

Unit 2: Health and Safety in the Aviation Industry

Unit code:	R/602/5675
QCF Level 3:	BTEC National
Credit value:	7
Guided learning hours:	57

● Aim and purpose

The aim of this unit is for learners to gain knowledge and an understanding of health and safety within the aviation industry to ensure the integrity of flight operations, build public confidence and guarantee future development.

● Unit introduction

This unit starts by asking learners to examine accident statistics and the importance of health and safety to the aviation industry. This sets the scene for introducing the organisations, laws and regulations tasked with keeping the aviation industry safe which are numerous and diverse and include the Health and Safety Executive (HSE), the Air Accidents Investigation Branch (AAIB) and the Civil Aviation Authority (CAA). Learners do not need to become experts, but should understand the structure of health and safety in the aviation industry.

Learners will explore the systems that have been put in place to keep the industry safe through case studies and real-life situations, for example injuries and fatalities to personnel working on the ramp, health issues relating to cabin crew on a flight. Understanding these situations enables those working in the industry to put systems in place to deal with a multitude of different, and sometimes unimaginable, scenarios.

Learners will look at the procedures for dealing with minor and major events on the ground and in the air. The aviation industry has developed emergency plans to deal with disasters; these plans need to be tested and calibrated by everyone concerned. Learners will examine the systems used to monitor, control and improve health and safety and learn about the supervisor's responsibility within a Human Factors programme. On completion of the unit learners will appreciate the importance of providing a safe and healthy aviation environment.

● Learning outcomes

On completion of this unit a learner should:

- 1 Understand the importance of health and safety in the aviation industry
- 2 Understand how health and safety is regulated in the aviation industry
- 3 Understand how health and safety working practices and procedures are implemented in the aviation industry
- 4 Understand how systems are used to monitor, control and improve aviation health and safety
- 5 Understand a supervisor's responsibility within a Human Factors programme.

Unit content

1 Understand the importance of health and safety in the aviation industry

Accident statistics:

- workplace
- at airports
- in the air

Incidents:

- safety, e.g. bird strike, foreign object debris (FOD), aircraft fire, collision between aircraft and airside vehicle, fuel spillage
- health, e.g. slips, trips, falls, hearing damage, musculoskeletal damage

Importance of maintaining a safe environment:

- to the organisation, e.g. licensing, court fines, bad publicity, loss of revenue, compliance with health and safety regulations
- to staff, e.g. to reduce accidents and injuries, disciplinary action, responsibility in law
- to visitors and passengers, e.g. unfamiliar with their surroundings, unaware of potential dangers

2 Understand how health and safety is regulated in the aviation industry

Key legislation, regulations and procedures:

- the Health and Safety at Work Act 1974
- other relevant health and safety legislation and regulations, e.g. noise control, Control of Substances Hazardous to Health (COSHH) regulations, working-time regulations, manual handling, data protection, personal protective equipment (PPE)
- reporting of accidents and serious occurrences at work
- civil aviation acts
- CAA regulations
- company procedures relating to health and safety

Responsibilities of supervisors and employees:

- ensuring staff compliance, e.g. wearing PPE, following manual handling regulations, maintaining training records, reporting and investigating incidents

Role of regulatory bodies and organisations involved in aviation health and safety:

- regulatory bodies, e.g. International Civil Aviation Organization (ICAO), Civil Aviation Authority (CAA), Health and Safety Executive (HSE), Department for Transport (DfT), Air Accidents Investigation Branch (AAIB)
- aviation and other organisations, e.g. local authority, ambulance, fire and rescue, police and social services, airports, airlines, handling agents, security companies, cleaning companies

3 Understand how health and safety working practices and procedures are implemented in the aviation industry

How to implement safe working practices:

- risk assessment (method, reasons)
- staff/union consultation
- health and safety representative
- using 'best practice', e.g. HSE recommendations
- following instructions, e.g. from equipment manufacturer
- following standard operating procedures (SOPs), e.g. company SOPs

Implementation of procedures relating to minor health and safety incidents:

- actions, e.g. isolate incident site, protect ground staff/air crew/passengers from further risk, follow standard response procedures (ground and air), report all incidents in a timely manner, keep a record of actions taken (internally or to HSE/CAA/DfT), take photographs where possible, investigate circumstances, interview ground staff/air crew concerned, take remedial action
- type of minor incident, e.g. slip, trip, fall, collision, illness on board aircraft
- personnel involved, e.g. cabin crew, security, police, first aiders, ambulance, fire and rescue

Implementation of procedures relating to major emergencies:

- actions, e.g. as for minor incidents plus – follow emergency orders, cordon off incident site, protect evidence, cooperate with emergency services, protect own staff from harm, inform CAA/DfT/AAIB as appropriate
- type of emergency situation, e.g. aircraft accident, serious injury, fatality, suspected communicable disease on inbound flight
- personnel, e.g. air crew, security, police, first aiders, ambulance, fire and rescue

4 Understand how systems are used to monitor, control and improve aviation health and safety

Systems used to monitor, control and improve health and safety:

- monitor, e.g. routine staff reports, routine inspections, unannounced inspections (in-house, regulators), audits, risk assessment reviews, airport safety committee, flight briefings
- control, e.g. HSE regulations, CAA regulations, local airport regulations, training, testing personnel, minimum safety standards (vehicles, equipment), designated health and safety officer, enforced standard operating procedures
- improve, e.g. mandatory actions (imposed by HSE, CAA, airport authority), learning from previous accidents, sharing information (within airport and globally), incident response training exercises

Implementation of systems to monitor, control and improve health and safety:

- interpretation of regulations, e.g. from ICAO, European Aviation Safety Agency (EASA), CAA, HSA, DfT, JAR OPS/EU OPS
- designated trainers and compulsory training, e.g. recurrent SEP training for cabin crew
- issuing of licences
- maintain clear training records
- maintain records of inspections (audit trail)
- involvement of all agencies in emergency planning

5 Understand a supervisor's responsibility within a Human Factors programme

Supervisor responsibility:

- to self
- to others
- to organisation

Human Factors programme:

- training requirements
- reporting procedures
- injury prevention procedures
- management of fatigue/alertness awareness
- auditing and assessment requirements

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
<p>P1 Describe different types of health and safety accidents or incidents that can occur relating to aircraft, other airside and landside hazards [IE]</p>	<p>M1 Analyse the cause of health and safety accidents or incidents</p>	<p>D1 Discuss the involvement of health and safety organisations, regulatory bodies, systems and procedures prior to, during and after a major incident</p>
<p>P2 Explain the importance of maintaining a safe environment in aviation</p>		
<p>P3 Summarise key health and safety regulations and legislation</p>		
<p>P4 Outline the responsibilities of supervisors and employees when complying with health and safety regulations and legislation</p>		
<p>P5 Explain the role of the regulatory bodies and organisations involved in aviation health and safety</p>		
<p>P6 Explain how to implement safe working practices to ensure the safety of self and others in the aviation industry [IE]</p>	<p>M2 Analyse the consequences of non-compliance with health and safety systems and procedures in the aviation industry</p>	
<p>P7 Explain how procedures are implemented when dealing with both minor health and safety incidents and major emergency situations in the aviation industry</p>		
<p>P8 Describe systems used to monitor, control and improve aviation health and safety</p>		

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P9 Explain how systems to monitor, control and improve health and safety are implemented		
P10 Identify Human Factors training requirements	M3 Outline the benefits to the organisation and the employee of a Human Factors programme	
P11 Explain Human Factors reporting procedures		
P12 Explain injury prevention procedures within a Human Factors programme		
P13 Explain the management of fatigue/alertness awareness		
P14 Explain the auditing and assessment requirements of a Human Factors programme		

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
------------	--	---	--

Essential guidance for tutors

Delivery

Maintaining a good health and safety record is vital to the aviation industry. As well as the immediate negative impacts involved, accidents can also have a long-term negative impact on the business of the organisation(s) involved and learners need to be made aware that avoiding accidents, and all the negative impacts lies at the heart of the industry. There is a culture of health, safety and security within all aspects of aviation and new employees soon learn that they must treat these issues seriously. To reinforce this, learners would benefit from visiting an airport fire station, crew training centre and security offices, and from talks by guest speakers such as fire officers, security officers, bird scarers, safety officers, pilots, engineers, cabin crew, airport and airline representatives.

Tutors may wish to link this unit with *Unit 3: Security in the Aviation Industry* as the learning outcomes for both units will naturally run alongside each other. This will give learners the opportunity to understand health and safety in conjunction with security within the aviation industry.

Visiting an airport and hearing the experiences of guest speakers either on location or in the classroom will give learners a 'feel' for the types of hazard that are found in the aviation environment. Hazards, such as foreign object debris (FOD), otherwise known as 'litter' are unique to aviation and learners need to understand that everyday objects such as a drink can or a plastic bag can potentially be very dangerous if ingested by a jet engine. Fire in the aviation environment (on the ground and in the air) is another hazard that has potentially disastrous consequences.

Learners will need to use the internet extensively as a research tool. They will need to be given time to research organisations, events and issues, individually and in groups. Some of the websites that learners will need to visit are extensive and tutors will need to guide learners through websites such as the HSE and the CAA to enable them to pinpoint the information they need.

Case studies should be used as they will help learners to comprehend why systems, procedures, legislation and regulations exist. Most health and safety legislation is not specific to aviation – researching the HSE website demonstrates how many activities are protected or restricted by law. Learners can then contextualise the legislation by applying it to an aviation environment. Some other regulations are specific to aviation; many of them can be accessed on the CAA website (for example CAP393 and CAP642).

Health and safety systems and procedures are strictly monitored. Case studies as well as real-life scenarios will help learners to appreciate the importance of following systems and procedures in a variety of situations. Tutors should introduce learners to the consequences when systems and procedures are not followed. By including an understanding of non-compliance learners will have the opportunity to further their knowledge for the higher grades. Video sources such as YouTube and the National Geographic Channel's Air Crash Investigation website have a wide variety of examples that show how catastrophic situations arise when ground crew/aircrew do not follow procedure.

Human Factors programmes were first introduced into the aviation industry in the 1980s and expanded during the 1990s. They are now used extensively across the industry with the aim of reducing accidents due to human error. Learners should examine some of these programmes for example ICAO, BA, in terms of their benefits and in relation to a supervisor's responsibility. Discussing and debating the benefits of a Human Factors programme will give learners the opportunity to achieve a higher grade.

The development of research skills is critical within this unit. Teaching should not just focus on a description of research undertaken, learners should be encouraged to interpret the information they have researched and consider how it may have affected an organisation or the industry. They should be asked challenging and stimulating questions about the data they have obtained through research.

Throughout the unit, learners should be encouraged to discuss the involvement of health and safety organisations, regulatory bodies, systems and procedures prior to, during and after a major incident. They should be given the opportunity to understand and comment on previous and current practice referring to examples of real-life situations and case studies. Videos and documentaries on major incidents will add to the learning experience. Discussions on major incidents such as the crash landing of BA038 at Heathrow in January 2008 could be used and these discussions and evaluations can lead towards achievement of the higher grades.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way of planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment

Introduction and overview of the unit.

Working in small groups to define health and safety.

Brainstorming session to determine why health and safety is so important in the aviation industry.

Airport visits where possible, e.g. to on airport fire station, crew training centre, security offices.

Introduction to Assignment 1.

Examine accident statistics and the importance of health and safety to the aviation industry.

Identify through research the types of incident that can occur within the airport/aircraft environment.

Activity using articles and web-based research to analyse the importance of maintaining a safe environment

Guest speaker to talk about the types of hazard that can be found in the aviation environment.

Tutor-led activity/presentation – how health and safety is regulated. Summarise key legislation and regulations including the Health and Safety Act 1974 and the CAA regulations.

Individual internet research activities to explore key health and safety legislation, regulations and procedures.

Tutor-led group discussion to bring together findings from individual research – using visual aids.

Activity to match health and safety regulations to incidents.

Guest speakers, e.g. fire officers, security officers, bird scarers, safety officers, pilots, engineers, cabin crew, airport and airline representatives to explain the responsibilities of supervisors and employees within aviation organisations in relation to health and safety legislation and regulation. Group discussion on the role of health and safety regulatory bodies and organisations.

Paper-based activity to link the role of health and safety regulatory bodies to other regulatory bodies and organisations.

Small-group activity to examine specific aviation accidents and incidents and identify causes.

Preparation for assignment

Assignment 1: Aviation Health and Safety (P1, P2, P3, P4, P5, M1)

Feedback on assignment

Topic and suggested assignments/activities and/assessment

Introduction to Assignment 2.

Mind mapping to brainstorm the type of minor health and safety incidents on the ground and in the air.

Mind mapping to brainstorm the types of major health and safety emergencies on the ground and in the air.

Learner research activity – major emergencies that have happened in the aviation industry.

Guest speaker to explain how to implement safe working practices and procedures for both minor incidents and major accidents, providing their own examples of different types of minor incidents and major emergencies.

Tutor-led discussion/presentation on the importance and relevance of risk assessments, airside and on aircraft safe working practices.

Learner research using internet, journals, data and books to link practices and procedures to real-life scenarios.

Class activity to evaluate the understanding of how health and safety working practices and procedures are implemented in the aviation industry.

Role play to act out the safe working practices and procedures that are implemented when dealing with both minor and major emergency situations.

Group discussion /debate on non-compliance with health and safety practices and procedures – what could happen?

YouTube and Air Crash Investigation – examples of specific aviation accidents and incidents that show how catastrophic situations arise when working practices and procedures are not followed.

Research activities – how are systems used to monitor aviation health and safety? What systems are available? How are systems controlled in health and safety? Who controls them? What regulations are involved in controlling health and safety?

Tutor input and group discussions – how are health and safety systems improved? Who is involved in mandatory actions? Can anything be learned from previous accidents?

Flowchart exercise to summarise 'systems used to monitor, control and improve health and safety'.

Group discussion/debate on non-compliance with systems to monitor, control and improve health and safety – what could happen if systems fail?

Case study to draw out the different regulations used in the implementation of systems to monitor, control and improve health and safety, and how these are interpreted.

Discussion – what type of training can be provided?

Paper-based exercise – licenses and records of inspection.

Preparation for assignment

Assignment 2: Aviation Health and Safety Systems and Procedures (P6, P7, P8, P9, M2)

Feedback on assignment

Topic and suggested assignments/activities and/assessment

Introduction to Assignment 3.

Research activity using websites, e.g. ICAO and BA, to examine Human Factors programmes including training requirements, reporting procedures, injury prevention procedures, the management of fatigue/alertness, audit and assessment requirements.

Guest speaker, e.g. a pilot to explain the implementation and the benefits of a Human Factors programme.

Guest speaker to explain the supervisor's responsibility within a Human Factors programme.

Documentation to show how procedures are reported.

Discussion – summarising the benefits for organisations of having a Human Factors programme, e.g. how a Human Factors programme can help organisations to manage the fatigue risk.

Tutor-led discussion – what are the benefits of a Human Factors programme to the organisation AND the employee?

Preparation for assignment

Assignment 3: Aviation Human Factors Programmes (PI0, PI1, PI2, PI3, PI4, M3)

Feedback on assignment

Introduction to Assignment 4.

Learner research into one major aviation incident (e.g. BA038 at Heathrow in January 2008) to identify the involvement of health and safety organisations, regulatory bodies, systems and procedures prior to, during and after the major incident.

Discussion of video footage and news articles. Guest speakers involved in major incidents to be invited to share their experiences (where possible).

Learners to discuss their findings within small groups and draw their conclusions based on all previous aspects of the unit (all learning outcomes to be covered).

Preparation for assignment

Assignment 4: Investigation into a Major Aviation Accident or Incident (DI)

Feedback on assignment

Assessment

A variety of assessment methods could be used including written, practical and role play. It is recommended that more than one assessment method is used to cater for different learning styles within a group.

The assessment criteria shown in the assessment and grading grid can be grouped together to enable learners to expand on one criterion to gain higher grades. Where possible, learners should be encouraged, and given the opportunity, to meet the relevant higher grades at the same time as they attempt the appropriate pass criteria.

Group activities may lend themselves to certain themes or assessments but it is essential that all learners keep a portfolio of their own work and have evidence of individually covering all the criteria they are credited for.

P1 – P2 – P3 – P4 – P5 – M1

To achieve P1, learners should describe five different types of health and safety accidents or incidents. They should describe at least one relating to aircraft, at least one relating to another airside hazard and at least one relating to a landside hazard. Case studies could be used.

To achieve P2, learners will need to explain the importance of maintaining a safe aviation environment for the organisation, for staff and for visitors and passengers. Learners should refer to the accidents or incidents described for P1 and comment on accident statistics for the aviation workplace, at airports and in the air.

To achieve P3, learners will need to summarise the key legislation, regulations and procedures that apply to the industry. In terms of health and safety, the most important is the Health and Safety at Work Act 1974; learners will need to summarise this piece of legislation and identify why it is so important. Likewise, the general content and purpose of CAA regulations need to be summarised, but the content is far too large to cover in depth. Learners should select at least three other relevant health and safety laws and regulations, including reporting of accidents and serious occurrences at work, and company procedures relating to health, safety and security.

To achieve P4, learners should outline the responsibilities of supervisors and employees in complying with health and safety regulations and legislation.

To achieve P5, learners should explain the role of the regulatory bodies and other aviation organisations involved in aviation health and safety. To illustrate their explanation learners should link key legislation, regulations and procedures to the regulatory bodies and other aviation organisations. At least two examples should involve regulatory bodies and a further two should relate to other bodies listed in the unit content.

To achieve M1, learners should analyse the cause of health and safety accidents or incidents in the aviation industry. A number of documented accidents have been caused by crew fatigue and a good response at this level could be 'Flight crew and cabin crew flying hours are regulated by JAR OPS/EU OPS. Crew are only allowed to fly a certain number of hours before they have to rest. Flight and duty time limitations and rest requirements are strictly monitored to ensure the safety of the crew, aircraft and passengers. If crew go over their regulated hours then fatigue can prevent them achieving their job roles, and this could then lead to an accident or incident that compromises the safety of the aircraft, its passengers and crew. For example, flight crew that are tired or fatigued may forget to complete their safety checks before landing.' It is expected that learners would include at least three accidents or incidents within their analysis.

P6 – P7 – P8 – P9 – M2

To achieve P6, learners will need to explain how to implement safe working practices to ensure the safety of self and others in the aviation industry. Learners should include examples covering risk assessment, airside and on-aircraft safe working practices. All items listed in the unit content should be covered.

To achieve P7, learners must explain how procedures are implemented when dealing with both minor health and safety incidents and major emergencies. They should illustrate their explanations using two examples of a minor incident and two of a major emergency situation.

P6 and P7 could be assessed together within a set of role-play activities. If this method of assessment is used an extensive witness statement must be signed by both the learner and the assessor. The assessor could video the role-play activities as further evidence.

To achieve P8, learners must describe the systems used to monitor, control and improve aviation health and safety. Learners should include one system for each sub-section of the unit content (monitor, control, improve).

To achieve P9, learners must explain how each of the systems described in P8 are implemented. The explanation should include details of the regulatory body involved, the method of promulgating the regulations, and the method of enforcement.

To achieve M2, learners must analyse the consequences of non-compliance with health and safety systems and procedures in the aviation industry. Learners can use examples from case studies or real-life incidents/accidents to support their analysis. The examples provided should cover a range of different types of health and safety non-compliance situations.

P10 – P11 – P12 – P13 – P14 – M3

To achieve P10, P11, P12, P13 and P14, learners must provide evidence that they understand a supervisor's responsibility within a Human Factors programme by identifying the training requirements (P10) and explaining reporting procedures (P11), injury prevention procedures (P12), management of fatigue/alertness awareness (P13) and auditing and assessment requirements (P14).

To achieve M3, learners must outline the benefits to the organisation and the employee of a Human Factors programme. Learners should examine a number of aviation Human Factors programmes (available on the internet) and identify the key benefits in relation to minimising human error. For example, learners could look at the issue of fatigue and how a Human Factors programme helps organisations to manage the fatigue risk to which they and their employees are exposed. Learners can link with M1 and M2 where the cause of an accident has been human error due to fatigue because crew have gone over their hours and become too tired to undertake their responsibilities effectively.

D1

To achieve D1, learners must discuss the involvement of the health and safety organisations, regulatory bodies, systems and procedures prior to, during and after a major incident. This can be achieved by focusing on one particular major incident. Tutors should guide learners to focus on an incident that covers all aspects of the unit so they can demonstrate an understanding of all the learning outcomes. There are a number of high-profile incidents that will give learners access to a wide range of research and video footage, for example the BA038 crash landing at Heathrow in January 2008. Learners should be able to discuss how after an incident health and safety systems and procedures are reviewed, analysed and improved and that often new regulations are developed and implemented.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, P3, P4, P5, M1	Assignment 1: Aviation Health and Safety	Working for a health and safety company at a busy UK airport. You will be giving a talk to new employees about the importance of health and safety in the aviation industry.	Presentation
P6, P7, P8, P9, M2	Assignment 2: Aviation Health and Safety Systems and Procedures	Working for a health and safety company at a busy UK airport. You have been asked to give a presentation about aviation health and safety procedures – how they are implemented, monitored and improved.	Role play
P10, P11, P12, P13, P14, M3	Assignment 3: Aviation Human Factors Programmes	Working for a health and safety company at a busy UK airport. You have been asked to design a leaflet to explain the responsibilities within a Human Factors programme and the benefits to the organisation and the employee.	Leaflet
D1	Assignment 4: Investigation into a Major Aviation Accident or Incident	Working for a health and safety company at a busy UK airport you have been asked to write a report that discusses the involvement of health and safety organisations, regulatory bodies, systems and procedures prior to, during and after a major incident.	Written report

Links to other BTEC units

This unit forms part of the BTEC aviation sector suite. This unit has particular links with the following unit titles in the aviation suite.

Level 2	Level 3	Level 4
Unit 23: Aviation Communications Unit 30: Aircraft Marshalling	Unit 1: The UK Aviation Industry Unit 3: Security in the Aviation Industry Unit 20: Ramp Handling Unit 21: Aircraft Dispatch Unit 28: Bird and Wildlife Control on Airports and Airfields	n/a

Essential resources

Learners must have access to library and research facilities, including current trade publications. Visits are highly recommended as are guest speakers from industry.

Learners should have access to accurate and up-to-date industry case studies.

For demonstration purposes learners should have access to industry standard PPE samples, for example hi-vis jacket, ear defenders, protective footwear.

Employer engagement and vocational contexts

It would be beneficial for learners to experience checking in for, and going on, a flight to experience the airport surroundings during a group visit or residential. Due to strict security procedures within airports it would be hard for learners to experience airside of an airport. However, as a paying passenger learners would be able to experience routine health and safety issues at airports. To accompany this, guest speakers within the classroom environment would extend learner knowledge through discussions of real-life scenarios.

Indicative reading for learners

Textbooks

Ashford N, Matin Stanton H P, Moore C – *Airport Operations* (McGraw-Hill, 1997) ISBN 978-0070030770

Doganis R – *The Airline Business* (Routledge, 2005) ISBN 978-0415346153

Hughes P and Ferrett E – *Introduction to Health and Safety at Work fifth edition* (Butterworth-Heinemann, 2011) ISBN 978-0080970707

Jeffrey C Price and Jeffrey S Forrest – *Practical Aviation Security: Predicting and Preventing Future Threats* (Butterworth-Heinemann Homeland Security, 2008) ISBN 978-1856176101

Kathleen Sweet – *Aviation and Airport Security: Terrorism and Safety Concerns, Second Edition* (CRC Press, 2009) ISBN 978-1420088168

Miyagi M – *Serious Accidents and Human Factors: Aviation Safety Through Incident Reporting Analysis* (WileyBlackwell, 2005) ISBN 978-1860584732

Journals

Airports International – Key Publishing Ltd

Flight International – Reed Business Publishing

Airliner World – Key Publishing Ltd

Other publications

Civil Aviation Authority – CAP393 – *Air Navigation*

Civil Aviation Authority – CAP168 – *Licensing of Aerodromes*

Websites

www.airportsinternational.com

Airport magazine

www.baa.com

BAA Airports – airport operator

www.caa.co.uk

Civil Aviation Authority – UK aviation regulator

www.direct.gov.uk

Government Website

www.hse.gov.uk/airtransport

Health and safety in the air transport industry

www.natgeotv.com/uk/air-crash-investigation

National Geographic Channel – Air Crash Investigation video clips

www.thirtythousandfeet.com

Aviation directory with thousands of links to aviation web pages, aviation news, and other sources of commercial, military and general aviation information

www.youtube.com

YouTube is an effective source of video footage

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	describing different types of health and safety accidents or incidents.

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Team workers	undertaking group activities and tasks
Effective participators	undertaking group discussions
Self-managers	managing own workload and time.

● Functional Skills — Level 2

Skill	When learners are ...
ICT — Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	delivering a presentation to new employees on the importance of health and safety in the aviation industry
Use ICT to effectively plan work and evaluate the effectiveness of the ICT system they have used	delivering a presentation to new employees on the importance of health and safety in the aviation industry
Follow and understand the need for safety and security practices	ongoing
Troubleshoot	as required.
ICT — Find and select information	
Select and use a variety of sources of information independently for a complex task	delivering a presentation to new employees on the importance of health and safety in the aviation industry
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	delivering a presentation to new employees on the importance of health and safety in the aviation industry.
ICT — Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	delivering a presentation to new employees on the importance of health and safety in the aviation industry
Bring together information to suit content and purpose	delivering a presentation to new employees on the importance of health and safety in the aviation industry
Present information in ways that are fit for purpose and audience	delivering a presentation to new employees on the importance of health and safety in the aviation industry
Evaluate the selection and use of ICT tools and facilities used to present information	delivering a presentation to new employees on the importance of health and safety in the aviation industry.
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	delivering a presentation on aviation health and safety procedures and how they are implemented, monitored and improved
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	writing a report that discusses the involvement of health and safety organisations, regulatory bodies, systems and procedures prior to, during and after a major incident.