

Doc 10002
AN/502



CABIN CREW SAFETY TRAINING MANUAL

First Edition — 2014

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INTERNATIONAL CIVIL AVIATION ORGANIZATION

FOREWORD

Cabin safety contributes to the prevention of accidents and incidents, protection of the aircraft's occupants, through proactive safety management, including hazard identification, safety risk management and the increase of survivability in the event of an emergency situation. Traditionally, the role of cabin crew members focused on the evacuation of an aircraft in the event of an accident. However, cabin crew members also play an important proactive role in managing safety, which can contribute to the prevention of incidents and accidents. Training is necessary to prepare cabin crew members to conduct their safety-related duties and responsibilities during normal day-to-day flights and essential to enable them to recognize and act on any abnormal or emergency situation.

The ICAO *Cabin Crew Safety Training Manual* (Doc 10002) provides guidance related to cabin crew training requirements found in Annex 6 — *Operation of Aircraft*, Part I — *International Commercial Air Transport — Aeroplanes*.

ICAO developed guidance for a competency-based approach to cabin crew safety training so that cabin crew members may be proficient to perform their duties and responsibilities, and with the goal of establishing an international baseline for cabin crew competencies. The manual presents cabin crew safety training using a competency-based approach. It provides guidance for operators to develop cabin crew competency-based training.

The content of this manual is adaptable and operators should tailor it to suit their operation. It is also provided as guidance for States when approving a training programme. However, the content does not represent the sole means to meet regulatory requirements on cabin crew training. The training syllabus of cabin crew members assigned for duties on commercial international air transport operations should include all relevant parts of the syllabuses suggested in this manual but should not be limited by it. This document replaces ICAO *Cabin Attendants' Safety Training Manual* (Doc 7192, Part E-1, Second Edition, 1996).

The content of this manual was developed over a period of two years with inputs from experts from civil aviation authorities, airlines, aircraft manufacturers, training organizations, airline and cabin crew representative organizations, aviation medicine and human performance specialists; and was thereafter submitted for an extensive peer review to collect and take into account comments from the expert community.

ICAO gratefully acknowledges the contribution received from the ICAO Cabin Safety Group, as well as the IATA Medical Advisory Group, members of the ICAO Medical Provisions Study Group, and individual experts who have provided support, advice and input for this manual.

ACKNOWLEDGEMENTS

ICAO gratefully acknowledges contributions from the following:

Air Canada	Federal Aviation Administration
Air Canada Rouge	Flight Attendant School (“Школа бортпроводников”)
Air France	GOL Linhas Aéreas Inteligentes
Air New Zealand	International Air Transport Association
Air Transat	International Transport Workers’ Federation
Airbus	Jamaica Civil Aviation Authority
Alitalia – Compagnia Aerea Italiana	Jetstar Airways
American Airlines	Kenya Airways
Avianca Airlines	KLM Royal Dutch Airlines
Boeing Company	Lufthansa German Airlines
British Airways	National Civil Aviation Agency of Brazil
Calm Air International	Provincial Airlines
Cathay Pacific Airways	Saudia Airlines
Central American Agency for Aviation Safety	Singapore Airlines
Civil Aviation Authority of Israel	Sky Regional Airlines
Civil Aviation Authority of New Zealand	South Africa Civil Aviation Authority
Civil Aviation Authority of Singapore	Transport Canada Civil Aviation
Civil Aviation Safety Authority of Australia	UAE General Civil Aviation Authority
Condor Flugdienst	UK Civil Aviation Authority
Emirates Airline	United Airlines
European Aviation Safety Agency	
Federal Air Transport Agency (Rosaviatsia)	

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LIST OF ACRONYMS

AC	Advisory circular
AOC	Air operator certificate
AQP	Advanced qualification programme
ATO	Approved training organization
CASS	Commercial air service standards
CBR	Chemical/biological/radiological
CBT	Computer-based training
CPR	Cardiopulmonary resuscitation
CRM	Crew resource management
CTD	Cabin training devices
EASA	European Aviation Safety Agency
ELT	Emergency locator transmitter
ELT(AF)	Automatic-fixed ELT
ELT(AP)	Automatic-deployable ELT
ELT(S)	Survival ELT
EU	European Union
FAA	Federal Aviation Administration
FRMS	Fatigue risk management system
I/C	In-charge cabin crew member
ISD	Instructional systems design
LMS	Learning management system
MEL	Minimum equipment list
MMEL	Master minimum equipment list
OSD	Operational suitability data
PBE	Protective breathing equipment
PC	Performance criteria
PED	Personal electronic device
SARPs	Standards and Recommended Practices
SMS	Safety management system
SSP	State safety programme
STC	Supplemental type certificate
TCCA	Transport Canada Civil Aviation
TEM	Threat and error management
UTC	Coordinated universal time

DEFINITIONS

Able-bodied passengers. Passengers who are clearly physically able and are willing to help cabin crew maintain good order and discipline on-board the aircraft.

Accountable executive. A single, identifiable person having responsibility for the effective and efficient performance of the State's safety programme (SSP) or of the service provider's safety management systems (SMS).

Air operator certificate (AOC). A certificate authorizing an operator to carry out specified commercial air transport operations.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Airworthy. The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation

Approved training organization — Cabin crew. An organization approved by a Contracting State in accordance with the national regulations to perform cabin crew training and which operates under the supervision of that State.

Approved training — Cabin crew. Training conducted under special curricula and supervision approved by a Contracting State that, where applicable, is conducted within an approved training organization.

Attendant panel. Control panel(s) intended for use by cabin crew to operate and/or monitor aircraft systems relevant to cabin crew duties during normal operations and in the event of emergency situations.

Baggage. Personal property of passengers or crew carried on an aircraft by agreement with the operator.

Barostatic. An atmospheric pressure, used in forecasting the weather and determining altitude, derived using a barometer.

Cabin crew member. A crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member.

Change management. A formal process to manage changes within an organization in a systematic manner, so that changes which may impact identified hazards and risk mitigation strategies are accounted for, before the implementation of such changes.

Classroom training. In-person, instructor-led training which may include group exercises and interactive instructional sessions.

Clean aircraft concept. All critical surfaces of an aircraft must be clean of any surface contamination. The critical surfaces of an aircraft are the wings, control surfaces, rotors, propellers, horizontal stabilizers, vertical stabilizers or any other stabilizing surface. In the case of an aircraft with rear mounted engines, the upper surface of the fuselage is also a critical surface.

Clear zone. The area of the passenger cabin immediately in front of the flight crew compartment door, including galleys and lavatories.

Cognitive. Pertaining to cognition. Knowing, perceiving, or conceiving as an act or faculty distinct from emotion and volition.

Colicky pain. Denoting or resembling the pain of colic: pain relating to the colon. Spasmodic pains in the abdomen caused by spasm, obstruction or twisting.

Competency element. An action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome.

Competency unit. A discrete function consisting of a number of competency elements.

Competency. A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.

Co-pilot. A licensed pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

Computer-based training. Training involving instructional aids, such as computers and tablets. Computer-based training may encompass the use of CD-ROMs as well as web-based training (commonly referred to as eLearning).

Crew member. A person assigned by an operator to duty on an aircraft during a flight duty period.

Critical phases of flight. The period of high workload on the flight deck, normally being the periods between the beginning of taxiing until the aircraft is on the route climb phase and between the final part of descent to aircraft parking.

Cruising level. A level maintained during a significant portion of a flight.

Dangerous goods. Articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

Note.— Dangerous goods are classified in Annex 18 — The Safe Transport of Dangerous Goods by Air, Chapter 3.

Defences. Specific mitigating actions, preventive controls or recovery measures put in place to prevent the realization of a hazard or its escalation into an undesirable consequence.

Disinfection. The procedure whereby health measures are taken to control or kill infectious agents on a human or animal body, in or on affected parts of aircraft, baggage, cargo, goods or containers, as required, by direct exposure to chemical or physical agents.

Disinsection. The procedure whereby health measures are taken to control or kill insects present in aircraft, baggage, cargo, containers, goods and mail.

Duty period. A period which starts when a flight or cabin crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties.

Duty. Any task that flight or cabin crew members are required by the operator to perform, including, for example, flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue.

Embarkation. The boarding of an aircraft for the purpose of commencing a flight, except by such crew or passengers as have embarked on a previous stage of the same through-flight.

Emergency exit. Door, window exit, or any other type of exit (e.g. hatch in the flight deck, tail cone exit) used as an egress point to allow maximum opportunity for cabin evacuation within an appropriate time period.

Emergency locator transmitter (ELT). A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following:

Automatic-fixed ELT (ELT(AF)). An automatically activated ELT which is permanently attached to an aircraft.

Automatic-portable ELT (ELT(AP)). An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.

Automatic-deployable ELT (ELT(AD)). An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

Survival ELT (ELT(S)). An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors

Error. An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.

Note.— See Attachment E of Annex 13 — Aircraft Accident and Incident Investigation for a description of operational personnel.

Error management. The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequence of errors and mitigate the probability of further errors or undesired states.

Exanthematous diseases. Relating to an exanthema: a skin eruption occurring as a symptom of an acute viral or coccal disease, as in scarlet fever or measles.

Fatigue. A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety-related duties.

Fatigue risk management system (FRMS). A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.

Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

Flight duty period. A period which commences when a flight or cabin crew member is required to report for duty that includes a flight or a series of flights and which finishes when the aeroplane finally comes to rest and the engines are shut down at the end of the last flight on which he/she is a crew member.

Flight simulation training device. Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

A flight simulator, which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. aircraft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that type of aircraft are realistically simulated;

A flight procedures trainer, which provides a realistic flight deck environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular class;

A basic instrument flight trainer, which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.

Flight time — Aeroplanes. The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

Note.— Flight time as here defined is synonymous with the term “block to block” time or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.

Ground handling. Services necessary for an aircraft’s arrival at, and departure from, an airport, other than air traffic services.

Hands-on exercise. Exercise on the use of equipment/aircraft systems that is conducted without a specific context. Equipment that is removed from operation, or other representative training equipment considered acceptable by State, can be used for the purposes of this training.

Human factors principles. Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.

Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

Hypoglycaemic attack. Pertaining to or characterized by hypoglycaemia: abnormal decrease in concentration of glucose in the circulating blood, e.g. less than the minimum of the normal range.

Hypothermia. A subnormal body temperature significantly below 37°C.

Hypoxia. A deficiency of oxygen in inspired gases, arterial blood or tissue, short of anoxia (almost complete absence of oxygen).

Improvised explosive device. A device, placed or delivered, and fabricated in an improvised manner incorporating explosives or destructive, lethal, noxious, pyrotechnic or incendiary chemicals designed to destroy, disfigure, distract or harass.

In-flight. The period from the moment all external aircraft doors are closed following boarding through the moment when one external door is opened to allow passengers to leave the aircraft or until, if a forced landing, competent authorities take over responsibility for the aircraft and individuals and property on the aircraft. For the purpose of the Tokyo Convention an aircraft is considered to be in flight from the moment when power is applied for the purpose of take-off until the moment when the landing run ends.

In-charge cabin crew member. Cabin crew leader who has overall responsibility for the conduct and coordination of cabin procedures applicable during normal operations and during abnormal and emergency situations for flights operated with more than one cabin crew member.

Lockdown. The condition of the flight crew compartment door being closed and locked securely, with no traffic permitted either in or out of the flight crew compartment.

Medical assessment. The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness

Minimum equipment list (MEL). A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the master minimum equipment list (MMEL) established for the aircraft type.

Mock-up. A training device that is a partial, functional replica of an actual aircraft, without motion.

Operations manual. A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Performance criteria. Simple, evaluative statements on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved.

Person with disabilities. Any person whose mobility is reduced due to a physical incapacity (sensory or locomotor), an intellectual deficiency, age, illness or any other cause of disability when using transport and whose situation needs special attention and the adaptation to the person's needs of the services made available to all passengers.

Pilot-in-command. The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

Pressure-altitude. An atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere.

Prophylaxis. Prevention of disease or injury or a process which can lead to disease or injury.

Protective breathing equipment (PBE). Breathing equipment providing full, sealed protection against smoke, fumes, etc., covering the head, the collar and upper shoulder area. Fifteen-minutes minimum oxygen supply per PBE is recommended.

Psychoactive substances. Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

Remote on-board areas. Areas that are not in the passenger compartment but that are accessible to occupants, such as crew rest area(s), cargo area, or electronics compartment.

Rest period. A continuous and defined period of time, subsequent to and/or prior to duty, during which flight or cabin crew members are free of all duties.

Risk mitigation. The process of incorporating defences or preventive controls to lower the severity and/or likelihood of a hazard's projected consequence.

Safety management system. A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

Simulated exercise. Exercise representing a full context scenario (e.g. aircraft evacuation) where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the specific situation. This is typically conducted in a representative training device capable of reproducing the appropriate environment/equipment characteristics (e.g. cabin, flight deck, accessible cargo compartment, crew rest area, etc.), or on an actual aircraft.

Simulator. An apparatus which provides an accurate representation of the flight deck and/or cabin of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc., aircraft systems control functions, the normal environment of flight crew members and/or cabin crew members and the performance and characteristics of that type of aircraft are realistically simulated.

Special categories of passengers. Persons who need special conditions, assistance, or equipment when travelling by air. These may include but are not limited to:

- a) infants;
- b) unaccompanied children;
- c) persons with disabilities;
- d) persons with mobility impairments;
- e) persons on stretchers; and
- f) inadmissible passengers, deportees or persons in custody.

State of the Operator. The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

Sterile flight deck. During critical phases of flight and all flight operations (except cruise) conducted below 10 000 feet, no crew member may engage in any activity or conversation that is not required for safe operation of the aircraft. Non-essential cockpit-cabin communication is prohibited during this period.

Technical Instructions. The *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council.

Threat levels. A series of four defined threat levels of passenger disturbances, established so as to give common definition and thereby understanding to all concerned parties as to what is occurring on the aircraft:

Level 1 — Disruptive behaviour (suspicious or verbally threatening);

Level 2 — Physically abusive behaviour;

Level 3 — Life-threatening behaviour;

Level 4 — Attempted breach or actual breach of the flight crew compartment.

Threat. Events or errors that occur beyond the influence of an operational person, increase operational complexity and must be managed to maintain the margin of safety.

Note. — See Attachment E of Annex 13 — Aircraft Accident and Incident Investigation for a description of operational personnel.

Threat and error management (TEM). An overarching safety concept regarding aviation operations and human performance.

Threat management. The process of detecting and responding to threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.

Tokyo Convention. Convention on Offences and Certain Other Acts Committed on Board Aircraft, signed at Tokyo on 14 September 1963.

Unstaffed exit. Emergency exit for which no cabin crew member has been positioned for the flight.

CHAPTER 1. CABIN CREW SAFETY TRAINING REQUIREMENTS AND QUALIFICATIONS

1.1 Overview of cabin safety and the role of cabin crew

1.1.1 Cabin safety contributes to the prevention of accidents and incidents, the protection of the aircraft's occupants, through proactive safety management, including hazard identification and safety risk management, and the increase of survivability in the event of an emergency situation. Cabin safety focuses on: regulations relating to cabin operations, operator's procedures and documentation, cabin crew training and qualifications (including facilities and devices), human performance, design and manufacturing, equipment and furnishings on board aircraft, and the operational environment.

1.1.2 ICAO defines a cabin crew member as a crew member who performs, in the interest of safety of passengers, duties assigned by the operator or the pilot-in-command of the aircraft, but who shall not act as a flight crew member. Traditionally, the role of cabin crew members focused on the evacuation of an aircraft in the event of an accident. However, cabin crew members also play an important proactive role in managing safety, which can contribute to the prevention of accidents. This role includes, but is not limited to:

- a) preventing incidents from escalating in the cabin, such as smoke or fire;
- b) informing the flight crew of abnormal situations observed in the cabin or relating to the aircraft, such as pressurization problems, engine anomalies, and contamination of critical surfaces; and
- c) preventing unlawful interference and managing passenger events that can compromise safety and security of the flight, such as hijackings.

1.1.3 Operators can gain insight into hazards relating to their operations through their safety management systems. Cabin crew members play a key role in identifying hazards and reporting any condition that can pose a risk to the safe operation of an aircraft and to its occupants' safety.

1.2 Cabin crew safety training

1.2.1 The role that cabin crew members play, both in terms of day-to-day safety management in normal operations and in the event of an abnormal or emergency situation, requires that they undergo specialized and thorough training to gain sound knowledge of their safety role and the required competencies needed to perform their duties and responsibilities.

1.2.2 Training must focus on cabin crew members' duties and responsibilities in the event of an abnormal or emergency situation. Since accidents are statistically rare, the training programme needs to ensure that cabin crew members remain proficient and are able to execute the required tasks in the event that they occur.

1.2.3 Cabin crew training should also address safety duties and responsibilities relating to normal day-to-day operations, and the role that cabin crew members play in maintaining safety.

1.2.4 Joint safety and emergency training for both flight crew and cabin crew is recommended, particularly for some key topics such as crew resource management. Joint training enhances communication and coordination and promotes a better understanding of the crew members' roles and responsibilities. This aspect is discussed in detail in Chapter 8.

1.2.5 The role of cabin crew members is constantly expanding. Beyond safety and abnormal/emergency procedures, cabin crew members must manage security-related events, medical situations, and participate in the operator's overarching management programmes, such as safety management systems. Training should encompass all these aspects.

1.2.6 ICAO developed a competency-based approach to cabin crew safety training so that cabin crew members may be proficient to perform their duties and responsibilities, and with the goal of establishing an international baseline for cabin crew competencies. As a result, this manual has been rewritten to align with this approach. An overview of the competency-based approach is presented in Chapter 3. The cabin crew competency framework is presented in appendices of Chapters 5, 6, 7, 9, 10 and 14.

1.3 ICAO Standards and Recommended Practices (SARPs)

1.3.1 The assignment of cabin crew members for safety duties on board commercial passenger aircraft is a requirement of Annex 6 — *Operation of Aircraft* to the Convention on International Civil Aviation.

1.3.2 Paragraph 12.1 of Annex 6, Part I — *International Commercial Air Transport — Aeroplanes*, states that:

“An operator shall establish, to the satisfaction of the State of the Operator, the minimum number of cabin crew required for each type of aeroplane, based on seating capacity or the number of passengers carried, in order to effect a safe and expeditious evacuation of the aeroplane, and the necessary functions to be performed in an emergency or a situation requiring emergency evacuation. The operator shall assign these functions for each type of aeroplane.”

1.3.3 Cabin crew safety training is addressed in paragraph 12.4 — *Training*, of Annex 6, Part I, which states that:

“An operator shall establish and maintain a training programme, approved by the State of the Operator, to be completed by all persons before being assigned as a cabin crew member. Cabin crew members shall complete a recurrent training programme annually. These training programmes shall ensure that each person is:

- a) competent to execute those safety duties and functions which the cabin crew member is assigned to perform in the event of an emergency or in a situation requiring emergency evacuation;
- b) drilled and capable in the use of emergency and life-saving equipment required to be carried, such as life jackets, life rafts, evacuation slides, emergency exits, portable fire extinguishers, oxygen equipment, first-aid and universal precaution kits, and automated external defibrillators;
- c) when serving on aircrafts operated above 3 000 m (10 000 ft), knowledgeable as regards the effect of lack of oxygen and, in the case of pressurized aircrafts, as regards

- physiological phenomena accompanying a loss of pressurization;
- d) aware of other crew members' assignments and functions in the event of an emergency so far as is necessary for the fulfilment of the cabin crew member's own duties;
 - e) aware of the types of dangerous goods which may, and may not, be carried in a passenger cabin; and
 - f) knowledgeable about human performance as related to passenger cabin safety duties including flight crew-cabin crew coordination."

1.3.4 The requirements for the training of cabin crew members in the transport of dangerous goods are included in the Dangerous Goods Training Programme contained in Annex 18 — *The Safe Transport of Dangerous Goods by Air* and the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284). The content of dangerous goods training for cabin crew members, detailed in the Technical Instructions, includes:

- a) general philosophy;
- b) limitations;
- c) labelling and marking;
- d) recognition of undeclared dangerous goods;
- e) provisions for passengers and crew; and
- f) emergency procedures.

1.3.5 Security-related training for cabin crew is addressed in Annex 6, Part I, paragraph 13.4 – *Training programmes*, which states that:

“An operator shall establish and maintain an approved security training programme which ensures crew members act in the most appropriate manner to minimize the consequences of acts of unlawful interference. As a minimum, this programme shall include the following elements:

- a) determination of the seriousness of any occurrence;
- b) crew communication and coordination;
- c) appropriate self-defence responses;
- d) use of non-lethal protective devices assigned to crew members whose use is authorized by the State of the Operator;
- e) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;
- f) live situational training exercises regarding various threat conditions;
- g) flight crew compartment procedures to protect the aircraft; and
- h) aircraft search procedures and guidance on least-risk bomb locations where practicable.

An operator shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.”

1.4 Recommended minimum qualifications

1.4.1 At present, there are no international Standards for the qualifications of cabin crew members. However, it is important that specific minimum qualifications relating to fitness to perform duties and

responsibilities, knowledge, age and other aspects are met, so that cabin crew members can fulfil their role in terms of safety management.

1.4.2 A set of minimum qualifications enables cabin crew trainees to successfully complete the training programme and increases their ability to perform the required duties and responsibilities once they are on the line. Cabin crew members must be able to operate equipment and systems which may be physically challenging, exercise good judgement, manage the cabin and communicate effectively with flight crew members, fellow cabin crew members, other personnel and passengers.

1.4.3 Operators should develop minimum qualifications for their cabin crew members. These qualifications should be in accordance with national regulations, where applicable.

1.4.4 Recommended minimum qualifications typically include:

- a) a minimum age requirement (at least 18 years old);
- b) high school diploma or an equivalent diploma (10 years of schooling or more);
- c) the ability to read, speak, write and understand a designated common language to ensure appropriate communication with both crew members and passengers (refer to 1.4.2);
- d) the ability to retrieve safety and emergency equipment and open and close overhead bins on the aircraft, from a standing position;
- e) the ability and strength to operate equipment/systems, as applicable to the operator's procedures during normal, abnormal and emergency situations and to the aircraft type(s) to which the cabin crew member will be assigned duties;
- f) clear of a criminal record/pass a security background check; and
- g) meet any other requirements, as defined by the State of the operator or the operator itself (e.g. pass a swim test, undergo a medical assessment).

1.5 Types of training

1.5.1 The following sections provide definitions of the different types of training that should be provided, as a minimum, to cabin crew members.

1.5.2 The types of training addressed are as follows:

- a) initial training;
- b) aircraft type training;
- c) differences' training;
- d) aircraft visit;
- e) familiarization flight; and
- f) recurrent training.

1.6 Initial training

1.6.1 Initial training is required for persons who have not previously operated as a cabin crew member. The goal of initial training is to ensure that each trainee acquires the competencies, knowledge and skills required to perform the duties and responsibilities related to the safety of passengers and flight during normal, abnormal and emergency situations. This is accomplished through classroom instruction and computer-based training (CBT) complemented by a series of hands-on and simulated exercises such

as first aid and fire-fighting. Cabin crew trainees must complete initial training before they are assigned duties as cabin crew members.

1.6.2 Initial training includes:

- a) aviation indoctrination;
- b) duties and responsibilities;
- c) normal, abnormal and emergency procedures;
- d) aircraft type training;
- e) dangerous goods;
- f) human performance;
- g) cabin health and first aid; and
- h) duties and responsibilities relating to aviation security.

1.7 Aircraft type training

1.7.1 Aircraft type training is required to gain a qualification on the aircraft model that the cabin crew member will be assigned on (e.g. B777 or A330).

1.7.2 This training should include, but is not limited to, the following elements, if applicable to the particular aircraft:

- a) aircraft description;
- b) cabin configuration (number and distribution of cabin crew seats and number of passenger seats);
- c) cabin layout (interior design, stowage compartments such as overhead bins, and closets, etc.);
- d) galleys;
- e) lavatories;
- f) flight deck familiarisation and egress;
- g) crew rest areas (normal and emergency egress) and other remote areas;
- h) exits (type, number, location and operation);
- i) assisting evacuation means (slide, slide-raft, life raft, rope, etc.);
- j) safety and emergency equipment, including location and operation;
- k) aircraft systems relevant to cabin crew duties:
 - i) air conditioning, ventilation, and pressurization systems;
 - ii) communication systems and associated signalling panels;
 - iii) control panels;
 - iv) electrical system (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);
 - v) evacuation alarm system;
 - vi) fire prevention system;
 - vii) lighting system (interior, exterior and emergency lights);
 - viii) oxygen system (cabin and flight deck);
 - ix) smoke detection system and smoke removal; and
 - x) water and waste systems;
- l) installed emergency locator transmitter;
- m) normal procedures and the related hands-on and/or simulated exercises;

- n) abnormal and emergency procedures and the related hands-on and/or simulated exercises; and
- o) design-related elements that may impact on normal and/or emergency procedures (stairs, smoke curtain, social areas, non-forward facing passenger seats, cargo areas if accessible from the passenger compartment during flight, etc.).

1.7.3 This training and the associated checking should be accomplished through classroom instruction, CBT as well as hands-on and simulated exercises with a representative training device capable of reproducing the appropriate environment/equipment characteristics, or on an actual aircraft.

1.8 Differences training

1.8.1 Differences training is required to gain competence before the cabin crew member is assigned to duty on an aircraft that has differences from the model or series that the crew member is previously qualified on. Examples of different models include an Airbus A320 vs. A340 or a Boeing B737 vs. B777. Examples of different series include a B777-200 vs. B777-300 or an A330-200 vs. A330-300.

1.8.2 The training should include the following as a minimum, as applicable to the particular aircraft:

- a) exits (type, number, location and operation);
- b) assisting evacuation means (slide, slide-raft, life raft, rope, etc.);
- c) safety and emergency equipment, including location and operation;
- d) aircraft systems relevant to cabin crew duties (refer to 1.7.2 (k));
- e) normal procedures and the related hands-on and/or simulated exercises;
- f) abnormal and emergency procedures and the related hands-on and/or simulated exercises; and
- g) design-related elements that may impact on normal and/or emergency procedures (stairs, smoke curtain, social areas, non-forward facing passenger seats, cargo areas if accessible from the passenger compartment during flight, etc.).

1.8.3 This training and the associated checking should be accomplished through classroom instruction, CBT, as well as hands-on and simulated exercises with a representative training device capable of reproducing the appropriate environment/equipment characteristics, or on an actual aircraft.

1.9 Aircraft visit

1.9.1 The purpose of an aircraft visit is to familiarize each cabin crew member with the aircraft environment and its equipment. Each cabin crew trainee having no previous comparable operating experience should participate in a visit to an aircraft prior to participating on a familiarisation flight (refer to 1.10). The visit is typically conducted on board a stationary aircraft. Aircraft visits should be conducted by suitably qualified persons and in accordance with a syllabus described in the operations manual. They should be conducted in accordance with national regulations, where applicable.

1.9.2 The aircraft visit should provide an overview of the aircraft's exterior, interior and systems including the following, if applicable to the particular aircraft:

- a) cabin crew stations;

- b) cabin layout (interior design, stowage compartments such as overhead bins, and closets, etc.);
- c) galleys;
- d) lavatories;
- e) flight deck familiarisation and egress;
- f) crew rest areas and any other remote areas;
- g) safety and emergency equipment;
- h) exits (location and their environment);
- i) assisting evacuation means (location and stowage);
- j) aircraft systems relevant to cabin crew duties:
 - i) communication systems and associated signalling panels;
 - ii) control panels;
 - iii) electrical system (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);
 - iv) evacuation alarm system;
 - v) fire prevention system;
 - vi) lighting system (interior, exterior and emergency lights);
 - vii) oxygen system (cabin and flight deck);
 - viii) smoke detection system;
 - ix) water and waste systems; and
- k) cargo areas if accessible from the passenger compartment during flight.

1.10 Familiarization flight

1.10.1 A familiarization flight is also referred to as “line indoctrination”. Each cabin crew trainee having no previous comparable operating experience should participate in a familiarisation flight as described below. Familiarization flights should be conducted in accordance with national regulations, where applicable.

1.10.2 The familiarization flight should be completed within a specified number of days of fulfilling the requirements of the ground-training portion of the operator's training programme. This time frame is usually defined by the State.

1.10.3 During the familiarization flight, the cabin crew trainee should be additional to the minimum number of operating cabin crew members required by the State. The familiarization flight should be conducted under supervision. It should be structured and involve the cabin crew trainee in the participation of safety-related pre-flight, in-flight, pre-landing and post-flight duties. Familiarization flights should form part of the training record for each cabin crew member.

1.11 Recurrent training

1.11.1 Recurrent training is conducted annually to ensure the maintenance of competencies, knowledge and skills through a series of hands-on exercises, simulated exercises, written exams, etc. for general training elements such as first-aid as well as for training elements relevant to each aircraft type on which the cabin crew member will be assigned duties. It may also be provided to familiarize crew members with new requirements, procedures and/or equipment introduced since their last training.

Recurrent training ensures that cabin crew members, by practicing most competencies and skills, maintain the level of performance required for their duties and responsibilities

1.11.2 ICAO Standards and Recommended Practices (SARPs) require cabin crew to undergo annual recurrent training. For recurrent training, the content may vary in regards to the competency elements covered, the conditions used for training as well as the knowledge and skills that may be assessed, which for example may be covered over a 36-month cycle. The content of recurrent training must be covered within the cycle defined by the State.

1.11.3 Recurrent training should include the following, as a minimum:

- a) exits (type, number, location and operation);
- b) assisting evacuation means (slide, slide-raft, life raft, rope, etc.);
- c) safety and emergency equipment, including location and operation;
- d) aircraft systems relevant to the cabin crew duties (refer to 1.7.2 (k));
- e) normal procedures and the related hands-on and/or simulated exercises;
- f) abnormal and emergency procedures and the related hands-on and/or simulated exercises, including:
 - i) fire-fighting (including a live fire-fighting exercise, as required by the State);
 - ii) smoke removal;
 - iii) decompression;
 - iv) evacuation on land and on water (including a wet drill, as required by the State); and
 - v) flight and cabin crew member incapacitation;
- g) crew resource management;
- h) passenger handling and crowd control;
- i) aviation security procedures;
- j) first aid;
- k) dangerous goods; and
- l) review of recent incidents and/or accidents pertinent to the operator.

1.11.4 This training and the associated checking should be accomplished through classroom instruction and/or CBT, and hands-on and simulated exercises with a representative training device capable of reproducing the appropriate environment/equipment characteristics, or on an actual aircraft.

1.12 Requalification programmes

1.12.1 Requalification programmes should be defined for cabin crew members whose qualifications have expired for any reason (e.g. prolonged absence from flying duties), as part of the process to regain qualification enabling the cabin crew member to perform the required duties and responsibilities. This is determined based on the applicable validity period(s), namely the time elapsed since the cabin crew member's last required training. The cabin crew member may need to follow a specific series of steps in order to regain qualification.

1.12.2 Requalification should be conducted in accordance with national regulations, where applicable. National regulations may require requalification based on different timeframes or circumstances. The operator should establish a process, based on the applicable validity periods of the required training, to monitor when a cabin crew member's qualification(s) expire. The cabin crew

member should complete the training required for requalification prior to being assigned as part of the operating crew.

1.12.3 This training and the associated checking should be accomplished through classroom instruction, and/or CBT, as well as hands-on and simulated exercises with a representative training device capable of reproducing the appropriate environment and the equipment characteristics, or on an actual aircraft.

1.12.4 Examples of the types of requalification programmes are provided in Appendix 1 to Chapter 1.

1.13 Specific training methods

1.13.1 Some States have developed specific training methods, which provide operators with a flexible approach to deliver cabin crew safety training. Although these methods are currently limited to certain States, the information presented in this section can be beneficial for other States who may wish to implement similar methods and allow operators to use them as acceptable means of compliance with national regulations. Further guidance on these training methods can be found in Appendices 2 to 6 to Chapter 1.

**APPENDIX 1 TO CHAPTER 1.
EXAMPLES OF REQUALIFICATION PROGRAMMES**

Example 1: Transport Canada requalification requirements

The Transport Canada requirements for requalification as a cabin crew member (referred to as a flight attendant) are as follows:

Annual Training – The validity of the annual training expires on the first day of the thirteenth month following the month in which the training was completed.

Where the annual training has expired, the flight attendant shall requalify as follows:

If a period of thirteen up to twenty-four months or part thereof has elapsed since the last required training, the flight attendant shall complete Requalification Training and Annual Training.

If a period of 24 up to 36 months or part thereof has elapsed since the last required training and the flight attendant has 3 continuous years' experience with the air operator, the flight attendant shall complete Requalification Training, Annual Training, and Line Indoctrination.

If a period of 24 months or more has elapsed since the last required Annual Training and the flight attendant does not have 3 continuous years' experience with the air operator, the flight attendant shall complete Initial Training and Line Indoctrination.

If a period of more than 36 months has elapsed since the last required Annual Training with the air operator, the flight attendant shall complete Initial Training and Line Indoctrination.

Figure 1 illustrates these requirements.

- b) Aircraft type specific and operator conversion training¹ has a 12 month validity period. Competence is maintained by completing recurrent training.
- c) Recurrent training has a 12 month validity period counted from the end of the month when the check was taken (e.g. training and checking completed on 10 December 2013, validity until 31 December 2014).
- d) When within the 12-month validity period of the last required training, if a cabin crew member has not performed any flying duties during the preceding 6 months, refresher training is required. The “last required training” may be aircraft type specific/operator conversion training or recurrent training, as relevant to the cabin crew member’s particular case. An operator may replace refresher training by recurrent training, in which case the 12-month validity period will count from that new completion date.
- e) When the 12-month validity period of the last recurrent training and checking has expired, or when the cabin crew member has not performed any flying duties during 12 consecutive months, aircraft type specific and operator conversion training (second portion of initial training in this manual) must be completed before being assigned again to flying duties.

Example 3: FAA requalification requirements

The operator will determine what requalification requirements will be necessary based on the last calendar day of the cabin crew member’s “base month”. A training cycle is an annual cycle of twelve months. The national regulations provide an additional month or “grace month” in which cabin crew members can maintain these annual qualifications. On the first day of the calendar month after the cabin crew member’s grace month, if she/he has not attended annual recurrent training, the cabin crew member is longer qualified to fly.

In order to become qualified to fly again, attendance at some form of requalification programme is necessary to ensure qualification currency and proficiency. As an example, if a cabin crew member’s base month is October, she/he remains qualified until the following October (12 months). The “grace month” is November. If the cabin crew member does not attend training within the month of November, on 1 December, she/he is not qualified to fly. Depending on the period of time that elapses between this date and the date on which the cabin crew member attends training will determine what “form” of requalification requirements are necessary.

Each operator’s training programme is approved by the Authority. Therefore, the amount and type of training required for requalification depend on the length of each training programme. Most operators in the United States require cabin crew members to go back through initial training after 36 months. It depends on each operator’s approved programme.

¹ Operator conversion training is considered in this manual as the second part of initial training.

APPENDIX 2 TO CHAPTER 1. ADVANCED QUALIFICATION PROGRAMME

The Federal Aviation Administration (FAA) created the Advanced Qualification Programme (AQP) as a systematic methodology for developing the content of training programmes for operators' crew members and flight dispatchers.

AQP replaces programmed hours with proficiency-based training and evaluation derived from a detailed job task analysis that includes crew resource management (CRM). It incorporates data-driven quality control processes for validating and maintaining the effectiveness of curriculum content.

AQP is a voluntary programme. It provides an alternate method of qualifying and certifying, if required, pilots, flight engineers, cabin crew members, aircraft dispatchers, instructors, evaluators, and other operations personnel subject to the training and evaluation requirements by the FAA.

The primary goal of AQP is to achieve the highest possible standard of individual and crew performance. The programme emphasises crew-oriented training and evaluation. In order to achieve its goal, AQP seeks to reduce the probability of crew-related errors by aligning training and evaluation requirements more closely with the known causes of human error. For example:

- a) crew performance;
- b) crew resource management;
- c) scenario-based training and evaluation.

The AQP encourages innovation in the methods and technology that are used during instruction and evaluation, and efficient management of training systems. AQP replaces inventory-based programmed hours with competency-based training and evaluation derived from a detailed analysis of the specific job tasks, knowledge, and skill requirements of each duty position that includes crew resource management. AQP incorporates data-driven quality control processes for validating and maintaining the effectiveness of curriculum content and strategies.

The FAA developed an Advisory Circular (AC 120-54A), which provides detailed information on AQP. The Advisory Circular can be obtained from ICAO website in the Cabin safety Library, at: www.icao.int/cabinsafety

APPENDIX 3 TO CHAPTER 1. TRANSFERABLE TRAINING EXAMPLES

Transferable training elements across multiple operators

The European Aviation Safety Agency (EASA), through its regulations, allows for a portion of cabin crew initial safety training, and the related knowledge and competencies gained by the cabin crew member, to be granted credit and be transferable among operators. This approach is based on the issuance to each cabin crew member of a cabin crew attestation that is recognised across the European Union (EU).

EASA's approach supports the aviation industry's efforts to adapt and the free movement of persons across the EU. As aviation is an increasingly mobile sector, it provides more flexibility to operators and facilitates mobility of experienced cabin crew, also considering that their knowledge of the operations can be beneficial to safety.

The training elements that may be credited and transferred, as representative of the knowledge and competencies gained by cabin crew attestation holders, are listed below:

- a) general theoretical knowledge of aviation and aviation regulations covering all elements relevant to cabin crew members' duties and responsibilities;
- b) communication techniques, common language and terminology;
- c) introductory course on human factors in aviation and crew resource management (CRM);
- d) passenger handling and cabin surveillance;
- e) aero-medical aspects and first-aid;
- f) dangerous goods in accordance with the applicable ICAO Technical Instructions;
- g) general security aspects in aviation;
- h) fire and smoke training including hands-on training using equipment used in aviation; and
- i) survival training covering the principles of survival in hostile environment and including wet drills for water survival.

To ensure the transferability of this portion of the initial training, the programme does not include operator's specific training elements. Those training elements must be covered by cabin crew trainees when completing the training provided by operators, namely aircraft type specific training and operator conversion training.

This approach differs from the initial training as specified in Section 1.6 of Chapter 1, which takes into account that a single initial training programme delivered by the operator encompasses all the elements, including aircraft type training. More information regarding EASA's approach can be found at: <http://easa.europa.eu/regulations/regulations-structure.php>.

**APPENDIX 4 TO CHAPTER 1.
TRAINING PROGRAMMES FOR USE BY MULTIPLE OPERATORS**

Transport Canada Civil Aviation (TCCA) has developed an approval process of initial cabin crew training programmes that are used by multiple air operators within Canada. This process was developed because TCCA recognized that there are elements of an initial cabin crew safety training programme that may be identical for all air operators.

Revising the approval process to address the elements of training programmes, which are used by multiple operators, results in a reduction of resources and time for both the Civil Aviation Authority and industry.

TCCA developed an Advisory Circular (AC 705-002) to provide guidance to operators and to the inspectorate on the approval process of initial cabin crew training programmes used by multiple air operators.

The Advisory Circular can be obtained from the ICAO website in the Cabin safety Library, at: www.icao.int/cabinsafety

**APPENDIX 5 TO CHAPTER 1.
GROUP LINE INDOCTRINATION TRAINING**

In certain circumstances, Transport Canada Civil Aviation (TCCA) allows Canadian air operators to conduct group line indoctrination flights (also referred to as a “group familiarisation flight” by ICAO) with a group of cabin crew members (referred to as “flight attendants” in the Canadian Aviation Regulations) on board the same aircraft. Group line indoctrination flights are sometimes conducted by air operators when they have a large number of cabin crew trainees requiring line indoctrination training. It allows multiple trainees to receive line indoctrination training at the same time, so that they can become operating cabin crew members quicker. Sometimes group line indoctrination flights are used for training classes of four cabin crew trainees on a single cabin crew member operation. This approach can also be beneficial for start-up operators.

Subparagraph 725.124(34)(c)(ii) of the Commercial Air Service Standards (CASS) defines the requirements that must be followed by air operators who wish to conduct a group line indoctrination flight. Below is an extract of the requirements.

(A) A flight attendant trainee shall act as an observer during a group line indoctrination flight when the flight is conducted under the following conditions:

- (I) is non-revenue;
- (II) is composed of a take-off and landing, including a period of at least one hour at the normal cruising altitude for the aeroplane;
- (III) does not concurrently include any flight crew member training, or carry any persons or personnel that are not essential to the exercise;
- (IV) operated with qualified flight attendants assigned to each flight attendant station, but not less than the minimum number of qualified flight attendants required for the operation of the flight and the aeroplane type, and a flight attendant supervisor is assigned to each cabin in the aeroplane where trainees are seated;
- (V) includes degrees of simulated in-flight turbulence where such conditions are not encountered during the normal course of the operation and includes the flight attendant procedures associated with turbulence;
- (VI) includes a "rapid descent" of several thousand feet;
- (VII) includes a missed approach / rejected landing;
- (VIII) includes a procedure that has been established to identify an actual emergency should such occur during the exercise;
- (IX) is followed by a debriefing; and

(B) A flight attendant trainee shall observe and simultaneously receive a verbal commentary pertaining to:

- (I) reporting for duty;
- (II) pre-flight crew briefing;
- (III) pre-flight safety and emergency equipment checks;
- (IV) passenger boarding procedures;
- (V) door closing and, if applicable, associated slide arming procedures;
- (VI) pre-flight passenger safety briefings/demonstrations;
- (VII) pre-flight and pre-landing warnings and checks, and securing of cabins and galleys;
- (VIII) silent review;
- (IX) post take-off procedures;

- | | |
|--------|---|
| (X) | in-flight procedures pertaining to safety; |
| (XI) | cabin unserviceabilities reporting/recording; |
| (XII) | in-flight turbulence procedures; |
| (XIII) | rapid descent procedures associated with a rapid decompression; |
| (XIV) | procedures associated with a missed approach/rejected landing; and |
| (XV) | procedures associated with preparation for an emergency landing and evacuation. |

More information regarding group familiarisation flights can be found at:

www.tc.gc.ca/eng/civilaviation/regserv/cars/part7-standards-725-2173.htm#725_124.

APPENDIX 6 TO CHAPTER 1. EUROPEAN APPROACH ON AIRCRAFT TYPE TRAINING

Aircraft type training

The European Aviation Safety Agency (EASA) has developed a two-step aircraft type qualification training for cabin crew members: aircraft type specific training and operator conversion training. This aims at differentiating training elements that are aircraft type specific from training elements that are characteristic to operator's customised aircraft.

Aircraft type specific training covers aircraft elements that are determined by the aircraft manufacturer as aircraft type specific, meaning those that cannot be modified by any operator (e.g. operation of doors/exits, function of aircraft systems, etc.).

Operator conversion training further covers aircraft elements applicable to the operator's customised aircraft, meaning those the aircraft manufacturer enables operators to modify on their own aircraft (e.g. slide raft or escape slide on doors/exits, aural/visual indications of evacuation alarm signal system and a number/location of additional signal panels, etc.). Operator's conversion training also covers standard operating procedures applicable to the particular operator and portable safety and emergency equipment installed on the particular aircraft.

Aircraft type specific training and operator's conversion training and their associated checking should be accomplished through classroom instruction, as well as hands-on and simulated exercises and should be conducted with a representative training device capable of reproducing the appropriate environment, equipment characteristics, or on an actual aircraft. The operator conversion training should use portable safety and emergency equipment and aircraft systems representing the type installed on the operator's aircraft.

The reference to EU required aircraft type specific and operator conversion training can be found in Regulation (EU) No 965/2012 Air Operations and in ED Decision 2012/017/R: <http://easa.europa.eu/rulemaking/rulemaking-directorate.php>

Aircraft types and aircraft variants for cabin crew operation

Operation on more than one type or variant. Regulation (EU) No 965/2012 allows cabin crew members to operate on three aircraft types, or subject to the specified conditions of the same Regulation and the approval of the National aviation authority of the respective Member State on four aircraft types.

Different aircraft models may not differ in aircraft type specific elements, but only in dimensions and technical parameters and currently one aircraft type (group) may include several aircraft models and series (e.g. A330 type group: A330-200, A330-300, A 340-300, A340-500, A340-600). The determination of an aircraft as a type or as a variant for cabin crew operation from the type specific perspective is conducted through the Operational Suitability Data (OSD) as explained in 1.x.3 below. Further, the operator conducts an assessment of a variant, as required by Regulation (EU) No 965/2012, to conclude whether the type of differences of its configured aircraft are of such an extent that the aircraft should be considered a new type within that operator.

Aircraft type will require cabin crew members to undergo an aircraft type specific and operator conversion training.

Variant will require cabin crew members to undergo Differences training.

Operational suitability data

EASA has developed the concept of Operational Suitability Data (OSD). OSD data complements the aircraft type certificate (TC), change to TC or supplemental type certificate (STC) and is required for aircraft operated by EU-registered operators. The OSD package includes Certification Specifications for cabin crew (CS-CCD), flight crew (CS-FCD), master minimum equipment list (CS-MMEL), maintenance (CS-MCS) and simulator data (CS-SIMD).

The CS-CCD specifies process for two areas:

Determination of an aircraft as a new type or as a variant for cabin crew operation. Aircraft manufacturer selects an aircraft type from its already produced aircraft fleet that will represent the 'base aircraft'. The newly produced aircraft - 'candidate aircraft' - will be compared to the base aircraft in aircraft type specific elements. The candidate aircraft is determined a new type for cabin crew operation if the base and the candidate aircraft differ in aircraft type specific elements (aircraft configuration, doors and exits, aircraft systems and normal and emergency operations, e.g. A320 and A330). The newly produced aircraft is also determined a new type for cabin crew operation if the aircraft model is first of its kind within the manufacturer's fleet (e.g. A380). The candidate aircraft that has not been determined a new type is determined a variant of the base aircraft.

Type specific data for cabin crew. The manufacturer is required to develop comprehensive data about the aircraft and make it available to providers of cabin crew aircraft type-related training and to National aviation authorities. This data supports the operator in the development of aircraft type and differences training programmes for cabin crew, in establishment of operator's procedures, and additional technical information is available as reference information to cabin crew. It is essential that cabin crew members have access to technical information about the aircraft type they operate on to be able to provide flight crew with accurate information when assisting them with safety related matters; it is crucial that flight crew can rely on information provided by cabin crew in such cases. The Reference to OSD can be found in Commission Regulation (EU) No 69/2014:

<http://easa.europa.eu/regulations/regulations-structure.php>.

CHAPTER 2. TRAINING FACILITIES AND DEVICES

2.1 Facilities and equipment for classroom-based training

2.1.1 General space requirements

2.1.1.1 In planning for space requirements, consideration should be given to the following:

- a) the trainee work stations;
- b) the area required for hands-on exercises;
- c) the instructor work stations; and
- d) the storage area.

2.1.2 Classroom facilities

2.1.2.1 The size of classrooms is dependent on the following:

- a) number of trainees in a class;
- b) trainee work station size;
- c) class configuration;
- d) size of aisles;
- e) use of media (in particular projected media); and
- f) hands-on exercises (if applicable).

2.1.2.2 The range of recommended space for each adult in a classroom varies from 1.4 m² to 6.7 m². The wide range in recommended figures is due to the different classroom environments envisioned by designers, or the variance in allocation for certain spaces within the classroom, such as aisles and front setback.

2.1.2.3 Each trainee's work station space includes the space required to house the trainee's work surface, any additional equipment, the chair, the space for chair pushback and manoeuvrability. The concept of work station space is important when sizing rooms for classes containing different numbers of trainees. The total area allowed in a classroom for each trainee varies with the size of the class. An adequate work surface within the work space is very important. Cabin crew trainees may use a large amount of reference materials during training. Hence, they could require a considerable work surface.

2.1.2.4 The uses of media and hands-on exercises are important factors when determining the amount of common space required in a classroom. The most commonly used visual media are chalk/marker boards, projectors, PowerPoint presentations, video monitors and easels. The use of media (slides, TV, virtual simulations, etc.) should be taken into consideration when selecting a learning environment.

2.1.3 The learning environment

2.1.3.1 The key to a good learning environment is the elimination of discomforts and other undesirable characteristics. A good learning environment includes the following:

- a) the temperature should be comfortable;
- b) ventilation should be adequate;
- c) lighting should be of adequate level for work or viewing;
- d) distracting sound should be kept to a minimum;

- e) work areas should be aesthetically pleasing;
- f) work stations, including chairs, should be comfortable;
- g) work space should be adequate;
- h) work area should be clean;
- i) training equipment should be adequate;
- j) visual media should be visible from all angles and seats; and
- k) audio media should be audible to all present.

2.1.3.2 If any of these factors are unsatisfactory, trainees may be distracted from the task at hand, by the efforts required to adapt to a poor environment.

2.1.4 Use of instructional aids

2.1.4.1 Instructional aids include the use of computer-based training (CBT). For the purposes of this manual CBT may encompass the use of CD-ROMs as well as web-based training (commonly referred to as eLearning). Instructional aids can be used in a classroom setting or as part of distance learning.

2.1.4.2 CBT can provide dynamic and interactive tools to address specific portions of a training programme. CBT is predominantly relevant for knowledge objectives. A knowledge objective relates to the recall of facts, the identification of policies, rules or procedures; generally committing concepts to memory. CBT is less appropriate for evaluating hands-on motor skills or soft skills. CBT provides flexibility, allowing trainees to study at their own pace and according to their schedule. When exploring the possibility of CBT, the operator should give consideration to the technology accessible and the equipment that is required to deliver the training.

2.1.4.3 Instructor and/or technical support are recommended for CBT. If the operator chooses to conduct the CBT as part of distance learning, the review/testing of material delivered should be considered in a classroom environment. Regardless of the method used for CBT (classroom vs. distance learning), the training programme should contain a means of testing or evaluation to ensure training effectiveness, currency, and that training objectives have been met.

2.1.4.4 CBT should be accompanied by a learning management system (LMS). Consideration should be given to the design of the programme and to each individual module. These should be maintained accordingly.

2.2 Trainee to instructor ratio

2.2.1 In order to assess and evaluate a trainee's competency, there should be limits on the ratio of trainees per instructor. The different training environments and delivery methods, such as classroom, computer-based training, and hands-on instruction will require different numbers of instructors. ICAO recommends that the operator determine a ratio of trainees per instructor, which is satisfactory to the State.

2.2.2 In order to provide for sufficient supervision and control, a maximum of twenty trainees per instructor is recommended in a classroom environment. An evaluation should be conducted and consideration should be given to subject matter, type of training (such as initial/recurrent), instructor's workload management, feedback/evaluations and size of facilities, which may prompt an adjustment of the proposed trainee to instructor ratio for classroom-based training.

2.2.3 When facilitating computer-based training, the trainee to instructor ratio may be more flexible. A maximum of thirty trainees per instructor is recommended, assuming that the presence of the instructor is limited to providing support.

2.2.4 When conducting practical instruction such as hands-on exercises, the trainee to instructor ratio should be more restricted to allow for better supervision. A maximum of ten trainees per instructor is recommended. However, consideration should be given to the type of hands-on exercise being performed. Individual hands-on exercises on safety and emergency equipment versus group simulated exercises may prompt an adjustment of the proposed trainee to instructor ratio.

2.2.5 When conducting a familiarisation flight, the operator should establish limits on the ratio of trainees to the person who conducts the familiarisation flight. These limits should be in accordance with national regulations, where applicable.

2.3 Representative training devices

2.3.1 As an alternative to the use of actual aircraft and safety and emergency equipment, the operator may use representative training devices for the purpose of training cabin crew. The use of such devices should be approved by the State. The following sections provide guidance on representative training devices and what they should include in order to be considered for approval by the State.

2.3.2 Representative training devices include:

- a) safety and emergency equipment;
- b) cabin training devices;
- c) emergency exit trainers; and
- d) facilities used for fire-fighting and water survival training.

2.4 Safety and emergency equipment

2.4.1 Safety and emergency equipment used on the operator's aircraft should be available during training, according to the applicable training session.

2.4.2 The following definitions apply for the purpose of training programmes, syllabi and the conduct of training and checking on equipment:

- a) *Safety equipment* means equipment installed/carried to be used during day-to-day normal operations for the safe conduct of the flight and protection of occupants (e.g. seat belts).
- b) *Emergency equipment* means equipment installed/carried to be used in case of abnormal or emergency situations that demand immediate action for the safe conduct of the flight and protection of occupants, including life preservation (e.g. fire extinguisher).

2.4.3 Training for each piece of equipment should be based on the following, if applicable:

- a) general description;;
- b) use;
- c) location(s);
- d) pre-flight serviceability check(s);

- e) removal from stowage;
- f) operation;
- g) conditions for operation;
- h) operational limitations and duration of use;
- i) operation under adverse conditions;
- j) precautions for use; and
- k) post-use procedures (including relocation of equipment, if applicable).

2.4.4 Safety and emergency equipment may include, but is not limited to:

- a) portable fire extinguishers;
- b) axe;
- c) protective gloves;
- d) smoke goggles;
- e) protective breathing equipment (PBE);
- f) portable oxygen equipment (bottles, passenger mask, full face mask, flight deck oxygen mask);
- g) emergency flashlight;
- h) megaphone;
- i) adult/child and infant life jackets, or other individual flotation device;
- j) baby survival cots;
- k) life raft;
- l) survival kit;
- m) installed/portable emergency signalling system (e.g. beacon, emergency locator transmitter, radio locator beacon);
- n) child restraint systems;
- o) extension seat belt;
- p) restraining device;
- q) first-aid kit, universal precaution kit, and medical kit;
- r) automated external defibrillator and associated equipment (CPR masks, shields, resuscitator bags, etc.); and
- s) any other equipment (including any additional equipment suited to the likely environment e.g. arctic gear).

2.4.5 Equipment that is removed from operation, or other representative training equipment considered acceptable by State, can be used for training purposes.

2.5 Cabin training devices

2.5.1 Cabin Training Devices (CTDs) that are capable of recreating realistic situations can be used to provide effective training on safety and abnormal/emergency procedures. When applicable, a mock-up or simulator should be used to enable realistic simulation of cabin crew's duties without continuous need for use of actual aircraft.

2.5.2 CTDs should include parts of the cabin containing lavatories, galleys, a type of emergency exit used in an aircraft, some seat rows, cabin crew seats, attendant panels and overhead bins. It should be noted that not all of the components presented in this section may be needed in a single, stand-alone CTD. These may be found in separate devices. Components included in a CTD depend on the types of hands-on exercises that are carried out on a particular device (e.g. fire-fighting simulated exercise). For the

purposes of emergency procedures training, CTDs should be able to create an environment which may not be created in a classroom (e.g. filling the cabin with smoke).

2.5.3 The following components/items should be representative of those found on an aircraft:

- a) dials, handles, switches, restraint brackets, and mounting devices to be operated and the force required for their operation;
- b) the weight of emergency exit hatches;
- c) the direction of movement, associated forces and travel of all controls for all equipment, including the weight of emergency exits when operated without power assist, where applicable; and
- d) stowage location of safety and emergency equipment, secured with representative brackets or mounting devices.

2.5.4 If CTDs are not available, or do not meet the criteria specified in 2.5.3, training may be covered through other means.

2.5.5 A CTD used for cabin crew training should include the following features, according to the applicable scenario:

- a) safety and emergency equipment currently required on an aircraft in locations and the restraint brackets representative of those installed on an aircraft;
- b) aircraft systems relevant to cabin crew duties representative of those installed on an aircraft, including but not limited to:
 - i) operational cabin call chimes (aural and visual indicators);
 - ii) cabin crew communications equipment and associated control panels, including an operational public address/intercom system and appropriate attendant panel(s) at the cabin crew station;
 - iii) normal and emergency cabin lighting, including fail features; and
 - iv) deployable oxygen masks for passenger and cabin crew;
- c) internal cabin markings, such as placards and exit markings;
- d) emergency exit(s);
- e) a flight deck door and related-security features;
- f) operational ordinance signs visible from each passenger seat and cabin crew station/seat;
- g) seat dimensions and seat pitch;
- h) simulated cabin windows and features necessary to darken the cabin;
- i) facilities and sufficient speakers to simulate sound effect/crash noises audible throughout the cabin; and

- j) smoke simulation capabilities.

2.5.6 A CTD used for emergency evacuation training should include the following features, according to the applicable scenario:

- a) dimensions and layout of the cabin that are representative of an aircraft in relation to emergency exits, galley areas and safety and emergency equipment stowage;
- b) cabin crew and passenger seat positioning that is representative to that on an aircraft, with particular accuracy for seats immediately adjacent to exits;
- c) capability to operate exits in normal and emergency modes – particularly in relation to method of operation and forces required to operate them;
- d) width, height and angle of inflated evacuation slides;
- e) a minimum of two operational emergency exits (one door and one alternate exit or two doors, as applicable) – plus one operational window exit (where applicable). CTDs may be equipped with exits representative of more than one aircraft type. However, where possible, consideration should be given to ensure the same exit device is opposite e.g. two B747 doors opposite each other as opposed to one B747 and one A330 door;
- f) at least one cabin crew station located at an operational exit, and additional cabin crew stations depending on the grouping of exits contained in the trainer;
- g) cabin crew stations and the associated attendant panel(s) that are representative of an aircraft;
- h) simulation of an unserviceable exit(s); and
- i) simulation of hazards at emergency exits (e.g. obstacle, fire, water).

2.6 Emergency exit trainer

2.6.1 The operator may provide training to cabin crew members on an emergency exit trainer instead of on an actual aircraft.

2.6.2 The emergency exit trainer should:

- a) replicate the size, weight and operating characteristics of the exit of the aircraft type on which the cabin crew member will operate; (e.g. direction of movement of handles); and
- b) be designed so that the representative exit can be operated in normal and emergency modes, particularly in relation to method of operation and forces required to operate them.

2.6.3 Differences in exit operating characteristics between actual aircraft exits and the emergency exit trainer can be of critical importance during an emergency evacuation, especially as this may lead the cabin crew members to an incorrect assessment of the serviceability of the exit and/or to incorrectly operate that exit. When a representative training device does not replicate the actual aircraft exit operating

characteristics, any differences between the operating characteristics of the actual aircraft exits and those of the emergency exit trainer should be highlighted during training.

2.7 Fire-fighting

2.7.1 A simulated fire-fighting exercise should be conducted in a confined area, to simulate cabin fire, and under the supervision of an instructor. The device used for a simulated fire-fighting exercise should include aircraft furnishings as found on board an aircraft, such as seats, galley units, lavatories, panels, overhead bins and waste bins. Fire-fighting equipment and the restraints used should be representative to those installed on an aircraft with respect to weight, dimensions, controls, types and operations.

2.7.2 Fire extinguishers used for live fire-fighting should be charged with the appropriate agent or with an environmentally friendly agent.

2.8 Water survival

2.8.1 When the operator is required by the State to conduct wet drills, these should be carried out in a body of water or pool of sufficient depth to realistically perform the simulated exercise.

2.8.2 A life raft exercise should be conducted using life-saving equipment that is representative to that installed on the aircraft with respect to weight, dimensions, appearance, features and operation. The rafts may be substituted if the equipment used is similar with respect to weight, dimensions, appearance, and features. In such cases, training must address any differences in the operation of the raft.

2.9 Use of other operator or ATO training devices

2.9.1 Where an operator arranges to use training devices owned by another operator, or by an approved training organization (ATO), the training must comply with the approved training programme and operating procedures of the operator whose crew are being trained.

2.9.2 If significant differences exist in terms of cabin layout and equipment, such training should be restricted accordingly.

CHAPTER 3. COMPETENCY-BASED APPROACH TO CABIN CREW SAFETY TRAINING

3.1 Understanding competency-based training programmes

3.1.1 ICAO defines a competency as: a combination of skills, knowledge and attitudes required to perform a task to the prescribed standard.

3.1.2 Traditional aviation training programmes are designed predominately for acquiring the standards established to meet the qualifications of a licence, a rating or a privilege. They are embedded in the applicable national regulations. The standards are frequently expressed in quantitative terms that prescribe training programme “inputs” (e.g. required hours of study, hours of practice), and the programme design and content are further influenced by the Authority’s testing criteria and methods.

3.1.3 Alternatively, competency-based approaches are characterized by an emphasis on job performance and the knowledge and skills required to perform on the job. Competency-based training aims at progressively building and integrating knowledge and skills required for competency job performance. Competency-based assessments aim at measuring how well competencies necessary for the job are demonstrated to the specified performance standards.

3.1.4 A cornerstone to a competency-based training and assessment programme is a detailed and accurate job/task analysis. The competency units and elements are derived from that analysis. They are then subjected to further phases of instructional systems design (ISD) methodologies. The end result of this process is a fully integrated and “outcomes-focused” training programme whose “raison d’être” is to provide the graduates with the competencies to be safe, efficient and highly effective in the performance of their duties. The *Manual on the Approval of Training Organizations* (Doc 9841) provides overall guidance on this subject.

3.1.5 In order to achieve a well-designed competency-based training programme, a systematic course development approach should be used. An ISD methodology uses such a systematic approach to training development. It therefore constitutes a quality assurance tool for operators and ATOs that supports compliance with requirements and the development of appropriate training activities. It does so by identifying the competencies that need to be achieved, determining the most effective way of achieving them and establishing valid and reliable assessment tools to evaluate their achievement. General provisions for competency-based training and assessment, as well as a detailed description of the ICAO course development methodology, can be found in *Procedures for Air Navigation Services — Training* (PANS-TRG, Doc 9868).

3.2 Benefits of competency-based training

3.2.1 ICAO developed guidance for competency-based training of several groups of aviation professionals, such as flight crew members, flight procedure designers, designated medical examiners and dangerous goods State employees.

3.2.2 Using a competency-based approach will yield several benefits including:

- a) training focused on:
 - i) job performance;

- ii) the adult learner;
- b) competencies acquired are observable and measurable;
- c) training is adaptable;
- d) this approach structures and better prepares cabin crew for on-the-job requirements;
- e) it can be used as a tool to improve the quality of training; and
- f) the skills acquired may be transferable.

3.3 Development of the competency framework

3.3.1 The competency framework consists of competency units, competency elements and performance criteria.

3.3.2 A competency framework describes:

- a) job requirements (i.e. technical competencies); and
- b) what effective performers do (i.e. non-technical competencies).

3.3.3 Non-technical competencies, referred to as skills, are transportable across different areas of aviation (communication, teamwork and leadership, etc.). They can be broken down into observable and measurable actions. They are aimed at improving performance towards excellence (beginner to expert).

3.3.4 In order to revise the training material in a competency framework, ICAO needed to determine what competencies a cabin crew member needs to have in order to conduct his/her duties and effectively handle the expected and unexpected during normal, abnormal and emergency situations.

3.3.5 This was accomplished in a two-step approach:

- a) define the end-state first, meaning the competencies that need to be achieved; and
- b) reverse-engineer the training and assessment based on that end-state.

3.3.6 The competency framework was developed by the ICAO Cabin Safety Group, composed of subject matter experts from States, airlines, manufacturers and international organizations, through a process of consensus on what constitutes cabin crew competencies, necessary for safe operations. The content of the framework represents the result of this exercise and is an internationally agreed upon baseline for cabin crew competencies.

3.3.7 The competency-based approach to training and assessment includes the use of a job and task analysis to determine performance standards, the conditions under which the job is carried out, the criticality of tasks, and the inventory of skills and knowledge. It involves the derivation of training objectives from the task analysis and their formulation in an observable and measurable fashion.

3.3.8 Figure 2 illustrates the process used for developing the competency framework. The left hand column presents the different phases of design for competency-based training and assessment. The middle

column depicts each phase's purpose; and the right hand column illustrates the product of the phase (i.e. the deliverables).

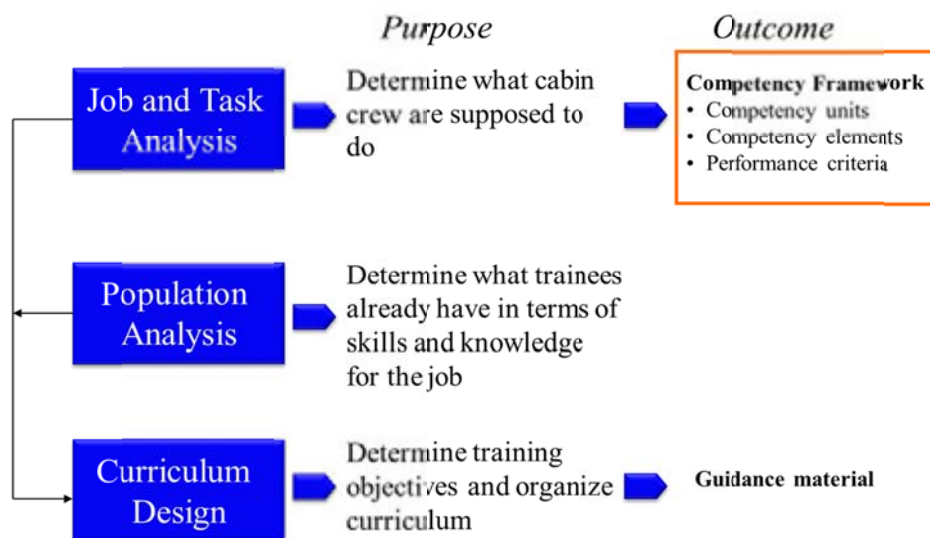


Figure 2. Competency framework development process

3.3.9 In the curriculum design phase, training objectives are derived from the competency framework that has been established and adapted to a specific operational context and target audience. At this point, the process transitions from analysis to design allowing the operator to determine what content should be included in training programme, the conditions under which training should be conducted, and the most suitable type of media to be used. An accurate analysis results in better design of the training programme.

3.4 Breakdown of the framework components

3.4.1 The competency framework presented in this manual contains the following components:

- competency unit*: a discrete (i.e. distinct) function consisting of a number of competency elements;
- competency element*: an action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits, and an observable outcome;
- performance criteria*: a simple, evaluative statement on the required outcome of the competency element and a description of the criteria used to judge whether the required level of performance has been achieved;
- the reference material that is relevant during the training; and
- duties which may be specifically assigned to a designated In-charge cabin crew member (I/C), in a multi-crew operation.

3.4.2 Figure 3 illustrates the relationship between competency units, competency elements and performance criteria (PC) and the rationale behind the structure of the competency framework.

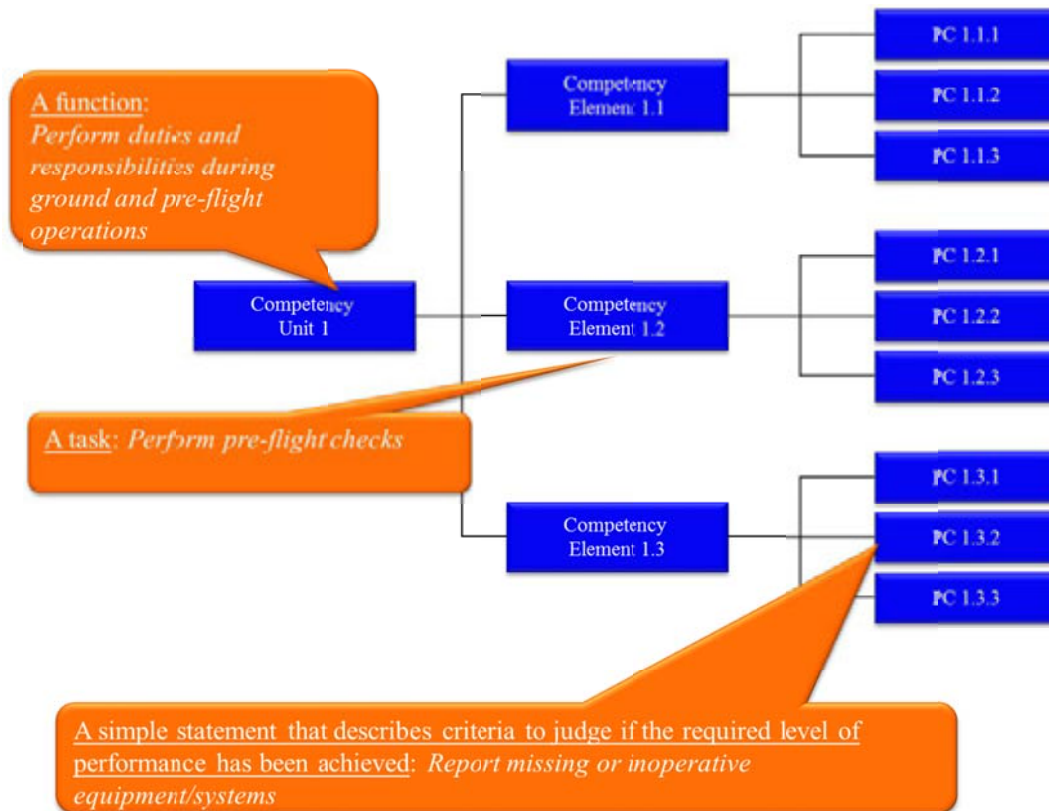


Figure 3. The structure of the competency framework

3.5 Structure of the chapters for competency-based training

3.5.1 The chapters in this manual provide detailed guidance for the development of competency-based training for cabin crew members to perform their required duties and responsibilities. These competencies are derived from the ICAO competency framework presented in this manual. Under the competency-based approach, the training programme should be designed to ensure the trainee is proficient in the competencies outlined.

3.5.2 The competency framework for cabin crew is presented as a series of frameworks which address cabin crew duties and responsibilities related to the following:

- a) normal operations;
- b) abnormal and emergency situations;
- c) dangerous goods;
- d) cabin health and first aid; and
- e) security threat situations.

3.5.3 Although these pieces form one single framework, outlining a baseline for cabin crew competencies, they are presented as separate frameworks for ease of reference. The competency frameworks are presented in the Appendices to Chapters 5, 6, 7, 9, 10 and 14.

3.5.4 The following information is also included for each competency element in each of the chapters:

- a) the performance criteria associated with the competency element;
- b) the recommended conditions under which the training should be conducted (e.g. classroom-based training versus hands-on exercises);
- c) the reference material that is relevant during the training;
- d) the recommended performance standard used to verify that the performance criteria are met, including examples of items covered in the operator's procedures;
- e) the recommended knowledge that the trainees should possess; and
- f) the recommended skills needed to support the competencies (defined in Chapter 8).

3.5.5 This detailed information, presented in the following chapters, is guidance material meant to assist operators and, where applicable, training organizations approved to conduct cabin crew training in developing competency-based safety training programmes for cabin crew members. It may also assist States in assessing operators' training programmes.

CHAPTER 4. AVIATION INDOCTRINATION TRAINING

4.1 Definition and goal of aviation indoctrination training

4.1.1 Aviation indoctrination training is defined as an introduction to the aviation environment. The goal of indoctrination training is to provide cabin crew trainees with sufficient general knowledge on basic aviation subjects so that they may have a more comprehensive understanding of aircraft operations. It allows cabin crew trainees to develop better situational awareness and improves inter-crew communication thus enhancing over-all safety and improving the integration of cabin crew with the flight crew members and other aviation personnel.

4.1.2 The knowledge imparted in most of the items presented during indoctrination training serves to provide a general overview and is not meant to produce experts on the subjects.

4.2 Content of aviation indoctrination training

4.2.1 Aviation indoctrination training should include the following topics:

- a) applicable regulations;
- b) aviation terminology;
- c) theory of flight and aircraft operations; and
- d) altitude physiology.

4.2.2 The content in this chapter is not linked to a specific competency element. The material covered addresses overarching processes, policies and procedures that cabin crew should be knowledgeable on, in order to perform specific duties and responsibilities (e.g. hazard reporting). However, for the purposes of this manual, which is built on competency-based training, the chapter is written in the same format as the others (which address specific competency elements) and provides guidance on performance criteria, conditions, references, performance standards, and knowledge.

4.3 Applicable regulations

4.3.1 *Performance criteria:*

- a) identify relevant national and international authorities and regulations; and
- b) apply operator policies and procedures.

4.3.2 *Conditions:* Classroom or computer-based training.

4.3.3 *Reference:*

- a) operations manual;
- b) applicable regulations.

4.3.4 *Performance standard:*

- a) identify the role of the national aviation regulatory authority and other applicable authorities;
- b) identify the importance of applicable regulations;
- c) describe regulations relating to all crew members in general and those relating to cabin operations and cabin crew members in particular; and
- d) describe applicable policies and procedures specific to the operator, its organizational structure, and administrative requirements relating to cabin crew members.

4.3.5 *Knowledge:*

- a) objectives of and roles played by the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) and other relevant aviation organizations;
- b) objectives of and roles played by national civil aviation regulatory authorities (e.g. civil aviation authorities, including their inspectors, airport operators and/or authorities, etc.) and of other aviation regulatory authorities that crew members may be in contact with (e.g. customs, immigration, health, security);
- c) air operator certificate (AOC) conditions and limitations;
- d) specific international and State regulations applicable to all crew members in general;
- e) applicable regulatory requirements related to cabin crew and aircraft type qualification;
- f) regulations applicable to transport and management of special categories of passengers, including refusal policies, stowage of assistive devices and wheelchair operation;
- g) duties and responsibilities of cabin crew during normal operations and in abnormal and emergency situations;
- h) other duties such as maintenance and update of manuals, and responsibilities such as operating only if in compliance with applicable qualifications to discharge cabin crew duties, and flight and duty time limitations; and
- i) applicable policies and procedures specific to the operator, its organizational structure, including reporting lines, management responsibilities and accountabilities, and organizational links between cabin crew and flight crew members, as well as administrative requirements relating to cabin crew members.

4.4 Aviation terminology

4.4.1 *Performance criteria:*

- a) use of aviation terms common in operations;

- b) apply relevant terms in the appropriate context.
- 4.4.2 *Conditions:* Classroom or computer-based training.
- 4.4.3 *Reference:* Operations manual.
- 4.4.4 *Performance standard:*
- a) describe an overview of operations;
 - b) define aviation terms common in operations; and
 - c) identify relevant terminology common in operation and be able to apply them in the appropriate context.
- 4.4.5 *Knowledge:*
- a) terminology common in operations;
 - b) the phonetic alphabet in aviation-related communication; examples of misunderstandings which may arise from improper use and its effect on flight safety;
 - c) the correct terminology used to communicate amongst cabin crew members and when reporting to the flight crew in normal operations as well as during abnormal and emergency situations;
 - d) phases of flight and critical phases;
 - e) minimum equipment list (MEL), its application, cabin items which are included in the list and the operator's standard operating procedures for reporting all inoperative equipment/items;
 - f) standard measurement units used in aircraft operations;
 - g) the twenty-four-hour clock, changes of time with longitude, the meaning of coordinated universal time (UTC), time zones, etc., and their application to aviation; and
 - h) city codes for the operator's destinations (e.g. IATA city codes).

4.5 Theory of flight and aircraft operations

- 4.5.1 *Performance criteria:*
- a) use appropriate terminology relating to the general components of an aircraft;
 - b) describe the theory of flight and the basic environment relating to aircraft operations.

4.5.2 *Conditions:* Classroom or computer-based training².

4.5.3 *Reference:* Training aids, such as diagrams depicting aircraft components.

4.5.4 *Performance standard:* Identify and accurately describe the general components of an aircraft, their use, operation and effect of those components on flight and cabin conditions; the theory of flight and the basic environment relating to aircraft operations.

4.5.5 *Knowledge:*

- a) general components of an aircraft and their basic function both on the ground and in flight (e.g. flaps, slats, etc.);
- b) flight control surfaces and flight controls and their function; the four forces (thrust, lift, drag and gravity) acting on an aircraft; the three axes (yaw, pitch and roll) and the movement around each axis;
- c) hazards associated with volcanic ash/dust, ice formation on wings and control surfaces, the recognition and the importance of reporting of such phenomena;
- d) aircraft critical surfaces and hazards to flight associated with the contamination of those surfaces; awareness of conditions most likely to produce surface contamination and steps to take if suspected or identified;
- e) weight and balance; passenger distribution and centre of gravity and their effect on aircraft controllability and stability;
- f) the timely communication of observed or reported deficiencies in the safe operation of the aircraft; and
- g) composition of the atmosphere: pressure, density and temperature; basic meteorology (types of cloud formations, air masses and fronts, seasonal weather variations, winds, jet-stream, wind shear, clear air turbulence, etc.) and their effects on aircraft operations and cabin environment.

4.6 Altitude physiology

4.6.1 *Performance criteria:* Identify the most common physiological effects of flight in pressurized and non-pressurized aircraft, their likely causes and the means of controlling and minimizing subsequent effects.

4.6.2 *Conditions:* Classroom or computer-based training.

4.6.3 *Reference:* Operations manual.

4.6.4 *Performance standard:*

- a) identify symptoms and problems related to the physiological effects of flight; and

² Can also be accomplished during an aircraft visit.

- b) describe and demonstrate the applicable procedures to minimize their effects.

4.6.5 *Knowledge:*

- a) the atmosphere and atmospheric pressure;
 - b) pressurized/non-pressurized aircraft cabins;
 - c) physiology of respiration and circulation and the body's requirement for oxygen;
 - d) physiological effects of pressure changes in the body (gases, cavities, sinuses and ears, etc.);
 - e) hypoxia – identification of persons most susceptible to the effects of hypoxia; physiological effects of normal cabin altitude on occupants with medical conditions; signs and symptoms and means to detect and minimize its effects;
 - f) physiological effects of cabin altitude on crew/passengers due to a significant reduction of available oxygen in the event of a cabin pressurization problem/decompression; the potential for crew member incapacitation; use of oxygen and oxygen masks;
 - g) time of useful consciousness at altitude; method of protection (supplemental oxygen) and the importance of applying procedures in the case of loss of cabin pressure;
 - h) recognition and response to passenger or crew member hyperventilation; and
 - i) circumstances under which carbon monoxide poisoning may occur, signs and symptoms of poisoning and means of detecting and minimizing its effects.
-

CHAPTER 5. NORMAL OPERATIONS TRAINING

5.1 Definition and goal of normal operations training

5.1.1 Normal operations training is defined as training which addresses the operator's procedures related to cabin crew members' safety-related roles and responsibilities during normal, day-to-day operations.

5.1.2 Training encompasses safety procedures established for normal operations by the operator in the operations manual.

5.1.3 The goal of normal operations training is to enable cabin crew members to competently carry out relevant tasks assigned to them during normal operations and actively contribute to a safe operation. The training includes the management of the cabin environment, the operation of equipment and aircraft systems relevant to cabin crew duties, management of, and assistance to passengers, and coordination with flight crew, ground crew, and other cabin crew members.

5.1.4 Security procedures related to normal operations (e.g. pre-flight security checks) are included as part of this training. However, these may be covered during the approved aviation security training programme, alongside procedures for managing acts of unlawful interference (e.g. hijacking).

5.1.5 Procedures related to the operation aircraft systems, relevant to cabin crew duties, and equipment are outlined in this chapter. These are typically addressed during aircraft type training; hence they do not need to be repeated as part of normal operations training. However, they are included in the following sections to provide a comprehensive overview of all the tasks accomplished by cabin crew members during normal operations.

5.2 Content of normal operations training

5.2.1 Normal operations training should address safety-related duties and responsibilities, as applicable to the following phases of flight:

- a) ground and pre-flight operations;
- b) pushback and taxi;
- c) take-off;
- d) climb;
- e) cruise;
- f) descent and approach;
- g) landing; and
- h) post-landing and post-flight operations (including transit).

5.2.2 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the competency elements covered, the conditions used for training as well as the knowledge and skills that may be assessed.

5.3 Hands-on exercises and simulated exercises

5.3.1 Some of the elements addressed in normal operations training require that classroom instructions be reinforced with hands-on exercises and/or simulated exercises. When this is the case, training should be conducted using representative training devices capable of reproducing the appropriate environment/equipment characteristics (refer to Chapter 2).

5.3.2 When participating in simulated exercises, trainees may be evaluated individually or as part of a team.

5.4 Competency-based training for normal operations

5.4.1 The following sections provide detailed guidance for the development of competency-based training for cabin crew members to perform safety-related duties and responsibilities during normal operations. These competencies are derived from the ICAO competency framework for cabin crew duties and responsibilities during normal operations presented in Appendix 1 to Chapter 5.

Note.— Some competency elements, their associated performance criteria and performance standards are repeated in different competency units throughout this chapter (e.g. performance standards for securing the cabin prior to pushback are the same as the ones for securing it prior to landing). This repetition is meant to illustrate the entire set of competencies required by cabin crew. However, it does not mean to imply that these elements need to be covered multiple times during training. All the competencies should be covered a minimum of one time during training.

5.5 Competency Unit 1 — Perform duties and responsibilities during ground and pre-flight operations

5.5.1 The competencies described in this section relate to the period which commences when the cabin crew member reports for duty, prior to pushback or taxi, at the gate, ramp, or parking area, while the aircraft is stationary.

Competency element 1.1: Perform planning duties

Performance criteria:

- 1.1.1 Report for duty
- 1.1.2 Obtain applicable information/documentation
- 1.1.3 Review documents required for the flight
- 1.1.4 Update documents required for the flight, if applicable
- 1.1.5 Check minimum cabin crew complement

5.5.2 *Conditions:* Classroom and/or computer-based training.

5.5.3 *Reference:*

- a) operations manual; and

- b) company policies and procedures.

5.5.4 *Performance standard:*

- a) as per operator procedures, report for duty using the applicable means (e.g. electronic reporting system) and with the required items (e.g. required identification);
- b) obtain applicable information and documentation for the flight. This may include, but is not limited to:
 - i) revisions to the operations manual;
 - ii) safety bulletins;
 - iii) destination or sector specific information;
 - iv) emergency checklists; and
 - v) passenger information;
- c) review documents required for the flight and update documents when required, as per operator procedures; and
- d) check the minimum required cabin crew complement is present for duty, as per operator procedures. This task is typically accomplished by the In-charge cabin crew member.

5.5.5 *Knowledge:*

- a) system/method used to report for duty;
- b) regulatory requirements regarding specific items required for duty;
- c) types of documents and information required, where/how to obtain them and how to complete and/or update them; and
- d) minimum cabin crew complement for each aircraft type, in accordance with the applicable regulations.

5.5.6 *Skills:*

- a) workload and time management; and
- b) planning and coordinating resources (for In-charge cabin crew member).

Competency element 1.2: Participate in flight crew and cabin crew briefingsPerformance criteria:

- 1.2.1 Obtain flight crew briefing
- 1.2.2 Conduct cabin crew briefing
- 1.2.3 Communicate all required information and other relevant matters to the cabin crew

5.5.7 *Conditions:*

- a) classroom and/or computer-based training; and
- b) simulated exercise on conducting a pre-flight briefing.

5.5.8 *Reference:*

- a) operations manual;
- b) documentation relating to destination information; and
- c) standard briefing form, if applicable.

5.5.9 *Performance standard:*

- a) obtain a flight crew briefing, by participating in one. Joint briefings between the flight crew and cabin crew are recommended when time and operations permit. A briefing can be conducted between the flight crew and the In-charge cabin crew member who then transmits the information to the rest of the cabin crew;
- b) conduct a cabin crew briefing. This task is typically accomplished by the In-charge cabin crew member and may include, but is not limited to:
 - i) the assignment of duties to individual cabin crew members, such as public announcements, cabin crew stations, and special categories of passengers;
 - ii) review of safety, emergency, security and communication procedures and information;
 - iii) customized briefing for the aircraft type;
 - iv) destination-specific information;
 - v) meteorological information; and
 - vi) cabin defects;

Note.— Some of these items are obtained from the flight crew as part of a joint flight crew/cabin crew briefing or should be disseminated by the In-charge cabin crew member.

- c) communicate all required information and other relevant matters to the other cabin crew members, if additional information becomes available (e.g. changing meteorological information, short taxi time before take-off, etc.).

5.5.10 *Knowledge:* Pre-flight briefing including crew communication and co-ordination, establishing expectations, reviewing knowledge and clarifying procedures.

5.5.11 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) workload and time management;
- d) flexibility (for in-charge cabin crew member);
- e) delegation skills (for in-charge cabin crew member); and
- f) planning and coordinating resources (for in-charge cabin crew).

Competency element 1.3: Perform pre-flight checks

Performance criteria:

- 1.3.1 Communicate with ground personnel
- 1.3.2 Check relevant documentation for cabin defects
- 1.3.3 Check equipment and systems
- 1.3.4 Report missing or inoperative equipment/system
- 1.3.5 Perform security checks
- 1.3.6 Update cabin crew on any additional information, if applicable

5.5.12 *Conditions:*

- a) classroom and/or computer-based training; and
- b) hands-on exercise on verifying operative equipment (e.g. gauges, brackets, etc.).

5.5.13 *Reference:* Operations manual.

5.5.14 *Performance standard:*

- a) communicate with ground personnel on issues such as: documentation relevant for the flight, expected boarding times, special categories of passengers requiring assistance, and passenger handling (e.g. distribution of passengers, excess carry-on baggage that cannot be safely stowed in the cabin, medical events, disruptive behaviour, etc.);
- b) obtain and check relevant documentation for cabin defects (e.g. cabin defect log, if applicable) and communicate them to the other cabin crew members;

- c) check equipment and aircraft systems relevant to cabin crew duties, as per operator procedures. This may include, but is not limited to:
 - i) safety and emergency equipment on board the aircraft, such as: own seat and harness, fire extinguishers, seat belts, briefing cards, oxygen bottles, etc. These pieces of equipment should be available, accessible, functional, stowed and secured; and
 - ii) systems on board the aircraft, such as: checking lavatory smoke detection systems serviceability, fire prevention systems, communication and passenger address systems, evacuation alarm signalling system, emergency lighting, control panels, and in-flight entertainment system, if applicable;
- d) report missing or inoperative equipment/system, as per operator procedures;
- e) perform security checks, as per operator procedures. This may include, but is not limited to:
 - i) checking galleys, cabin, lavatories, remote areas, overhead bins and other compartments accessible to passengers and cargo compartment, when accessible from the cabin, for foreign objects or suspicious items;
 - ii) completing the appropriate documentation, if required; and
 - iii) communicating any observations to the In-charge cabin crew member or the flight crew members;
- f) update the other cabin crew members on any additional information that is relevant to the flight, if applicable.

5.5.15 *Knowledge:*

- a) procedures for verifying the availability of all safety and emergency equipment required on board the aircraft, ascertaining the serviceability and proper stowage according to operator procedures;
- b) procedures for reporting inoperative equipment and any discrepancies related to safety and emergency equipment/aircraft systems;
- c) procedures for reporting security concerns; and
- d) conditions which may have airworthiness implications and which should be brought to the immediate attention of the pilot-in-command (e.g. cracked windows, damaged door components, obvious structural damage, leaks, etc.) and the related reporting procedures.

5.5.16 *Skills:*

- a) communication;
- b) error recognition and management; and

- c) workload and time management.

Competency element 1.4: Perform passenger boarding and pre-pushback duties

Performance criteria:

- 1.4.1 Check minimum cabin crew complement
- 1.4.2 Apply procedures for ramp safety
- 1.4.3 Manage passenger boarding process
- 1.4.4 Apply procedure for refuelling with passengers on board, if applicable
- 1.4.5 Monitor cabin
- 1.4.6 Reconcile/count passengers, if applicable
- 1.4.7 Check safe stowage of carry-on baggage
- 1.4.8 Brief passengers
- 1.4.9 Check that emergency exits/aisles are not obstructed
- 1.4.10 Check condition of critical surfaces and report any contamination, if applicable
- 1.4.11 Secure galley
- 1.4.12 Secure cabin
- 1.4.13 Close aircraft door(s), if applicable
- 1.4.14 Check flight deck door is closed/secure, if applicable

5.5.17 **Conditions:**

- a) classroom and/or computer-based training;
- b) hands-on exercise on securing galley equipment;
- c) hands-on exercise on closing aircraft door;
- d) simulated exercise on securing the cabin; and
- e) simulated exercise on conducting a passenger briefing (e.g. briefing a passenger seated at an emergency exit, if required).

5.5.18 *Reference:* Operations manual.

5.5.19 *Performance standard:*

- a) check the minimum cabin crew complement, to verify that the required number of cabin crew members is present for duty, as per operator procedures. This task is typically accomplished by the In-charge cabin crew member;
- b) apply procedure for ramp safety. This may include, but is not limited to:
 - i) monitoring passengers on the apron to ensure safe movement;
 - ii) verifying compliance with procedures related to ramp safety, such as not smoking, compliance with operator's policy on the use and stowage of PEDs, removal of earphones/headphones, etc.;

- iii) monitoring for hazardous conditions, such as engines running, slippery surfaces, foreign objects, etc.;
- c) manage the passenger boarding process. This may include, but is not limited to:
 - i) verifying passengers' boarding passes, as per operator procedures;
 - ii) monitoring carry-on baggage for compliance with operator allowance and remaining vigilant for suspicious items;
 - iii) monitoring passengers who may display suspicious behaviour/ raise security concerns, may be under the influence of psychoactive substances or display unruly behaviour;
 - iv) where an operator accepts the carriage of weapons removed from passengers, applying specific procedures;
 - v) monitoring for intoxicated passengers who should be denied boarding;
 - vi) monitoring for passengers who may require specific assistance (e.g. special categories of passengers);
 - vii) monitoring passengers with infants in rows to ensure sufficient oxygen masks are available;
 - viii) making appropriate announcements regarding safety instructions;
 - ix) checking that emergency exit rows are occupied by passengers that are able and willing to assist in case of an emergency, as per operator procedures; and
 - x) monitoring restricted seating at/or adjacent to the emergency exit rows, as per operator procedures;
- d) apply operator procedures for refuelling with passengers on board, if applicable. This may include, but is not limited to:
 - i) staffing cabin crew stations;
 - ii) verifying exits are clear of obstructions;
 - iii) monitoring designated emergency exits;
 - iv) monitoring for fuel spills or fumes in the cabin;
 - v) advising passengers to refrain from fastening seat belts, smoking, using PEDs, lavatories, walking around the cabin or obstructing the aisles and cross-aisles;
 - vi) checking that fasten seat belt signs are extinguished and that "no-smoking" /"no-PED" signs are illuminated;

- e) monitor cabin. This may include, but is not limited to, monitoring:
 - i) passenger compliance with carry-on baggage allowance and any suspicious items;
 - ii) suspicious passenger behaviour, such as being under the influence of psychoactive substances, or possible unruly behaviour; and
 - iii) restricted seating at emergency exits, as per operator procedures;
- f) reconcile/count passengers, if applicable, as per operator procedure;
- g) check safe stowage of carry-on baggage, as per operator procedures;
- h) brief passengers. This may include, but is not limited to:
 - i) conducting a safety briefing demonstration appropriate to the aircraft type;
 - ii) conducting exit briefings (such as unstaffed exits or any other exits as per operator procedures); and
 - iii) briefing special categories of passengers;
- i) check that emergency exits/aisles are not obstructed and take necessary actions such as displacing baggage;
- j) check condition of critical surfaces and report any contamination, if applicable. This may include, but is not limited to:
 - i) looking for debris adhering to wings, fuselage, and windows, ice, frost, or snow build-up; and
 - ii) communicating any concerns from passengers to the flight crew members;
- k) secure galley. This may include, but is not limited to:
 - i) applying brakes on service carts;
 - ii) latching equipment;
 - iii) turning off electrical appliances (e.g. ovens);
 - iv) securing curtains and interior doors/partitions to open position; and
 - v) stowing all service items safely;
- l) secure cabin. This may include, but is not limited to:
 - i) verifying that passengers fasten their seat belts;
 - ii) verifying that seat back and table trays are in the upright position;

- iii) verifying that carry-on baggage is stowed;
 - iv) verifying that overhead bins are closed and latched;
 - v) verifying compliance with the operator's policy on the use and stowage of PEDs;
 - vi) verifying that passenger earphones/headphones are removed;
 - vii) verifying that passenger headrests and footrests are stowed;
 - viii) stowing/retracting monitors;
 - ix) verifying that aisles are clear and exits are not obstructed;
 - x) verifying that seating restrictions at emergency exit rows are adhered to; and
 - xi) verifying that window blinds are open;
- m) close aircraft door(s), if applicable, as per operator procedures; and
- n) check flight deck door is closed/secure, as per operator procedures.

5.5.20 *Knowledge:*

- a) minimum cabin crew complement for each aircraft type, in accordance with the applicable regulations;
- b) components of apron safety, the responsibilities for passenger movement on airport aprons and procedures established to facilitate safe passenger movement on airport aprons, air bridges, boarding using stairs, etc.;
- c) policies and procedures related to the use of PEDs;
- d) pre-take-off passenger safety briefings, knowledge and understanding of practical importance of mandatory announcements and when they must be performed;
- e) knowledge and operation of equipment used in passenger safety briefings;
- f) briefing requirements for special categories of passengers;
- g) procedures for handling special categories of passengers, including safety briefings and seating restrictions;
- h) procedures associated with the seating of passengers including seating restrictions, proper selection of passengers seated at emergency exit row seats/unstaffed exits, and relocation of passengers in compliance with seating procedures;
- i) acceptance and use of infant/child restraints;
- j) cabin crew responsibilities for passenger supervision while the aircraft is on the ground;

- k) the importance of gaining passenger attention for safety briefing;
- l) the importance of managing safety when conducting service related duties during boarding of passengers;
- m) the importance of securing the cabin and galley and hazards associated with unrestrained equipment/items and the risk of injuries to aircraft occupants;
- n) procedures associated with closing aircraft doors, including the importance of complying with the signal and authorisation for door closing, ground communications, and the availability of ground equipment;
- o) procedures for passenger service (when circumstances warrant) on the ground; importance of crew communication and coordination whenever passenger service is being offered on the ground;
- p) procedures to ensure that cabin aisles and exit areas are not obstructed by use of service carts while aircraft is on the ground;
- q) policies and procedures relating to alcoholic beverages and handling passengers who appear to be intoxicated, including national regulations that may apply;
- r) prevention techniques for dealing with intoxicated passengers;
- s) procedures established regarding refuelling of aircraft with passengers on board and identification of potential hazards to occupants associated with aircraft fuelling and proper steps to be taken should problems develop during refuelling;
- t) procedures regarding acceptance and stowage of carry-on baggage, both crew and passenger bags, and any applicable restrictions including safety implications of improperly stowed carry-on baggage; identification of prohibited items which may be carried into the aircraft as carry-on baggage;
- u) enforcement of non-smoking regulations and procedures for handling non-compliance;
- v) knowledge of contamination of critical surfaces and the adverse effects on flight; the “clean aircraft” concept and the role of cabin crew in reporting any observations to the flight crew in a timely manner; and
- w) procedures applied to complete cabin and passenger safety pre-flight, cruise and pre-landing checks and their impact on flight safety; review of emergency signals.

5.5.21 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) workload and time management;
- d) decision-making;

- e) situational awareness;
- f) delegation skills (for in-charge cabin crew member); and
- g) planning and coordinating resources (for in-charge cabin crew member).

Competency element 1.5: Manage abnormal or emergency situations

Performance criteria:

- 1.5.1 Recognize the abnormal or emergency situation
- 1.5.2 Apply the procedure for the abnormal or emergency situation

5.5.22 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

**Competency element 1.6: Communicate with flight crew,
other cabin crew and passengers**

Performance criteria:

- 1.6.1 Communicate relevant information to flight crew
- 1.6.2 Communicate relevant information to other cabin crew
- 1.6.3 Communicate relevant information to passengers

5.5.23 *Conditions:*

- a) classroom and/or computer-based training;
- b) simulated exercises on effective communication, including when possible with flight crew members. these are typically accomplished as part of simulated exercises, or during joint-CRM training sessions; and
- c) simulated exercise on conducting announcements to passengers.

5.5.24 *Reference:* Operations manual.

5.5.25 *Performance standard:*

- a) use of interphone and public address system on the aircraft type that the cabin crew member operates;
- b) clearly articulate and conduct passenger announcements appropriate to the phase of flight (e.g. boarding announcement, pre-landing announcement, etc.);
- c) use of the appropriate terminology to describe the situation; and

- d) provide accurate information.

5.5.26 *Knowledge:*

- a) benefits of crew communication and coordination on the working environment, the benefits both to the morale of the crew and to flight safety;
- b) briefing on other crew members' duties, responsibilities, workload and expectations especially in abnormal and emergency situations;
- c) procedures for effective communication in normal, abnormal and emergency situations; the importance of effective communication (e.g. read back);
- d) the potential hazard to flight safety if communication is not effective and the consequences of delaying communicating information to crew members;
- e) crew members' responsibility to provide complete and accurate information to assist in decision making; danger of making assumptions; importance of taking the initiative to relay all safety-related information in a timely, accurate and comprehensive manner;
- f) the effects of and differences between verbal and non-verbal communication and the danger of communicating modified messages; and
- g) the responsibility to use common terminology and the negative impact on flight safety of not adhering to standard terminology.

5.5.27 *Skills:*

- a) communication;
- b) teamwork and leadership; and
- c) decision-making.

5.6 Competency Unit 2 – Perform duties and responsibilities during pushback and taxi

5.6.1 The competencies described below relate to the period which commences when the aircraft begins to move in the gate, ramp, or parking area, assisted by a tow vehicle, followed by the period when the aircraft moves on the aerodrome surface under its own power prior to take-off.

Competency element 2.1: Perform pushback and taxi duties and checks

Performance criteria:

- 2.1.1 Arm aircraft door(s), if applicable
- 2.1.2 Check aircraft door(s) status, if applicable
- 2.1.3 Apply sterile flight deck procedure, if applicable
- 2.1.4 Check compliance with ordinance signs
- 2.1.5 Perform safety demonstration
- 2.1.6 Check cabin

- 2.1.7 Check galley
- 2.1.8 Check lavatory
- 2.1.9 Check crew rest area, if applicable
- 2.1.10 Check remote area, if applicable
- 2.1.11 Take assigned station/seat for take-off and remain secure in required position
- 2.1.12 Confirm "cabin readiness" for take-off to the flight crew
- 2.1.13 Comply with the pre-take-off signal
- 2.1.14 Take appropriate safety seating position for take-off (including brace, if appropriate)
- 2.1.15 Perform silent review

5.6.2 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on arming aircraft door, if applicable;
- c) hands-on exercise on the use of cabin crew seat belt and harness;
- d) hands-on exercise on securing galley equipment;
- e) simulated exercise of the correct safety seating position in cabin crew seat for take-off (e.g. brace position);
- f) simulated exercise on securing the cabin; and
- g) simulated exercise on conducting a safety demonstration.

5.6.3 *Reference:* Operations manual

5.6.4 *Performance standard:*

- a) arm aircraft door(s) and check door status, if applicable, and carry out verification (e.g. cross check) as per operator procedures for the aircraft type;
- b) as per the operator procedures, apply sterile flight deck.
- c) visually check for passenger compliance with ordinance signs (e.g. no smoking, fasten seat belts).
- d) perform a safety demonstration. This may include, but is not limited to:
 - i) the use of seat belts;
 - ii) the location and presentation of the passenger safety briefing card and the need for passengers to review it prior to take-off;
 - iii) the location of emergency exits;
 - iv) emergency lighting (emergency escape path lighting, exit signs);

- v) use of oxygen masks;
 - vi) the location and use of life jackets or individual flotation devices;
 - vii) smoking restrictions;
 - viii) policy on the use and stowage of PEDs;
 - ix) compliance with illuminated ordinance signs, posted placards and crew members' instructions;
 - x) cabin secured aspects (e.g. correct stowage of cabin baggage, caution when opening overhead bins, required position of: tray tables, seat backs, footrests, and window blinds during critical phases of flight, etc.);
 - xi) additional information relevant to evacuation (e.g. evacuation methods with infants and small children, brace positions, restrictions on evacuation movement on a double-deck aircraft, evacuation through exits with no assisting evacuation means, high-heel shoes/baggage to be left behind, etc.);
- e) check cabin. This may include, but is not limited to, verifying that:
- i) passengers fasten their seat belts;
 - ii) seat back and table trays are in the upright position;
 - iii) carry-on baggage is stowed;
 - iv) overhead bins are closed and latched;
 - v) policy on the use and stowage of PEDs is followed;
 - vi) passenger earphones/headphones are removed;
 - vii) passenger headrests and footrests are stowed;
 - viii) monitors are stowed/retracted;
 - ix) aisles are clear;
 - x) exits are not obstructed;
 - xi) seating restrictions at emergency exit rows are adhered to; and
 - xii) window blinds are open;
- f) check galley. This may include, but is not limited to, verifying that:
- i) brakes on service carts are applied;
 - ii) equipment is latched;

- iii) electrical appliances are turned off (e.g. ovens);
- iv) curtains and interior doors/partitions are secured to open position; and
- v) all service items are safely stowed;
- g) check that lavatories are vacated for take-off;
- h) check crew rest area, and remote areas, if applicable, are vacated for take-off;
- i) take assigned station/seat for take-off, when safety-related duties are complete and remain secure in the required position;
- j) as per operator procedure, confirm “cabin readiness” for take-off to the flight crew once the cabin is secure and the cabin crew are seated at their assigned stations;
- k) comply with the pre-take-off signal. This is typically an announcement via the public address system from the flight crew indicating that take-off is imminent;
- l) take the appropriate safety seating position for take-off while waiting for the take-off roll to commence. Cabin crew should adopt the position that the operator requires for take-off during normal operations (including the brace position, if appropriate);
- m) perform the silent review. This may include, but is not limited to, items such as:
 - i) brace position;
 - ii) emergency notification procedures;
 - iii) location and operation of exits;
 - iv) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;
 - v) passenger management;
 - vi) brace commands;
 - vii) interior and exterior evacuation conditions;
 - viii) protective position while commanding the evacuation; and
 - ix) evacuation commands.

5.6.5 *Knowledge:*

- a) procedures for arming doors and checking door status and door verification (cross check, as per operator procedures);

- b) the sterile flight deck concept; when it comes into effect and when it ends; the importance of limiting communications with the flight crew to safety and security critical information once the sterile flight deck is in effect; when communications with the flight crew should take place even if the sterile flight deck is in effect (e.g. emergency situations) and when they should be restricted;
- c) the importance of gaining passenger attention for safety demonstration and avoiding distractions related to the expanded use of PEDs, when permitted;
- d) the appropriate positioning of cabin crew members in the cabin during the safety demonstration;
- e) the impact of conducting non-safety-related duties while aircraft is taxiing for take-off;
- f) The required elements to be covered during a safety demonstration;
- g) the importance of checking that the cabin and galley are secure and hazards associated with unrestrained equipment/items and the risk of injuries to aircraft occupants;
- h) procedures applied to complete cabin and passenger safety pre-take-off checks and their impact on flight safety, including exit row seating restrictions;
- i) the importance of cabin crew members being in the assigned position with restraints secure during taxi and critical phases of flight and consequences of non-compliance;
- j) the importance of focusing on emergency procedures, of situational awareness and of limiting communications between cabin crew members to safety-related information during pushback and taxi;
- k) procedures to ensure cabin crew members are seated while aircraft is taxiing, if not performing safety-related duties;
- l) the identification of cabin crew stations and use of seat belts;
- m) correct method of sitting in assigned seat (e.g. forward/aft/side facing seats) and securing-self in cabin crew seats or non-cabin crew seats, as applicable;
- n) silent review of emergency procedures prior to take-off;
- o) abnormal and emergency procedures relating to take-off (e.g. runway excursion or inoperative exits in the event of an evacuation);
- p) procedures for notifying the flight crew when cabin is secure for take-off, or notification by cabin crew to flight crew if movement or take-off must be delayed; and
- q) safety procedures associated with aircraft movement on the ground.

5.6.6 *Skills:*

- a) communication;

- b) teamwork and leadership;
- c) error recognition and management;
- d) workload and time management;
- e) decision-making;
- f) situational awareness;
- g) flexibility (for in-charge cabin crew member); and
- h) planning and coordinating resources (for in-charge cabin crew member).

Competency element 2.2: Manage abnormal or emergency situations
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5.6.7 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

Competency element 2.3: Communicate with flight crew, other cabin crew and passengers
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5.6.8 Refer to competency element 1.6 for detailed guidance.

5.7 Competency Unit 3 – Perform duties and responsibilities during take-off

5.7.1 The competencies described below relate to the period which commences when the flight crew apply take-off power, through rotation and to an altitude of 35 feet above runway elevation.

Competency element 3.1: Perform take-off duties
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Performance criteria:

- | | |
|-------|--|
| 3.1.1 | Apply sterile flight deck procedure |
| 3.1.2 | Remain in appropriate safety seating position for take-off (including brace, if appropriate) |
| 3.1.3 | Perform silent review |

5.7.2 *Conditions:* Classroom and/or computer-based training.

5.7.3 *Reference:* Operations manual.

5.7.4 *Performance standard:*

- a) as per the operator procedures, apply sterile flight deck;

- b) remain in the appropriate safety seating position for take-off during the take-off roll. Cabin crew should adopt the position that the operator requires for take-off during normal operations (including the brace position, if appropriate); and
- c) perform the silent review. This may include, but is not limited to, items such as:
 - i) brace position;
 - ii) emergency notification procedures;
 - iii) location and operation of exits;
 - iv) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;
 - v) passenger management;
 - vi) brace commands;
 - vii) interior and exterior evacuation conditions;
 - viii) protective position while commanding the evacuation; and
 - ix) evacuation commands.

5.7.5 *Knowledge:*

- a) the sterile flight deck concept; when it comes into effect and when it ends; the importance of limiting communications with the flight crew to safety and security critical information once the sterile flight deck is in effect; when communications with the flight crew should take place even if the sterile flight deck is in effect (e.g. emergency situations) and when they should be restricted;
- b) correct method of sitting in assigned seat (e.g. forward/aft/side facing seats) and securing-self in cabin crew seats or non-cabin crew seats, as applicable;
- c) the importance of focusing on emergency procedures, of situational awareness and of limiting communications between cabin crew members to safety-related information during take-off;
- d) silent review of emergency procedures prior to and during take-off; and
- e) abnormal and emergency procedures relating to take-off (e.g. rejected take-off, runway excursion or inoperative exits in the event of an evacuation).

5.7.6 *Skills:*

- a) communication; and
- b) situational awareness.

Competency element 3.2: Manage abnormal or emergency situations

Performance criteria:

- 3.2.1 Recognize the abnormal or emergency situation
- 3.2.2 Perform the procedure for the abnormal or emergency situation

5.7.7 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

5.8 Competency Unit 4 – Perform duties and responsibilities during climb

5.8.1 The competencies described below relate to the period which commences when the take-off phase ends through to arrival at the initial assigned cruise altitude.

**Competency element 4.1: Communicate with flight crew,
other cabin crew and passengers**

Performance criteria:

- 4.1.1 Communicate relevant information to flight crew
- 4.1.2 Communicate relevant information to other cabin crew
- 4.1.3 Communicate relevant information to passengers

5.8.2 Refer to competency element 1.6 for detailed guidance.

Competency element 4.2: Perform climb duties

Performance criteria:

- 4.2.1 Comply with ordinance signs and instructions from the flight crew
- 4.2.2 Check passenger compliance with ordinance signs and instructions
- 4.2.3 Monitor cabin

5.8.3 *Conditions:* Classroom and/or computer-based training.

5.8.4 *Reference:* Operations manual.

5.8.5 *Performance standard:*

- a) as per operator procedures, remain seated until the signal/communication from the flight crew has been given (e.g. announcement, flashing ordinance sign, etc.);

- b) from seated/restrained position, visually check for passenger compliance with ordinance signs; and
- c) from seated/restrained position, monitor for abnormalities (e.g. warnings, unusual sounds or smells).

5.8.6 *Knowledge:*

- a) the importance of being alert for any possible situation affecting flight safety and the safety of passengers and crew. The responsibility and procedures to report any abnormality with the aircraft, its equipment or occupants to the pilot-in-command;
- b) procedures for relaying critical safety information to flight crew members and other cabin crew members;
- c) the importance of listening to all announcements in the event that the announcement may contain emergency signals or information; and
- d) the importance of monitoring operational aircraft systems relevant to cabin crew duties for any abnormalities.

5.8.7 *Skills:*

- a) communication;
- b) decision-making; and
- c) situational awareness

Competency element 4.3: Manage abnormal or emergency situations

Performance criteria:

- 4.3.1 Recognize the abnormal or emergency situation
- 4.3.2 Apply the procedure for the abnormal or emergency situation

5.8.8 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

5.9 Competency Unit 5 – Perform duties and responsibilities during cruise

5.9.1 The competencies described below relate to the period which commences at any level flight segment after arrival at initial cruise altitude until the start of descent to the destination.

**Competency element 5.1: Communicate with flight crew,
other cabin crew and passengers**

Performance criteria:

- 5.1.1 Communicate relevant information to flight crew
- 5.1.2 Communicate relevant information to other cabin crew
- 5.1.3 Communicate relevant information to passengers

5.9.2 Refer to competency element 1.6 for detailed guidance.

Competency element 5.2: Perform systems operations

Performance criteria:

- 5.2.1 Operate systems, as required
- 5.2.2 Monitor operation of systems

5.9.3 *Conditions:* Classroom and/or computer-based training.

5.9.4 *Reference:* Operations manual.

5.9.5 *Performance standard:*

- a) as per operator procedures, operate aircraft systems relevant to cabin crew duties. These may include, but are not limited to:
 - i) communication systems and associated signalling panels;
 - ii) control panels;
 - iii) electrical systems (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);
 - iv) lighting system; and
 - v) water and waste systems;
- b) monitor operation of aircraft systems relevant to cabin crew duties for any abnormality and apply applicable procedure, as required. These may include, but are not limited to:
 - i) communication systems and associated signalling panels;
 - ii) control panels;
 - iii) electrical systems (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);

- iv) lighting system;
- v) water and waste systems;
- vi) fire prevention systems;
- vii) oxygen system;
- viii) smoke detection system; and
- ix) air conditioning, ventilation and pressurization systems.

5.9.6 *Knowledge:*

- a) operating aircraft systems relevant to the aircraft types on which cabin crew are assigned duties;
- b) recognition of systems abnormalities/failures and application of relevant procedures; and
- c) requirements to report and document system abnormalities/failures, as per operator procedures.

5.9.7 *Skills:*

- a) communication;
- b) error recognition and management;
- c) decision-making;
- d) situational awareness;
- e) delegation (for in-charge cabin crew member); and
- f) planning and coordinating resources (for in-charge cabin crew member).

Competency element 5.3: Perform cruise duties

Performance criteria:

- 5.3.1 Apply procedures in the event of turbulence
- 5.3.2 Apply procedures for the safe use of service equipment
- 5.3.3 Check passenger compliance with ordinance signs and instructions
- 5.3.4 Monitor cabin
- 5.3.5 Monitor galley
- 5.3.6 Monitor lavatory
- 5.3.7 Monitor remote area, if applicable
- 5.3.8 Manage passengers

5.9.8 *Conditions:* Classroom and/or computer-based training.

5.9.9 *Reference:* Operations manual.

5.9.10 *Performance standard:*

a) apply procedures in the event of anticipated and unanticipated turbulence encounters (according to the level of severity):

i) these may include, but are not limited to:

- complying with the advisory signal
- communicating with passengers
- securing the cabin/galley
- discontinuing serving hot liquids /service, if in progress
- taking assigned seat
- securing self

ii) when conditions permit, securing the cabin may include, but is not limited to:

- checking that passengers' seat belts are fastened
- checking that carry-on baggage is stowed (this may include items such as laptop computers)
- checking that infants are removed from bassinets and secured
- stowing on-board wheelchairs provided by the operator
- stowing equipment such as service carts
- checking that lavatories are unoccupied

iii) when conditions permit, securing the galley may include, but is not limited to:

- stowing service items and equipment
- engaging restraining systems e.g. brakes and latches

iv) comply with signal to resume service and duties;

v) apply post-turbulence procedure. This may include, but is not limited to:

- contacting the flight crew
- checking cabin and lavatories, cabin crew and passengers
- administering first aid, if required.

b) apply procedures for the safe use of service equipment. This may include, but is not limited to:

i) stowing/latching equipment

ii) applying brakes on service carts

iii) securing hot beverages pots

iv) properly using heating units and other service equipment:

- checking that there are no foreign objects in heating units
 - checking for grease/contamination prior to using heating units
 - removing lids from food containers (if required) prior to placing them in the heating unit
 - checking that food bags loaded in heating units are heat resistant, if applicable.
- c) visually check for passenger compliance with ordinance signs (e.g. no smoking, fasten seat belts);
- d) monitor cabin to identify safety hazards (e.g. any suspicious odours/fumes, unusual sounds such as hissing sounds from exits, strong vibrations in the cabin, etc.);
- e) monitor the galley to identify safety hazards (e.g. tripped circuit breakers, smoke emitting from electrical appliances, water leaks, etc.);
- f) monitor the lavatory to identify safety hazards (e.g. passengers smoking, tampering with smoke detection systems, water leaks, smoke emitting from waste bins, from behind panels, etc.);
- g) monitor remote areas, such as crew rest areas, cargo areas if accessible from the passenger compartment during flight, to identify safety hazards (e.g. smoke emitted from unit load devices); and
- h) manage passengers. This may include, but is not limited to, the management of:
- PEDs, as applicable
 - unruly behaviour
 - smoking
 - alcohol consumption (including passengers drinking their own alcohol)
 - passengers under the effect of psychoactive substances
 - wellbeing of passengers
 - concentration and movement of passengers in specific areas of the aircraft (e.g. passengers congregating around lavatories, galleys, exits, etc.)
 - passenger adherence to flight crew and cabin crew instructions.

5.9.11 *Knowledge:*

- a) levels of turbulence and their effects on persons and objects in the cabin;
- b) procedures for ensuring passenger and crew safety during periods of turbulence;
- c) understanding of seat belt regulations, compliance and enforcement techniques and responsibilities; policies regarding cabin crew safety;
- d) procedures to stow service equipment during periods of turbulence;
- e) policies regarding communication with flight crew during turbulence; importance of crew coordination and communication;

- f) importance of proper cabin crew positioning during turbulence and proper use of seat belt and harness;
- g) safe operation of service equipment during flight;
- h) importance of being alert for any possible situation affecting the safety of the aircraft, passengers and crew (e.g. smoking on board, safe stowage of service carts, etc.) and procedures to report any abnormality with the aircraft, its equipment or occupants to the pilot-in-command;
- i) procedures for relaying critical safety information to flight crew members and other cabin crew members;
- j) policies and procedures for the restriction, use and stowage of PEDs on board aircraft; understanding the effects of the use of PEDs on aircraft avionics during all phases of flight;
- k) regulatory requirements and cabin crew responsibilities regarding passengers who appear to be impaired due to psychoactive substances; recognition and differentiation of symptoms related to the behaviour of a person impaired by psychoactive substances;
- l) regulatory requirements and cabin crew responsibilities regarding passengers smoking on board and/or tampering with smoke detection systems;
- m) recognition of on board medical events and associated procedures (refer to Chapter 9); and
- n) regulatory requirements and cabin crew responsibilities related to passengers who appear to be intoxicated, or appear to have consumed alcohol from their own supply.

5.9.12 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) error recognition and management;
- d) workload and time management;
- e) decision-making;
- f) situational awareness;
- g) delegation (for in-charge cabin crew member); and
- h) planning and coordinating resources (for in-charge cabin crew member).

Competency element 5.4: Perform security proceduresPerformance criteria:

- 5.4.1 Apply flight deck access procedures
- 5.4.2 Monitor “clear zone” outside the flight deck
- 5.4.3 Monitor cabin for security-related issues

5.9.13 *Conditions:*

- a) classroom and/or computer-based training; and
- b) simulated exercise of flight deck access procedures.

5.9.14 *Reference:* Operations manual.5.9.15 *Performance standard:*

- a) apply flight deck access procedures. This may include, but is not limited to:
 - i) requesting access to the flight deck (e.g. via an interphone call to the flight crew or by using the flight deck door access control panel);
 - ii) checking that there are no passengers present in the “clear zone”;
 - iii) admission to the flight deck; and
 - iv) exit from the flight deck;
- b) monitor “clear zone” outside the flight deck, as per operator procedures; and
- c) monitor cabin, galley, lavatories, remote areas, crew rest areas and cargo areas, if accessible from the passenger compartment during flight for security-related issues. This may include observing passengers for suspicious behaviour.

5.9.16 *Knowledge:*

- a) procedures associated with entry to the flight deck; pilot-in-command authority to give permission for access to the flight deck;
- b) definition and safety implications of critical phases of flight and procedures associated with the concept of a sterile flight deck;
- c) security of the flight deck door (locking and unlocking procedures);
- d) recognition and management of the various security threats; and
- e) levels of threat associated with unruly behaviour and procedures associated with each level.

5.9.17 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making; and
- d) situational awareness.

5.9.18 Refer to Chapter 10 for guidance on training on cabin crew members' duties and responsibilities related to security threats.

Competency element 5.5: Manage abnormal or emergency situations

Performance criteria:

- 5.5.1 Recognize the abnormal or emergency situation
- 5.5.2 Apply the procedure for the abnormal or emergency situation

5.9.19 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

5.10 Competency Unit 6 – Perform duties and responsibilities during descent and approach

5.10.1 The competencies described below relate to the period which commences when the aircraft leaves the level flight segment to start a controlled descent to the destination and ends with the beginning of the landing flare.

**Competency element 6.1: Communicate with flight crew,
other cabin crew and passengers**

Performance criteria:

- 6.1.1 Communicate relevant information to flight crew
- 6.1.2 Communicate relevant information to other cabin crew
- 6.1.3 Communicate relevant information to passengers

5.10.2 Refer to competency element 1.6 for detailed guidance.

Competency element 6.2: Prepare cabin for landing

Performance criteria:

- 6.2.1 Check compliance with ordinance signs

- | | |
|--------|--|
| 6.2.2 | Secure cabin |
| 6.2.3 | Secure galley |
| 6.2.4 | Check lavatory |
| 6.2.5 | Check crew rest area, if applicable |
| 6.2.6 | Check remote area, if applicable |
| 6.2.7 | Check that emergency exits/aisles are not obstructed |
| 6.2.8 | Comply with ordinance signs or instructions from the flight crew |
| 6.2.9 | Take assigned station/seat for landing and remain secure in required position |
| 6.2.10 | Confirm "cabin readiness" for landing to the flight crew |
| 6.2.11 | Apply sterile flight deck procedure |
| 6.2.12 | Comply with the pre-landing signal |
| 6.2.13 | Take appropriate safety seating position for landing (including brace, if appropriate) |
| 6.2.14 | Perform silent review |

5.10.3 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on securing galley equipment;
- c) hands-on exercise on the use of cabin crew seat belt and harness;
- d) simulated exercise on securing the cabin; and
- e) simulated exercise on the correct safety seating position in cabin crew seat for landing (e.g. brace position).

5.10.4 *Reference:* Operations manual.

5.10.5 *Performance standard:*

- a) visually check passenger compliance with ordinance signs (e.g. no smoking, fasten seat belts);
- b) secure cabin. This may include, but is not limited to:
 - i) making appropriate announcements regarding baggage stowage and safety instructions;
 - ii) verifying that passengers fasten their seat belts;
 - iii) verifying that seat back and table trays are in the upright position;
 - iv) verifying that carry-on baggage is stowed;
 - v) verifying that overhead bins are closed and latched;
 - vi) verifying compliance with the operator's policy on the use and stowage of PEDs;
 - vii) verifying that passenger earphones/headphones are removed;

- viii) verifying that passenger headrests and footrests are stowed;
 - ix) stowing/retracting monitors;
 - x) verifying that aisles are clear;
 - xi) verifying that exits are not obstructed;
 - xii) verifying that seating restrictions at emergency exit rows are adhered to; and
 - xiii) verifying that window blinds are open;
- c) secure galley. This may include, but is not limited to:
- i) applying brakes on service carts;
 - ii) latching equipment;
 - iii) turning off electrical appliances (e.g. ovens);
 - iv) securing curtains and interior doors/partitions to open position; and
 - v) stowing all service items safely;
- d) check that lavatories are vacated for landing;
- e) check that crew rest area, and remote areas, if applicable, are vacated for landing;
- f) check that emergency exits/aisles are not obstructed and that exit row are occupied by passengers that are able and willing to assist in case of an emergency, as per operator procedures met. Take necessary actions such as displacing passengers and baggage;
- g) take assigned seat/station when the signal/communication from the flight crew has been given (e.g. announcement, chime, etc.) and remain secure in the required position;
- h) as per operator procedure, confirm "cabin readiness" for landing to the flight crew once the cabin is secure and the cabin crew are seated at their assigned stations;
- i) as per the operator procedures, apply sterile flight deck;
- j) comply with the pre-landing signal. This is typically an announcement via the public address system from the flight crew indicating that landing is imminent;
- k) take the appropriate safety seating position for landing. Cabin crew should adopt the position that the operator requires for landing during normal operations (including the brace position, if appropriate); and
- l) perform the silent review. This may include, but is not limited to, items such as:

- i) brace position;
- ii) emergency notification procedures;
- iii) location and operation of exits;
- iv) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;
- v) passenger management;
- vi) brace commands;
- vii) interior and exterior evacuation conditions;
- viii) protective position while commanding the evacuation; and
- ix) evacuation commands.

5.10.6 *Knowledge:*

- a) importance of securing the cabin and galley, the hazards associated with unrestrained equipment/items and the risk of injuries to aircraft occupant;
- b) procedures applied to complete cabin and passenger safety pre-landing checks and their impact on flight safety, including verifying compliance with exit row seating restrictions and making safety announcements, if applicable;
- c) the sterile flight deck concept; when it comes into effect and when it ends; the importance of limiting communications with the flight crew to safety critical information once the sterile flight deck is in effect; when communications with the flight crew should not take place;
- d) the importance of cabin crew members being in the assigned position with restraints secure during critical phases of flight and the consequences of non-compliance;
- e) the identification of cabin crew members' stations and use of seat belts;
- f) correct method of sitting in assigned seat (e.g. forward/aft/side facing seats) and securing-self in cabin crew seats or non-cabin crew seat, as applicable;
- g) procedures for notifying the flight crew when cabin is secure for landing, or notification by cabin crew to flight crew if landing must be delayed;
- h) the identification of pre-landing signal;
- i) the importance of focusing on emergency procedures, of situational awareness and of limiting communications between cabin crew members to safety-related information during descent and approach;
- j) silent review of emergency procedures prior to landing; and

- k) abnormal and emergency procedures related to landing (go-around: causes, effects on occupants and relevant procedures such as communication).

5.10.7 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) workload and time management;
- d) decision-making;
- e) situational awareness; and
- f) planning and coordinating resources (for in-charge cabin crew member).

Competency element 6.3: Manage abnormal or emergency situations

Performance criteria:

- 6.3.1 Recognize the abnormal situation
- 6.3.2 Perform the procedure for the abnormal or emergency situation

5.10.8 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

5.11 Competency Unit 7 – Perform duties and responsibilities during landing

5.11.1 The competencies described below relate to the period which commences when the landing flare begins until aircraft exits the landing runway, comes to a stop on the runway, or when power is applied for take-off in the case of a touch-and-go landing.

Competency element 7.1: Perform landing duties

Performance criteria:

- 7.1.1 Apply sterile flight deck procedure
- 7.1.2 Remain in appropriate safety seating position for landing (including brace, if appropriate)
- 7.1.3 Perform silent review

5.11.2 *Conditions:* Classroom and/or computer-based training.

5.11.3 *Reference:* Operations manual.

5.11.4 *Performance standard:*

- a) as per the operator procedures, apply sterile flight deck;
- b) remain in the appropriate safety seating position for landing during the landing roll. Cabin crew should adopt the position that the operator requires for landing during normal operations (including the brace position, if appropriate); and
- c) perform the silent review. This may include, but is not limited to, items such as:
 - i) brace position;
 - ii) emergency notification procedures;
 - iii) location and operation of exits;
 - iv) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;
 - v) passenger management;
 - vi) brace commands;
 - vii) interior and exterior evacuation conditions;
 - viii) protective position while commanding the evacuation; and
 - ix) evacuation commands.

5.11.5 *Knowledge:*

- a) the sterile flight deck concept; when it comes into effect and when it ends; the importance of limiting communications with the flight crew to safety and security critical information once the sterile flight deck is in effect; when communications with the flight crew should take place even if the sterile flight deck is in effect (e.g. emergency situations) and when they should be restricted;
- b) correct method of sitting in assigned seat (e.g. forward/aft/side facing seats) and securing-self in cabin crew seats or non-cabin crew seats, as applicable;
- c) silent review of emergency procedures prior to and during landing;
- d) the importance of focusing on emergency procedures, of situational awareness and of limiting communications between cabin crew members to safety-related information during landing; and
- e) abnormal and emergency procedures related to landing (e.g. touch-and-go landing: causes, effects on occupants and relevant procedures such as communication).

5.11.6 *Skills:*

- a) communication; and
- b) situational awareness.

Competency element 7.2: Manage abnormal or emergency situationsPerformance criteria:

- 7.2.1 Recognize the abnormal or emergency situation
- 7.2.2 Perform the procedure for the abnormal or emergency situation

5.11.7 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

5.12 Competency Unit 8 – Perform duties and responsibilities during post-landing and post-flight operations

5.12.1 The competencies described below relate to the period which commences when the aircraft exits the landing runway, continues upon arrival at the gate, ramp, apron, or parking area, when the aircraft ceases to move under its own power and ends when the cabin crew member completes his/her duties assigned for the flight.

Competency element 8.1: Perform post-landing and post-flight dutiesPerformance criteria:

- 8.1.1 Remain in assigned station/seat and remain secure in required position
- 8.1.2 Comply with ordinance signs and instructions from the flight crew
- 8.1.3 Check passenger compliance with ordinance signs and instructions
- 8.1.4 Monitor cabin
- 8.1.5 Disarm aircraft door(s), if applicable
- 8.1.6 Check aircraft door(s) status, if applicable
- 8.1.7 Open aircraft door(s), if applicable
- 8.1.8 Manage passenger disembarkation process
- 8.1.9 Perform security checks, if applicable
- 8.1.10 Complete the applicable documentation

5.12.2 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on disarming aircraft door, if applicable; and
- c) hands-on exercise on opening aircraft door.

5.12.3 *Reference:* Operations manual

5.12.4 *Performance standard:*

- a) remain in the appropriate safety seating position for landing during taxiing. Cabin crew should adopt the position that the operator requires for landing during normal operations (e.g. the brace position, if appropriate);
- b) as per operator procedures, remain seated until the signal/communication has been given by the flight crew (e.g. announcement, extinguishing ordinance sign, etc.);
- c) from seated/restrained position, visually check for passenger compliance with ordinance signs (e.g. passengers getting up to open overhead bins when the fasten seat belt sign is still illuminated);
- d) from seated/restrained position, monitor for abnormalities (e.g. warnings, unusual sounds or smells);
- e) disarm aircraft door(s) and check door status, if applicable, and carry out verification (e.g. cross check) as per operator procedures for the aircraft type;
- f) open aircraft door(s), if applicable as per operator procedures;
- g) manage passenger disembarkation process, while maintaining assigned position, as per operator procedures;
- h) perform security checks, as per operator procedures. This may include, but is not limited to:
 - checking galleys, cabin, lavatories, remote areas, overhead bins and other compartments accessible to passengers, and cargo compartment, (when accessible from the cabin) for foreign objects or suspicious items
 - completing the appropriate documentation, if required; and
 - communicating any observations to the In-charge cabin crew member or the flight crew members; and
- i) complete the applicable documentation such as incident reports.

5.12.5 *Knowledge:*

- a) correct method of sitting in assigned seat (e.g. forward/aft/side facing seats) and securing-self in cabin crew seats or non-cabin crew seats, as applicable;
- b) the importance of being alert for any possible situation affecting the safety of passengers and crew; the responsibility and procedures to report any abnormality with the aircraft, its equipment or occupants to the pilot-in-command;
- c) procedures for relaying critical safety information to flight crew and other cabin crew members during all phases of flight;

- d) the importance of listening to all announcements in the event that the announcement may contain emergency signals or information;
- e) the importance of monitoring operational aircraft systems relevant to cabin crew duties for any abnormalities;
- f) procedures for disarming doors, checking door status and door verification (cross check as per operator procedures), if applicable;
- g) procedures associated with opening aircraft doors, including the importance of complying with the signal and authorisation for door opening, ground communications, and the availability of ground equipment;
- h) precautions when opening aircraft doors and monitoring open doors if ground equipment is not available;
- i) the importance of remaining at the assigned cabin crew station in the event that the announcement may contain emergency signals or information;
- j) components of apron safety, the responsibilities for passenger movement on airport aprons and procedures established to facilitate passenger movement on airport aprons, air bridges, boarding using stairs, etc.;
- k) the importance of ensuring all passengers have disembarked the aircraft at flight termination; and
- l) applicable documentation. This may include, but is not limited to:
 - i) which documents to complete;
 - ii) how to complete and submit documents; and
 - iii) the importance of proper reporting.

5.12.6 *Skills:*

- a) communication;
- b) decision-making; and
- c) situational awareness.

**Competency element 8.2: Communicate with flight crew,
other cabin crew and passengers**

Performance criteria:

- 8.2.1 Communicate relevant information to flight crew
- 8.2.2 Communicate relevant information to other cabin crew
- 8.2.3 Communicate relevant information to passengers

5.12.7 Refer to competency element 1.6 for detailed guidance.

Competency element 8.3: Manage abnormal or emergency situations

Performance criteria:

- 8.3.1 Recognize the abnormal or emergency situation
- 8.3.2 Perform the procedure for the abnormal or emergency situation

5.12.8 Refer to Chapter 6 for detailed training on abnormal and emergency procedures.

Competency element 8.4: Perform transit duties

Performance criteria:

- 8.4.1 Manage passenger disembarkation process
- 8.4.2 Perform security checks
- 8.4.3 Obtain flight crew briefing, if applicable
- 8.4.4 Conduct cabin crew briefing, if applicable
- 8.4.5 Check minimum crew complement
- 8.4.6 Manage passenger boarding process

5.12.9 *Conditions:*

- a) classroom and/or computer-based; and
- b) simulated exercise on conducting a pre-flight briefing.

5.12.10 *Reference:*

- a) operations manual;
- b) documentation relating to destination information; and
- c) standard briefing form, if applicable.

5.12.11 *Performance standard:*

- a) manage passenger disembarkation process, while maintaining assigned position, as per operator procedures, in case of emergency;
- b) perform security checks, as per operator procedures. This may include, but is not limited to:
 - i) checking galleys, cabin, lavatories, remote areas, overhead bins and other compartments accessible to passengers and cargo compartment, when accessible from the cabin for foreign objects or suspicious items;
 - ii) completing the appropriate documentation, if required; and
 - iii) communicating any observations to the In-charge cabin crew member and the flight crew members;
- c) obtain a flight crew briefing, by participating in one. This can include a joint briefing between the flight crew and cabin crew, when operations permit. A briefing can be conducted between the flight crew and the In-charge cabin crew member who then transmits the information to the rest of the cabin crew. Note: this may be applicable (e.g. if there has been a change in the crew members);
- d) conduct a cabin crew briefing. This task is typically accomplished by the In-charge cabin crew member and may include, but is not limited to:
 - i) safety, emergency, security and communication procedures;
 - ii) the assignment of duties to individual cabin crew members, such as public announcements, cabin crew stations, and special categories of passengers;
 - iii) review of safety and emergency procedures and information;
 - iv) customized briefing for the aircraft type;
 - v) destination-specific information;
 - vi) meteorological information;
 - vii) cabin defects; and
 - viii) some of these items are obtained from the flight crew as part of a joint flight crew/cabin crew briefing or should be disseminated by the In-charge cabin crew member;
- e) check the minimum cabin crew complement is present for duty, as per operator procedures. This task is typically accomplished by the In-charge cabin crew member; and
- f) manage the passenger boarding process. This may include, but is not limited to:
 - i) verifying passengers' boarding passes, as per operator procedures;

- ii) monitoring carry-on baggage for compliance with operator allowance and remaining vigilant for suspicious items;
- iii) monitoring passengers who may display suspicious behaviour/ raise security concerns, may be under the influence of psychoactive substances or display unruly behaviour;
- iv) monitoring for intoxicated passengers who should be denied boarding;
- v) monitoring for passengers who may require specific assistance (e.g. special categories of passengers);
- vi) monitoring passengers with infants in rows to ensure sufficient oxygen masks are available;
- vii) making appropriate announcements regarding safety instructions;
- viii) checking that emergency exit rows are occupied by passengers that are able and willing to assist in case of an emergency, as per operator procedures;
- ix) monitoring restricted seating at/or adjacent to the emergency exit rows, as per operator procedures; and
- x) applying procedures related to transit stops, if applicable.

5.12.12 *Knowledge:*

- a) the importance of being alert for any possible situation affecting the safety of passengers and crew and procedures to report any abnormality with the aircraft, its equipment or occupants to the pilot-in-command;
- b) procedures for relaying critical safety information to flight crew members and other cabin crew members;
- c) the importance of listening to all announcements in the event that the announcement may contain emergency signals or information;
- d) pre-flight briefing including crew communication and co-ordination, establishing expectations and clarifying procedures;
- e) minimum cabin crew complement for each aircraft type in accordance with the applicable regulations;
- f) components of apron safety, the responsibilities for passenger movement on airport aprons and procedures established to facilitate passenger movement on airport aprons, air bridges, etc.;
- g) procedures associated with the seating of passengers. This may include, but is not limited to:

- i) seating restrictions;
- ii) proper selection of passengers seated at emergency exit row seats, and relocation of passengers in compliance with seating procedures; and
- iii) acceptance and use of infant/child restraints;
- h) cabin crew responsibilities for passenger supervision while the aircraft is on the ground; and
- i) procedures related to transit stops, if applicable.

5.12.13 **Skills:**

- a) communication;
 - b) teamwork and leadership;
 - c) workload and time management;
 - d) decision-making;
 - e) situational awareness;
 - f) delegation (for in-charge cabin crew member); and
 - g) planning and coordinating resources (for in-charge cabin crew member).
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Appendix 1 to Chapter 5. Competency framework for cabin crew member's duties and responsibilities during normal operations

COMPETENCY FRAMEWORK FOR CABIN CREW MEMBER'S DUTIES AND RESPONSIBILITIES DURING NORMAL OPERATIONS			
Competency unit: 1. Perform duties and responsibilities during ground and pre-flight operations			
The competencies described below relate to the period which commences when the cabin crew member reports for duty, prior to pushback or taxi, at the gate, ramp, or parking area, while the aircraft is stationary.			
Competency element	Performance criteria	I/C Duty	Reference
1.1 Perform planning duties	1.1.1 Report for duty		-Operations manual -Company policies and procedures
	1.1.2 Obtain applicable information/documentation		
	1.1.3 Review documents required for the flight		
	1.1.4 Update documents required for the flight, if applicable		
	1.1.5 Check minimum cabin crew complement	X	
1.2 Participate in flight crew and cabin crew briefings	1.2.1 Obtain flight crew briefing	X	-Operations manual -Documentation relating to destination information -Standard briefing form (if applicable)
	1.2.2 Conduct cabin crew briefing	X	
	1.2.3 Communicate all required information and other relevant matters to the cabin crew		
1.3 Perform pre-flight checks	1.3.1 Communicate with ground personnel	X	Operations manual
	1.3.2 Check relevant documentation for cabin defects	X	
	1.3.3 Check equipment and systems		
	1.3.4 Report missing or inoperative equipment/system		
	1.3.5 Perform security checks		
	1.3.6 Update cabin crew on any additional information, if applicable	X	

Competency element	Performance criteria	I/C Duty	Reference
1.4 Perform passenger boarding and pre-pushback duties	1.4.1 Check minimum cabin crew complement	X	Operations manual
	1.4.2 Apply procedure for ramp safety		
	1.4.3 Manage passenger boarding process		
	1.4.4 Apply procedure for refuelling with passengers on board, if applicable		
	1.4.5 Monitor cabin		
	1.4.6 Reconcile/count passengers, if applicable		
	1.4.7 Check safe stowage of carry-on baggage		
	1.4.8 Brief passengers		
	1.4.9 Check that emergency exits/aisles are not obstructed		
	1.4.10 Check condition of critical surfaces and report any contamination, if applicable		
	1.4.11 Secure galley		
	1.4.12 Secure cabin		
	1.4.13 Close aircraft door(s), if applicable		
	1.4.14 Check flight deck door is closed/secure, if applicable		
1.5 Manage abnormal or emergency situations	1.5.1 Recognize the abnormal or emergency situation		Operations manual
	1.5.2 Apply the procedure for the abnormal or emergency situation		
1.6 Communicate with flight crew, other cabin crew and passengers	1.6.1 Communicate relevant information to flight crew		Operations manual
	1.6.2 Communicate relevant information to other cabin crew		
	1.6.3 Communicate relevant information to passengers		

Competency unit: 2. Perform duties and responsibilities during pushback and taxi

The competencies described below relate to the period which commences when the aircraft begins to move in the gate, ramp, or parking area, assisted by a tow vehicle, followed by the period when the aircraft moves on the aerodrome surface under its own power prior to take-off.

Competency element	Performance criteria	I/C Duty	Reference
2.1 Perform pushback and taxi duties and checks	2.1.1 Arm aircraft door(s), if applicable		Operations manual
	2.1.2 Check aircraft door(s) status, if applicable		
	2.1.3 Apply sterile flight deck procedure, if applicable		
	2.1.4 Check compliance with ordinance signs		
	2.1.5 Perform safety demonstration		
	2.1.6 Check cabin		
	2.1.7 Check galley		
	2.1.8 Check lavatory		
	2.1.9 Check crew rest area, if applicable		
	2.1.10 Check remote area, if applicable		
	2.1.11 Take assigned station/seat for take-off and remain secure in required position		
	2.1.12 Confirm "cabin readiness" for take-off to the flight crew	X	
	2.1.13 Comply with the pre-take-off signal		
	2.1.14 Take appropriate safety seating position for take-off (including brace, if appropriate)		
	2.1.15 Perform silent review		
2.2 Manage abnormal or emergency situations	2.2.1 Recognize the abnormal or emergency situation		Operations manual
	2.2.2 Apply the procedure for the abnormal or emergency situation		
2.3 Communicate with flight crew, other cabin crew and passengers	2.3.1 Communicate relevant information to flight crew		Operations manual
	2.3.2 Communicate relevant information to other cabin crew		
	2.3.3 Communicate relevant information to passengers		

Competency unit: 3. Perform duties and responsibilities during take-off

The competencies described below relate to the period which commences when the flight crew apply take-off power, through rotation and to an altitude of 35 feet above runway elevation.

Competency element	Performance criteria	I/C Duty	Reference
3.1 Perform take-off duties	3.1.1 Apply sterile flight deck procedure		Operations manual
	3.1.2 Remain in appropriate safety seating position for take-off (including brace, if appropriate)		
	3.1.3 Perform silent review		
3.2 Manage abnormal or emergency situations	3.2.1 Recognize the abnormal or emergency situation		Operations manual
	3.2.2 Perform the procedure for the abnormal or emergency situation		

Competency unit: 4. Perform duties and responsibilities during climb

The competencies described below relate to the period which commences when the take-off phase ends through to arrival at the initial assigned cruise altitude.

Competency element	Performance criteria	I/C Duty	Reference
4.1 Communicate with flight crew, other cabin crew and passengers	4.1.1 Communicate relevant information to flight crew		Operations manual
	4.1.2 Communicate relevant information to other cabin crew		
	4.1.3 Communicate relevant information to passengers		
4.2 Perform climb duties	4.2.1 Comply with ordinance signs and instructions from the flight crew		Operations manual
	4.2.2 Check passenger compliance with ordinance signs and instructions		
	4.2.3 Monitor cabin		
4.3 Manage abnormal or emergency situations	4.3.1 Recognize the abnormal or emergency situation		Operations manual
	4.3.2 Apply the procedure for the abnormal or emergency situation		

Competency unit: 5. Perform duties and responsibilities during cruise			
The competencies described below relate to the period which commences at any level flight segment after arrival at initial cruise altitude until the start of descent to the destination.			
Competency element	Performance criteria	I/C Duty	Reference
5.1 Communicate with flight crew, other cabin crew and passengers	5.1.1 Communicate relevant information to flight crew		Operations manual
	5.1.2 Communicate relevant information to other cabin crew		
	5.1.3 Communicate relevant information to passengers		
5.2 Perform systems operations	5.2.1 Operate systems, as required		Operations manual
	5.2.2 Monitor operation of systems		
5.3 Perform cruise duties	5.3.1 Apply procedures in the event of turbulence		Operations manual
	5.3.2 Apply procedures for the safe use of service equipment		
	5.3.3 Check passenger compliance with ordinance signs and instructions		
	5.3.4 Monitor cabin		
	5.3.5 Monitor galley		
	5.3.6 Monitor lavatory		
	5.3.7 Monitor remote area, if applicable		
	5.3.8 Manage passengers		
5.4 Perform security procedures	5.4.1 Apply flight deck access procedures		Operations manual
	5.4.2 Monitor “clear zone” outside the flight deck		
	5.4.3 Monitor cabin for security-related issues		
5.5 Manage abnormal or emergency situations	5.5.1 Recognize the abnormal or emergency situation		Operations manual
	5.5.2 Apply the procedure for the abnormal or emergency situation		

Competency unit: 6. Perform duties and responsibilities during descent and approach

The competencies described below relate to the period which commences when the aircraft leaves the level flight segment to start a controlled descent to the destination and ends with the beginning of the landing flare.

Competency element	Performance criteria	I/C Duty	Reference
6.1 Communicate with flight crew, other cabin crew and passengers	6.1.1 Communicate relevant information to flight crew		Operations manual
	6.1.2 Communicate relevant information to other cabin crew		
	6.1.3 Communicate relevant information to passengers		
6.2 Prepare cabin for landing	6.2.1 Check compliance with ordinance signs		Operations manual
	6.2.2 Secure cabin		
	6.2.3 Secure galley		
	6.2.4 Check lavatory		
	6.2.5 Check crew rest area, if applicable		
	6.2.6 Check remote area, if applicable		
	6.2.7 Check that emergency exits/aisles are not obstructed		
	6.2.8 Comply with ordinance signs or instructions from the flight crew		
	6.2.9 Take assigned station/seat for landing and remain secure in required position		
	6.2.10 Confirm "cabin readiness" for landing to the flight crew	X	
	6.2.11 Apply sterile flight deck procedure		
	6.2.12 Comply with the pre-landing signal		
	6.2.13 Take appropriate safety seating position for landing (including brace, if appropriate)		
	6.2.14 Perform silent review		
6.3 Manage abnormal or emergency situations	6.3.1 Recognize the abnormal situation		Operations manual
	6.3.2 Perform the procedure for the abnormal or emergency situation		

Competency unit: 7. Perform duties and responsibilities during landing

The competencies described below relate to the period which commences when the landing flare begins until aircraft exits the landing runway, comes to a stop on the runway, or when power is applied for take-off in the case of a touch-and-go landing.

Competency element	Performance criteria	I/C Duty	Reference
7.1 Perform landing duties	7.1.1 Apply sterile flight deck procedure		Operations manual
	7.1.2 Remain in appropriate safety seating position for landing (including brace, if appropriate)		
	7.1.3 Perform silent review		
7.2 Manage abnormal or emergency situations	7.2.1 Recognize the abnormal or emergency situation		Operations manual
	7.2.2 Perform the procedure for the abnormal or emergency situation		

Competency unit: 8. Perform duties and responsibilities during post-landing and post-flight operations			
The competencies described below relate to the period which commences when the aircraft exits the landing runway, continues upon arrival at the gate, ramp, apron, or parking area, when the aircraft ceases to move under its own power and ends when the cabin crew member completes his/her duties assigned for the flight.			
Competency element	Performance criteria	I/C Duty	Reference
8.1 Perform post-landing and post-flight duties	8.1.1 Remain in assigned station/seat and remain secure in required position		Operations manual
	8.1.2 Comply with ordinance signs and instructions from the flight crew		
	8.1.3 Check passenger compliance with ordinance signs and instructions		
	8.1.4 Monitor cabin		
	8.1.5 Disarm aircraft door(s), if applicable		
	8.1.6 Check aircraft door(s) status, if applicable		
	8.1.7 Open aircraft door(s), if applicable		
	8.1.8 Manage passenger disembarkation process		
	8.1.9 Perform security checks, if applicable		
	8.1.10 Complete the applicable documentation		
8.2 Communicate with flight crew, other cabin crew and passengers	8.2.1 Communicate relevant information to flight crew		Operations manual
	8.2.2 Communicate relevant information to other cabin crew		
	8.2.3 Communicate relevant information to passengers		
8.3 Manage abnormal or emergency situations	8.3.1 Recognize the abnormal or emergency situation		Operations manual
	8.3.2 Perform the procedure for the abnormal or emergency situation		
8.4 Perform transit duties	8.4.1 Manage passenger disembarkation process		Operations manual -Documentation relating to destination information -Standard briefing form (if applicable)
	8.4.2 Perform security checks		
	8.4.3 Obtain flight crew briefing, if applicable		
	8.4.4 Conduct cabin crew briefing, if applicable	X	
	8.4.5 Check minimum crew complement	X	
	8.4.6 Manage passenger boarding process		

CHAPTER 6. ABNORMAL AND EMERGENCY SITUATIONS TRAINING

6.1 Definition and goal of abnormal and emergency situations training

6.1.1 Abnormal and emergency situations training is defined as training which addresses the operator's abnormal and emergency procedures and focuses on the cabin crew members' roles and responsibilities during these types of situations.

6.1.2 "Emergency procedures" means all procedures established by the operator in the operations manual for abnormal and emergency situations. For this purpose, "abnormal" refers to a situation that is not typical or usual, deviates from normal operation and may result in an emergency.

6.1.3 The goal of this training is to enable cabin crew members to immediately recognize an abnormal or emergency situation, rapidly gain awareness of situational dynamics, if necessary initiate communication with the flight crew and/or take necessary measures to deal with the situation. The training should also enable cabin crew members to anticipate additional risks that may result from the actions they choose to take and mitigate them, if required.

6.2 Content of abnormal and emergency situations training

6.2.1 Abnormal and emergency situations training should include the following topics:

- a) fire-fighting;
- b) smoke removal procedures;
- c) cabin pressurization problems and decompression;
- d) anticipated and unanticipated emergency landing/ditching;
- e) evacuation;
- f) flight and cabin crew member incapacitation; and
- g) rapid disembarkation.

6.2.2 Training related to the transport of dangerous goods by air, aviation security and the management of on board medical events are addressed separately in this manual. However, these subjects can also form part of the abnormal and emergency situations training.

6.2.3 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the competency elements covered, the conditions used for training as well as the knowledge and skills that may be assessed.

6.3 Hands-on exercises and simulated exercises

6.3.1 Training relating to abnormal and emergency situations may be more effective if classroom instructions are concurrently augmented by hands-on exercises and simulated exercises. It is essential that cabin crew members are given the opportunity to participate in simulated exercises and practice competencies during training, i.e. the execution of abnormal and emergency procedures, such as those required to prepare an aircraft for an evacuation or ditching, extinguish an in-flight fire, supervise the cabin following a decompression, manage passengers during an emergency evacuation, etc. Hands-on exercises and simulated exercises offer an acceptable level of practical experience close to what can be expected in actual occurrences. Therefore, hands-on exercises and simulated exercises should be

integrated into the cabin crew safety training programme. In the absence of representative training devices, the operator should conduct hands-on and simulated exercises on an actual aircraft. All exercises should be carried out giving special regard to the standard operating procedures laid down in the operations manual.

6.3.2 When participating in simulated exercises, trainees may be evaluated individually or as part of a team.

6.3.3 It is recommended that the operator hold joint flight crew/cabin crew abnormal/emergency training exercises at least once during initial training and during recurrent training. These exercises can help to reflect the operational environment and instil a one-crew concept among all crew members. Joint simulations promote coordination of cabin and flight crew procedures, give flight crew and cabin crew members a greater insight into their respective duties and responsibilities and enable them to work as a synchronized team with a sound appreciation of each other's contribution toward successful management of an abnormal or emergency situation.

6.3.4 Simulated exercises should involve scenarios in which the cabin crew member finds him/herself acting alone (simulating incapacitation of other cabin crew members). The "solo" exercise demonstrates the ability of the cabin crew member to take command of a situation, measures knowledge and the ability to use available safety and emergency equipment and the capacity to respond to emergency situations, appropriately, without the assistance of fellow crew members.

6.3.4 It is also recommended that cabin crew trainees and employees act the role of passengers in simulated exercises, such as: fire-fighting, smoke removal procedures, cabin pressurization problems and decompression, anticipated and unanticipated emergency landing/ditching, evacuation as well as flight and cabin crew member incapacitation. Such simulated exercises enable trainees to experience the flow-rate and the time element involved. They allow the instructor to assess whether the prescribed rate has been achieved. The operator should use a checklist to ensure that each cabin crew trainee participates as a crew member in the different simulations described in this chapter.

6.4 Competency-based training for abnormal and emergency situations

6.4.1 The following sections provide detailed guidance for the development of competency-based training for cabin crew members to perform duties and responsibilities during an abnormal or emergency situation. These competencies are derived from the ICAO competency framework for cabin crew duties and responsibilities during abnormal and emergency situations presented in Appendix 1 to chapter 6.

6.4.2 The sections presented in this chapter are linked to the overarching competency unit: "perform duties and responsibilities during an abnormal or emergency situation", found in the ICAO framework mentioned above.

6.5 Fire-fighting

Competency element: Apply fire-fighting procedure

Performance criteria:

- 1.1.1 Detect and eliminate fire hazards
- 1.1.2 Locate source of fire
- 1.1.3 Identify the type of fire
- 1.1.4 Apply communication procedures
- 1.1.5 Use appropriate fire-fighting equipment and protective equipment, as required
- 1.1.6 Fight fire
- 1.1.7 Manage passengers and cabin, as required
- 1.1.8 Apply post-fire-fighting procedure
- 1.1.9 Complete the applicable documentation

6.5.1 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on retrieving and operating fire-fighting and protective equipment;
- c) simulated fire-fighting exercise in a representative training device capable of reproducing the appropriate environment/equipment characteristics (e.g. cabin, flight deck, accessible cargo compartment, crew rest area, etc.), or on an actual aircraft, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation; and

Note.— Protective breathing equipment (PBE) should be used and operated in a fire-fighting simulated exercise within a smoke filled environment.

- d) live fire-fighting exercise using fire-fighting equipment (e.g. extinguisher, PBE, gloves, axe, etc.).

6.5.2 *Reference:* Operations manual

6.5.3 *Performance standard:*

- a) cabin surveillance to identify/monitor potential sources of fire. This may include, but not limited to:
 - i) debris in ovens (e.g. oil spills, papers, inserts);
 - ii) electrical malfunctions (e.g. tripped circuit breakers, overheating IFE);
 - iii) lavatories (e.g. waste bins, panels);
 - iv) investigating abnormal smells; and
 - v) detecting smoke (e.g. coming from panels, due to electrical systems, etc.);

- b) use visual, audio and physical clues when locating the source of fire. This may include, but not limited to:
 - i) using hands to feel if panels are hot;
 - ii) noticing tripped circuit breaker;
 - iii) noticing unusual odours; and
 - iv) listening for crackling sound;
- c) as per operator procedures, extinguish fire whilst using fire-fighting and protective equipment appropriate for the type of fire;
- d) apply communication procedures. This may include, but is not limited to:
 - i) back-up duties;
 - ii) crew coordination; and
 - iii) informing cabin crew members, the flight crew and passengers about the situation;
- e) manage passengers and cabin, as required. This may include, but is not limited to:
 - i) relocating passengers;
 - ii) reassuring passengers;
 - iii) instructing passengers to breathe into a cloth (cover nose and mouth); and
 - iv) relocating equipment such as oxygen bottles, if required;
- f) apply post-fire-fighting procedure. This may include, but is not limited to:
 - i) monitoring area for re-ignition;
 - ii) continued communication with flight crew, other cabin crew and passengers; and
 - iii) administering first aid, if required.

6.5.4 *Knowledge:*

- a) identification of the different types of fires, means of fire detection, fire-fighting systems and established fire-fighting procedures;
- b) location, pre-flight check and use of fire fighting and protective equipment on board the aircraft type. This may include, but is not limited to:
 - i) smoke detectors;

- ii) portable extinguishers;
 - iii) installed automatic extinguishers (e.g. in lavatory);
 - iv) crowbar;
 - v) axe;
 - vi) protective breathing equipment;
 - vii) protective gloves; and
 - viii) equipment specific to accessible cargo compartments/combi aircraft;
- c) understanding of fire prevention techniques. This may include, but is not limited to:
- i) monitoring smoking in the cabin and lavatories;
 - ii) inspecting the integrity of automatic lavatory extinguisher;
 - iii) checking that the lavatory waste bin cover flap is closed at all times;
 - iv) preventing ignited materials from being discarded in trash carts; and
 - v) identifying and eliminating hazardous flammable materials;
- d) techniques and procedures for fighting fires. This may include, but is not limited to:
- i) immediate and aggressive approach to finding the source of the fire;
 - ii) fighting the fire aggressively and effectively;
 - iii) type of extinguisher to use based on the type of fire;
 - iv) additional fire-fighting equipment needed such as PBE;
 - v) techniques for using extinguishers; and
 - vi) communicating while using PBE;
- e) fire-fighting procedures for specific types/locations of fires. This may include, but is not limited to:
- i) galleys;
 - ii) lavatories;
 - iii) overhead bins;
 - iv) electrical systems;

- v) ovens;
 - vi) flammable liquids;
 - vii) metal fires;
 - viii) lithium battery fires; and
 - ix) upholstery;
- f) specific crew member responsibilities for fire-fighting and the importance of being prepared to apply appropriate fire-fighting procedures;
- g) importance of crew communication and coordination in fighting a fire and providing the flight crew with accurate updates on:
- i) fire source/location;
 - ii) extent/severity of fire/smoke;
 - iii) actions taken, including relocation of passengers; and
 - iv) notification of any injuries to passengers and/or crew members;
- h) obstructions to fire fighting on board aircraft. This may include, but is not limited to:
- i) limited visibility due to smoke/fumes;
 - ii) fire-fighting in confined spaces;
 - iii) difficulty in locating/accessing the source of the fire (e.g. hidden fires); and
 - iv) resources to fight the fire;
- i) hazards associated with on board fires. This may include, but is not limited to:
- i) toxicity of smoke/fumes;
 - ii) flammability of cabin materials; and
 - iii) variety of combustible materials;
- j) external fires (e.g. engine fires, fuel spill/apron fires, fires on loading bridges, service vehicle fires, etc.) and procedures established for such fire situations including recognition, communication and coordination; and
- k) procedures for completing the applicable documentation, such as an incident report form.

6.5.5 *Skills:*

- a) communication;

- b) teamwork and leadership;
- c) error recognition and management;
- d) workload and time management;
- e) decision-making;
- f) situational awareness;
- g) planning and coordinating resources (for in-charge cabin crew member); and
- h) delegation (for in-charge cabin crew member).

6.6 Smoke removal procedures

Competency Element: Apply smoke removal procedure

Performance criteria:

- 1.2.1 Detect and eliminate smoke and fumes hazard/odour
- 1.2.2 Identify source of smoke (or fumes)
- 1.2.3 Apply communication procedures
- 1.2.4 Use appropriate fire-fighting equipment and protective equipment, as required
- 1.2.5 Apply smoke removal technique
- 1.2.6 Manage passengers and cabin, as required
- 1.2.7 Apply post-smoke removal procedure
- 1.2.8 Complete the applicable documentation

6.6.1 *Conditions:*

- a) classroom and/or computer-based training; and
- b) simulated smoke removal exercise in a representative training device capable of reproducing the appropriate environment/equipment characteristics (e.g. cabin, flight deck, accessible cargo compartment, etc.), or on an actual aircraft, using fire-fighting and protective equipment, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation.

Note.— This exercise may be combined with the simulated fire-fighting exercise presented in section 6.5.1.

6.6.2 *Reference:* Operations manual.

6.6.3 *Performance standard:*

- a) cabin surveillance to identify/monitor potential sources of smoke/fumes. This may include, but is not limited to:
 - i) debris in ovens (e.g. oil spills, papers, inserts);
 - ii) electrical malfunctions (e.g. tripped circuit breakers, overheating IFE);
 - iii) lavatories (e.g. waste bins, panels);
 - iv) investigating abnormal smells; and
 - v) detecting smoke (e.g. coming from panels, due to electrical systems, etc.);
- b) use visual and physical clues when locating source of smoke/fumes. This may include, but is not limited to:
 - i) using hands to feel if panels are hot; and
 - ii) noticing tripped circuit breaker or smoke being emitting;
- c) apply communication procedures for smoke removal including crew communication, coordination and passenger management;
- d) as per operator procedures, use appropriate fire-fighting and protective equipment;
- e) as per operator procedure, apply smoke removal technique;
- f) manage passengers and cabin, as required. This may include, but is not limited to:
 - i) relocating passengers;
 - ii) reassuring passengers;
 - iii) instructing passengers to breathe into a cloth (cover nose and mouth); and
- g) apply post-smoke removal procedure. This may include, but is not limited to:
 - i) monitoring area of smoke for reappearance;
 - ii) continued communication to flight crew, other cabin crew and passengers; and
 - iii) administering first aid, if required.

6.6.4 *Knowledge:*

- a) potential hazards to passengers and aircraft associated with smoke and/or fumes in the cabin;

- b) location, pre-flight check and use of fire fighting and protective equipment on board the aircraft type. This may include, but is not limited to:
 - i) smoke detectors;
 - ii) portable extinguishers;
 - iii) lavatory extinguishers;
 - iv) crowbar;
 - v) axe;
 - vi) protective breathing equipment;
 - vii) protective gloves; and
 - viii) equipment specific to accessible cargo compartment/combi aircraft;
- c) recognition of potential sources of smoke/fumes;
- d) procedures for dealing with smoke/fumes. This may include, but is not limited to:
 - i) locating the source;
 - ii) notifying the flight crew;
 - iii) crew coordination;
 - iv) self-protection; and
 - v) means of ensuring passengers' breathing comfort (e.g. use of wet cloth);
- e) hazards associated with toxicity of smoke/fumes;
- f) procedures for smoke removal including crew communication, coordination and passenger management; and
- g) procedures for completing the applicable documentation, such as an incident report form.

6.6.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) error recognition and management;
- d) workload and time management;
- e) decision-making;

- f) situational awareness;
- g) planning and coordinating resources (for in-charge cabin crew member); and
- h) delegation (for in-charge cabin crew member).

6.7 Cabin pressurization problems and decompression

Competency Element: Manage cabin pressurization problem/decompression

Performance criteria:

- 1.3.1 Recognize signs and symptoms of cabin pressurization problem/decompression
- 1.3.2 Don nearest oxygen mask
- 1.3.3 Secure self and occupy nearest seat, if available
- 1.3.4 Apply communication procedures
- 1.3.5 Apply post-decompression procedure
- 1.3.6 Complete the applicable documentation

6.7.1 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on portable oxygen devices; and
- c) simulated decompression exercise in a representative training device capable of reproducing the appropriate environment/equipment characteristics or on an actual aircraft where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation.

6.7.2 *Reference:* Operations manual.

6.7.3 *Performance standard:*

- a) use visual, audio or physical clues to recognize signs and symptoms of cabin pressurization problems/decompression. This may include, but is not limited to:
 - i) mist in the cabin;
 - ii) hissing sound;
 - iii) euphoria;
 - iv) dizziness;
 - v) cold temperature; and
 - vi) ear pain;

- b) don nearest oxygen mask, secure self and occupy nearest seat, if available, or at a safe location;
- c) apply communication procedures. This may include contacting the flight crew in case of a slow decompression to ascertain their knowledge of situation and verify that they have donned their oxygen masks; and
- d) apply post-decompression procedure. This may include, but is not limited to:
 - i) contacting the flight crew;
 - ii) checking cabin and lavatories, cabin crew and passengers; and
 - iii) administering first aid, if required.

6.7.4 *Knowledge:*

- a) hypoxia: elementary physiology of oxygen intake and utilization;
- b) general effects of hypoxia: recognition and dangers associated with hypoxia's euphoric effect; aggravation by exertion; individual susceptibility in healthy persons; increased susceptibility in some medical conditions; altitude/time-of-useful-consciousness relationships (duration of consciousness without supplemental oxygen);
- c) body gas volume changes: abdominal pain on cabin altitude ascent; "blocked ears" on emergency descent of aircraft;
- d) effects on the human body of reduced atmospheric pressure;
- e) effects of rapid decompression on any unsecured objects or persons;
- f) recognition of conditions in the cabin and the potential threat to flight safety caused by rapid and slow decompressions;
- g) concept of cabin altitude profiles during rapid decompressions and cabin pressurization problems; potential causes of rapid decompression (e.g. fuselage failure, window/door blowout, air pack failure, etc.) and cabin pressurization problems (e.g. door seal leaks, cracked windows, system malfunctions, etc.);
- h) location, pre-flight check and use of portable oxygen devices;
- i) immediate actions required to be taken in the case of rapid decompression or cabin pressure leaks;
- j) operation of passenger oxygen systems and the use of oxygen masks;
- k) procedures for crew communication and coordination; for passenger communications during a rapid decompression and cabin pressurization problems; identification of specific information to be relayed to the flight crew and back-up means of communication should normal systems be rendered inoperative (e.g. structural damage);

- l) knowledge of anticipated flight crew response (e.g. rapid descent) and its effect on the cabin and its occupants;
- m) need of cabin crew members to obtain oxygen first before attending to passengers' needs;
- n) post-decompression procedures; and
- o) procedures for completing the applicable documentation, such as an incident report form.

6.7.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making; and
- d) situational awareness.

6.8 Anticipated emergency landing/ditching

Competency element: Apply procedures for an anticipated emergency landing or ditching

Performance criteria:

- 1.4.1 Recognize emergency signal from the flight crew
- 1.4.2 Obtain briefing from the flight crew on the situation
- 1.4.3 Stow service-related items and stand-by
- 1.4.4 Brief cabin crew on the situation
- 1.4.5 Brief passengers
- 1.4.6 Don life jacket, in case of ditching
- 1.4.7 Assign, relocate and brief able-bodied passengers, as required
- 1.4.8 Secure cabin
- 1.4.9 Check galley
- 1.4.10 Check cabin
- 1.4.11 Check lavatory
- 1.4.12 Check crew rest area, if applicable
- 1.4.13 Check remote area, if applicable
- 1.4.14 Confirm "cabin readiness" to the flight crew
- 1.4.15 Comply with signal from the flight crew
- 1.4.16 Take assigned station/seat
- 1.4.17 Check door status, if applicable
- 1.4.18 Perform silent review
- 1.4.19 Comply with flight crew emergency communication
- 1.4.20 Take brace position
- 1.4.21 Shout brace commands
- 1.4.22 Complete the applicable documentation

6.8.1 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on the applicable equipment used during the cabin preparation for an emergency landing (e.g. donning life jacket); and
- c) simulated exercise of an anticipated emergency landing and ditching in a representative training device capable of reproducing the appropriate environment/equipment, or on an actual aircraft, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation.

6.8.2 *Reference:* Operations manual.

6.8.3 *Performance standard:*

- a) recognize in-flight emergency signal from the flight crew, such as a chime, public address announcement, or call and respond as per operator procedures;
- b) gather information from the flight crew briefing on the type and the nature of emergency, time remaining, etc. Repeat, clarify and acknowledge the information from the flight crew;
- c) stow service-related items and stand-by for further instructions;
- d) brief cabin crew members on the situation, as per flight crew briefing. Cabin crew members should repeat, clarify and acknowledge the information from the In-charge cabin crew member, if time permits;
- e) brief passengers, as per operator procedures. Items covered during this briefing may include, but are not limited to instructing passengers:
 - i) not to take any carry-on baggage;
 - ii) brace position;
 - iii) nearest and alternate exits;
 - iv) if/when to remove high heel shoes; and
 - v) not to inflate life jackets inside the aircraft;
- f) distribute infant life jackets/infant survival cots, if applicable, as per operator's procedures (or verify that they have been distributed if the operator provides them ahead of time);
- g) don life jacket, in case of ditching;
- h) assign /relocate /brief able-bodied passengers, as required. Items covered during the briefing may include tasks such as:

- i) assessment of internal/external conditions;
 - ii) opening exits;
 - iii) crowd control during evacuation;
 - iv) bringing safety and emergency equipment; and
 - v) assisting other passengers, if possible;
- i) secure cabin as per operator procedures. This may include, but is not limited to, verifying that:
- i) carry-on baggage is stowed;
 - ii) seat belts are fastened;
 - iii) seatbacks are in the up-right position;
 - iv) tray tables are stowed;
 - v) life jackets are donned;
 - vi) the IFE is switched off;
 - vii) in-seat monitors are stowed;
 - viii) overhead monitors are retracted, if applicable;
 - ix) portable electronic devices are not used; and
 - x) bassinets are stowed;
- j) check galley as per operator procedures. This may include, but is not limited to, verification of stowage latches, trolley brakes, and securing or removing curtains;
- k) conduct a final check of the cabin, lavatory, crew rest area, and remote area, if applicable;
- l) confirm "cabin readiness" to the flight crew, as per operator procedures;
- m) receive and adhere to advisory to occupy station/seat;
- n) check door status, if applicable, as per operator procedures;
- o) perform silent review. This may include, but is not limited to, items such as:
- i) brace position;
 - ii) emergency notification procedures;
 - iii) location and operation of exits;

- iv) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;
 - v) passenger management;
 - vi) brace commands;
 - vii) interior and exterior evacuation conditions;
 - viii) protective position while commanding the evacuation;
 - ix) evacuation commands; and
- p) brace and shout brace commands (with appropriate tone, pitch, volume and pace) once the flight crew signal is received. This may include the use of the commands for the appropriate scenario (landing vs. ditching) as per the phraseology defined in the operations manual.

6.8.4 *Knowledge:*

- a) identification of verbal/non-verbal signals and/or commands signalling an emergency situation;
- b) importance of gathering information from flight crew briefing and what it should include (e.g. time available, special instructions, etc.) and communicating it to the other cabin crew members;
- c) importance of applying the appropriate procedures and checklist during an anticipated emergency landing in a sequence to ensure that priority items are identified and accomplished first;
- d) preparation for emergency evacuation on land and on water. This may include, but is not limited to:
 - i) cabin crew duties and responsibilities;
 - ii) brace position;
 - iii) appropriate commands;
 - iv) precautions and adaptations for passenger management;
 - v) time element and time management;
 - vi) donning of life jackets; and
 - vii) various possible aircraft attitudes, and associated evacuation procedures;
- e) importance of assigning, relocating and briefing able-bodied passengers, as required, as well as the items to cover in the briefing;

- f) brace position and appropriate brace commands; and
- g) procedures for completing the applicable documentation, such as an incident report form.

6.8.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) error recognition and management;
- d) workload and time management;
- e) decision-making;
- f) situational awareness; and
- g) planning and coordinating resources (for in-charge cabin crew member).

6.9 Unanticipated emergency landing/ditching

Competency Element: Apply procedures for an unanticipated emergency landing or ditching

Performance criteria:

- 1.5.1 Recognize emergency signal from the flight crew
- 1.5.2 Take assigned station/seat
- 1.5.3 Check door status, if applicable
- 1.5.4 Perform silent review
- 1.5.5 Comply with flight crew emergency communication
- 1.5.6 Take brace position
- 1.5.7 Shout brace commands
- 1.5.8 Complete the applicable documentation

6.9.1 *Conditions:*

- a) classroom and/or computer-based training; and
- b) simulated exercise of an unanticipated emergency landing and ditching in a representative training device capable of reproducing the appropriate environment/equipment, or on an actual aircraft, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation.

6.9.2 *Reference:* Operations manual.

6.9.3 *Performance standard:*

- a) recognize in-flight emergency signal from the flight crew, such as a chime, public address announcement, or call and respond as per operator procedures;
- b) take assigned cabin crew station/seat. If the cabin crew member is unable to do so, he/she should secure him/herself in the nearest available seat, and/or remain secured at the assigned station/seat;
- c) check door status, if applicable, as per operator procedures;
- d) perform silent review. This may include, but is not limited to, items such as:
 - i) brace position;
 - ii) emergency notification procedures;
 - iii) location and operation of exits;
 - iv) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;
 - v) passenger management;
 - vi) brace commands;
 - vii) interior and exterior evacuation conditions;
 - viii) protective position while commanding the evacuation; and
 - ix) evacuation commands; and
- e) brace and shout brace commands (with appropriate tone, pitch, volume and pace) once the flight crew signal is received. This may include the use of the commands for the appropriate scenario (landing vs. ditching) as per the phraseology defined in the operations manual.

6.9.4 *Knowledge:*

- a) identification of verbal/non-verbal signals and/or commands signalling an emergency situation;
- b) brace position and appropriate brace commands; and
- c) procedures for completing the applicable documentation, such as an incident report form.

6.9.5 *Skills:*

- a) communication;
- b) decision-making; and

- c) situational awareness.

6.10 Evacuation

Competency Element: Evacuate aircraft

Performance criteria:

- 1.6.1 Obtain evacuation order or initiate evacuation, as applicable
- 1.6.2 Shout evacuation commands
- 1.6.3 Operate emergency lighting systems, if applicable
- 1.6.4 Don life jacket, in case of unanticipated ditching
- 1.6.5 Assess inside and outside conditions prior to opening exit
- 1.6.6 Open exit
- 1.6.7 Hold on to fixed part of the aircraft to prevent fall
- 1.6.8 Control crowd/manage cabin
- 1.6.9 Conduct cabin search
- 1.6.10 Take survival equipment prior to exiting the aircraft, if applicable
- 1.6.11 Evacuate the aircraft
- 1.6.12 Operate life raft or slide-raft, in case of ditching
- 1.6.13 Gather passengers away from the aircraft
- 1.6.14 Perform post-evacuation duties
- 1.6.15 Apply survival procedures
- 1.6.16 Complete the applicable documentation

6.10.1 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on survival equipment;
- c) hands-on exercise on assisting evacuation means (e.g. slide, slide-raft, life raft, etc.), if applicable;
- d) simulated exercise of an aircraft evacuation in a representative training device capable of reproducing the appropriate environment/equipment, or on an actual aircraft, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation; and
- e) descend a slide, if the cabin crew member will operate on aircraft equipped with slides.

6.10.2 *Reference:* Operations manual.

6.10.3 *Performance standard:*

- a) recognize in-flight emergency signal from the flight crew, such as a chime, public address announcement, or call and respond as per operator procedures. If applicable, initiate evacuation, without signal from the flight crew under scenarios such as: life-threatening situation, smoke or fire, catastrophic break-up of the fuselage, etc. or if the evacuation has already been initiated at other exits;
- b) shout appropriate commands (with appropriate tone, pitch, volume and pace). This may include the use of the commands for the appropriate scenario (land vs. water evacuation) as per the phraseology defined in the operations manual;
- c) as per operator procedures, operate emergency lighting systems, if applicable;
- d) in case of unanticipated ditching, assess inside and outside conditions and don life jacket;
- e) assess inside and outside conditions prior to opening the exit. The assessment of conditions may include:
 - i) passengers rushing to exits (crowd control);
 - ii) water level inside/outside the cabin (ditching);
 - iii) aircraft attitude;
 - iv) debris/obstacle outside the exit; and
 - v) fire/smoke;
- f) check the door status and open the exit (or block it based on the situation). Perform crowd control and verify that the slide is fully inflated before egress, if applicable. Continue assessing conditions and block the exit while redirecting passengers when the exit does not open or the slide malfunctions/deflates. Exit malfunctions may include but are not limited to: door jam, handle jam, power assist failure, slide auto inflate failure;
- g) hold on to fixed part of the aircraft, such as door assist handle, to prevent fall when opening the exit. The cabin crew member should remain away from the flow of traffic so as to not block the exit, for example by standing in the dedicated crew assist space;
- h) control the crowd and manage the situation in the cabin. This may include, but is not limited to:
 - i) giving appropriate instructions;
 - ii) preventing passengers (as much as possible) from going down the slide in high heel shoes, and/or with carry-on baggage;
 - iii) dealing with hesitating/panicked passengers in an assertive manner;
 - iv) redirecting passengers as necessary;

- v) using a flashlight in a smoke filled environment to indicate the location of the exit(s) to passengers; and
- vi) instructing passengers to move away from the aircraft;
- i) conduct a cabin search, if time/conditions permit. This may include, but is not limited to:
 - i) the cabin crew member using his/her voice to call passengers towards him/her;
 - ii) verifying rows and floor in case passengers are unconscious;
 - iii) using a flashlight in a smoke filled environment; and
 - iv) verifying that lavatories, flight deck and crew rest area are vacated;
- j) apply procedures related to special categories of passengers and injured occupants during an evacuation;
- k) take survival equipment prior to exiting the aircraft, if applicable. This may include, but is not limited to:
 - i) first aid kit;
 - ii) radio beacon/emergency locator transmitter;
 - iii) axe;
 - iv) additional survival kits;
 - v) flashlight; and
 - vi) megaphone;
- l) evacuate (self) using appropriate technique;
- m) as per operator procedure, operate life raft or slide-raft, in case of ditching. This may include, but is not limited to:
 - i) directing passengers to remove life rafts from stowage areas and position them at the exit(s), if applicable;
 - ii) instructing passengers to board the raft on alternating sides; and
 - iii) if possible, preventing passengers from jumping directly into the water;
- n) perform post-evacuation duties. These may include but are not limited to:
 - i) administering first aid while waiting for medical assistance;
 - ii) crowd control;

- iii) liaising with the airport emergency services and cooperating with local authorities; and
- o) as per operator procedure, apply survival procedures. These may include: survival procedures for the sea, jungle, and desert, as well as polar and mountainous regions. For survival at sea, procedures may include, but are not limited to:
 - i) putting the canopy on the life raft/slide-raft;
 - ii) aquatic survival techniques; and
 - iii) distress signalling.

6.10.4 *Knowledge:*

- a) identification of verbal/non-verbal signals and/or commands to initiate an evacuation and crew coordination.;
- b) scenarios when cabin crew members may initiate an evacuation;
- c) the importance of checking exit status and assessing exits before opening;
- d) recognition of internal/external hazards;
- e) identification of alternate exits and the importance of using all available exits;
- f) emergency evacuation of passengers: crew duties, evacuation on land, on water and the applicable escape routes;
- g) passenger problems in an evacuation. These may include, but are not limited to:
 - i) recognizing and managing the different types of passenger behaviour (e.g. passive, aggressive, hysterical, etc.);
 - ii) redirecting passengers, as necessary;
 - iii) avoiding panic;
 - iv) imparting confidence; and
 - v) using verbal and non-verbal commands adapting accordingly to the situation;
- h) time management in an evacuation and factors affecting survivability. These may include, but are not limited to:
 - i) fire/smoke/fumes;
 - ii) water;
 - iii) human behaviour;

- iv) fuselage damage; and
- v) any other danger;
- i) ability to respond in a hostile environment (smoke, darkness, fire, etc.);
- j) responsibility of crew members to assist passengers and incapacitated fellow crew members in an evacuation and conditions when crew members should evacuate themselves in life-threatening situations;
- k) importance of situational awareness, as well as awareness of the cabin crewmember's own duties, the duties of other crew members and the need to take over duties of fellow crew members when required;
- l) crew members' responsibility after an evacuation (e.g. grouping passengers, assisting with first aid, etc.); including liaison with the airport emergency services and cooperating with local authorities;
- m) uncommanded evacuation; causes and management;
- n) post-evacuation procedures to increase survivability under all conditions including sea, jungle, desert, as well as polar and mountainous areas;
- o) slide/slide-raft and life raft operation. This may include, but is not limited to:
 - i) activation and deployment of slides/slide rafts;
 - ii) aircraft-specific knowledge of exits that cannot be used in certain scenarios (e.g. gear-up landing or ditching);
 - iii) exit status appropriate to the evacuation;
 - iv) methods for automatic and manual activation of exits;
 - v) slide-raft: operation, boarding, supplementary survival kits, canopy installation, disconnection, time management, and seaworthiness;
 - vi) removal of life rafts from stowage points and positioning at exits, time management, harness attachment, attachment of static lines, raft buoyancy, raft release mechanism, danger of premature inflation of the life raft, distribution of supplementary survival kits, ejection of life rafts, inflation, boarding, and seaworthiness; and
 - vii) transfer of slide-raft from unusable exit to usable exit;
- p) procedures to be applied with regards to special categories of passengers and injured occupants during an evacuation;
- q) Emergency signalling devices. These may include, but are not limited to:
 - i) emergency locator transmitter;

- ii) radio locator beacon; and
- iii) signalling equipment;
- r) aquatic survival techniques and physiological limitations in water;
- s) transmitting signals at time of sunrise/sunset or moonrise/moonset, as aid in establishing position; and
- t) procedures for completing the applicable documentation, such as an incident report form.

6.10.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) error recognition and management;
- d) workload and time management;
- e) decision-making;
- f) situational awareness; and
- g) planning and coordinating resources (for in-charge cabin crew member).

6.11 Flight crew incapacitation

Competency Element: Apply flight crew member incapacitation procedures

Performance criteria:

- 1.7.1 Respond to call from the flight crew
- 1.7.2 Move the incapacitated flight crew member away from the controls
- 1.7.3 Secure the incapacitated flight crew member
- 1.7.4 Administer first aid
- 1.7.5 Assist the remaining flight crew member (pilot-in-command), as instructed
- 1.7.6 Complete the applicable documentation

6.11.1 *Conditions:*

- a) classroom and/or computer-based;
- b) hands-on exercise on the operation of the flight deck seat, harness and flight deck oxygen system with a representative training device, if practicable; and
- c) hands-on exercise on administering first aid.

Note.— This exercise may be covered under cabin health and first aid training (refer to Chapter 9).

6.11.2 *Reference:* Operations manual.

6.11.3 *Performance standard:*

- a) react to signal from the flight crew, such as a chime, public address announcement, or call;
- b) use the flight deck seat mechanism to move the incapacitated flight crew member fully back, away from the controls;
- c) use the harness to secure the incapacitated flight crew member;
- d) administer flight deck oxygen to incapacitated flight crew member and perform related first aid procedures; and
- e) follow instructions from the remaining flight crew member (pilot-in-command).

6.11.4 *Knowledge:*

- a) operation of the flight deck seat, harness and oxygen;
- b) procedures associated with flight crew member incapacitation;
- c) first aid procedures;
- d) procedures for completing the applicable documentation, such as an incident report form.

6.11.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) workload and time management;
- d) decision-making; and
- e) situational awareness.

6.12 Cabin crew incapacitation

<p>Competency Element: Apply cabin crew member incapacitation procedures</p> <p><u>Performance criteria:</u></p> <p>1.8.1 Administer first aid</p> <p>1.8.2 Secure the incapacitated cabin crew member</p> <p>1.8.3 Inform the flight crew</p> <p>1.8.4 Reassign required cabin crew stations, if applicable</p> <p>1.8.5 Complete the applicable documentation</p>
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6.12.1 Conditions:

- a) classroom and/or computer-based training;
- b) simulated exercise of an incapacitated cabin crew member (such as crew rest/harness) in a representative training device, if practicable, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation; and
- c) hands-on exercise on administering first aid.

Note.— This exercise may be covered under cabin health and first aid training (refer to Chapter 9).

6.12.2 Reference: Operations manual.

6.12.3 Performance standard:

- a) administer first aid, as per operator procedures;
- b) communicate with flight crew and with other crewmembers to inform them of the situation;
- c) secure the incapacitated cabin crew member; and
- d) re-distribute the cabin crew members' duties, including the role of the in-charge cabin crew member.

6.12.4 Knowledge:

- a) procedures associated with cabin crew member incapacitation;
- b) assuming the role of the in-charge cabin crew member, if required;
- c) first aid procedures;
- d) re-distribution of cabin crew members' duties; and
- e) procedures for completing the applicable documentation, such as an incident report form.

6.12.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) workload and time management;
- d) decision-making; and
- e) planning and coordinating resources (for in-charge cabin crew member).

6.13 Single cabin crew member incapacitation**Competency Element: Apply single cabin crew member incapacitation procedures**Performance criteria:

- 1.9.1 Notify the flight crew immediately
- 1.9.2 Secure the incapacitated cabin crew member
- 1.9.3 Administer first aid
- 1.9.4 Assign an able-bodied passenger to care for the cabin crew member
- 1.9.5 Complete the applicable documentation

6.13.1 *Conditions:* Classroom and/or computer-based training.

6.13.2 *Reference:* Operations manual.

6.13.3 *Performance standard:* Provide a verbal or written description of the applicable procedure.

6.13.4 *Knowledge:*

- a) preventive measures in case of any doubt of own fitness to perform duties and responsibilities, informing flight crew, selecting an able-bodied passenger and providing necessary briefing, etc.;
- b) procedures associated with single cabin crew member incapacitation;
- c) administering first aid on oneself (e.g. self-heimlich manoeuvre); and
- d) procedures for completing the applicable documentation, such as an incident report form.

6.13.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) workload and time management;

- d) decision-making;
- e) situational awareness;
- f) planning and coordinating resources; and
- g) delegation.

6.13.6 *Note on single cabin crew member incapacitation:* This competency element and its associated performance criteria may be carried out by someone other than the operating cabin crew member, if he/she is unconscious. However, if the incapacitated cabin crew member is conscious, he/she may provide instructions to the person acting on his/her behalf (e.g. an able-bodied passenger). Cabin crew training should highlight that the cabin crew member should make every effort to advise the pilot-in-command of advancing illness or incapacitation. Where this cannot be accomplished, it should be assumed that passengers will take the initiative.

6.14 Rapid disembarkation

Competency Element: Conduct a rapid disembarkation

Performance criteria:

- 1.10.1 Recognize signal from flight crew or cabin crew for a rapid disembarkation
- 1.10.2 Apply procedure for a rapid disembarkation using the applicable door(s)
- 1.10.3 Apply communication procedures
- 1.10.4 Control crowd/manage cabin
- 1.10.5 Exit the aircraft
- 1.10.6 Move away from the aircraft and manage crowd
- 1.10.7 Complete the applicable documentation

- 6.14.1 *Conditions:* Classroom and/or computer-based training.
- 6.14.2 *Reference:* Operations manual.
- 6.14.3 *Performance standard:* Provide a verbal or written description of the applicable procedure.
- 6.14.4 *Knowledge:*
 - a) definition of a rapid disembarkation;
 - b) scenarios when a rapid disembarkation can be used, versus an evacuation, as per operator procedures;
 - c) safety considerations when a rapid disembarkation is carried out on the apron;
 - d) cooperating with the local authorities (e.g., airport emergency services, and airport security); and
 - e) procedures for completing the applicable documentation, such as an incident report form.

6.14.5 *Skills:*

- a) communication;
 - b) teamwork and leadership;
 - c) error recognition and management;
 - d) workload and time management;
 - e) decision-making;
 - f) situational awareness; and
 - g) planning and coordinating resources (for in-charge cabin crew member).
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**Appendix 1 to Chapter 6. Competency framework for cabin crew member's duties
and responsibilities during abnormal and emergency situations**

COMPETENCY FRAMEWORK FOR CABIN CREW MEMBER'S DUTIES AND RESPONSIBILITIES DURING ABNORMAL AND EMERGENCY SITUATIONS			
Competency unit: 1. Perform duties and responsibilities during an abnormal or emergency situation			
The competencies described below relate to duties and responsibilities that are performed by a cabin crew member in the event of an abnormal or emergency situation.			
Competency element	Performance criteria	I/C Duty	Reference
1.1 Apply fire-fighting procedure	1.1.1 Detect and eliminate fire hazards		Operations Manual
	1.1.2 Locate source of fire		
	1.1.3 Identify the type of fire		
	1.1.4 Apply communication procedures		
	1.1.5 Use appropriate fire-fighting equipment and protective equipment, as required		
	1.1.6 Fight fire		
	1.1.7 Manage passengers and cabin, as required		
	1.1.8 Apply post-fire-fighting procedure		
	1.1.9 Complete the applicable documentation	X	
1.2 Apply smoke removal procedure	1.2.1 Detect and eliminate smoke and fumes hazard/odour		Operations Manual
	1.2.2 Identify source of smoke (or fumes)		
	1.2.3 Apply communication procedures		
	1.2.4 Use appropriate fire-fighting equipment and protective equipment, as required		
	1.2.5 Apply smoke removal technique		
	1.2.6 Manage passengers and cabin, as required		
	1.2.7 Apply post-smoke removal procedure		
	1.2.8 Complete the applicable documentation	X	

Competency element	Performance criteria	I/C Duty	Reference
1.3 Manage cabin pressurization problem/decompression	1.3.1 Recognize signs and symptoms of cabin pressurization problem/decompression		Operations Manual
	1.3.2 Don nearest Oxygen mask		
	1.3.3 Secure self and occupy nearest seat, if available		
	1.3.4 Apply communication procedures		
	1.3.5 Apply post-decompression procedure		
	1.3.6 Complete the applicable documentation	X	
1.4 Apply procedures for an anticipated emergency landing or ditching	1.4.1 Recognize emergency signal from the flight crew		Operations Manual
	1.4.2 Obtain briefing from the flight crew on the situation	X	
	1.4.3 Stow service-related items and stand-by		
	1.4.4 Brief cabin crew on the situation	X	
	1.4.5 Brief passengers		
	1.4.6 Don life jacket, in case of ditching		
	1.4.7 Assign, relocate and brief able-bodied passengers, as required		
	1.4.8 Secure cabin		
	1.4.9 Check galley		
	1.4.10 Check cabin		
	1.4.11 Check lavatory		
	1.4.12 Check crew rest area, if applicable		
	1.4.13 Check remote area, if applicable		
	1.4.14 Confirm "cabin readiness" to the flight crew	X	
	1.4.15 Comply with signal from the flight crew		
	1.4.16 Take assigned station/seat		
	1.4.17 Check aircraft door status, if applicable		
	1.4.18 Perform silent review		
	1.4.19 Comply with flight crew emergency communication		
	1.4.20 Take brace position		
	1.4.21 Shout brace commands		
	1.4.22 Complete the applicable documentation	X	

Competency element	Performance criteria	I/C Duty	Reference
1.5 Apply procedures for an unanticipated emergency landing or ditching	1.5.1 Recognize emergency signal from the flight crew		Operations Manual
	1.5.2 Take assigned station/seat		
	1.5.3 Check door status, if applicable		
	1.5.4 Perform silent review		
	1.5.5 Comply with flight crew emergency communication		
	1.5.6 Take brace position		
	1.5.7 Shout brace commands		
	1.5.8 Complete the applicable documentation	X	
1.6 Evacuate aircraft	1.6.1 Obtain evacuation order or initiate evacuation, as applicable		Operations Manual
	1.6.2 Shout evacuation commands		
	1.6.3 Operate emergency lighting systems, if applicable		
	1.6.4 Don life jacket, in case of unanticipated ditching		
	1.6.5 Assess inside and outside conditions prior to opening exit		
	1.6.6 Open exit		
	1.6.7 Hold on to fixed part of the aircraft to prevent fall		
	1.6.8 Control crowd/manage cabin		
	1.6.9 Conduct cabin search		
	1.6.10 Take survival equipment prior to exiting the aircraft, if applicable		
	1.6.11 Evacuate the aircraft		
	1.6.12 Operate life raft or slide-raft, in case of ditching		
	1.6.13 Gather passengers away from the aircraft		
	1.6.14 Perform post-evacuation duties		
	1.6.15 Apply survival procedures		
	1.6.16 Complete the applicable documentation	X	

Competency element	Performance criteria	I/C Duty	Reference
1.7 Apply flight crew member incapacitation procedures	1.7.1 Respond to call from the flight crew		Operations Manual
	1.7.2 Move the incapacitated flight crew member away from the controls		
	1.7.3 Secure the incapacitated flight crew member		
	1.7.4 Administer first aid		
	1.7.5 Assist the remaining flight crew member (pilot-in-command), as instructed	X	
	1.7.6 Complete the applicable documentation	X	
1.8 Apply cabin crew member incapacitation procedures	1.8.1 Administer first aid		Operations Manual
	1.8.2 Secure the incapacitated cabin crew member		
	1.8.3 Inform the flight crew		
	1.8.4 Reassign required cabin crew stations, if applicable	X	
	1.8.5 Complete the applicable documentation	X	
1.9 Apply single cabin crew member incapacitation procedures*	1.9.1 Notify the flight crew immediately		Operations Manual
	1.9.2 Secure the incapacitated cabin crew member		
	1.9.3 Administer first aid		
	1.9.4 Assign an able-bodied passenger to care for the cabin crew member		
	1.9.5 Complete the applicable documentation		
1.10 Conduct a rapid disembarkation	1.10.1 Recognize signal from flight crew or cabin crew for a rapid disembarkation		Operations Manual
	1.10.2 Apply procedure for a rapid disembarkation using applicable door(s)		
	1.10.3 Apply communication procedures		
	1.10.4 Control crowd/manage cabin		
	1.10.5 Exit the aircraft		
	1.10.6 Move away from the aircraft and manage crowd		
	1.10.7 Complete the applicable documentation	X	

**Note.— This competency element and its associated performance criteria may be carried out by someone other than the operating cabin crew member, if he/she is unconscious. However, if the incapacitated cabin crew member is conscious, he/she may provide instructions to the person acting on his/her behalf (e.g. an able-bodied passenger).*

CHAPTER 7. DANGEROUS GOODS TRAINING

7.1 Definition and goal of dangerous goods training

7.1.1 Dangerous goods are defined as articles or substances which are capable of posing a risk to health, safety, property or the environment and which are shown in the list of dangerous goods in the ICAO Technical Instructions or which are classified according to those Instructions.

7.1.2 Dangerous goods training focuses on the successful application of regulations concerning the transport of dangerous goods and the achievement of their objectives, which are greatly dependent on the appreciation by all individuals concerned of the risks involved and on a detailed understanding of the regulations.

7.1.3 Apart from certain exceptions, dangerous goods are not permitted in the passenger cabin. Nevertheless, dangerous goods may be carried into the cabin by passengers who are unaware of, or deliberately ignore, the prohibition against the carriage of these items. It is also possible that an item to which a passenger is legitimately entitled (e.g. an item for medical purposes) may cause an incident.

7.1.4 Properly planned and maintained initial and recurrent training programmes in the transport of dangerous goods for all persons concerned can help mitigate these incidents.

7.1.5 Initial and recurrent dangerous goods training programmes must be established and maintained by or on behalf of the operator (regardless of whether the operator is approved to transport dangerous goods or not). Dangerous goods training programmes required by operators must be subjected to review and approval by the appropriate authority of the State of the Operator. Recurrent training must be provided within 24 months of previous training to ensure knowledge is current. However, if recurrent training is completed within the final three months of validity of previous training, the period of validity extends from the date on which the recurrent training was completed until 24 months from the expiry date of that previous training.

7.1.6 Details of the operator's dangerous goods training programme must be included in the operations manual. Details including the policies and procedures regarding third-party personnel involved in the acceptance, handling, loading and unloading of dangerous goods cargo should also be incorporated. The operations manual shall include the established dangerous goods policies and procedures.

7.1.7 Personnel must be trained in the requirements commensurate with their responsibilities. Such training must include:

- a) *general familiarization training* — which must be aimed at providing familiarity with the general provisions;
- b) *function-specific training* — which must provide detailed training in the requirements applicable to the function for which that person is responsible; and
- c) *safety training* — which must cover the hazards presented by dangerous goods, safe handling and emergency response procedures.

7.1.8 The requirements for the training of cabin crew members in the transport of dangerous goods are included in the Dangerous Goods Training Programme contained in Annex 18 — *The Safe Transport*

of Dangerous Goods by Air and the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284), Part 1, Chapter 4.

7.1.9 Requirements for instructors of initial and recurrent dangerous goods training programmes are included in the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284).

7.2 Content of dangerous goods training

7.2.1 Content of dangerous goods training for cabin crew members includes:

- a) general philosophy;
- b) limitations;
- c) labelling and marking;
- d) recognition of undeclared dangerous goods;
- e) provisions for passengers and crew; and
- f) emergency procedures.

7.2.2 The content of this chapter focuses on the development of initial training. In a recurrent training programme, the content must address the competencies listed in this chapter; however, the conditions used for training may vary.

7.3 Competency-based training related to dangerous goods

7.3.1 The following sections provide detailed guidance for the development of competency-based training for cabin crew members to perform duties and responsibilities related to dangerous goods. These competencies are derived from the ICAO competency framework for cabin crew duties and responsibilities related to dangerous goods presented in Appendix 1 to chapter 7.

7.3.2 When participating in simulated exercises, trainees may be evaluated individually or as part of a team.

7.4 Competency Unit 1 – Perform duties and responsibilities related to the safe transport of permitted dangerous goods in the cabin

7.4.1 The competencies described below relate to duties and responsibilities that are performed by a cabin crew member to identify and manage dangerous goods found in the cabin during normal operations.

Competency element 1.1: Apply procedures for permitted dangerous goods by passengers and crew

Performance criteria:

- 1.1.1 Identify the item
- 1.1.2 Assess restrictions
- 1.1.3 Allow the item to remain on-board, if the restriction requirements are met

7.4.2 *Conditions:* Classroom or computer-based training.

7.4.3 *Reference:* Operations manual.

7.4.4 *Performance standard:* Provide a verbal or written description of the applicable procedure. This may include, but is not limited to:

- a) identifying the item by determining if it meets the criteria of a dangerous good;
- b) assessing the restrictions as per the ICAO *Technical Instructions for the Safe Transport of Dangerous Goods* (ICAO Doc. 9284, Table 8-1 – Provisions for Dangerous Goods) and any operator-specific restrictions; and
- c) allowing the item to remain on-board, if restriction requirements are met (i.e. packaging, handling, quantity, and permitted carriage as carry-on baggage or on one's person).

7.4.5 *Knowledge:*

- a) general philosophy;
- b) limitations, including permitted carriage;
- c) labelling, marking and packaging;
- d) recognition of undeclared dangerous goods; and
- e) provisions for passengers and crew.

7.4.6 *Skills:*

- a) communication;
- b) decision-making; and
- c) situational awareness

Competency element 1.2: Apply procedures for forbidden dangerous goods found on-board on the ground

Performance criteria:

- 1.2.1 Identify the item
- 1.2.2 Assess restrictions
- 1.2.3 Notify the flight crew / In-charge cabin crew member / ground personnel
- 1.2.4 Ensure the item is removed from the aircraft
- 1.2.5 If the item is re-boarded, verify that the item is permitted and verify compliance before door closure

7.4.7 *Conditions:* Classroom and/or computer-based training.

7.4.8 *Reference:* Operations manual.

7.4.9 *Performance standard:* Provide a verbal or written description of the applicable procedure. This may include, but is not limited to:

- a) once the item is found, identify the dangerous good by hazard label or suspicious characteristics including emission of odour or leakage;
- b) if an item of dangerous goods is found, attempt to locate the owner;
- c) confirm content with the owner/passenger and assess the potential hazards;
- d) determine if the item is permitted in the cabin using available resources (e.g. operations manual, dangerous goods specialist/coordinator);
- e) notify the flight crew and In-charge cabin crew member and ground personnel providing details including UN number/name (if available), location, and description;
- f) if item is not permitted, coordinate with ground personnel to remove the item from the aircraft, if applicable;
- g) if item is permitted with exceptions, verify compliance for carriage on board; and
- h) manage passenger(s), if necessary.

7.4.10 *Knowledge:*

- a) understanding the hazards of dangerous goods to the safe operations of flight;
- b) recognition of dangerous goods hazard labels and different classes of dangerous goods;
- c) awareness of standard operating procedures, when dangerous goods are found in the cabin;
- d) awareness of the limitations in the transport of dangerous goods, i.e. provisions for passenger and crew;

- e) awareness of the various dangerous goods resources available, e.g. dangerous goods coordinators, operations manual; and
- f) awareness of procedures that include rapid disembarkation if dangerous goods pose a risk to the aircraft and occupants.

7.4.11 *Skills:*

- a) communication;
- b) decision-making;
- c) situational awareness;
- d) teamwork and leadership; and
- e) planning and coordinating resources (for in-charge cabin crew member).

Competency element 1.3: Apply procedures for forbidden dangerous goods found on-board during flight

Performance criteria:

- 1.3.1 Identify the item
- 1.3.2 Assess restrictions
- 1.3.3 Notify the flight crew / In-charge cabin crew member
- 1.3.4 Determine if the item can be safely moved
- 1.3.5 Remove the item
- 1.3.6 Secure and isolate the item
- 1.3.7 Review emergency procedures for possible incident related to specific item
- 1.3.8 Ensure the item is removed at the next destination

7.4.12 *Conditions:* Classroom and/or computer-based training.

7.4.13 *Reference:* Operations manual.

7.4.14 *Performance standard:* Provide a verbal or written description of the applicable procedure. This may include, but is not limited to:

- a) if an item of dangerous goods is found, attempt to locate the owner;
- b) confirm the contents with the owner/passenger and assess the potential hazards;
- c) determine if the item is permitted on-board using available resources (e.g. operations manual, flight despatch);
- d) notify the flight crew and In-charge cabin crew, providing details including UN number/name (if available), location and description;

- e) when necessary, coordinate with the flight crew to determine if the dangerous good item can be safely moved;
- f) retrieve the necessary equipment;
- g) if necessary, ensure the item is relocated as per operator's procedures;
- h) apply operator's procedures related to the dangerous goods item;
- i) maintain continuous communication with the flight deck crew and In-charge cabin crew;
- j) manage passengers as necessary;
- k) apply the procedures for a rapid disembarkation, if necessary; and
- l) coordinate the removal of the item upon landing.

7.4.15 *Knowledge:*

- a) understanding the hazards of dangerous goods to the safe operations of flight;
- b) recognition of dangerous goods hazard labels and different classes of dangerous goods;
- c) awareness of standard operating procedures, when dangerous goods are found in the cabin;
- d) awareness of the limitations in the transport of dangerous goods, i.e. provisions for passenger and crew;
- g) awareness of the various dangerous goods resources available, e.g. *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481), dangerous goods coordinators, operations manual;
- e) knowledge of emergency procedures managing a dangerous goods incident in-flight; and
- f) awareness of rapid disembarkation procedures if dangerous goods pose a risk to the aircraft and occupants.

7.4.16 *Skills:*

- a) communication;
- b) decision-making;
- c) situational awareness;
- d) teamwork and leadership; and
- e) planning and coordinating resources (for in-charge cabin crew member).

7.5 Competency Unit 2 – Perform duties and responsibilities related to dangerous goods incidents during flight

7.5.1 The competencies described below relate to duties and responsibilities that are performed by a cabin crew member in the event of an incident involving dangerous goods. Additional information can be found in the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481).

Competency element 2.1: Apply procedures in case of fire involving dangerous goods

Performance criteria:

- 2.1.1 Notify the flight crew / In-charge cabin crew member
- 2.1.2 Determine the source of smoke / fumes / fire
- 2.1.3 Identify the item
- 2.1.4 Apply fire-fighting procedure
- 2.1.5 Use the appropriate fire extinguisher
- 2.1.6 After landing, identify to ground personnel dangerous goods item and where located
- 2.1.7 Complete the applicable documentation

7.5.2 *Conditions:*

- a) classroom and/or computer-based training; and
- b) hands-on exercise on fire-fighting procedures and simulated fire-fighting exercise.

Note.— This exercise may be combined with the exercises presented in Section 6.5.1.

7.5.3 *Reference:* Operations manual.

7.5.4 *Performance standard:*

- a) monitor the cabin to detect any potential carriage of dangerous goods;
- b) if smoke or fumes is discovered, determine the source, and identify the item;
- c) if fire is discovered, apply fire-fighting procedures as referenced in Chapter 6, using appropriate fire extinguisher;
- d) apply communication procedures. These may include, but are not limited to:
 - i) back-up duties;
 - ii) crew coordination; and
 - iii) informing cabin crew members, the flight crew and passengers about the situation;
- e) manage passengers and cabin, as required. This may include, but is not limited to:

- i) relocating passengers;
 - ii) reassuring passengers;
 - iii) instructing passengers to breathe into a cloth (cover nose and mouth);
 - iv) relocating equipment such as oxygen bottles, if required; and
- f) apply post-fire-fighting procedures.

7.5.5 *Knowledge:*

- a) identification of the different classes of dangerous goods;
- b) operator procedures that must be applied to deal with any on-board fire;
- c) understanding techniques and procedures for fighting fires as referenced in Chapter 6; and
- d) procedures for completing the applicable documentation, such as an incident report form.

7.5.6 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making;
- d) situational awareness; and
- e) delegation (for in-charge cabin crew member).

**Competency element 2.2: Apply procedures in case of fire
involving a PED or stand-alone lithium batteries**

Performance criteria:

- 2.2.1 Notify the flight crew / In-charge cabin crew member
- 2.2.2 Identify the item
- 2.2.3 Apply fire-fighting procedure
- 2.2.4 Use appropriate fire extinguisher
- 2.2.5 Remove external electrical power from PED, if applicable
- 2.2.6 Douse PED with water (or other non-flammable liquid)
- 2.2.7 Leave PED in its place and monitor to prevent re-ignition
- 2.2.8 Remove (turn off) power to remaining electrical outlets, if PED was previously plugged in
- 2.2.9 Complete the applicable documentation

7.5.7 *Conditions:*

- a) classroom and/or computer-based training; and
- b) hands-on exercise on fire-fighting procedures and simulated fire-fighting exercise.

Note.— This exercise may be combined with the exercises presented in Section 6.5.1.

7.5.8 *Reference:* Operations manual.

7.5.9 *Performance standard:*

- a) apply fire-fighting procedures as referenced in Chapter 6 and use appropriate fire-fighting and protective equipment:
 - i) use Halon to extinguish the fire in the device and prevent the fire from spreading to surrounding areas;
 - ii) then use water, or other non-flammable liquid, to cool the device to prevent re-ignition;
- b) apply communication procedures. These may include, but are not limited to:
 - i) back-up duties;
 - ii) crew coordination; and
 - iii) informing cabin crew members, the flight crew and passengers about the situation;
- c) manage passengers and cabin, as required. This may include, but is not limited to:
 - i) relocating passengers;
 - ii) reassuring passengers;

- iii) instructing passengers to breathe into a cloth (cover nose and mouth); and
- iv) relocating equipment such as oxygen bottles, if required; and
- d) apply post-fire-fighting procedure.

7.5.10 *Knowledge:*

- a) knowledge of the different aspects of battery fires versus other types of fires and the re-ignition possibility of battery fires;
- b) understanding fire prevention techniques and limitations of passenger recharging batteries;
- c) use of water extinguishers or other liquids to cool the device and prevent additional battery cells from re-igniting;
- d) understanding that the liquid used to douse the device should be non-alcoholic liquids (Ice should not be used as this will not cool the battery as required);
- e) understanding of the electrical systems or outlets and how the system can be powered down, or power removed, by either the flight deck or cabin crew; and
- f) procedures for completing the applicable documentation, such as an incident report form.

7.5.11 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making;
- d) situational awareness; and
- e) delegation (for in-charge cabin crew member).

**Competency element 2.3: Apply procedures in case of spillage
or leakage involving dangerous goods**

Performance criteria:

- 2.3.1 Notify the flight crew
- 2.3.2 Identify the item
- 2.3.3 Use appropriate equipment, as required
- 2.3.4 Manage passengers and cabin, as required
- 2.3.5 Identify appropriate responses for the item of dangerous goods and contaminated furnishings
- 2.3.6 Stow the item as per operator procedures
- 2.3.7 Cover spillage or leakage and affected area
- 2.3.8 Maintain communication with flight and cabin crew
- 2.3.9 Monitor stowed item and contaminated furnishings
- 2.3.10 After landing, identify the item and its location to the ground personnel
- 2.3.11 Complete the applicable documentation

7.5.12 *Conditions:*

- a) classroom or computer-based training; and
- b) simulated exercise of managing a dangerous goods spillage in a representative training device or on actual aircraft where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation.

7.5.13 *Reference:* Operations manual.

7.5.14 *Performance standard:*

- a) notify the flight crew of spillage;
- b) identify the item. Gather relevant information from the passenger or package including UN number/name (if available), description and location;
- c) communicate information to the flight crew and the other cabin crew members;
- d) use appropriate equipment, as required, for handling the item. Appropriate equipment or resources may include: polyethylene bags, blankets, fire-resistant gloves, protective clothing, protective breathing equipment and biohazard equipment, if available;
- e) manage passengers and cabin, as required. Passengers should be moved away from area, if possible. Adjustment of ventilation should be considered;
- f) identify appropriate responses for the item of dangerous goods and contaminated furnishings as per Table 4.1 of the *Emergency Response Guidance for Aircraft incidents Involving Dangerous Goods* (Doc 9481);
- g) stow the item as per the operator procedures;

- h) cover spillage or leakage and affected area as per operator procedures;
- i) maintain communication with flight and cabin crew;
- j) monitor stowed item and contaminated furnishings as per operator procedures;
- k) after landing, identify the item and its location to the ground personnel;
- l) complete the applicable documentation as per operator procedures; and
- m) ensure personal decontamination.

7.5.15 *Knowledge:*

- a) location and utilization of available resources and references on board to help identify the dangerous goods (e.g. Operations Manual or ICAO Emergency Response Guidance);
- b) location and utilization of available equipment for managing dangerous good spillage or leakage;
- c) operator standard operating procedures for managing dangerous goods spillage or leakage;
- d) the importance of communication between the flight crew and cabin crew to ensure coordination of all actions related to the spillage or leakage; and
- e) applicable documentation requirements.

7.5.16 *Skills:*

- a) communication;
 - b) decision-making;
 - c) situational awareness; and
 - d) leadership and teamwork.
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Appendix 1 to Chapter 7. Competency framework for cabin crew member's duties and responsibilities related to dangerous goods

COMPETENCY FRAMEWORK FOR CABIN CREW MEMBER'S DUTIES AND RESPONSIBILITIES RELATED TO DANGEROUS GOODS			
Competency unit: 1. Perform duties and responsibilities related to the safe transport of permitted dangerous goods in the cabin			
The competencies described below relate to duties and responsibilities that are performed by a cabin crew member to identify and manage dangerous goods found in the cabin during normal operations.			
Competency element	Performance criteria	I/C Duty	Reference
1.1 Apply procedures for dangerous goods permitted by passengers and crew	1.1.1 Identify the item		Operations Manual
	1.1.2 Assess restrictions		
	1.1.3 Allow the item to remain on-board, if the restriction requirements are met		
1.2 Apply procedures for forbidden dangerous goods found on-board on the ground	1.2.1 Identify the item		Operations Manual
	1.2.2 Assess restrictions		
	1.2.3 Notify the flight crew / In-charge cabin crew member / ground personnel		
	1.2.4 Ensure the item is removed from the aircraft		
	1.2.5 If the item is re-boarded, verify that the item is permitted and verify compliance before door closure		
1.3 Apply procedures for forbidden dangerous goods found on-board during flight	1.3.1 Identify the item		Operations Manual
	1.3.2 Assess restrictions		
	1.3.3 Notify the flight crew / In-charge cabin crew member		
	1.3.4 Determine if the item can be safely moved		
	1.3.5 Remove the item		
	1.3.6 Secure and isolate the item		
	1.3.7 Review emergency procedures for possible incident related to specific item		
	1.3.8 Ensure the item is removed at the next destination		

Competency unit: 2. Perform duties and responsibilities related to dangerous goods incidents during flight			
The competencies described below relate to duties and responsibilities that are performed by a cabin crew member in the event of an incident involving dangerous goods.			
Competency element	Performance criteria	I/C Duty	Reference
2.1 Apply procedures in case of fire involving dangerous goods	2.1.1 Notify the flight crew / In-charge cabin crew member		Operations Manual
	2.1.2 Determine the source of smoke / fumes / fire		
	2.1.3 Identify the item		
	2.1.4 Apply fire-fighting procedure		
	2.1.5 Use the appropriate fire extinguisher		
	2.1.6 After landing, identify to ground personnel dangerous goods item and where located		
	2.1.7 Complete the applicable documentation	X	
2.2 Apply procedures in case of fire involving a PED or stand-alone lithium batteries	2.2.1 Notify the flight crew / In-charge cabin crew member		Operations Manual
	2.2.2 Identify the item		
	2.2.3 Apply fire-fighting procedure		
	2.2.4 Use appropriate fire extinguisher		
	2.2.5 Remove external electrical power from PED, if applicable		
	2.2.6 Douse PED with water (or other non-flammable liquid)		
	2.2.7 Leave PED in its place and monitor to prevent re-ignition		
	2.2.8 Remove (turn off) power to remaining electrical outlets, if PED was previously plugged in		
2.2.9 Complete the applicable documentation	X		

Competency element	Performance criteria	I/C Duty	Reference
2.3 Apply procedures in case of spillage or leakage involving dangerous goods	2.3.1 Notify the flight crew		Operations Manual
	2.3.2 Identify the item		
	2.3.3 Use appropriate equipment, as required		
	2.3.4 Manage passengers and cabin, as required		
	2.3.5 Identify appropriate responses for the item of dangerous goods and contaminated furnishings		
	2.3.6 Stow the item as per operator procedures		
	2.3.7 Cover spillage or leakage and affected area		
	2.3.8 Maintain communication with flight and cabin crew		
	2.3.9 Monitor stowed item and contaminated furnishings		
	2.3.10 After landing, identify the item and its location to the ground personnel		
	2.3.11 Complete the applicable documentation	X	

CHAPTER 8. HUMAN PERFORMANCE TRAINING

8.1 Definition and goal of human performance training

8.1.1 Human performance is defined as the human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

8.1.2 Human performance training focuses on relationships between people and equipment, systems, procedures and the environment as well as personal relationships between individuals and groups. It encompasses the overall performance of cabin crew members while they carry out their duties.

8.1.3 The goal of this training is to optimize human performance and manage human error. It encompasses Human Factors principles, crew resource management and the development and application of skills, such as decision-making. Human performance training should be oriented towards recognizing and solving practical problems.

8.2 Content of human performance training

8.2.1 Human performance training should include the following topics:

- a) human factors in aviation;
- b) human error;
- c) cabin crew skills;
- d) crew resource management (may be covered separately);
- e) threat and error management (tailored to cabin operations);
- f) case studies (e.g. accidents/incidents);
- g) fatigue risk management (may be covered separately; refer to Chapter 12).

8.2.2 Sections 8.4 to 8.9 present detailed guidance on each of these topics.

8.2.3 The content in this chapter is not linked to a specific competency element. The material covered addresses overarching processes, policies and procedures that cabin crew should be knowledgeable on, in order to perform specific duties and responsibilities (e.g. hazard reporting). However, for the purposes of this manual, which is built on competency-based training, the chapter is written in the same format as the others (which address specific competency elements) and provides guidance on performance criteria, conditions, references, performance standards, and knowledge.

8.2.4 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the performance criteria covered, the conditions used for training as well as the knowledge and skills that may be assessed.

8.3 Hands-on exercises and simulated exercises

8.3.1 Simulated exercises that require the application of CRM concepts should be integrated into human performance training. Cabin crew trainees will be able to apply concepts learned in CRM training in the performance of their duties and responsibilities.

8.3.2 When participating in simulated exercises, trainees may be evaluated individually or as part of a team.

8.4 Human factors in aviation

8.4.1 *Performance criteria:*

- a) identify human factors model(s) applicable to aviation; and
- b) describe the human's contribution to safety and the human operational performance necessary to achieve the established goals.

8.4.2 *Conditions:* Classroom or computer-based.

8.4.3 *Reference:* Operations manual/Training manual, as applicable.

8.4.4 *Performance standard:*

- a) identify human factors model(s) such as the SHELL (Software/ hardware/ environment/ liveware) model; and
- b) describe how human operational performance may be affected by the various components and features of the operational context and the interrelationships between components, features and people.

Note.— Further guidance can be found in the ICAO Safety Management Manual (Doc 9859), the Human Factors Training Manual (Doc 9683) and the Human Factors Digest No. 15: Human Factors in Cabin Safety (Cir 300).

8.4.5 *Knowledge:*

- a) human factors model(s) used by the operator, such as the SHELL model, which explain the relationship between individuals and their operational environment;
- b) the role of the human in complex systems, such as aviation, and interactions with other humans, hardware, software and the environment;
- c) the concept of human performance as a contributing factor to aircraft accidents; and
- d) case studies of accidents/incidents where Human Factors were identified as a contributing factor.

Note.— Guidance material to design training programmes on human performance can be found in the Human Factors Training Manual (Doc 9683).

8.5 Human error

8.5.1 *Performance criteria:*

- a) describe human performance and limitation;
- b) describe the error chain (accident causation) and the concept of an organizational accident; and
- c) apply error prevention, detection and recovery/management techniques.

8.5.2 *Conditions:* Classroom or computer-based training.

8.5.3 *Reference:* Operations manual/Training manual, as applicable.

8.5.4 *Performance standard:*

- a) describe human performance and limitations. This may include aspects of aviation physiology (limitations of the senses, disorientation, etc.) and aviation psychology (workload, information processing, attitudinal factors, judgment and decision-making, stress, operational pressure, corporate pressure, etc.);
- b) describe the error chain (notion of accident causation, including error, deviation, and amplification) and how humans contribute to incidents and accidents. This may include understanding errors in an operational context;
- c) describe the concept of an organizational accident. This may include the interaction between organizational processes, workplace conditions, latent conditions, active failures and defences and how these can result in an accident; and
- d) apply error prevention, detection and recovery/management techniques. This may include strategies such as error reduction, error capturing and error tolerance.

8.5.5 *Knowledge:*

- a) general aspects of aviation physiology and psychology;
- b) understanding human performance;
- c) processes and outcomes (operational errors, causes and consequences);
- d) distinction between errors and violations;
- e) the concept of accident causation (e.g. Reason's "Swiss Cheese" model);
- f) organizational factors and their impact on safety (e.g. on-time performance); and
- g) defence strategies to prevent or control operational errors.

Note.— Further information can be found in the ICAO Safety Management Manual (Doc 9859) and in the Human Factors Digest No. 15: Human Factors in Cabin Safety (Cir 300).

8.6 Cabin crew skills

8.6.1 As part of its competency-based training approach, ICAO developed a set of skills that cabin crew members should possess. Additional skills are outlined for a cabin crew member designated as In-charge cabin crew member.

8.6.2 This section presents the set of cabin crew skills. Appendix 1 to Chapter 8 provides examples of behavioural indicators that may be used to evaluate desired and undesired behaviours (i.e. “effective” versus “poor” performance of these skills) in a training setting. It is desirable that all cabin crew members possess the skills listed in the table below. However, the skills listed as “In-charge cabin crew member specific” should be more prevalent for cabin crew members assigned to that role.

<u>All cabin crew:</u>
<ol style="list-style-type: none"> 1. Communication 2. Teamwork and leadership 3. Error recognition and management 4. Workload and time management 5. Decision-making: <ul style="list-style-type: none"> — recognize the need to take action — assess — act 6. Situational awareness
<u>In-charge cabin crew member:</u>
<p>All of the above, plus the following:</p> <ul style="list-style-type: none"> — flexibility — delegation — empathy — planning and coordinating resources

8.7 Crew resource management (CRM)

8.7.1 *Performance criteria:*

- a) describe CRM concepts and general principles; and
- b) describe and apply CRM skills.

8.7.2 *Conditions:*

- a) classroom and/or computer-based training;

- b) classroom exercises in groups that require the application of CRM skills, relevant to cabin operations (e.g. group discussions, role playing, simulations, etc.); and
- c) recommended joint flight and cabin crew CRM as part of simulated exercises on situations during normal operations and abnormal and emergency situations, where practicable.

Note.— Consideration should be given to conducting these exercises in a representative training device.

8.7.3 *Reference:* Operations manual/training manual, as applicable.

8.7.4 *Performance standard:*

- a) describe CRM concepts, general principles and processes during operations. This may include, but is not limited to: definition, purpose and benefits; and
- b) describe and apply CRM skills, including the components of the skills outlined in Section 8.6 of this chapter (i.e. communication, teamwork and leadership, error recognition and management, etc.).

8.7.5 *Knowledge:*

- a) use of CRM as a tool to prevent accidents/incidents through improved crew coordination, enhanced crew performance and safety awareness;
- b) CRM specific to aircraft types, if applicable (e.g. single/multi-deck aircraft, narrow/wide body aircraft, single/multi crew operation);
- c) the need for individual commitment to CRM principles;
- d) benefits of Joint-CRM training, if applicable;
- e) interaction between of crew members and others individuals involved with operation of the aircraft. This may include, but is not limited to, the interaction between cabin crew members and flight crew members, other staff and passengers;
- f) understanding one's own role and impact of self on the operation;
- g) the concept of synergy (e.g. the critical effect that teambuilding has on creating solutions);
- h) cultural differences and their impact on individual and team performance;
- i) the statutory position and accountability of the pilot-in-command as the commander;
- j) the role of the In-charge cabin crew member as the team leader;
- k) "team required" versus "individual" tasks; the notion that some problems require a team solution while others may be solved through individual effort;

- l) awareness of behaviours that affect crew effectiveness;
- m) skills needed to be effective team leaders and team members;
- n) decision-making processes;
- o) resources available: identification and use; and
- p) resources for continued self-improvement, if applicable.

Note.— CRM training should be tailored to reflect the nature and needs of the operator (e.g. merger with another operator, introduction of new technology on board aircraft, etc.). CRM training for cabin crew members should focus on their duties and responsibilities. Therefore, it should be tailored to cabin operations.

8.8 Threat and error management

8.8.1 *Performance criteria:*

- a) describe the Threat and Error Management (TEM) model; and
- b) apply TEM model to cabin operations.

8.8.2 *Conditions:* Classroom and/or computer-based training.

8.8.3 *Reference:* Operations manual/training manual, as applicable.

8.8.4 *Performance standard:*

- a) describe different threats, errors and undesired states relevant to cabin operations that impact on safety; and
- b) identify and manage threats, errors or undesired states, relevant to cabin operations.

Note.— The examples used for threats, errors and undesired states should be specific to cabin operations and differ from those used during flight crew training or training for other operational personnel. More information on TEM can be found in the ICAO Line Operations Safety Audit (LOSA) Manual (Doc 9803).

8.8.5 *Knowledge:*

- a) TEM framework and its components, relevant to cabin operations;
- b) examples of threats, errors and undesired states, relevant to cabin operations; and
- c) threat, error and undesired state management techniques (e.g. detecting threats, trapping errors, etc.), relevant to cabin operations.

8.9 Case studies

8.9.1 *Performance criteria:* Describe the contributing role of cabin crew in identifying and managing situations that may result in incidents or accidents.

8.9.2 *Conditions:* Classroom or computer-based training.

8.9.3 *Reference:*

- a) accident and incident investigation reports; and
- b) cabin crew reports.

8.9.4 *Performance standard:*

- a) identify the ways in which cabin crew contribute to the chain of events leading to an incident or accident. The operator should use its own occurrences, when applicable;
- b) describe the ways in which cabin crew contribute to the prevention of incidents or accidents; and
- c) describe the importance of cabin crew actions towards increasing the survivability of an aircraft's occupants (e.g. during an evacuation or security threat).

8.9.5 *Knowledge:*

- a) contributing role that cabin crew have played in the chain of events leading to an incident or accident;
 - b) the importance of cabin crew actions towards increasing the survivability of an aircraft's occupants (e.g. during an evacuation or security threat);
 - c) the operator's incidents/accidents, relevant to cabin operations; and
 - d) incidents/accidents with cabin operations' dimension (e.g. an evacuation, security threat, in-flight smoke, pressurization malfunctions, etc.), including positive examples of how cabin crew contribute to preventing incidents/accidents or increasing survivability once they occur.
-

Appendix 1 to Chapter 8. Cabin crew skills and behavioural indicators

Skill	Skill Description	Behavioural Indicators
Communication	Demonstrates effective verbal, non-verbal and written communications, in normal, abnormal and emergency situations.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Conveys information clearly, accurately and concisely using standard operator phraseology. • Communicates with the appropriate crew member(s) using the operator's designated common language (multi-lingual flight/cabin crew) including pertinent information such as What, When, Where and How. • Is aware of, and correctly interprets, the non-verbal elements inherent in communication. • Actively listens, seeks clarification and asks relevant questions. • Transmits information in a timely manner. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Communicates using incomplete, untimely or unclear messages. • Inhibits the communication process.
Teamwork and leadership	Demonstrates effective teamwork and leadership.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Maintains open communication and encourages team participation. • Works quickly to constructively resolve conflict and disagreements. • Follows and provides instructions when necessary. • Gives/receives constructive feedback. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Ignores other crew members' input or concerns. • Does not follow instructions. • Does not take part in team consultation or decision-making. • Works independently regardless of situation.

Skill	Skill Description	Behavioural Indicators
Error recognition and management	Detects errors and traps them before they produce negative consequences.	<p data-bbox="808 237 1045 261"><u>Desired behaviours:</u></p> <ul data-bbox="856 305 1560 493" style="list-style-type: none"><li data-bbox="856 305 1276 329">• Adheres to operator procedures.<li data-bbox="856 342 1409 367">• Observes and identifies that an error exists.<li data-bbox="856 380 1541 404">• Responds to, reports and effectively manages an error.<li data-bbox="856 417 1560 441">• Mitigates and manages any further errors/consequences.<li data-bbox="856 454 1213 479">• Follow-ups/self-evaluates. <p data-bbox="808 532 1073 557"><u>Undesired behaviours:</u></p> <ul data-bbox="856 597 1409 786" style="list-style-type: none"><li data-bbox="856 597 1276 621">• Disregards operator procedures.<li data-bbox="856 634 1220 659">• Fails to recognize an error.<li data-bbox="856 672 1409 696">• Observes errors and does not address them.<li data-bbox="856 709 1262 734">• Does not manage the situation.<li data-bbox="856 747 1339 771">• Does not acknowledge his/her errors.

Skill	Skill Description	Behavioural Indicators
Workload and time management	<p>Workload Management: Manages available resources efficiently to prioritize and perform tasks effectively.</p>	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Plans, prioritizes and monitors tasks appropriately through the utilization of all available resources. • Manages, recovers and redistributes tasks from interruptions, distractions, variations and failures effectively. • Offers and accepts assistance, delegates when necessary, recognizes own limitation and asks for help as appropriate. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Demonstrates poor or no planning. • Does not monitor tasks. • Does not recognize and utilize all available resources. • Lacks willingness or refuses to contribute.
	<p>Time Management: Accomplishes tasks in timely manner or in allocated time under all circumstances.</p>	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Is aware of phase of flight and tasks that need to be completed. • Shows no delay in assuming responsibility or completing tasks as necessary. • Manages time efficiently when carrying out task in coordination with other crew members. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Does not react rapidly or delays response affecting other crew members. • Does not complete tasks in allocated time. • Demonstrates inefficient application of operator procedures.

Skill	Skill Description	Behavioural Indicators
Decision-making	Accurately identifies risks and utilizes appropriate decision-making processes.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Perceives and accurately identifies situation including validating the information. • Employs appropriate decision-making process. • Applies the appropriate problem-solving strategies and procedures. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Does not make a decision. • Is focused on fixations. • Makes incorrect decision. • Demonstrates lack of proficiency. • Acts based on judgments or assumptions without complete information.
Situational awareness	Perceives and comprehends all of the relevant information available and anticipates what could happen that may affect the operation.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Demonstrates self-awareness and the capacity to perform and recognizes limitations. • Identifies and assesses the aircraft, affected persons and environment accurately. • Recognizes and effectively responds to indications of reduced situational awareness or potential threats and develops effective contingency plans. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Does not recognize potential reductions to situation awareness. • Does not possess a clear understanding of situation. • Is not alert or engaged. • Is not able to plan accordingly. • Reacts inappropriately to distractions.

Skill	Skill Description	Behavioural Indicators
Flexibility	Demonstrates the ability to adjust thinking or adapt in response to changing goals and/or environment.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Demonstrates ability to anticipate change and adapt. • Resets tasks as situations dictate. • Manages unforeseen circumstances to achieve safest outcome by improvising solutions. • Encourages feedback. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Is unable to adjust/modify from course of action. • Demonstrates complacent behaviour by taking procedures for granted. • Is resistant to new ideas and change.
Delegation	Entrusts a task or responsibility to another person.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Demonstrates capability to recognize strengths and weaknesses - chooses right person for the task. • Engages others in planning and allocates activities fairly and appropriately according to abilities. • Sets clear objectives with specific expectations. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Has an unrealistic expectation for tasks. • Provides unclear task assignment. • Creates unnecessary duplication; assigns the same task to multiple cabin crew members. • Demonstrates failure to delegate.

Skill	Skill Description	Behavioural Indicators
Empathy	Demonstrates the ability to understand and share the feelings of another.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Demonstrates ability to listen actively. • Shows respect, tolerance and understanding for others. • Recognizes emotions of crew members and conveys compassion. • Encourages and supports crew members. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Demonstrates intolerance to cultural differences. • Is unable to recognize and deal with emotions. • Exhibits uncaring, detached and/or indifferent attitude.
Planning and coordinating resources	Unifies, integrates and synchronizes the efforts of crew members so as to provide unity of action in the pursuit of common goals. This is achieved through planning, organizing, staffing, directing and controlling.	<p><u>Desired behaviours:</u></p> <ul style="list-style-type: none"> • Plans, prioritizes and schedules tasks effectively. • Manages time and workload efficiently. • Uses resources in an effective manner. • Assesses situations, identifies obstacles and redeploys resources as necessary. <p><u>Undesired behaviours:</u></p> <ul style="list-style-type: none"> • Fails to recognize and use all resources available. • Fails to have a clear plan. • Sets inappropriate objectives.

CHAPTER 9. CABIN HEALTH AND FIRST AID TRAINING

9.1 Introduction

9.1.1 Besides their operational safety-related duties on board aircraft, cabin crew members may be required to manage medical events and administer first aid to passengers, or in some situations to other crew members. They may be exposed to travellers with a communicable disease and although the risk of becoming infected is small they should be trained to protect themselves through the application of universal precautions and to manage a suspected or actual case. Even though a medical professional may be on-board and willing to provide “Good Samaritan” emergency assistance, the crew retains overall responsibility for management of such events.

9.1.2 Cabin crew should have an understanding of relevant human anatomy and physiology, and first aid training should include the management of commonly occurring medical conditions and cardiopulmonary resuscitation (CPR).

9.1.3 Cabin crew should be able to recognize a medical emergency and to provide basic care until trained medical help is available, from on-board health professionals, from ground based support teams (remote assistance) or from care providers after landing. Cabin crew should be competent in the content and appropriate use of any first aid and universal precaution kits that are carried.

9.1.4 Cabin crew should be familiar with the contents of the medical kit carried on the aircraft (refer to ICAO Annex 6, Part I, Attachment B for additional information) and be able to support a health care professional who volunteers assistance. Cabin crew may also need to use some of the equipment contained in the medical kit in the event a health care professional is not on board (e.g. thermometer, delivery pack, masks).

9.1.5 Food and beverages are often provided on board and an understanding of the principles of on-board hygiene is therefore essential.

9.1.6 When required by destination countries, cabin crew may need to perform cabin disinsection.

9.1.7 In order for cabin crew to perform their duties, they require an understanding of the potential stresses and health risks associated with their work, such as the effect of altitude, fatigue and exposure to communicable diseases. Such topics are part of cabin health and first aid training and are addressed in chapters 4 and 12, respectively.

9.2 Contents of cabin health and first aid training

9.2.1 Cabin health and first aid training should include the following topics:

- a) management of on-board medical events;
- b) food Safety;
- c) cabin disinsection;
- d) altitude physiology (maybe covered separately, refer to Chapter 4); and
- e) fatigue (maybe covered separately, refer to Chapter 12).

9.2.1 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the competency elements covered, the conditions used for training as well as the knowledge and skills that may be assessed.

9.3 Hands-on exercises and simulated exercises

9.3.1 Training related to on-board medical events and their management may be more effective if classroom instructions are concurrently augmented by hands-on exercises and simulated exercises. Practicing scenario-based event management and first aid techniques during training is very valuable and facilitates retention.

9.3.2 When participating in simulated exercises, trainees may be evaluated individually or as part of a team.

9.4 Competency-based training for cabin health and first aid

9.4.1 The following sections provide detailed guidance for the development of competency-based training for cabin crew members to perform duties and responsibilities related to the management of on-board medical events and cabin health issues. These competencies are derived from the ICAO competency framework for cabin crew duties and responsibilities related to cabin health and first aid presented in Appendix 1 to Chapter 9.

9.4.2 The sections presented in this chapter are linked to the overarching competency unit: “perform duties and responsibilities related to cabin health and first aid”, found in the ICAO framework mentioned above.

9.5 Management of on-board medical events

Competency Element 1.1: Manage on-board medical events

Performance Criteria:

- 1.1.1 Monitor the cabin to identify ill passengers
- 1.1.2 Recognize an on-board medical event
- 1.1.3 Determine if the event is life-threatening
- 1.1.4 Respond immediately to a life-threatening on-board medical event
- 1.1.5 Respond to other non-life-threatening events using appropriate first aid techniques
- 1.1.6 Assess and manage suspect cases of communicable disease
- 1.1.7 Apply communication procedures
- 1.1.8 Apply procedures for seeking ground-based medical and/or on-board volunteer health professional assistance
- 1.1.9 Use first aid and medical equipment, as appropriate
- 1.1.10 Manage assistance from an on-board volunteer health professional, if available
- 1.1.11 Support the on-board volunteer health professional, as appropriate
- 1.1.12 Apply operator policy on “Do Not Resuscitate” (DNR), if appropriate
- 1.1.13 Manage a death or presumed death on board
- 1.1.14 Complete the applicable documentation

9.5.1 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on retrieving the first aid kit (FAK), emergency medical kit (EMK), universal precautions kit (UPK), automated external defibrillator (AED), and telemedicine device, as available;
- c) hands-on exercise on using the FAK;
- d) hands-on exercise on retrieving and using the portable oxygen bottle;
- e) hands-on exercise on using the EMK, UPK, telemedicine device, if applicable;
- f) hands-on exercise on demonstrating cardiopulmonary resuscitation (CPR) and operating the AED, if applicable;
- g) simulated exercise of an ill passenger/crew member where the cabin crew member demonstrates that he/she can recognize and respond to the situation using the appropriate first aid techniques to the specific illness or injury; and
- h) simulated exercise in a representative training device capable of reproducing the appropriate environment/equipment characteristics (e.g. cabin, flight deck, crew rest area) where the cabin crew will apply the operator's procedures for responding to an in-flight medical event

9.5.2 *Reference:*

- a) operations manual; and
- b) ILCOR (International Liaison Committee on Resuscitation) publications. Additional information can be found at www.ilcor.org

9.5.3 *Performance standard:*

- a) identify ill or injured passengers. This may include, but is not limited to, a person:
 - i) appearing obviously unwell;
 - ii) with persistent cough;
 - iii) frequently going to the washroom;
 - iv) with breathing difficulties;
 - v) vomiting;
 - vi) with a visible rash;
 - vii) bleeding;

- viii) with confusion; and
- ix) having a seizure;
- b) apply active listening and seek additional information. This may include, but is not limited to:
 - i) being attentive and receptive to comments from passengers regarding their or other passenger's health status; and
 - ii) asking additional questions about passenger's health history, (e.g. allergies, medications, their last meal and events leading up to illness);
- c) recognize on-board medical event:
 - i) determining if the event is life-threatening;
 - ii) identifying typical presenting signs and/or symptoms of illness in-flight;
 - iii) recognizing ways that passengers may signal an in-flight medical event in themselves or others; and
 - iv) recognizing medical events which can be immediately life-threatening (e.g. obstructed airway, cardiac arrest, and loss of consciousness).
- d) demonstrate first aid techniques appropriate to the situation. This may include, but is not limited to:
 - i) assessing airway/breathing;
 - ii) performing CPR, if required;
 - iii) performing abdominal thrusts;
 - iv) controlling bleeding;
 - v) administering oxygen;
 - vi) immobilizing a fracture; and
 - vii) applying burn dressing;
- e) demonstrate the use of available medical equipment appropriate to the event, as applicable, This may include, but is not limited to:
 - i) AED; and
 - ii) artificial respiration masks;

- f) assess and manage potential communicable disease. This may include, but is not limited to:
 - i) demonstrating knowledge and use of universal precautions e.g. personal protective equipment, cleaning up spilled body fluids, etc.;
 - ii) demonstrating how to elicit proper information from the ill passenger;
 - iii) demonstrating how to take body temperature with a thermometer if available, or by other means if not available;
 - iv) describing the signs and symptoms compatible with a communicable disease;
 - v) describing when a face mask will be offered to an ill passenger, to other passengers, and to one or more cabin crew;
 - vi) describing basic advice to a passenger with gastrointestinal symptoms (e.g. vomiting, diarrhoea);
 - vii) isolating a lavatory for the use of the ill passenger, if possible;
 - viii) showing when and where to move a passenger suspected of having a communicable disease;
 - ix) advising the pilot-in-command;
- g) apply communication procedures. This may include, but is not limited to:
 - i) describing communication procedure with In-charge cabin crew and/or pilot-in-command;
 - ii) describing procedure for obtaining assistance from:
 - 1) qualified on board health professional, if available;
 - 2) other crew members; and
 - 3) ground-based medical assistance provider, if available;
 - iii) describing crew coordination procedures; and
 - iv) describing how to reassure an ill passenger and any accompanying family members;
- h) use medical equipment, as appropriate. This may include, but is not limited to:
 - i) retrieving FAK, EMK, UPK, telemedicine device, or AED as appropriate;
 - ii) operating the telemedicine device and/or the AED, if available;
 - iii) describing the main contents of the EMK;

- i) manage assistance from the on-board volunteer health professional. This may include, but is not limited to:
 - i) demonstrating how to elicit credentials of the volunteer health professional if it is company policy;
 - ii) advising the volunteer health professional of the equipment available on-board;
 - iii) stating the airline's indemnity/liability provisions for the volunteer health professional;
 - iv) staying with the volunteer health professional to provide assistance;
 - v) requesting contact details and clinical notes from the volunteer health professional; and
 - vi) applying operator policy on DNR, if required;
- j) manage a death or presumed death on board. This may include, but is not limited to:
 - i) describing how to recognize death or presumed death;
 - ii) stating who can pronounce someone dead;
 - iii) describing the situations in which CPR may be ceased;
 - iv) describing the communication procedure with the pilot-in-command;
 - v) describing the company policy on how to take care of a dead or presumed dead passenger; and
 - vi) describing the communication procedure for an accompanying person(s).

9.5.4 *Knowledge:*

- a) difference between a sign and a symptom;
- b) common signs and symptoms of passenger illness in-flight;
- c) signs and symptoms of immediately life-threatening medical events, e.g. signs of choking, collapse, unconsciousness, severe allergic reaction (anaphylaxis);
- d) general first aid principles;
- e) signs and symptoms of hyperventilation;
- f) signs and symptoms of panic attack;
- g) signs and symptoms of drug use combined with alcohol intoxication;
- h) main signs and symptoms of communicable diseases;

- i) regulations concerning communicable diseases, e.g. World Health Organization (WHO) International Health Regulations (IHR 2005);
- j) policies concerning a death on-board;
- k) contents of first aid kit, EMK, and UPK;
- l) operator indemnity/liability provisions; and
- m) Procedures for completing the applicable documentation, such as an incident report form.

9.5.5 *Skills:*

- a) communications;
- b) teamwork and leadership;
- c) workload and time management;
- d) decision-making;
- e) situational awareness;
- f) delegation (for in-charge cabin crew member);
- g) empathy (for in-charge cabin crew member); and
- h) planning and coordinating resources (for in-charge cabin crew member).

9.6 Food safety and sanitation³

Competency element 1.2: Apply procedures for food safety and sanitation

Performance criteria:

- 1.2.1 Minimize or prevent the contamination of food and related service items
- 1.2.2 Ensure safe practices for food safety
- 1.2.3 Manage suspected food poisoning
- 1.2.4 Complete the applicable documentation

9.6.1 *Conditions:*

- a) classroom and/or computer-based training; and
- b) simulated exercise in a representative training device capable of reproducing the appropriate environment/equipment characteristics (e.g. galley) where the cabin crew will apply procedures for recognizing unsafe /safe practices.

³ May be covered as part of service training.

9.6.2 *Reference:*

- a) operations manual; and/or
- b) policy and procedures manual.

9.6.3 *Performance standard:*

- a) describe ways to minimize or prevent the contamination of food and related service items. This may include, but is not limited to:
 - i) food and beverage service operations should be conducted in accordance with operator policies to minimize contamination;
 - ii) perishable food and beverages should be maintained at appropriate cold or hot temperatures; and
 - iii) galleys, pantries, and other places where food is prepared, served, or stored should be clean to maintain their surfaces in a sanitary condition;
- b) recognize unsafe practices that can affect food safety;
- c) assess possible food poisoning. This may include, but is not limited to:
 - i) describing the symptoms of possible food poisoning;
 - ii) describing the information to be collected from the ill passenger(s); and
 - iii) describing the basic criteria for considering airline catering as a suspected cause of food poisoning (i.e. If during a reasonably long flight, more than one person having consumed food served on board have similar symptoms, food poisoning from catering can be suspected);
- d) assist the ill passenger(s) as described in the first aid response;

Note. — Refer to Section 9.5, competency element 1.1 – Manage on-board medical events.

- e) preserve evidence. This may include, but is not limited to:
 - i) describing the procedure for preserving and storing passenger and/or crew meal(s) for subsequent testing; and
 - ii) describing appropriate actions to take if the airline catering is the suspected cause of the illness.

9.6.4 *Knowledge:*

- a) general principles of food contamination prevention;

- b) signs of food contamination;
- c) signs and symptoms of food poisoning;
- d) criteria by which food poisoning can be suspected (e.g. multiple passengers becoming ill after eating the same meal choice);
- e) Principles of first aid to manage suspected food poisoning; and
- f) Details of food poisoning protocol.

9.6.5 *Skills:*

- a) situational awareness;
- b) decision-making;
- c) communication; and
- d) teamwork and leadership.

9.7 Cabin disinsection

Competency element 1.3: Apply procedures for cabin disinsection, if applicable

<u>Performance criteria:</u>

- | | |
|-------|---|
| 1.3.1 | Advise passengers on disinsection procedures, if applicable |
| 1.3.2 | Carry out disinsection, as per operator procedures |

9.7.1 *Conditions:*

- a) classroom or computer-based training; and
- b) video or demonstration of proper handling and spraying technique.

9.7.2 *Reference:* Operations manual.

9.7.3 *Performance standard:*

- a) discuss how to advise passengers on disinsection, as per the operator procedures, if applicable;
- b) carry out disinsection procedures, if applicable. This may include, but is not limited to:
 - i) discussing how to correctly spray disinsectant, as per operator procedures; and
 - ii) discussing proper hygiene for cabin crew members following disinsection (e.g. hand washing).

9.7.4 *Knowledge:*

- a) definition of disinsection and the difference between disinsection and disinfection;
- b) reasons for disinsection of aircraft cabins;
- c) who sets the requirements for disinsection (e.g. national authorities);
- d) description of the operator's procedures for disinsection, including when, where, how to spray and the potential effect on smoke detectors;
- e) understanding that while disinsection should not cause undue discomfort to any person, or injury to his/her health, some disinsection procedures may cause health complaints from individuals who have a possible predisposition or assumed hypersensitivity to chemicals; and
- f) description of ways in which crew or passengers can limit their exposure to chemical disinsectants.

9.7.5 *Skills:* Communication.

9.8 Potential aviation-associated health risks

9.8.1 The following topics can be included in the knowledge portion of the training programme to provide an understanding of health risks that may be relevant to crew members, which are not addressed in the previous sections of this chapter. While not specifically required by ICAO SARPs, some States may have regulations related to industrial hazards and may require specific training on these and/or other topics.

- a) Cosmic radiation:
 - i) the different types of radiation are most easily classified according to the effects they produce on matter. There are two categories and both may have biological effects when they pass through body tissues:
 - 1) non-ionising radiation – including ultra violet light, radio waves and microwaves; and
 - 2) ionising radiation – including cosmic rays, x-rays and radiation from radioactive materials;
 - ii) the amount of radiation exposure received while flying depends on the amount of time in the air, altitude, latitude, and solar activity; and
 - iii) understanding that there could be health implications for crew members, and particularly pregnant cabin crew members.
- b) Cabin air quality:

- i) guidelines to enable cabin crew members to recognize signs (e.g. odours, fumes) of possible cabin air contamination and to respond appropriately.

9.8.2 Additional guidance on these and other topics can be found in the IATA Medical Manual, which is available on the IATA website, at: www.iata.org/whatwedo/safety/health

Appendix 1 to Chapter 9. Competency framework for cabin crew member's duties and responsibilities related to cabin health and first aid

COMPETENCY FRAMEWORK FOR CABIN CREW MEMBER'S DUTIES AND RESPONSIBILITIES RELATED TO CABIN HEALTH AND FIRST AID			
Competency unit: 1. Perform duties and responsibilities related to cabin health and first aid			
The competencies described below relate to duties and responsibilities that are performed by a cabin crew member to identify and manage on-board medical events and cabin health issues.			
Competency element	Performance criteria	I/C Duty	Reference
1.1 Manage on-board medical events	1.1.1 Monitor the cabin to identify ill passengers.		Operations Manual
	1.1.2 Recognize an on-board medical event		
	1.1.3 Determine if the event is life-threatening		
	1.1.4 Respond immediately to a life-threatening on-board medical event		
	1.1.5 Respond to other non-life-threatening events using appropriate first aid techniques		
	1.1.6 Assess and manage suspected cases of communicable disease		
	1.1.7 Apply communication procedures		
	1.1.8 Apply procedures for seeking ground-based medical and/or on-board volunteer health professional assistance		
	1.1.9 Use first aid and medical equipment, as appropriate		
	1.1.10 Manage assistance from an on-board volunteer health professional, if available		
	1.1.11 Support the on-board volunteer health professional, as appropriate		
	1.1.12 Apply operator policy on "Do Not Resuscitate" (DNR), if appropriate		
	1.1.13 Manage a death or presumed death on board		
	1.1.14 Complete the applicable documentation	X	
1.2 Apply procedures for food safety and sanitation	1.2.1 Minimize or prevent the contamination of food and related service items		Operations manual and/or Policy and procedures manual
	1.2.2 Ensure safe practices for food safety		
	1.2.3 Manage suspected food poisoning		
	1.2.4 Complete the applicable documentation	X	
1.3 Apply procedures for cabin disinsection, if applicable	1.3.1 Advise passengers on disinsection procedures, if applicable		Operations Manual
	1.3.2 Carry out disinsection, as per operator procedures		

CHAPTER 10. AVIATION SECURITY TRAINING

10.1 Definition and goal of aviation security training

10.1.1 An aviation security training programme addresses the operator's procedures related to cabin crew members' security-related duties and responsibilities, as per the operations manual, and other regulatory or national material.

10.1.2 The goal of aviation security training is to provide crew members with the knowledge and skills to identify and respond appropriately to various security threats so as to prevent and/or minimize the consequences of acts of unlawful interference.

10.1.3 Aviation security training must be conducted in accordance with national regulations, where applicable.

Note.— Guidance on aviation security is contained in the ICAO Aviation Security Manual (Doc 8973) and the Manual on the Implementation of the Security Provisions of Annex 6 (Doc 9811).

10.2 Content of aviation security training

10.2.1 Aviation security training encompasses two primary concepts:

- a) preventives measures during normal operations; and
- b) response to security threat events.

10.2.2 While the main training aspects addressed in this chapter are related to responding to a security threat, it is important that the preventive measures not be overlooked. Many of these preventive concepts are addressed in other chapters of this manual but they are referenced below as a reminder.

10.2.3 As per ICAO Annex 6 SARPs, an aviation security training programme shall include the following elements, as a minimum:

- a) determination of the seriousness of any occurrence;
- b) crew communication and coordination;
- c) appropriate self-defence responses;
- d) use of non-lethal protective devices assigned to crew members whose use is authorized by the State of the Operator;
- e) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;
- f) live situational training exercises regarding various threat conditions;
- g) flight crew compartment procedures to protect the aeroplane; and

h) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

10.2.4 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the competency elements covered, the conditions used for training as well as the knowledge and skills that may be assessed.

10.3 Preventive measures

10.3.1 The preventive measures during normal operations are addressed in Chapter 5, Normal Operations Training, which address preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft so that cabin crew can contribute to the prevention of acts of sabotage or other forms of unlawful interference. Examples may include performance of pre-flight security checks of the cabin or galley equipment, and monitoring of passengers during the boarding process.

10.4 Security of the flight deck

10.4.1 Cabin crew should recognize that the integrity and security of the flight crew deck is essential so that the aircraft cannot be used as a weapon. Procedures must be in place to ensure that flight deck access is coordinated between the cabin crew and the flight crew. Cabin crew compliance to the access/egress procedures is an integral part of preventing unlawful interference.

10.4.2 Training on security procedures related to flight deck access during normal conditions is further addressed in Chapter 5, Section 5.9.15.

10.5 Competency-based training for security threat situations

10.5.1 The following sections provide detailed guidance for the development of competency-based training for cabin crew members to perform duties and responsibilities during security threat situations. These competencies are derived from the ICAO competency framework for cabin crew member's duties and responsibilities related to security threat situations presented in Appendix 1 to Chapter 10.

10.5.2 The sections presented in this chapter are linked to the overarching competency unit: "perform duties and responsibilities related to unlawful interference", found in the ICAO framework mentioned above. Cabin crew security procedures during normal operations, such as pre-flight security checks, flight deck access procedures and monitoring the cabin for security-related issues are addressed in chapter 5, as part of normal operations training.

10.5.3 When participating in simulated exercises, trainees may be evaluated individually or as part of a team.

10.6 Unruly passengers

Competency Element 1.1: Manage unruly passengers

Performance Criteria:

- 1.1.1 Assess the threat level of the situation
- 1.1.2 Apply procedures according to the level of threat
- 1.1.3 Communicate relevant information to the flight crew and other cabin crew
- 1.1.4 Coordinate the situation with the flight crew and other cabin crew
- 1.1.5 Complete the applicable documentation

10.6.1 *Conditions:*

- a) classroom and/or computer-based training;
- b) hands-on exercise on appropriate self-defence responses (e.g. physical breakaway and controlling skills);

Note.— Self-defence methods, if applicable, should be designed and taught by persons knowledgeable in defensive tactics, who can adapt appropriate techniques to the aircraft cabin/flight crew deck environment.

- c) hands-on exercise on the use of non-lethal protective devices assigned to crew members whose use is authorized by the State of the Operator; and
- d) simulated exercise of an unruly passenger situation where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation (including the use of de-escalation techniques), preferably in a representative training device or an actual aircraft, if practicable.

10.6.2 *Reference:* Operations manual.

10.6.3 *Performance standard:*

- a) describe the different threat levels and the corresponding responses;
- b) use of appropriate terminology;
- c) identify the factors which may contribute to unruly passenger behaviour and the means by which to diffuse the situation;
- d) apply cabin/flight crew communication procedures. This may include notifying the flight crew of following:
 - i) the type and level of the threat;
 - ii) the number of perpetrators;
 - iii) any weapons;

- iv) assigned seat numbers; and
- v) physical description(s) of the perpetrator(s);
- e) apply appropriate flight deck access procedures;
- f) demonstrate appropriate self-defence responses, such as physical breakaway and controlling skills;
- g) identify appropriate able-bodied passenger(s), give clear directions for assistance, and maintain control of those called upon to assist;
- h) manage the response to the unruly passenger;
- i) demonstrate appropriate use of non-lethal protective devices, such as plastic flex cuffs, so as to have the capability to maintain control of an aggressive perpetrator; and
- j) maintain control of the cabin.

10.6.4 *Knowledge:*

- a) operator's policy and regulations from the State of the Operator regarding acts of unlawful interference;
- b) communication with flight crew during an act of unlawful interference and the type of information that should be transmitted (e.g. level of threat, number of perpetrators, any weapons, physical description(s) of perpetrator(s) and assigned seat number);
- c) levels of threats and appropriate crew responses;
- d) procedures for managing different passenger behaviours who may interfere with the normal operation of the aircraft or/and threaten the safety and well-being of passengers and/or crew members. This may include conflict management and conflict resolution as well as examples of unruly behaviour, such as: harassment, verbal abuse, physical assault, intimidating behaviour, intoxicated and disorderly conduct, disregard of smoking regulations, consuming own "carry on" alcoholic beverages, refusal to follow instructions of the crew, and endangering the safety of the aircraft;
- e) appropriate documentation to be completed, including notification cards to unruly passengers, if applicable;
- f) appropriate self-defence responses;
- g) the use of non-lethal protective devices assigned to crew members whose use is authorized by the State of the Operator, if applicable;
- h) the use of able-bodied passengers, their roles and responsibilities in relation to cabin crew during an incident; and
- i) procedures to be followed in the event of assault on a crew member.

10.6.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making; and
- d) situational awareness.

10.7 Bomb threat or bomb on-board in flight

Competency Element 1.2: Apply procedures for a bomb threat or bomb on board in flight

Performance Criteria:

- 1.2.1 Notify the flight crew and other cabin crew or obtain information from the flight crew
- 1.2.2 Evaluate the threat
- 1.2.3 Apply aircraft search procedures
- 1.2.4 Communicate relevant information to the flight crew and other cabin crew
- 1.2.5 Coordinate the situation with the flight crew and other cabin crew
- 1.2.6 Manage the passengers and cabin, including appropriate information to passengers if determined as necessary
- 1.2.7 Apply emergency procedures once suspect explosive device is located
- 1.2.8 Apply least-risk bomb location procedures
- 1.2.9 Prepare the cabin for landing, if applicable
- 1.2.10 Conduct a rapid disembarkation/evacuation, as applicable
- 1.2.11 Complete the applicable documentation

10.7.1 *Conditions:*

- a) classroom or computer-based training; and
- b) simulated exercise on applying the least risk bomb location procedures.

10.7.2 *Reference:* Operations manual.10.7.3 *Performance standard:*

- a) communicate and coordinate with flight and other cabin crew, as per operator procedures. This may include, but is not limited to details of the bomb or suspect item, such as location, packaging, components and characteristics of the bomb;
- b) apply aircraft search procedures;
- c) manage passengers and cabin in a controlled manner taking into account passenger reaction;

- d) apply least-risk bomb location procedures, including handling the suspect explosive device; and
- e) prepare the cabin for landing (e.g. in the event of a rapid disembarkation or evacuation).

10.7.4 *Knowledge:*

- a) understanding the components of an explosive device and different types of explosives;
- b) review of the evolution of improvised explosives devices, including awareness of threat evolution;
- c) the necessity of being vigilant for security concerns (e.g. thorough and frequent checks of any accessible compartments, including unstaffed galleys, cabin and lavatories);
- d) procedures for the handling of suspect baggage or item on board an aircraft;
- e) procedures for the handling of bomb threat or bomb on board in flight;
- f) procedures for notifying the flight crew of an act of unlawful interference inside the cabin including the presence of suspect baggage or item;
- g) checklists for aircraft search and how to use them;
- h) common emotional reactions by passengers to security incidents; and
- i) procedures for rapid disembarkation and evacuation.

10.7.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making;
- d) situational awareness;
- e) delegation (for in-charge cabin crew member); and
- f) planning and coordinating resources (for in-charge cabin crew member).

10.8 Bomb threat or bomb on-board on the ground

Competency Element 1.3: Apply procedures for a bomb threat or bomb on board on the ground

Performance criteria:

- 1.3.1 Notify the flight crew or In-charge cabin crew member and other cabin crew or ground personnel or obtain information from the flight crew
- 1.3.2 Manage the passengers and cabin
- 1.3.3 Communicate relevant information to the flight crew and other cabin crew
- 1.3.4 Coordinate the situation with the flight crew and other cabin crew
- 1.3.5 Conduct a rapid disembarkation/evacuation, as applicable
- 1.3.6 Complete the applicable documentation

10.8.1 *Conditions:* Classroom or computer-based training.

10.8.2 *Reference:* Operations manual.

10.8.3 *Performance standard:* Provide a verbal or written description of the applicable procedures. This may include:

- a) notifying the flight crew, In-charge crew member and other cabin crew or ground personnel, as per operator procedures. This may include details of the bomb or suspect item, such as location, packaging, components and characteristics of the bomb;
- b) communicating and coordinating within the crew or with others, if necessary;
- c) managing passengers and cabin in a controlled manner taking into account passenger reaction; and
- d) conducting rapid disembarkation or evacuation, as per operator procedures.

10.8.4 *Knowledge:*

- a) review of the evolution of improvised explosives devices, including awareness of threat evolution;
- b) the necessity of being vigilant for security concerns (e.g., suspicious items/behaviours during passenger boarding, thorough and frequent checks of catering supplies and any accessible compartments, including unmanned galleys, cabin and lavatories);
- c) awareness of other available resources in the event of suspect item or bomb discovered on-board;
- d) procedures for handling of the suspect baggage or item on board while an aircraft is on the ground;
- e) procedures for handling the bomb threat or bomb on board on the ground;

- f) procedures for notifying the flight crew of an act of unlawful interference inside the cabin including the presence of suspect baggage or item;
- g) procedures for the application of security checks; and
- h) procedures for rapid disembarkation and evacuation.

10.8.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making;
- d) situational awareness;
- e) delegation (for in-charge cabin crew member); and
- f) planning and coordinating resources (for in-charge cabin crew member).

10.9 Hijacking

Competency Element 1.4: Apply procedures for hijacking

Performance criteria:

- 1.4.1 Notify the flight crew and other cabin crew
- 1.4.2 Conduct lockdown of the flight deck/ prevent entry into flight deck
- 1.4.3 Apply procedures according to the level of threat (Level 3 or 4)
- 1.4.4 Manage passengers and cabin
- 1.4.5 Communicate relevant information to flight crew if possible and other cabin crew
- 1.4.6 Complete the applicable documentation

10.9.1 *Conditions:*

- a) classroom and computer-based training;
- b) hands-on exercise on the use of non-lethal protective devices assigned to crew members whose use is authorized by the State of the Operator (this exercise is covered in Section 10.6.1); and
- c) simulated exercise on various threat conditions, preferably in a representative training device or an actual aircraft, if practicable, where cabin crew apply the operator's procedures and associated crew responsibilities for dealing with the situation.

10.9.2 *Reference:* Operations manual.

10.9.3 *Performance standard:*

- a) notify the flight crew and other cabin crew, as per operator procedures;
- b) prevent entry into the flight deck by applying operator procedures for establishing the clear zone;
- c) attempt to establish two-way communications with the ground, as per operator procedures, using any available means (e.g. cell-phones, sky-phones, ELTs, and other internet technology, and/or the emergency number established by the operator);
- d) identify and enlist able-bodied passengers to assist;
- e) when faced with a hijack, or threat of hijack, apply operator's procedures for a hijack or threat of hijack, such as the use of resources to manage the situation;
- f) manage passengers and cabin in a controlled manner taking into account passenger reaction; and
- g) maintain communication with flight and other cabin crew.

10.9.4 *Knowledge:*

- a) the importance of situational awareness and of being vigilant and observant when security concerns are suspected;
- b) procedures for dealing with hijackers and understanding their expected behaviours;
- c) techniques for managing distressed passengers;
- d) monitoring the cabin for additional threats;
- e) knowledge of operator's procedures related to flight deck door and flight crew actions;
- f) use of resources, e.g. able-bodied passengers other than the crew during security-related emergencies; and
- g) different means of communications with the ground.

10.9.5 *Skills:*

- a) communication;
- b) teamwork and leadership;
- c) decision-making;
- d) situational awareness;
- e) delegation (for in-charge cabin crew member); and

- f) planning and coordinating resources (for in-charge cabin crew member).

10.10 Chemical/biological/radiological weapons

Competency Element 1.5: Apply procedures for chemical/biological/radiological weapons

Performance criteria:

- 1.5.1 Notify the flight crew and cabin crew
- 1.5.2 Apply procedures for suspicious spilled substance or suspicious item, as applicable
- 1.5.3 Manage passengers and cabin
- 1.5.4 Communicate relevant information to flight crew and other cabin crew
- 1.5.5 Coordinate the situation with the flight crew and other cabin crew
- 1.5.6 Complete the applicable documentation

10.10.1 *Conditions:* Classroom or computer-based training.

10.10.2 *Reference:* Operations manual.

10.10.3 *Performance standard:* Provide a verbal or written description of the applicable procedures. This includes:

- a) identifying suspicious item;
- b) communicating and coordinating with flight and cabin crew;
- c) managing passengers and cabin in a controlled manner taking into account passenger reaction; and
- d) applying preventative measures and procedures for suspicious item, as per operator procedures. This may include procedures for isolating a suspicious substance.

10.10.4 *Knowledge:*

- a) recognition of signs and symptoms of CBR weapon exposure;
- b) the importance of cabin surveillance to detect suspect behaviour or objects;
- c) distinction between handling explosive devices and CBR weapons, and associated procedures;
- d) importance of containing the weapon's aerosol potential before it spreads; and
- e) procedures for in-flight CBR weapons.

10.10.5 *Skills:*

- a) communication;
 - b) teamwork and leadership;
 - c) situational awareness; and
 - d) decision-making.
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Appendix 1 to Chapter 10. Competency framework for cabin crew member's duties and responsibilities related to security threat situations

COMPETENCY FRAMEWORK FOR CABIN CREW MEMBER'S DUTIES AND RESPONSIBILITIES RELATED TO SECURITY THREAT SITUATIONS			
Competency unit: 1. Perform duties and responsibilities related to unlawful interference			
The competencies described below relate to duties and responsibilities that are performed by a cabin crew member to identify and manage security threats.			
Competency element	Performance criteria	I/C Duty	Reference
1.1 Manage unruly passengers	1.1.1 Assess the threat level of the situation		Operations Manual
	1.1.2 Apply procedures according to the level of threat		
	1.1.3 Communicate relevant information to the flight crew and other cabin crew		
	1.1.4 Coordinate the situation with the flight crew and other cabin crew	X	
	1.1.5 Complete the applicable documentation	X	
1.2 Apply procedures for a bomb threat or bomb on board in flight	1.2.1 Notify the flight crew and other cabin crew or obtain information from the flight crew		Operations Manual
	1.2.2 Evaluate the threat		
	1.2.3 Apply aircraft search procedures		
	1.2.4 Communicate relevant information to the flight crew and other cabin crew		
	1.2.5 Coordinate the situation with the flight crew and other cabin crew	X	
	1.2.6 Manage the passengers and cabin, including appropriate information to passengers if determined as necessary		
	1.2.7 Apply emergency procedures once suspect explosive device is located		
	1.2.8 Apply least-risk bomb location procedures		
	1.2.9 Prepare the cabin for landing, if applicable		
	1.2.10 Conduct a rapid disembarkation/evacuation, as applicable		
	1.2.11 Complete the applicable documentation	X	
1.3 Apply procedures for a bomb threat or bomb on board on the ground	1.3.1 Notify the flight crew or In-charge cabin crew member and other cabin crew or ground personnel or obtain information from the flight crew		Operations Manual
	1.3.2 Manage the passengers and cabin	X	
	1.3.3 Communicate relevant information to the flight crew and other cabin crew		
	1.3.4 Coordinate the situation with the flight crew and other cabin crew	X	
	1.3.5 Conduct a rapid disembarkation/evacuation, as applicable		
	1.3.6 Complete the applicable documentation	X	

Competency element	Performance criteria	Duty	Reference
1.4 Apply procedures for hijacking	1.4.1 Notify the flight crew and other cabin crew		Operations Manual
	1.4.2 Conduct lockdown of the flight deck/ Prevent entry into flight deck		
	1.4.3 Apply procedures according to the level of threat (Level 3 or 4)		
	1.4.4 Manage passengers and cabin		
	1.4.5 Communicate relevant information to flight crew if possible and other cabin crew		
	1.4.6 Complete the applicable documentation	X	
1.5 Apply procedures for chemical/biological/radiological weapons	1.5.1 Notify the flight crew and cabin crew		Operations Manual
	1.5.2 Apply procedures for suspicious spilled substance or suspicious item, as applicable		
	1.5.3 Manage passengers and cabin		
	1.5.4 Communicate relevant information to flight crew and other cabin crew		
	1.5.5 Coordinate the situation with the flight crew and other cabin crew	X	
	1.5.6 Complete the applicable documentation	X	

CHAPTER 11. SAFETY MANAGEMENT SYSTEM (SMS) TRAINING

11.1 Definition and goal of SMS training

11.1.1 A safety management system (SMS) is defined as a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

11.1.2 SMS requirements applicable to operators of aeroplanes authorized to conduct international commercial air transport in accordance with Annex 6 Part I are addressed in Annex 19 — Safety Management.

11.1.3 Training in SMS is defined as training which focuses on the role that the individual cabin crew members play within the operator's SMS and how their contributions fit in the bigger picture of safety management at the overarching organizational level.

11.1.4 The goal of this training is to ensure that cabin crew are trained and competent to perform their duties within the SMS.

Note.— Guidance on SMS and developing SMS training is contained in the ICAO Safety Management Manual (Doc 9859).

11.2 Content of SMS training

11.2.1 The scope of SMS training must be appropriate to each individual's roles and responsibilities within the operation. Training should follow a building-block approach. As part of the ICAO requirements, an operator must provide training to its operational personnel (including cabin crew), managers and supervisors, senior managers, and the accountable executive for the SMS.

11.2.2 Training should address the specific role that cabin crew members play in the operation. This includes, but is not limited to training with regards to:

- a) SMS fundamentals and overview of the operator's SMS;
- b) the operator's safety policy;
- c) hazard identification and reporting; and
- d) safety communication.

11.2.3 Sections 11.3 to 11.6 present detailed guidance on each of these topics.

11.2.4 The content in this chapter is not linked to a specific competency element. The material covered addresses overarching processes, policies and procedures that cabin crew should be knowledgeable on, in order to perform specific duties and responsibilities (e.g. hazard reporting). However, for the purposes of this manual, which is built on competency-based training, the chapter is written in the same format as the others (which address specific competency elements) and provides guidance on performance criteria, conditions, references, performance standards, and knowledge.

11.2.5 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the performance criteria covered, the conditions used for training and the knowledge that may be assessed.

11.3 SMS fundamentals and overview of the operator's SMS

11.3.1 *Performance criteria:*

- a) describe fundamental SMS concepts;
- b) describe the operator's SMS and its objectives; and
- c) describe the role of cabin crew members in the SMS.

11.3.2 *Conditions:* Classroom or computer-based training.

11.3.3 *Reference:*

- a) operations manual; and/or
- b) SMS manual.

11.3.4 *Performance standard:*

- a) describe the objectives of the SMS;
- b) describe the operator's SMS. This includes the components and elements that make up the SMS, how it fits into the overall organizational management, and its relationship to other management systems that the operator may have implemented; and
- c) describe the role of cabin crew members in the SMS. This includes the duties and responsibilities that are assigned to individual crew members (e.g. hazard reporting) and how these fit into the overall operation of the SMS.

11.3.5 *Knowledge:*

- a) fundamental SMS concepts;
- b) the operator's SMS, its components, objectives and related procedures; and
- c) duties and responsibilities of cabin crew within the operator's SMS.

11.4 The organization's safety policy

11.4.1 *Performance criteria:*

- a) describe the concept of safety culture;
- b) describe the safety policy and its objectives;

- c) describe the safety reporting procedures and their objectives; and
 - d) apply operator policies and procedures supporting a safety culture.
- 11.4.2 *Conditions:* Classroom or computer-based training.
- 11.4.3 *Reference:*
- a) operations manual; and/or
 - b) SMS manual.
- 11.3.4 *Performance standard:*
- a) describe the safety policy, including how it reflects organizational commitments regarding safety and how it relates to cabin crew members' duties and responsibilities as individuals in the organization;
 - b) describe the importance of a safety culture and its contribution to safety management; and
 - c) describe the operator's safety reporting procedures. This encompasses when individuals can be exempt from disciplinary action, including examples of acceptable and unacceptable behaviours.
- 11.4.5 *Knowledge:*
- a) organizational safety roles and responsibilities related to safety;
 - b) safety culture and how individual attitudes and behaviours impact on safety;
 - c) operator's safety policy and its objectives;
 - d) cabin crew members' individual responsibility and involvement in relation to the safety policy;
 - e) the operator's safety reporting procedures, how the organization deals with deviations from procedures and cases where disciplinary action would not apply (e.g. errors versus violations); and
 - f) the policies and procedures in place for the protection of the information reported by crew members.

11.5 Hazard identification and reporting

- 11.5.1 *Performance criteria:*
- a) identify hazards and consequences, as applicable to flight safety and cabin operations;

- b) identify the operator's different reporting systems;
- c) describe means of reporting hazards and occurrences/events not falling under the mandatory reporting scope, as well as follow-up actions.

11.5.2 *Conditions:* Classroom or computer-based training.

11.5.3 *Reference:*

- a) operations manual; and/or
- b) SMS manual; and
- c) relevant reporting form(s).

11.5.4 *Performance standard:*

- a) identify hazards and consequences, as applicable to flight safety and cabin operations. This includes how to identify the different types of hazards that can be encountered (natural hazards, technical hazards, etc.) and describing the potential consequences of these hazards on operations.
- b) identify the operator's safety reporting systems, this includes:
 - i) mandatory reporting system; and
 - ii) voluntary reporting systems (which may be confidential).
- c) describe means of reporting hazards and follow-up actions. This includes the process that the organization has in place to collect, analyse and provide feedback to cabin crew members who have reported a hazard or an occurrence.

11.5.5 *Knowledge:*

- a) hazard identification and analysis (how to identify hazards and consequences);
- b) the operator's voluntary reporting systems and means of reporting. These may include but are not limited to:
 - i) observed hazards; and
 - ii) inadvertent errors;
- c) mandatory reporting systems and events that must be reported. These may include but are not limited to:
 - i) evacuation of crew and/or passengers;
 - ii) use of fire extinguishing or suppression agents;
 - iii) fire and smoke events, including those where the fires were extinguished;

- iv) events requiring the emergency use of oxygen;
 - v) anticipated emergency landing;
 - vi) significant safety and security related events, including for example: bomb threats, hijack or similar events, security breaches, stowaways, and severe turbulence;
 - vii) cabin crew incapacitation that renders him or her unable to perform critical safety duties;
 - viii) spillage, leakage or any event related to the transport of dangerous goods;
 - ix) carriage of dangerous goods in a manner that does not conform with the provisions of ICAO Annex 18 and the Technical Instructions; and
 - x) any other occurrence that endangers or may endanger the operation of an aircraft, or which causes or may cause a danger to persons or property;
- d) the process that the organization has in place to collect, analyse and provide feedback to cabin crew members who have reported a hazard or an occurrence; and
 - e) the importance of accurate and timely reporting and legal obligations, where applicable.

Note.— During training, cabin crew should be shown how to fill in a hazard report (or an occurrence report) and submit it to management. If the operator has specific forms for different types of hazards or occurrences, all the different forms should be covered during training.

11.6 Safety communication

11.6.1 Performance criteria:

- a) describe the different means used by the operator to communicate safety-related information; and
- b) identify the need for subsequent actions required by the cabin crew as a result of a particular safety communication.

11.6.2 Conditions: Classroom or computer-based training.

11.6.3 Reference:

- a) operations manual; and/or
- b) SMS manual.

11.6.4 *Performance standard:*

- a) describe the different means used by the operator to communicate safety-related information This includes, but is not limited to:
 - i) safety policies and procedures;
 - ii) newsletters;
 - iii) bulletins; and
 - iv) website; and
- b) identify the need for subsequent actions required by the cabin crew as a result of a particular communication. This includes actions relevant to specific communications such as safety bulletin informing crew of a change to a procedure.

11.6.5 *Knowledge:*

- a) importance of maintaining a formal means of safety communication as an essential foundation for the development and maintenance of an SMS;
 - b) the objectives of safety communications. This includes, but is not limited to:
 - i) ensuring that all cabin crew are fully aware of the SMS;
 - ii) conveying safety critical information;
 - iii) explaining why particular safety actions are taken;
 - iv) explaining why safety procedures are introduced or changed;
 - c) means of communication for safety-related information used by the operator and means for cabin crew to provide feedback on that information; and
 - d) the means of communication, as well as their importance and any subsequent actions required by the cabin crew as a result of a particular communication.
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CHAPTER 12. FATIGUE MANAGEMENT TRAINING

12.1 Definition and goal of fatigue management training

12.1.1 Fatigue is defined as a physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety-related duties.

12.1.2 Fatigue risk management system (FRMS) is defined as a data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles and knowledge as well as operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.

12.1.3 Fatigue management requirements applicable to operators are addressed in Paragraph 4.10 of Annex 6 — *Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes*. They require States to put in place regulations for managing fatigue based on scientific principles, either through mandatory prescriptive regulations on flight time, flight duty period, duty period and rest period limitations or optional FRMS regulations. These provisions are applicable to flight and cabin crew.

12.1.4 As part of the ICAO requirements, the State of the Operator shall require that the operator to establish either:

- a) flight time, flight duty period, duty period and rest period limitations that are within the prescriptive fatigue management regulations established by the State of the Operator; or
- b) an FRMS for all operations; or
- c) an FRMS for part of its operations and the requirements of 12.1.4 a) for the remainder of its operations.

12.1.5 Regardless of the method used to comply with fatigue management requirements, the operator should address the issue of fatigue management during training. The goal of this training is to provide cabin crew members with knowledge regarding the causes and consequences of fatigue and how to manage them, as well as their own responsibility and that of the operator in managing fatigue.

12.2 Content of fatigue management training

12.2.1 The content of the training programme will depend on whether the operator applies the prescriptive fatigue management regulations or has implemented an FRMS, applicable to cabin crew members.

12.2.2 The content in this chapter is not linked to a specific competency element. The material covered addresses overarching processes, policies and procedures that cabin crew should be knowledgeable on, in order to perform specific duties and responsibilities (e.g. hazard reporting). However, for the purposes of this manual, which is built on competency-based training, the chapter is written in the same format as the others (which address specific competency elements) and provides guidance on performance criteria, conditions, references, performance standards and knowledge.

12.2.3 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regards to the performance criteria covered, the conditions used for training and the knowledge that may be assessed. Guidance on recurrent training is found in section 12.5.

12.3 Prescriptive fatigue management for cabin crew

12.3.1 If the operator follows the prescriptive fatigue management regulations established by the State of the Operator, training should include, but is not limited to, the following aspects.

12.3.2 *Performance criteria:*

- a) describe the consequences of fatigue on cabin crew performance;
- b) describe the scientific principles on which fatigue management is based;
- c) identify operator and individual cabin crew member responsibilities for fatigue management when complying with prescriptive limits;
- d) identify rules and operational processes relating to scheduling and reporting of fatigue risk; and
- e) identify personal fatigue management strategies.

12.3.3 *Conditions:* Classroom or computer-based training.

12.3.4 *Reference:*

- a) operations manual; and
- b) relevant reporting form(s).

12.3.5 *Performance standard:*

- a) describe the consequences of fatigue on cabin crew performance:
 - i) physical effects: e.g. tiredness, weakness, lack of energy, lethargy, yawning, eye-rubbing, heavy eyelids, need to keep moving, slowed movement, diminished coordination, non-responsive (asleep);
 - ii) cognitive effects: e.g. difficulties in concentrating, slower reaction times, more haphazard performance, fixation; less creative problem-solving;
 - iii) emotional effects: e.g. depression, increased irritability, apathy, withdrawal; and
 - iv) operational implications: e.g. degradation of productivity, slower reaction in case of an emergency, and impact on communication skills;
- b) describe the scientific principles on which fatigue management is based:
 - i) sleep is a physiological need:

- 1) the different types and stages of sleep;
 - 2) restorative sleep;
 - 3) the pressure to sleep increases the longer a person is awake (homeostatic sleep drive);
 - 4) napping and sleep inertia; and
 - 5) factors that affect the sleep of an individual on a particular occasion (e.g. health status, prior work/sleep history, the time of day, age, use of drugs and/or alcohol, presence of a sleep disorder);
- ii) the body clock affects the timing and quality of sleep and how humans perform at various tasks:
- 1) circadian rhythms;
 - 2) circadian influences on sleep (going to sleep, waking up, sleep propensity, wake maintenance zones);
 - 3) shift work; and
 - 4) jet lag and adaptation;
- iii) a sleep debt accumulates over consecutive days of inadequate sleep. Recovery requires consecutive nights of adequate sleep:
- 1) cumulative sleep loss and the effects on performance; and
 - 2) recovery sleep – quantity and quality;
- iv) the type of task being performed has varying fatigue effects:
- 1) physical vs. cognitive demands;
 - 2) environmental factors that influence fatigue; and
 - 3) workload – the fatigue risks of too much or too little;
- c) identify operator and individual cabin crew member responsibilities for fatigue management when complying with prescriptive limits:
- i) operator responsibilities relate to:
 - 1) identifying and following limitations and scheduling rules that allow opportunities for adequate sleep; and
 - 2) managing operational risks within the constraints of the prescriptive regulations as part of their SMS;

- ii) individual cabin crew member responsibilities relate to:
 - 1) using the resources provided (including training, sleep opportunities and facilities) to assure he/she is adequately rested to perform his/her duties; and
 - 2) identifying and reporting fatigue hazards including “non-fitness to fly”;
- d) identify rules and protocols relating to scheduling, reporting of fatigue risk and implementation of mitigations:
 - i) limitations for flight time, flight duty period, duty period and rest periods and scheduling rules according to type of operation (long haul, multiple stops, etc.)
 - ii) scheduling changes (operator and cabin crew member initiated):
 - 1) on-call notification time;
 - 2) extended duties; and
 - 3) swaps;
 - iii) layover accommodations
 - iv) in-flight rest policies and crew rest areas
 - v) when and how to report a fatigue hazard and the operator’s response:
 - 1) sleep deprivation (for whatever reason); and
 - 2) sleep disorders;
- e) identify personal fatigue management strategies. These may include, but are not limited to:
 - i) sleep hygiene at home and in-flight;
 - ii) nutrition;
 - iii) physical exercise;
 - iv) strategic use of caffeine and medications;
 - v) relaxation exercises; and
 - vi) workload management.

12.3.6 *Knowledge:*

- a) Consequences of fatigue on cabin crew performance.
- b) Scientific principles on which fatigue management is based.
- c) Operator and individual cabin crew member responsibilities for fatigue management when complying with prescriptive limits.
- d) Rules and operational processes relating to scheduling and reporting of fatigue risk.
- e) Personal fatigue management strategies.

Note.— *Guidance on the medical aspects of fatigue are considered in Part III, Chapter 17 of the ICAO Manual of Civil Aviation Medicine (Doc 8984), which is available on the ICAO website at: www.icao.int/publications/pages/publication.aspx?docnum=8984.*

12.4 Fatigue risk management systems (FRMS) for cabin crew

12.4.1 If the operator has an FRMS applicable to cabin crew, this should also be addressed during training. Training in FRMS is defined as training which focuses on the role that the individual cabin crewmembers play within the FRMS and how their contributions fit in the bigger picture of fatigue risk management at the overarching organizational level.

12.4.2 The goal of FRMS training is to ensure that cabin crew are trained and competent to identify and manage fatigue and to perform their duties within the FRMS, if applicable. As is the case with SMS, the amount of training required and the topics that must be covered depend on each individual's involvement in the FRMS.

Note.— *Guidance for FRMS can be found in the Fatigue Risk Management Systems Manual for Regulators (Doc 9966) and the ICAO-IATA-IFALPA FRMS Implementation Guide for Operators. These documents are available on the ICAO website at: www.icao.int/safety/fatiguemanagement/Pages/DocumentsandToolkits.aspx.*

12.4.3 *Performance criteria:*

- a) describe the consequences of fatigue on cabin crew performance;
- b) describe the scientific principles on which fatigue management is based;
- c) identify operator and cabin crew member responsibilities for fatigue management under an FRMS;
- d) identify the processes to be followed by a cabin crew member within the operator's FRMS; and
- e) identify personal fatigue management strategies.

12.4.4 *Conditions:* Classroom or computer-based training.

12.4.5 *Reference:*

- a) operations manual; or
- b) FRMS manual; or
- c) SMS manual; and
- d) relevant reporting form(s).

12.4.6 *Performance standard:*

- a) describe the consequences of fatigue on cabin crew performance:
 - i) physical effects: e.g. tiredness, weakness, lack of energy, lethargy, yawning, eye-rubbing, heavy eyelids, need to keep moving, slowed movement, diminished coordination, non-responsive (asleep);
 - ii) cognitive effects: e.g. difficulties in concentrating, slower reaction times, more haphazard performance, fixation, less creative problem-solving;
 - iii) emotional effects: e.g. depression, increased irritability, apathy, withdrawal; and
 - iv) operational implications: e.g. degradation of productivity, slower reaction in case of an emergency, and impact on communication skills;
- b) describe the scientific principles on which fatigue management is based:
 - i) sleep is a physiological need:
 - 1) the different types and stages of sleep;
 - 2) restorative sleep;
 - 3) the pressure to sleep increases the longer a person is awake (homeostatic sleep drive);
 - 4) napping and sleep inertia; and
 - 5) factors that affect the sleep of an individual on a particular occasion (e.g. health status, prior work/sleep history, the time of day, age, use of drugs and/or alcohol, presence of a sleep disorder);
 - ii) the body clock affects the timing and quality of sleep and how humans perform at various tasks:
 - 1) circadian rhythms;
 - 2) circadian influences on sleep (going to sleep, waking up, sleep propensity, wake maintenance zones);

- 3) shift work; and
- 4) jet lag and adaptation;
- iii) a sleep debt accumulates over consecutive days of inadequate sleep. Recovery requires consecutive nights of adequate sleep:
 - 1) cumulative sleep loss and the effects on performance; and
 - 2) recovery sleep – quantity and quality;
- iv) the type of task being performed has varying fatigue effects:
 - 1) physical vs. cognitive demands;
 - 2) environmental factors that influence fatigue; and
 - 3) workload – the fatigue risks of too much or too little;
- c) describe operator and individual cabin crew member responsibilities for fatigue management under an FRMS:
 - operator responsibilities relate to identifying and following limitations and scheduling rules that allow opportunities for adequate sleep:
 - 1) assessing and managing fatigue risks;
 - 2) providing working conditions that allow a cabin crew member to manage their fatigue-related risk on any given day or time; and
 - 3) fostering an effective reporting culture that encourages fatigue hazard reporting and provision of data by crew members;
 - individual cabin crew member responsibilities relate to:
 - 1) using the resources provided (including training, sleep opportunities and facilities) to assure he/she is adequately rested to perform his/her duties effectively;
 - 2) providing accurate data when participating in any fatigue data collection activity; and
 - 3) identifying and reporting fatigue hazards;
- d) describe the processes to be followed by a cabin crew member within the operator's FRMS:
 - i) the operator's FRMS policy:
 - 1) the operations to which the FRMS applies;
 - 2) a description of the operator's FRMS and its aim; and

- 3) FRMS documentation and forms and how to access them;
- ii) identifying fatigue hazards:
 - 1) involvement in data collection activities;
 - 2) reporting fatigue hazards and the operator's response:
 - what should be reported when;
 - how to report;
 - how this information will be used and managed;
 - how cabin crew members will receive feedback; and
 - how the operator will respond in different situations;
 - iii) protocols for the implementation of fatigue mitigations:
 - 1) rostering management:
 - rostering practices; and
 - implementing roster changes (operator and cabin crewmember initiated);
 - 2) in-flight rest policies and crew rest areas; and
 - 3) layover accommodations;
- e) identify personal fatigue management strategies. These may include, but are not limited to:
 - i) sleep hygiene at home and in-flight;
 - ii) nutrition;
 - iii) physical exercise;
 - iv) strategic use of caffeine and medications;
 - v) relaxation exercises; and
 - vi) workload management.

12.4.7 *Knowledge:*

- a) consequences of fatigue on cabin crew performance;
- b) the scientific principles on which fatigue management is based;

- c) operator and individual cabin crew member responsibilities for fatigue management under an FRMS;
- d) processes to be followed by a cabin crew member within the operator's FRMS; and
- e) personal fatigue management strategies.

12.5 Recurrent fatigue management training

12.5.1 The frequency and nature of recurrent training needs to be decided by the operator, in consultation with professional trainers (internal or external to the operator) as needed. Many regulators may also prescribe requirements on the frequency of FRMS training.

12.5.2 Prescriptive fatigue management recurrent training should include, but is not limited to:

- a) rules and operational processes relating to scheduling and reporting of fatigue risk, including any changes in processes; and
- b) personal fatigue management strategies.

12.5.3 FRMS recurrent training should include, but is not limited to:

- a) the processes to be followed by a cabin crew member within the operator's FRMS, including any changes; and
 - b) personal fatigue management strategies.
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CHAPTER 13. IN-CHARGE CABIN CREW MEMBER TRAINING

13.1 Definition and goal of in-charge cabin crew member training

13.1.1 The In-charge cabin crew member (also referred to as cabin leader, lead cabin crew member, onboard leader, senior cabin crew member, etc.) is a cabin crew leader who has overall responsibility for the conduct and coordination of cabin procedures applicable during normal operations and during abnormal and emergency situations for flights operated with more than one cabin crew member.

13.1.2 In multi-cabin crew operations, an In-charge cabin crew member should be designated by the operator. The In-charge cabin crew member has the responsibility to the flight crew for coordination of normal, abnormal and emergency procedures specified in the operations manual and for managing situations with the other cabin crew members. Prior to being designated as an In-charge cabin crew member, the following criteria should be met:

- a) minimum experience considered acceptable to the civil aviation authority; and
- b) successful completion of the operator's in-charge cabin crew member training (as required by national regulations).

Note.— Start-up operators should establish alternative minimum experience requirements acceptable to the civil aviation authority.

13.1.3 Completion of the operator's cabin crew training programme provides specialized competencies and skills relevant to becoming a qualified cabin crew member. In-charge cabin crew training is usually additional or enhanced training which is specific to the duties and responsibilities of a cabin crew member leader and provides him/her with the competencies and skills required to assume that role.

13.1.4 The training encompasses specific aspects of the operator's standard operating procedures, which are relevant to the in-charge cabin crew member. Since the scope of this manual is limited to safety training, aspects of service training are excluded from this chapter.

13.1.5 The goal of this training is to enable the in-charge cabin crew member to carry out all the specific tasks that are assigned to him/her during day-to-day operations and normal, abnormal and emergency situations in order to participate in the safe operation of aircraft. This training includes the interactions with the flight and cabin crew, the management of the cabin environment and interfacing with other personnel, such as ground staff, law enforcement officers, airport security, medical personnel, etc. It also includes the completion of administrative tasks related to the cabin operations.

13.2 Competency-based training for in-charge cabin crew member

13.2.1 Chapters 5, 6, 7, 9 and 10 provide detailed guidance on competency-based training for cabin crew duties and responsibilities. In a multi-crew environment, some of the performance criteria are specific to the in-charge cabin crew member. These are addressed in the chapters mentioned above. Therefore, this chapter does not repeat the guidance to assess the specific In-charge cabin crew member competencies. However, an overview of the recommended in-charge cabin crew member training

programme structure and content is presented, to supplement what is addressed in other chapters of this manual.

13.3 Content of in-charge cabin crew member training

13.3.1 Operators should develop a specific training programme for in-charge cabin crew members. The content of this training programme should be in accordance with national regulations, where applicable. It is highly recommended that operators make this training mandatory for any cabin crew member that is designated as In-charge cabin crew member.

13.3.2 Overall, in-charge cabin crew member training should cover the following topics, to address the competencies specified in the ICAO competency frameworks:

- a) briefings (in normal, abnormal and emergency situations) taking due account of special circumstances of flights (e.g. weather forecast conditions, political turmoil at destination, special categories of passengers, etc.);
- b) communication, cooperation and coordination with the crew and with other personnel;
- c) operator's procedures and legal requirements;
- d) administrative tasks required by the operator;
- e) human performance;
- f) reporting systems and requirements;
- g) fatigue management; and
- h) leadership skills.

13.3.3 Further guidance on these topics is presented in Sections 13.4 through 13.11.

13.4 Briefings

13.4.1 In-charge cabin crew member training should cover the specific elements required to be obtained and disseminated during the pre-flight briefing (refer to Chapter 5, Section 5.5.8) and the briefing required during an abnormal or emergency situation (e.g. anticipated emergency landing/ditching – refer to Chapter 6, Section 6.8.3).

13.5 Communication, cooperation and coordination within the crew and with other personnel

13.5.1 Training should address the following items:

- a) the concept of the crew member's role and responsibilities and the chain of command on-board the aircraft;
- b) the importance of crew coordination and communication;

- c) awareness of multi-cultural and multi-national crews; and
- d) procedures in the event of cabin crew and flight crew member incapacitation.

13.6 Operator's procedures and legal requirements

13.6.1 Training should address the following items:

- a) minimum equipment list;
- b) flight and duty time limitations; and
- c) duties and responsibilities related to operator's standard operating procedures, as required by the position.

13.7 Administrative tasks required by the operator

13.7.1 Training should address the administrative tasks related to safety that the In-charge cabin crew member must complete, as per operator procedures. This may include, but is not limited to, completing and submitting checklists, incident report forms, cabin defect log, etc.

13.8 Human performance

13.8.1 Training should address the following items:

- a) overview of Human Factors, CRM, TEM and human performance;
- b) review of skills and application of skills specific to In-charge cabin crew member: flexibility, empathy, delegation, and planning and coordinating resources (refer to Chapter 8) and their application in the management of specific occurrences, including but not limited to:
 - i) passenger management;
 - ii) security incidents; and
 - iii) the management of medical diversions;
- c) operator's safety culture; and
- d) CRM aspects specific to the aircraft type (e.g. narrow/wide body, single/multi deck).

Note.— where practicable, training should include a joint simulated exercise with flight crew members (e.g. in a representative training device).

13.9 Reporting systems and requirements

13.9.1 Training should address the following items:

- a) participation in the operator's reporting programme (hazards, incidents, accidents and both voluntary and mandatory occurrence reporting);
- b) duties and responsibilities specific to the In-charge cabin crew, including documentation; and
- c) review of relevant incident/accident cases.

13.10 Fatigue management

13.10.1 Training should address the following items:

- a) application of flight and duty time limitations;
- b) awareness of the operator's fatigue risk management programme;
- c) rest requirements (i.e. in-flight and ground rest);
- d) physiological aspects of fatigue and fatigue countermeasures. (e.g. basics of fatigue, sleep fundamentals, the effect of disturbing the circadian rhythms, the cause of fatigue and the effects on performance, the influence of lifestyle including nutrition and exercise, sleep disorders, the effects of long range operations, heavy short range schedules, operating through and within multiple time zones, the crew responsibilities, etc.);
- e) operator's procedures related to allocation of in-flight crew rest where applicable and the need to remind cabin crew members on their responsibility to be well rested prior to duty;
- f) the importance of re-considering cabin crew working positions in case a cabin crew member reports fatigue before take-off or during the flight; and
- g) fatigue reporting.

13.11 Leadership skills

13.11.1 The training should address, but is not limited to, the following items:

- a) leadership function;
- b) leadership qualities and negatives;
- c) recognition and appropriate application of different leadership styles for different situations;
- d) assertiveness;

- e) identification of different personality styles within the work place;
- f) team forming and coaching, including tools that can be used to encourage cooperation, motivation and transparency from other crew members;
- g) support, motivation and respect, including sensitivity towards different cultural beliefs, values and practices;
- h) appropriate delegation of duties and responsibilities;
- i) providing feedback;
- j) conflict management, problem solving and mediation;
- k) effective management of time, people and resources; and
- l) stress management.

13.12 In-charge cabin crew member recurrent training

13.12.1 Operators should ensure that in-charge cabin crew members maintain the required skills and remain proficient on the duties and responsibilities specific to that role. In order to achieve this goal, cabin crew members designated as in-charge cabin crew should receive recurrent training. The delivery methods used may vary: an operator may develop a standalone In-charge cabin crew member recurrent training programme or embed aspects of this programme as part of its recurrent training programme.

13.12.2 If the operator chooses to develop a standalone recurrent training programme specific for in-charge cabin crew members, this should be conducted in addition to the regular annual recurrent training required for all cabin crew. It is recommended that this training programme be provided annually. Where in-charge cabin crew member recurrent training is mandated by the State of the operator, it should be in accordance with national regulations.

13.12.3 Training should address the following items:

- a) communication, cooperation and coordination within the crew;
 - b) human performance;
 - c) reporting systems and requirements;
 - d) fatigue risk management;
 - e) leadership skills;
 - f) safety review/reinforcement (from sources such as SMS, audit feedback, etc.); and
 - g) operator procedural reminders and legal updates.
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CHAPTER 14. MANAGEMENT ASPECTS OF THE CABIN SAFETY TRAINING PROGRAMME

14.1 Overview

14.1.1 Cabin crew training managers, training programme developers, instructors and examiners are integral to successful training programmes and the development of competent cabin crew members. These professionals should possess a good understanding of the learning process and how to positively influence human behavior. Training development and continued evaluation of training programmes are also needed to obtain quality training. Therefore, operators should establish qualifications for key personnel and implement a process for the continuous improvement of training programmes.

14.2 Cabin crew safety training manager

14.2.1 A cabin crew safety training manager should be appointed by the operator, and may be subject to approval by the State. The cabin crew safety training manager should demonstrate a thorough understanding and knowledge of the administrative and practical responsibilities and procedures associated with the position. The cabin crew safety training manager's qualifications should be in accordance with national regulations, where applicable.

14.2.2 Recommended qualifications should include, but are not limited to, the following:

- a) experience as a cabin crew member;
- b) management skills;
- c) experience in instructional and training skills; and
- d) knowledgeable about applicable regulations and operator's standard operating procedures.

14.2.3 The cabin crew safety training manager's responsibilities may include, but are not limited to, the following:

- a) assuring a current and approved cabin crew safety training programme;
- b) assuring training equipment and facilities meet the required standards;
- c) providing advice into the development of safety and emergency procedures;
- d) providing advice into the development of directives and notices to cabin crew members;
- e) supervising cabin crew training personnel and ensuring that the appropriate guidance is provided;
- f) assuming responsibilities delegated by the relevant management;
- g) training of cabin crew members, in accordance with the approved training programme;
- h) maintaining cabin crew training records;

- i) liaising with other company departments to ensure that cabin safety objectives are met;
- j) liaising with regulatory authorities;
- k) in his/her absence, delegating all responsibilities to another qualified individual; and
- l) administering and communicating as necessary to fulfill the foregoing responsibilities.

14.3 Cabin crew instructor

14.3.1 National regulations may require the operator to qualify and assign different individuals to fulfil the distinct roles of cabin crew instructors and examiners. If this is not the case, both the roles of the instructor and examiner may be assigned to the same individual. However, there should be a clear distinction in the competencies required to perform the respective duties (i.e. instructor or examiner). If the instructor also performs the role of an examiner on trainees that he/she instructed, he/she should remain impartial during the assessment.

14.3.2 Prior to the issue of a cabin crew instructor qualification (e.g. certificate or authorization), all candidates should hold a cabin crew qualification, for which the privilege to instruct is being sought.

Note.— The above requirement does not preclude a subject matter expert from being authorized to instruct on matters that deal with their area of expertise.

14.3.3 Qualified and authorized instructors may be assigned to carry out instruction, and auditing duties to determine that all required performance standards have been satisfactorily achieved.

14.3.4 The instructor qualifications should be in accordance with national regulations, where applicable.

14.3.5 Prior to an organization authorizing the provision of instruction within competency-based training environments, instructors should undergo a selection process designed to assess that the individual's knowledge, capability and competency are suitable for the instructor's role and to determine the person's motivation. In addition, selection of an instructor should be based on criteria intended to define a proven capability in the subject for which he/she expects to instruct, in accordance with the competencies described in paragraph 14.3.6.

14.3.6 Training programmes for the instructor role should focus on development of the competencies listed in the Attachment to this chapter. The competency framework consists of competency units, competency elements, and performance criteria. The competency framework for instructors of cabin crew should be based on the following competency units:

- a) manage safety of the training environment;
- b) prepare the training environment;
- c) manage and support the trainee;
- d) conduct training;

- e) perform trainee assessment;
- f) perform course evaluation; and
- g) continuously improve performance.

Note.— The operator or training organization may administer an online course evaluation, rather than tasking the instructor with performing it.

14.3.7 Prior to the issue of an instructor qualification, all candidates should successfully complete a formal competency assessment in the role, during the conduct of practical training. The final assessment of instructor competence should be made against the competency framework contained in the Attachment to this chapter.

14.3.8 All instructors should receive refresher training, and be re-assessed according to 14.3.7 using a documented training and assessment process acceptable to the State, implemented by the operator or training organization, or at intervals in accordance with national regulations.

14.4 Cabin crew examiner

14.4.1 Prior to the issue of a cabin crew examiner qualification (e.g. certificate or authorization), all candidates should hold a cabin crew qualification, for which the privilege to examine is being sought.

Note.— The above requirement does not preclude a subject matter expert from being authorized to examine on matters that deal with their area of expertise.

14.4.2 Qualified and authorized examiners may be assigned to carry out assessments, and auditing duties to determine that all required performance standards have been satisfactorily achieved. The examiner is responsible for making a determination of the actual standards attained and any recommendation for corrective action, if necessary.

14.4.3 The examiner qualifications should be in accordance with national regulations, where applicable.

14.4.4 Prior to an organization authorizing the provision of examination within competency-based training environments, examiners should undergo a selection process designed to assess that the individual's knowledge, capability and competency are suitable for the examiner's role and to determine the person's motivation. In addition, selection of an examiner should be based on criteria intended to define a proven capability in the subject for which he/she intends to examine, in accordance with the competencies described in paragraph 14.4.5.

14.4.5 Training programmes for the examiner role should focus on development of the competencies listed in the Attachment to this chapter. The competency framework consists of competency units, competency elements, and performance criteria. The competency framework for examiner of cabin crew should be based on the following competency unit: Conduct competency-based assessment.

14.4.6 Prior to the issue of an examiner qualification, all examiners should successfully complete a formal competency assessment in the role, during the conduct of practical training. The final assessment of examiner competence should be made against the competency framework contained in the Attachment to this chapter.

14.4.7 All examiners should receive refresher training, and be re-assessed according to 14.4.6 using a documented training and assessment process acceptable to the State, implemented by the operator or training organization, or at intervals in accordance with national regulations.

14.5 Training programme developer

14.5.1 The training programme developer is responsible for the development of a cabin crew training programme that meets the applicable regulatory requirements. Training programme developers should demonstrate that they possess the competencies described in the attachment to this chapter and that they have the ability to develop training in accordance with the features of a competency-based approach to training, as outlined in Chapter 3.

14.5.2 The training programme developer's responsibilities include, but are not limited to, the following:

- a) designing the training programme;
- b) defining training objectives;
- c) designing course examinations and practical evaluations;
- d) designing training modules;
- e) determining the training strategy;
- f) selecting training media;
- g) producing competency-based training and assessment materials;
- h) carrying out developmental testing of competency-based training and assessment materials; and
- i) improving the training programme, based on analysis of different sources of information (e.g. safety audits, trainee feedback and the operator's voluntary occurrence reporting system).

14.6 Training delivery methods

14.6.1 Competency-based training requires the acquisition of both knowledge and skills. A variety of training methods should be used (classroom, CBT, hands-on exercises, simulated exercises in representative training devices, etc.) as appropriate to the subject matter. The operator should ensure a balance between independent learning (e.g. distance learning) and supervised training (e.g. classroom training).

14.6.2 Training should take into consideration the various ages, cultures and language proficiency of trainees. Various training mediums should be utilized:

- a) any distance training should include technology support;

- b) some learners may require more interactive learning techniques (e.g. generation Y); and
- c) different learning styles should be considered.

14.6.3 Any computer-based or distance training should incorporate a learning management system which ensures learning is achieved, recorded and validated.

14.6.4 Based on the scenario, hands-on exercises and simulated exercises should be conducted utilizing representative training devices (refer to Chapter 2).

14.7 Examiner reliability

14.7.1 Reliability is needed to ensure consistency in assessments conducted by examiners. When examiners use an assessment instrument, a process should be in place to ensure the consistency or stability of results given by a single examiner (intra-examiner reliability) to the same performances at different moments in time and the consistency or stability of results between different examiners (inter-examiner reliability).

14.7.2 If the assessment instrument is a multiple choice questionnaire, limited training of examiners for inter and intra-examiner reliability may be required. Examiners need to apply an answer key.

14.7.3 If the examiners have to judge against criteria, reliability training comes into play since assessors need to be calibrated in how they interpret the criteria.

14.7.4 Further information on examiner reliability can be found in the *ICAO Manual of Evidence-based Training* (Doc 9995).

14.8 Continuous improvement of the training programme

14.8.1 *Overview*

14.8.1.1 In order to continuously improve the quality of the training programme, an evaluation process should be developed for the course, training personnel and the training material.

14.8.2 *Course evaluation*

14.8.2.1 The instructor should evaluate the effectiveness of the training system by performing a course evaluation utilizing trainee feedback and trainee performance outcomes of the training. For further information, refer to Section 14.3.6 and the competency framework contained in the attachment to this chapter.

14.8.3 *Instructor performance*

14.8.3.1 As part of the continuous improvement of the training programme, each instructor should undergo a periodic performance review to ensure competency and standardization. In addition, each instructor should evaluate his/her effectiveness and sustain personal development. For further information, refer to Section 14.3.6 and the competency framework contained in the attachment to this chapter.

14.8.4 *Training material evaluation*

14.8.4.1 At the management level, the operator or training organization should evaluate the training material. This may include the following:

- a) validate competency-based training materials and results;
- b) evaluate whether performance criteria objectives are met; and
- c) evaluate whether organizational and operational objectives are met.

14.9 Documentation

14.9.1 *Instructor/examiner qualifications/re-qualifications*

14.9.1.1 The operator should maintain the following records of their instructors and examiners:

- a) training records;
- b) records of performance review;
- c) training classes conducted;
- d) examinations conducted;
- e) observation flights and relevant cabin crew documentation, if applicable;
- f) checks as carried out by State authorised officers or the examiners authorised by the State; and
- g) licenses and certificates in accordance with national regulations, where applicable.

14.9.2 *Cabin crew training records*

14.9.2.1 An operator should have and maintain a system for the management and control of all training records to ensure the content and retention of such records is in accordance with national regulations, as applicable, to ensure records are subjected to standardized processes for:

- a) identification;
- b) legibility;
- c) maintenance;
- d) retrieval;
- e) protection and security;
- f) disposal, deletion (electronic records) and archiving.

14.9.2.2 When utilizing an electronic system for the management and control of training records, operator ensures the system provides for a scheduled generation of back-up record files.

14.9.2.3 The operator should maintain the following records for all of its cabin crew members. The training record should include, but not limited to:

- a) training (training dates, competency assessments, test records, course content, etc.);
- b) aircraft qualifications (including familiarisation flights, as applicable); and
- c) special qualifications, if applicable (e.g. AED training, In-charge cabin crew member qualification, etc.).

14.9.2.4 If a cabin crew member terminates a contract with the operator, the operator should provide the training records or copies of the records to the cabin crew member or a cabin crew member should request the records in the interest of his/her future professional development. This request may be subject to the operator's record retention policy or as per national regulations, where applicable.

14.9.3 *Training programme material*

14.9.3.1 The operator should maintain:

- a) current training programme contents and lesson plans;
 - b) validation of training programme and results; and
 - c) an annual programme update/review.
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**Appendix 1 to Chapter 14. Competency frameworks for cabin crew instructors,
cabin crew examiners and training programme developers**

COMPETENCY FRAMEWORK FOR CABIN CREW INSTRUCTOR	
Competency unit: 1. Manage safety of the training environment	
The instructor must ensure a safe training environment at all times. The instructor must ensure the safety of trainees in his/her care.	
Competency element	Performance criteria
1.1 Ensure a safe training environment	1.1.1 Ensure that equipment meets safety requirements
	1.1.2 Communicate evacuation and occupational, health and safety procedures of the training facility
	1.1.3 Create an appropriate safe learning environment (e.g. facilities, cabin simulator, fire fighting facilities, etc.)
	1.1.4 Identify hazards and manage them (e.g. slippery floor)
Competency unit: 2. Prepare the training environment	
The instructor should have adequate facilities for performing the required training and possess or agree to obtain all required equipment prior to conducting any training. The instructor should consider the following sub-elements as essential to a successful outcome.	
Competency element	Performance criteria
2.1 Ensure adequate facilities and equipment	2.1.1 Ensure the facilities are scheduled and adequate to meet the learning outcomes objectives
	2.1.2 Ensure that the physical environment is suitable for learning
	2.1.3 Ensure environment and conditions exist for the training objectives
	2.1.4 Ensure that the training equipment is available, accessible and functional
	2.1.5 Follow approved training syllabus or checklists
Competency unit: 3. Manage and support the trainee	
The instructor should ensure that training is communicated appropriately to meet the needs of the trainee.	
Competency element	Performance criteria
3.1 Understand trainee	3.1.1 Identify and demonstrate awareness of trainee characteristics (experience, language, culture)
	3.1.2 Determine learning needs
	3.1.3 Demonstrate awareness of learning styles
3.2 Coach trainee	3.2.1 Recognize and be flexible and supportive to trainee's performance and needs
	3.2.2 Maintain appropriate interaction with trainee

Competency unit: 4. Conduct training	
The instructor must perform a variety of instructional methods as required for the training.	
Competency element	Performance criteria
4.1 Establish and maintain credibility	4.1.1 Demonstrate an exemplary role model's behaviour (meaning the behaviours expected in the technical role being trained, according to the competencies and related knowledge and skills)
	4.1.2 Demonstrate respect for organizational goals and requirements (SOPs, dress code, appearance, acceptable personal conduct, etc.)
	4.1.3 State clear objectives and clarify roles for the training or evaluation being undertaken
	4.1.4 Establish and maintain an atmosphere of open communication and mutual respect
4.2 Demonstrate effective presentation skills	4.2.1 Stimulate and sustain trainee's interest
	4.2.2 Sequence and pace instruction appropriately
	4.2.3 Use his/her voice effectively
	4.2.4 Use eye contact effectively
	4.2.5 Use gestures, silence, movement and training aids effectively
	4.2.6 Demonstrate effective variety of questioning skills
4.3 Demonstrate effective instruction and facilitation	4.3.1 Communicate effectively both verbally and non-verbally
	4.3.2 Listen actively and read non-verbal cues correctly and clarify, if necessary
	4.3.3 Ask appropriate questions to encourage learning or to confirm understanding
	4.3.4 Answer questions, correctly and adequately
	4.3.5 Generate content by questioning, redirecting, balancing participation, etc.
	4.3.6 Provide structure by confirming understanding, paraphrasing, summarizing, etc.
	4.3.7 Maintain a realistic approach in the conduct of the scenario
	4.3.8 Monitor comprehension and ensure proficiency
4.4 Manage time	4.4.1 Allocate time appropriately on activities
	4.4.2 Adjust time spent on activities to ensure that objectives are met
	4.4.3 Implement contingency plans for situations in which activities must be eliminated, reduced or replaced

Competency unit: 5. Perform trainee assessment	
The instructor should assess the trainee during instruction prior to a formal assessment by the examiner.	
Competency element	Performance criteria
5.1 Conduct general assessment	5.1.1 Monitor trainee's performance during instruction
	5.1.2 Make objective assessments on trainee's performance
	5.1.3 Provide understandable and actionable feedback to trainee
5.2 Report information on outcomes	5.2.1 Identify issues, difficulties and barriers faced by trainee
	5.2.2 Make recommendations to the training manager and/or examiner relating the performance of trainee prior to a formal assessment, if applicable
Competency unit: 6. Perform course evaluation	
The instructor should evaluate the effectiveness of the training system.	
Competency element	Performance criteria
6.1 Evaluate the effectiveness of a course or phase of a course	6.1.1 Evaluate trainee's feedback on the training process
	6.1.2 Evaluate trainee's mastery of end-of-course objectives
	6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance
6.2 Report information on course evaluation	6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content
	6.2.2 Make recommendations to the training programme developer for improvements relating to course design, course documentation and training media and facilities
	6.2.3 Share information with other instructors and management
Competency unit: 7. Continuously improve performance	
The instructor should evaluate his/her effectiveness and sustain personal development.	
Competency element	Performance criteria
7.1 Evaluate effectiveness	7.1.1 Evaluate his/her own performance as an instructor and learn from the results
	7.1.2 Seek feedback on the training course and his/her own performance from trainees and peers
	7.1.3 Encourage and welcome feedback on his/her performance as an instructor
7.2 Sustain personal development	7.2.1 Maintain required qualifications
	7.2.2 Strive to increase and update relevant knowledge and skills
	7.2.3 Demonstrate continuous improvement of instructor competencies

COMPETENCY FRAMEWORK FOR CABIN CREW EXAMINER	
Competency unit: 1. Conduct competency-based assessment	
The examiner must assess the trainee appropriately, objectively and correctly.	
Competency element	Performance criteria
1.1 Apply assessment methodology	1.1.1 Clarify assessment process and rules with trainee
	1.1.2 Communicate to trainee the criteria against which his/her performance will be assessed
	1.1.3 Ensure trainee is prepared to begin
1.2 Monitor trainee's performance	1.2.1 Observe behaviours and comment
	1.2.2 Allow trainee to self-correct, if applicable
	1.2.3 Identify individual differences in learning rates
1.3 Conduct objective assessments	1.3.1 Compare trainee's performance outcomes to defined objectives
	1.3.2 Apply performance standards fairly and consistently in accordance with performance criteria
	1.3.3 Ensure a level of knowledge and skill that achieves an appropriate level of safety
	1.3.4 Observe and encourage self-assessment of performance against performance standards
	1.3.5 Confidently make decision on outcome of the task
	1.3.6 Ensure assessment techniques are sufficient, valid, reliable and authentic
1.4 Provide clear and concise feedback	1.4.1 Ensure trainee fully comprehends the assessment
	1.4.2 Apply appropriate corrective actions
	1.4.3 Use facilitation techniques where appropriate
	1.4.4 Provide positive reinforcement/feedback
	1.4.5 Provide and confirm plan for improvement or remediation
1.5 Document training and performance reports	1.5.1 Submit appropriate and adequate training documentation (e.g. evaluation forms)
	1.5.2 Report clearly and accurately on trainee's performance measured against performance criteria
	1.5.3 Follow up corrective action plan, if applicable
	1.5.4 Report recognized training opportunities within the training system for the purpose of process improvement
	1.5.5 Respect confidentiality

COMPETENCY FRAMEWORK FOR TRAINING PROGRAMME DEVELOPER	
Competency unit: 1. Develop competency-based training and assessment	
The training programme developer must possess the ability to develop training and assessment in accordance with the features of a competency-based approach to training.	
Competency element	Performance criteria
1.1 Conduct analysis	1.1.1 Establish method of collection, entry, reporting and analysis of data
	1.1.2 Conduct preliminary analysis
	1.1.3 Conduct job and task analysis
	1.1.4 Conduct population analysis
1.2. Develop training material	1.2.1 Design training programme
	1.2.2 Define training objectives
	1.2.3 Design course examinations and practical evaluations
	1.2.4 Design modules
	1.2.5 Determine training strategy
	1.2.6 Select training media
	1.2.7 Produce competency-based training and assessment materials
	1.2.8 Carry out evaluation testing of competency-based training and assessment materials
	1.2.9 Redesign training programme, if the evaluation identifies the need for changes
	1.2.10 Conduct small group testing, to validate the material
	1.2.11 Modify the training programme, based on analysis of different sources of information

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