.4 check that the item of load complies with the principles of restraint 1.5 ensure item of load complies with general cargo and DG regulations 1.6 ensure suitable provision has been made for passengers 1.7 check a computer or manual trimsheet and associated paperwork
2. Prepare an aircraft load on the load planning emulator	2.1 compile a computer load plan from associated paperwork 2.2 compile a computer trimsheet from associated paperwork
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will conduct pre flight checks on an aircraft & cargo and compile associated paperwork using a load planning emulator.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS PPLAOG32 Plan the loading of aircraft
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course

Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	T/615/4363
Title:	Radio operation (Crewman)
Level:	4
Credit value:	1
GLH	6
TQT	6
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Explain the principles and techniques for operating the HF radio	1.1 explain the principles of EM propagation 1.2 state the various worldwide flight watch agencies 1.3 describe the principles of HF ALE 1.4 carry out the correct techniques required to ensure good HF communications 1.5 carry out the correct techniques required to ensure good HF communications
2. Demonstrate the correct procedures required for operating the V/UHF radios	2.1 explain the principles of communications using the V/UHF radio 2.2 carry out the correct techniques required to ensure good communications
3. Demonstrate the correct weather gathering procedures	3.1 identify the relevant documentation for aiding the process of weather gathering 3.2 describe the format of weather broadcasting 3.3 identify the correct radio to aid weather gathering
4. Demonstrate the correct emergency R/T procedure	4.1 state the terminology required when carrying out an emergency R/T call 4.2 practise the correct procedure for an emergency R/T call
5. Demonstrate the correct HF phone patch procedure	5.1 describe the principles of the HF phone patch procedure 5.2 demonstrate a HF phone patch using the correct terminology
6. Complete an arrivals message to a handling agent using the V/UHF	6.1 demonstrate an arrivals message utilising the V/UHF radio
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know the principles of operating a HF radio and demonstrate the correct radio procedures to be adhered to when operating a HF radio as a

	WSOp
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS SEMAE3-136 Carrying out tests on aircraft communication systems
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation

URN:	A/615/4364
Title:	WSOp (CMN) during aircraft operations (Simulator)
Level:	4
Credit value:	1
GLH	6
TQT	6
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the limitations of the King Air B200	1.1 state the weight limitations for the King Air B200 1.2 state the cabin limitations for the King Air B200 1.3 state the fuel limitations for the King Air B200
2. Describe the operation of the King Air B200GT digital displays	2.1 demonstrate the functions and display of the Primary Flight Display (PFD) 2.2 demonstrate the functions and display of the Multi-Function Display (MFD) 2.3 demonstrate how the displays are controlled using the display control panel 2.4 identify the information provided by the Emergency Standby Instrumentation System (ESIS)
3. Describe the operation of the King Air B200GT annunciator system	3.1 explain the purpose of the aircraft annunciator system 3.2 explain the different levels of warnings within the annunciator system 3.3 identify the correct procedure for testing the annunciator system
4. Describe the operation of the King Air B200GT electrical system	4.1 describe the power sources for the electrical system 4.2 explain the warnings associated with the electrical system 4.3 identify the switches associated with the electrical system 4.4 state the services provided direct from the battery
5. Describe the PT6A-42 engine and its operation on the King Air B200	5.1 state the services provided by the engine 5.2 explain the warnings associated with the engine system
6. Describe the operation of the King Air B200 engine fire detection and extinguishing system	6.1 explain the basic operation of the fire detection system 6.2 explain the basic operation of the fire extinguishing system 6.3 explain the warnings associated with the fire detection and extinguishing system
7. Describe the operation of the	7.1 explain the reasons for TCAS, IFF and EGPWS 7.2 identify the indications of the TCAS

TCAS, IFF and EGPWS on the King Air B200GT	7.3 identify the switches associated with the TCAS and IFF system
8. Describe the operation of the King Air B200 fuel system	8.1 explain the basic operation of the fuel system 8.2 identify the instrumentation for the fuel system 8.3 identify the components for carrying out an aircraft refuel
9. Describe the operation of the King Air B200 audio and communication system	9.1 identify the components associated with the audio and communication system 9.2 identify the switches associated with the audio and communications system
10. Describe the operation of the King Air B200 environmental system	10.1 state the purpose of the environmental system 10.2 identify the components associated with the environmental system 10.3 identify the instrumentation associated with the environmental system 10.4 describe the operation of the environmental system 10.5 state the immediate actions for a Cabin Pressurisation failure
11. Describe the operation of the King Air B200 ice protection system	11.1 state the purpose of the ice protection system 11.2 identify the components associated with ice protection system 11.3 identify the instrumentation associated with the ice protection system 11.4 describe the operation of the ice protection system
12. Describe the operation of the King Air B200 flying control and undercarriage system	12.1 explain the basic operation of the flying control system 12.2 explain the basic operation of the undercarriage system 12.3 identify the components associated with the flying control system 12.4 explain how the hydraulic system operates the undercarriage and braking system
13. Describe the operation of the King Air B200 oxygen system	13.1 explain the basic operation of the oxygen system 13.2 identify the components associated with the oxygen system 13.3 identify the instrumentation associated with the oxygen system 13.4 state the immediate actions for Fire, Smoke or Fumes in the aircraft
14. Describe the operation of seats, exits and emergency equipment fitted to the King Air B200	14.1 demonstrate the procedures for securing and releasing the straps of all seats fitted to the King Air B200 14.2 demonstrate the procedure for opening and closing the main entrance door 14.3 describe the operation of all emergency exits 14.4 locate all emergency equipment fitted to the King Air B200 14.5 describe the operation of all emergency equipment fitted to the King Air B200

Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know how to operate the aircraft systems as a WSOp crewman on a King Air B200 aircraft.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	No comparable NOS found. This unit is aircraft specific.
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	F/615/4365
Title:	WSOp Crewman procedures
Level:	4
Credit value:	1
GLH	9
TQT	9
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Practise planning procedures prior to a simulator sortie	1.1 demonstrate an understanding of all documents required to complete planning for a simulator sortie 1.2 prepare a planning flight log for a simulator sortie 1.3 brief the crew on all aspects of the simulated load
2. Apply the Flight Reference Card (FRC) checks appropriate to crew position	2.1 demonstrate and monitor en route checks
3. Practise an aircraft simulated emergency	3.1 demonstrate the immediate actions as appropriate 3.2 practise the subsequent actions as appropriate
4. Demonstrate the correct radio procedures using the V/UHF radio	4.1 practise radio calls to ground agencies as required
5. Demonstrate CRM, Airmanship and Situational Awareness	5.1 demonstrate CRM, Airmanship and Situational Awareness
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to prepare to fly a sortie, demonstrate correct procedures in the event of an aircraft emergency, and demonstrate situational awareness and airmanship in a aircraft simulator.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS SEMAE3080 Testing aircraft flight guidance and control systems

Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	J/615/4366
Title:	Duties of the WSOp CMN Fixed Wing when away from home base
Level:	4
Credit value:	1
GLH	5
TQT	5
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Carry out planning procedures prior to flying a sortie	1.1 explain all documents required to complete a flying sortie 1.2 prepare a flight / met log for a flying sortie 1.3 explain the requirements for a destination airfield 1.4 explain the requirements for a diversion airfield 1.5 brief the crew on aspects of the route pertaining to the crewman 1.6 brief the crew on all aspects of the simulated (SECCT) load
2. Monitor and carry out the Flight Record Card (FRC) checks during a flying sortie pertinent to the operating position	2.1 carry out and monitor initial checks 2.2 carry out and monitor pre-starting checks 2.3 carry out and monitor start (external power) checks 2.4 monitor start checks 2.5 monitor after start checks 2.6 monitor pre-taxi checks 2.7 monitor run-up checks as required 2.8 carry out and monitor pre-take-off checks 2.9 monitor runway checks 2.10 monitor take-off checks 2.11 carry out and monitor en route checks 2.12 carry out and monitor top of climb checks 2.13 carry out and monitor descent checks 2.14 carry out and monitor pre-landing checks 2.15 carry out and monitor after landing checks 2.16 carry out and monitor shutdown checks
3. Practise an aircraft simulated emergency	3.1 carry out the immediate actions appropriate to the relevant operating position 3.2 carry out the subsequent actions appropriate to the relevant operating position
4. Carry out lookout duties to ensure the safe operation of the aircraft	4.1 practise lookout duties to ensure the safe operation of the aircraft
5. Carry out the	5.1 complete all real/simulated paperwork to support the aircraft

duties of the WSOp (CMN) in the forward cabin of the aircraft	<p>operations</p> <p>5.2 compile paperwork for a real/simulated airfield arrival</p> <p>5.3 send a real/simulated arrivals message to a handling agent at a destination airfield</p> <p>5.4 complete a flight log for the sortie</p> <p>5.5 monitor all FRC's</p> <p>5.6 prepare a trimsheet (using C17 load planner software) for a simulated on/off load of various cargo</p> <p>5.7 carry out scan checks to support the safe operation of the aircraft</p>
6. Demonstrate the management on a flight sub-imprest	<p>6.1 state the safety precautions to be followed when holding a flight sub-imprest</p> <p>6.2 explain the paperwork required to run a flight sub-imprest</p> <p>6.3 explain the management of a flight sub-imprest</p>
7. Carry out the correct radio procedures using the U/VHF radio	<p>7.1 practise radio calls to ground agencies</p> <p>7.2 collect en-route diversion weather information</p>
8. Demonstrate CRM airmanship and situational awareness	<p>8.1 demonstrate CRM airmanship and situational awareness</p>
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to carry out the role of a WSOP during a sortie in an aircraft during flight, completing all documentation and demonstrating situational awareness.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	No comparable NOS found
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation submitting the unit	Defence Awarding Organisation

Availability for use	Restricted
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URN:	L/615/4367
Title:	Principles of aircraft servicing
Level:	4
Credit value:	1
GLH	8
TQT	8
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. State the documentation requirements and safety procedures to carry out aircraft servicing of the King Air B200	1.1 list the publications associated with aircraft servicing 1.2 explain the principles of aircraft servicing when operating away from main base
2. Demonstrate the requirements to carry out flight servicing of the King Air B200	2.1 demonstrate the requirements when carrying out an aircraft refuel 2.2 describe the procedures associated with aircraft servicing
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will be able to describe the principles of aircraft servicing for the King Air B200 aircraft
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	This unit has some synergy with the following NOS SEMAER2_06 Carrying out aircraft routine servicing
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.

Name of the organisation submitting the unit	Defence Awarding Organisation
Availability for use	Restricted

URN:	R/615/4368
Title:	Agencies associated with WSOP (CMN) operations
Level:	3
Credit value:	1
GLH	7
TQT	7
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Explain HM Customs and Excise regulations	1.1 Visit a UK HM Customs and Excise facility 1.2 Discuss the regulations and procedures 1.3 Describe the procedures and practical application of HM Customs and Excise regulations within the military environment
2. Explain the tasking of AT & ARR aircraft	2.1 Explain how 2 Gp manage the routine tasking of AT & AAR aircraft 2.2 Explain how PJHQ manage the operational tasking of AT & AAR AC
Additional information about the unit	
Unit aim(s)	On completion of this unit learners will know the HM Customs and Excise regulations pertinent to a military environment.
Unit expiry date	2 years
Details of the relationship between the unit and relevant national occupational standards	No comparable NOS found
Details of the relationship between the unit and other standards or curricula	Royal Air Force WSOp Fixed Wing Training Course
Assessment requirements specified by a sector or regulatory body	This unit requires the workplace assessment of occupational competence wherever practicable. For the knowledge and understanding component of the unit, assessment from a learning and development environment is allowed.
Name of the organisation	Defence Awarding Organisation

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Availability for use	Restricted