ICAO

Doc 10002

Cabin Crew Safety Training Manual

Second Edition, 2020

Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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AMENDMENTS

Amendments are announced in the supplements to the *Products and Services Catalogue;* the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

AMENDMENTS		
No.	Date	Entered by

CORRIGENDA		
No.	Date	Entered by

FOREWORD

Cabin safety contributes to the prevention of accidents and incidents and 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 and security-related tasks during normal day-to-day flights and essential to enable them to recognize and act on any abnormal or emergency situation.

The *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 could be proficient to perform their tasks, 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 competency-based cabin crew training and assessment.
This second edition aligns its contents with Amendment 5 to the *Procedures for Air Navigation Services — Training* (PANS-TRG, Doc 9868), which contains the overarching provisions and principles for competency-based training and assessment, the introduction of new definitions, the introduction of new provisions for cabin crew training and minor updates to existing provisions. This edition also includes guidance on the development and implementation of scenario-based training for cabin crew members, as well as guidelines to transition from traditional to competency-based assessments.

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 air transport operations should include all relevant parts of the syllabuses suggested in this manual but should not be limited by it.

This manual was developed with inputs from experts from civil aviation authorities, operators, aircraft manufacturers, training organizations and international organizations. It was thereafter submitted for an extensive peer review to account for comments from the expert community.

ICAO gratefully acknowledges the contributions of the ICAO Cabin Safety Group and experts who provided support, advice and input for this manual.

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GLOSSARY

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 service provider's safety management systems (SMS).

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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 Member State that, where applicable, is conducted within an approved training organization.

Apron. A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

Assessment. The determination by an instructor, assessor or evaluator as to whether a candidate meets a required competency standard under given conditions, by collecting evidence from observable behaviours. Assessment takes place during instruction and evaluation.

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

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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.

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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.

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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.

Ditching. The forced landing of an aircraft on water.

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.

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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 exit row seating. Each seat in a row of seats located adjacent to an emergency exit, having direct access to the exit.

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.

Evaluator. A person authorized to conduct the formal and final summative assessment of a trainee's performance.

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.

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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.

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

Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

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).

ICAO competency framework. A competency framework, developed by ICAO, is a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviours.

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.

Instructional systems design (ISD). A formal process for designing training which includes analysis, design and production, and evaluation.

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.

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.

Observable behaviour (OB). A single role-related behaviour that can be observed and may or may not be measurable.

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

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

Performance criteria. Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s) and a competency standard.

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. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

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 or 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.

LIST OF ACRONYMS

AC	Advisory circular
ADDIE	Analyse, design, develop, implement and evaluate
AED	Automated external defibrillator
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
C-EFB	Cabin electronic flight bag
CS-CCD	Certification Specifications for Cabin Crew Data
CS-FCD	Certification Specifications for Flight Crew Data
CS-MCS	Certification Specifications for Maintenance
CS-MMEL	Certification Specifications for Master Minimum Equipment List
CS-SIMD	Certification Specifications for Simulator Data
CPR	Cardiopulmonary resuscitation
CRM	Crew resource management
CRS	child restraint systems
CTD	Cabin training devices
CCOM	Cabin crew operations manual
DNA	Do not resuscitate
EASA	European Union Aviation Safety Agency
EMK	Emergency medical kit
EU	European Union
FAA	Federal Aviation Administration
FAK	First-aid kit
FRMS	Fatigue risk management system
FSAG	Fatigue Safety Action Group
I/C	In-charge cabin crew member
IATA	International Air Transport Association
IFE	In-flight entertainment
ILCOR	International Liaison Committee on Resuscitation
ISD	Instructional systems design
MEL	Minimum equipment list
MMEL	Master minimum equipment list
OB	Observable behaviour
OHCHR	Office of the United Nations High Commissioner for Human Rights
OSD	Operational Suitability Data
PBE	Protective breathing equipment
PED	Personal electronic device
SARPs	Standards and Recommended Practices
SOPs	Standard operating procedures
SMS	Safety management system
STC	Supplemental type certificate

TC	Type certificate
TCCA	Transport Canada Civil Aviation
TEM	Threat and error management
UPK	Universal precaution kit
UTC	Coordinated universal time
WHO	World Health Organization

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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.

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.

Observable behaviour (OB). A single role-related behaviour that can be observed and may or may not be measurable.

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

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

Performance criteria. Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s) and a competency standard.

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. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

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 or 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 AND SECURITY 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 tasks.

1.2.2 Training must focus on cabin crew members' tasks 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 and security-related tasks relating to normal day-to-day operations, including the role that cabin crew members play in maintaining safety and security.

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 7.

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 tasks, and to establish 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 2. The cabin crew competency framework is presented in the Appendices to Chapters 4, 5, 6, 8, 9 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 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, 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 tasks, 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 tasks 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;

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) being clear of a criminal record and passing a security background check; and

g) meeting 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;

f) recurrent training; and

g) requalification 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 tasks 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, firefighting, etc. Cabin crew trainees must successfully complete initial training before they are assigned duties as cabin crew members.

1.6.2 Initial training includes:

a) aviation indoctrination;

b) cabin crew tasks;

c) normal, abnormal and emergency procedures;

d) aircraft type training;

e) dangerous goods;

f) human performance;

g) cabin health and first aid;

h) aviation security; and

i) identifying and responding to trafficking in persons.

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. a Boeing B777 or an Airbus 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 familiarization 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 tasks:

1) air conditioning, ventilation, and pressurization systems;

2) communication systems and associated signalling panels;

3) control panels;

4) electrical systems (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);

5) evacuation alarm system;

6) fire suppression and extinguishing systems;

7) lighting systems (interior, exterior and emergency lights);

8) oxygen systems (cabin and flight deck);

9) smoke detection system; and

10) water and waste systems;

l) normal procedures and the related hands-on and/or simulated exercises;

m) abnormal and emergency procedures and the related hands-on and/or simulated exercises; and

n) design-related elements that may impact 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 tasks (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 should participate in a visit to an aircraft prior to participating on a familiarization 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 the syllabus described in the cabin crew operations manual (CCOM) and/or the cabin crew training 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 but not limited to 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 familiarization 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 tasks:

1) communication systems and associated signalling panels;

2) control panels;

3) electrical systems (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);

4) evacuation alarm system;

5) fire suppression and extinguishing systems;

6) lighting systems (interior, exterior and emergency lights):

7) oxygen systems (cabin and flight deck);

8) smoke detection system; and

9) 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 should participate in a familiarization 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 appropriate supervision (e.g. in-charge cabin crew member, instructor, evaluator, line checker, etc.). 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.

Note.— A new (start-up) operator may not have personnel which meet the criteria for persons authorized to conduct familiarization flights. In those instances of new (start-up) operators, the State may need to work with the operator to establish criteria for an "appropriate" supervision and special procedures for the conduct of familiarization flights for the purpose of initial certification.

1.10.4 A familiarization flight should include the following, as a minimum:

a) cabin crew tasks as determined by the operator including, but not limited to:

1) pre-flight and post-flight tasks (e.g. participation in briefings, conducting pre-flight checks, reviewing documentation);

2) a review of abnormal and emergency situations, associated procedures, and safety and emergency equipment; and

3) normal operations safety and security-related procedures;

b) cabin crew stations for take-off and landing (i.e. seating assignments) for persons conducting the familiarization flight and for the cabin crew trainees; and

c) crew communication procedures (including the use of interphone and public address system).

1.10.5 The operator should define situations which may prompt the termination of a familiarization flight. These situations include:

a) any abnormal or emergency situation (as described in Chapter 5);

b) any situation involving acts of unlawful interference (as described in Chapter 9);

c) an incapacitation of the person who conducts the familiarization flight; or

d) any other situation preventing the cabin crew trainee from completing the familiarization flight.

1.10.6 A familiarization flight is usually conducted as part of a revenue flight with passengers on board. However, some States may allow for group familiarization flights during non-revenue flights (refer to Appendix 5 to this chapter).

Note.— Guidance on the ratio of trainees to the person who conducts the familiarization flight is presented in Chapter 15.

1.11 RECURRENT TRAINING

1.11.1 Recurrent training is conducted annually to maintain and enhance cabin crew members' competence at the desired level through a series of hands-on exercises, simulated exercises, 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 is assigned to operate. 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 practising most tasks and their associated competencies, maintain the required level of performance.

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 regard to the tasks covered, the training media used, as well as the competencies 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 tasks (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:

   1) firefighting (including a live firefighting exercise, as required by the State);

   2) fume events;

   3) decompression;

   4) evacuation on land and on water (including a wet drill, as required by the State); and

   5) flight and cabin crew member incapacitation;

g) crew resource management;

h) passenger handling and crowd control;

i) aviation security;

j) first aid;

k) dangerous goods (within 24 months of previous training, refer to Chapter 6, 6.1.5);

l) review of recent incidents and/or accidents pertinent to the operator; and

m) identifying and responding to trafficking in persons.

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 TRAINING

1.12.1 Requalification training 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 tasks. 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 training should be conducted in accordance with national regulations, where applicable. National regulations may require requalification based on different time frames 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 training programmes are provided in Appendix 1 to this chapter.

1.13 SPECIFIC TRAINING METHODS

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.

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Appendix 1 to Chapter 1

EXAMPLES OF REQUALIFICATION TRAINING 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:

a) if a period of 13 up to 24 months or part thereof has elapsed since the last required training, the flight attendant shall complete Requalification Training and Annual Training;

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

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

d) 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.

Example 2: European Union Aviation Safety Agency (EASA) provisions for requalification

Although not referred to as "requalification" in the European Union (EU) rules, training is required as soon as the validity period, specified in the rules for each type of training, has expired. Requalification is achieved by completing the programme of the type of training required, as applicable to each case.

a) Initial training and related cabin crew attestation have a 60-month validity period. After 60 months without any flying duties, the initial training must be completed again and the related cabin crew attestation must be (re)issued. Initial training does not include aircraft type training.

b) Aircraft type training, referred to as 'aircraft type specific and operator conversion training[1]' in the EU, must be completed by a cabin crew member before being assigned by the operator to operate on each aircraft type/variant. This training has a 12-month validity period. Competence is maintained by completing recurrent training.

1. Operator conversion training is considered in this manual as a part of initial 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, 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 (a part of initial training in this manual) must be completed before being assigned again to flying duties.

Example 3: Federal Aviation Administration (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 12 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, 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.

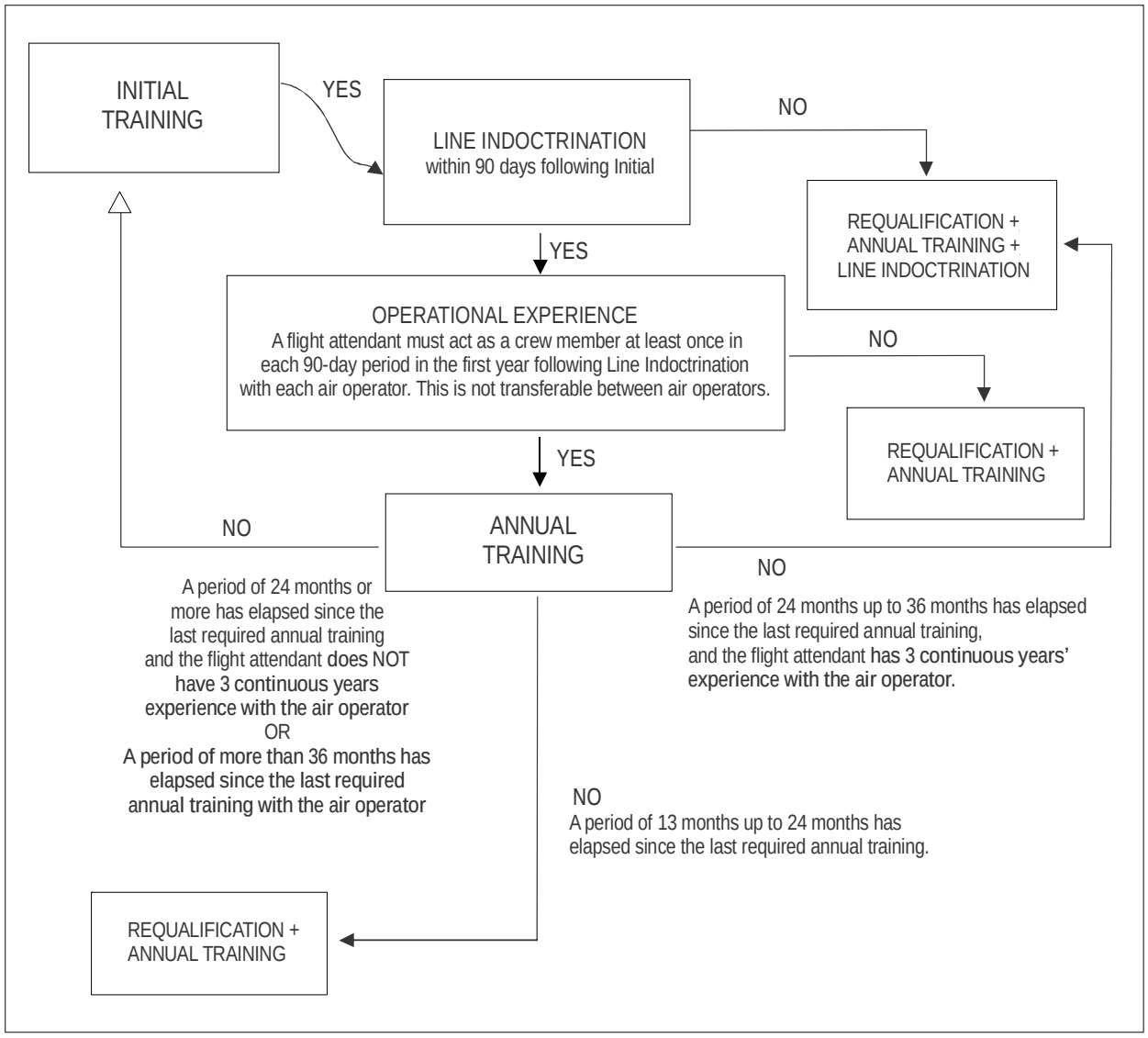

Figure 1-App-1. Sample quick reference guide for requalification requirements (Source: Transport Canada)

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Appendix 2 to Chapter 1

ADVANCED QUALIFICATION PROGRAMME

The Federal Aviation Administration (FAA) of the United States 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 emphasizes 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.

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Appendix 3 to Chapter 1

TRANSFERABLE TRAINING EXAMPLES

TRANSFERABLE TRAINING ELEMENTS ACROSS MULTIPLE OPERATORS

The European Union Aviation Safety Agency (EASA), through its regulations, allows cabin crew initial 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 recognized across the EU.

EASA's approach supports the aviation industry's efforts to adapt to the free movement of persons across the EU. As aviation is an increasingly mobile sector, it provides more flexibility to operators and facilitates the 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' tasks ;

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 environments and wet drills for water survival.

To ensure the transferability of the initial training, the programme does not include any training elements that are specific to individual operators. Those training elements must be covered by cabin crew trainees when completing the training provided by individual operators, e.g. aircraft type specific training and operator conversion training, differences training, etc.

This approach differs from the initial training specified in Chapter 1, 1.6, 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: www.easa.europa.eu/regulations.

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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.

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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 familiarization 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 familiarization flights can be found at: www.tc.gc.ca/en/transport-canada.html.

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Appendix 6 to Chapter 1

EUROPEAN APPROACH TO AIRCRAFT TYPE TRAINING

AIRCRAFT TYPE TRAINING

The European Union 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 customized 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 customized 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: www.easa.europa.eu/document-library/general-publications/easy-access-rules-air-operations.

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, A340-300, 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 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

COMPETENCY-BASED APPROACH TO CABIN CREW TRAINING AND ASSESSMENT

2.1 UNDERSTANDING COMPETENCY-BASED TRAINING AND ASSESSMENT PROGRAMMES

2.1.1 ICAO defines a competency as a dimension of human performance that is used to reliably predict successful performance on the job.

2.1.2 Traditional aviation training and assessment 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.

2.1.3 Alternatively, a competency-based approach to training and assessment is characterized by a set of principles:

a) relevant competencies are clearly defined for a particular role within the group of aviation professionals (e.g. a cabin crew member);

b) there is an explicit link between competencies and training, required performance on the job, and assessment;

c) competencies are formulated to ensure they can be trained for, observed and assessed consistently in a wide variety of work contexts for a given role;

d) a competency is manifested and observed through behaviours that mobilize the relevant knowledge, skills and attitudes to carry out tasks under specified conditions;

e) trainees successfully demonstrate competency by meeting the associated competency standard;

f) each stakeholder involved, including the trainee, instructor, training organization, operator and State, has a common understanding of the competency requirements;

g) clear performance criteria are established for assessing competence;

h) evidence of competent performance is valid and reliable;

i) instructors' and evaluators' judgements are calibrated to achieve a high degree of inter-rater reliability (refer to Chapter 14);

j) the assessment of competencies is based on multiple observations across multiple contexts; and

k) to be considered competent, an individual demonstrates an integrated performance of all the required competencies to a specified standard.

2.2 GOAL AND BENEFITS OF COMPETENCY-BASED TRAINING AND ASSESSMENT

2.2.1 ICAO developed guidance for competency-based training and assessment of several groups of aviation professionals such as pilots, cabin crew members, aircraft maintenance personnel and air traffic controllers. The goal of competency-based training and assessment is to ensure a competent cabin crew workforce for the provision of safe and efficient operations.

2.2.2 Using a competency-based approach to training and assessment produces several benefits including, but not limited, to the following:

a) specific relevance of training material to the job of a cabin crew member;

b) integration of knowledge, skills and attitudes needed to perform effectively;

c) ability to cope with predictable and unforeseen situations;

d) focus is on learning rather than passing a test;

e) uses all available training tools and methodologies;

f) establishes sufficient, well-trained and competent instructors and evaluators; and

g) supports continuous learning and performance improvement.

2.2.3 To gain the maximum value and achieve efficiencies, a competency-based approach should incorporate the following best practices:

a) the operator should encourage and support learning in formal and informal settings at different stages of the cabin crew member's work life;

b) the cabin crew training programme should focus on the quality of cabin crew trainees' task completion and achievement rather than on the prescribed amount of training time;

c) training should focus on accommodating an individual trainee's needs and provide flexibility;

d) the highest quality and level of consistent instruction should be provided; and

e) particular attention should be given to coaching, facilitation and mentoring cabin crew members.

2.3 ICAO COMPETENCY FRAMEWORK FOR CABIN CREW MEMBERS

2.3.1 In order to focus training and assessment on the expected on-the-job performance and competency of a cabin crew member, a description of this performance in the particular operational and environmental context is needed. The ICAO competency framework for cabin crew members is a generic model applicable to all cabin crew members and

is presented in the appendix to this chapter. The content is an internationally agreed upon baseline for competencies that all cabin crew members should possess. The appendix provides examples of observable behaviours that may be used to assess cabin crew competency (i.e. an "effective" versus "poor" display of these competencies) in a training environment or during line checks.

2.3.2 Operators implementing competency-based training and assessment should adapt the ICAO competency framework to reflect their specific local environment and requirements (e.g. single or multi-cabin crew operations). The adapted competency model, with its associated performance criteria, provides a means for the operator of assessing whether the cabin crew trainees achieve the desired performance.

2.4 STRUCTURE OF THE ICAO COMPETENCY FRAMEWORK

The ICAO competency framework includes each of the ICAO competencies for cabin crew members, a description of what each competency entails, and observable behaviours, as shown in Table 2-1. Each observable behaviour (OB) is a single role-related behaviour that can be observed during cabin crew training and assessment and may or may not be measurable. In order to display certain observable behaviours, cabin crew members make use of relevant knowledge, skills and attitudes. This ability may vary depending on the level of experience and expertise of the cabin crew member.

Table 2-1. The structure of the competency framework

ICAO competency	*Description*	*Observable behaviour (OB)*
ICAO competency 1	Description 1	OB 1
		OB 2
		OB *n*
ICAO competency 2	Description 2	OB 1
		OB 2
		OB *n*
ICAO competency *n*	Description *n*	OB 1
		OB 2
		OB *n*

2.5 STRUCTURE OF ADAPTED COMPETENCY MODELS

2.5.1 Operators electing to implement competency-based training and assessment should adapt the ICAO competency framework for cabin crew members to suit their specific context by developing an adapted competency model to include the elements in Table 2-2.

Table 2-2. Elements of an adapted competency model

<table>
<tr><td rowspan="2">Adapted competency</td><td rowspan="2">Description</td><td colspan="3">Performance criteria</td></tr>
<tr><td>Observable behaviour (OB)</td><td colspan="2">Competency assessment</td></tr>
<tr><td rowspan="3">Adapted competency 1</td><td rowspan="3">Description 1</td><td>OB 1</td><td rowspan="9">Final competency standard</td><td rowspan="9">Conditions</td></tr>
<tr><td>OB 2</td></tr>
<tr><td>OB n</td></tr>
<tr><td rowspan="3">Adapted competency 2</td><td rowspan="3">Description 2</td><td>OB 1</td></tr>
<tr><td>OB 2</td></tr>
<tr><td>OB n</td></tr>
<tr><td rowspan="3">Adapted competency n</td><td rowspan="3">Description n</td><td>OB 1</td></tr>
<tr><td>OB 2</td></tr>
<tr><td>OB n</td></tr>
</table>

2.5.2 In addition to all of the elements found in the ICAO competency framework, the adapted competency model to be used by the individual operator, includes the performance criteria, developed specifically by that operator. The performance criteria are a set of statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behaviour, condition(s) and a competency standard. The final competency standard is the level of performance that is defined as acceptable when assessing whether or not competency has been achieved by the cabin crew member. Conditions are anything that may qualify a specific environment in which performance will be demonstrated and may include simulated turbulence, smoke in the cabin or high passenger load (e.g. as part of the competency assessment, a trainee may have to demonstrate effective communication while combatting a fire in a smoke filled cabin)

2.6 THE RELATIONSHIP BETWEEN COMPETENCIES AND TASKS

2.6.1 Traditional training and assessment approaches involve breaking down jobs into tasks. Each task has a related objective, an assessment and associated elements in a training plan. This approach is limiting since each task must be taught and assessed. In complex scenarios, it may not be possible to teach and assess each task. Moreover, trainees may demonstrate their ability to perform isolated tasks without being competent in their job.

2.6.2 Competency-based training and assessment is based on the concept that competencies are transferable. In the design of such a programme, a limited number of competencies are defined. Typically, activity task will involve several competencies which apply across a variety of tasks and contexts. For example, cabin crew will apply the competency of “communication” in different scenarios, such as firefighting, managing an unruly passenger or responding to a medical emergency. In the design of training and assessments, tasks and sub-tasks are used to facilitate, develop or assess a competency or set of competencies. For example, cabin crew will practice the competency “workload management” in the context of performing the task of preparing the cabin for an anticipated emergency landing. A lack of specific competencies may be the root cause of the failed task. For example, cabin crew may fail to initiate a timely evacuation due to lack of communication.

2.6.3 The different chapters in this manual present task lists for cabin crew members during normal operations, abnormal and emergency situations, as well as for dangerous goods, cabin health and first aid, and unlawful interference. The task lists can be used in combination with the ICAO competency framework to train and assess cabin crew members through a competency-based approach. The following information is included for each task list, in each of the chapters:

a) recommended knowledge that the trainees should possess to conduct a specific task;

b) reference material that is relevant during the training;

c) training media under which the training should be conducted (e.g. classroom training versus simulated exercises);

d) standards associated with the task to be performed. These are statements used to assess whether the required levels of performance have been achieved for a task; and

e) competencies needed to support the task (defined in the appendix to this chapter).

2.6.4 This detailed information, presented in the chapters containing task lists, serves as guidance material to assist operators and, where applicable, training organizations approved to conduct cabin crew training, in developing competency-based training and assessment programmes. It may also assist States in assessing operators' training programmes. All other chapters in this manual are presented in a traditional form, with syllabuses, as they encompass predominantly knowledge-based items which do not call upon the use of cabin crew competencies.

2.7 COMPONENTS OF A COMPETENCY-BASED TRAINING AND ASSESSMENT PROGRAMME

2.7.1 A competency-based training and assessment programme contains the following components:

— *A training specification.* This describes the purpose of training, the task list and the requirements that must be fulfilled when designing the training programme.

— *An adapted competency model.* A group of competencies with their associated description and performance criteria adapted from the ICAO competency framework that an operator uses to develop competency-based training and assessment for its cabin crew members.

— *An assessment plan.* This document provides the process and tools for gathering valid and reliable evidence at different stages during the training.

— *A training plan.* This document describes the training required to achieve the competencies. It includes, but is not limited to, a syllabus (including knowledge, skills and attitudes, milestones, lesson plans and schedules).

— *Training and assessment materials and resources.* These include everything needed to implement the training and assessment plans (i.e. human, material, training environment and organizational resources).

2.7.2 Figure 2-1 illustrates the various components needed to build a competency-based training and assessment programme.

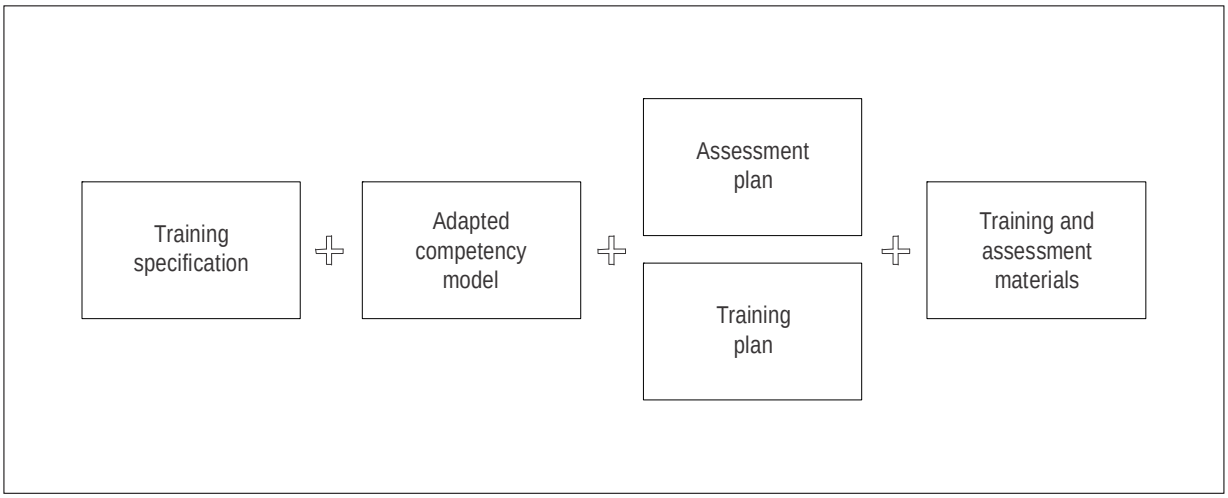

Figure 2-1. Competency-based training and assessment programmes components

2.8 INSTRUCTIONAL SYSTEMS DESIGN

2.8.1 Several valid instructional systems design (ISD) models may be used to design competency-based training and assessment. They can serve as a basis to design the components of competency-based training and assessment as described in this chapter. The analyse, design, develop, implement and evaluate (ADDIE) framework is generic to all ISD models.

2.8.2 Chapter 2 of the *Procedures for Air Navigation Services — Training* (PANS-TRG, Doc 9868) outlines the general provisions for competency-based training and presents the general principles and procedures to be followed for the design and implementation of a competency-based approach to training and assessment. PANS-TRG, Attachment C to Chapter 2 contains a detailed description of an ADDIE methodology. This attachment includes a step-by-step guide for organizations intending to establish competency-based training and assessment that is specific to their environment and requirements.

2.9 TRANSITIONING FROM A TRADITIONAL TO A COMPETENCY-BASED TRAINING AND ASSESSMENT PROGRAMME

2.9.1 Transitioning from a traditional programme to one of competency-based training and assessment allows the operator to customize its training programme to meet its specific needs and target operational issues. The State and the operator should have on-going discussions and consultations regarding the transition and formally agree to a transition plan containing a series of steps to maintain regulatory compliance. Since the training programme is adapted to meet the operator’s issues, a competency-based training and assessment programme is not a “one size fits all” approach. Each operator should develop its own specific competency-based training and assessment programme. The transition from traditional to competency-based training and assessment should be conducted with the approval of and in collaboration with the State.

2.9.2 The operator should consider the development and implementation of a plan to manage the transition to competency-based training and assessment, including the availability and allocation of resources needed for the transition. The operator should apply an ISD methodology to analyse, design, develop, implement and evaluate the training programme. The operator should also address challenges associated with competency-based training and assessment, such as instructor/evaluator reliability and data collection and analysis (see Chapter 17).

2.10 SHIFT TO COMPETENCY-BASED ASSESSMENTS

2.10.1 The study of Human Factors shows that it is impossible to eliminate all human errors in the aviation system. Live performance is not always right or wrong. In real occurrences, cabin crew members may unintentionally deviate from procedures, fail to immediately recognize a problem, commit errors then self-correct, or be corrected by other crew members. In such situations, the overall management of the occurrence may result in a potentially catastrophic scenario being inconsequential. For example, an evacuation may not unfold in accordance to the operator's established procedures. This may be due in part to the fact that the cabin crew are faced with an unanticipated situation or one not addressed by the CCOM. However, their actions may result in the evacuation being completed without serious injuries or fatalities. The presence of errors does not mean the situation was not managed effectively.

2.10.2 Under a competency-based approach, the same concept is transferred into training and assessment. The operator needs to shift from the notion of errors (i.e. looking for perfect performance in the training environment) to the notion of error management (i.e. that errors occur and cabin crew members can demonstrate self-correction in the training environment). For the purpose of assessing crew performance, this means that the operator should shift from looking for perfection and aim for excellence, in the display of competencies and task execution.

2.10.3 Some items covered during training can be strictly pass or fail criteria. This is typically the case of knowledge-based items. For example, exits can be used in a ditching, specific to a particular aircraft make/model/series and configuration. The answer would be judged as right or wrong (i.e. for some aircraft, certain exits must not be used in a ditching). However, when assessing tasks and particularly competencies (e.g. how well the crew members perform as a team), there may not necessarily be a right or wrong answer. There's typically a range in the competencies displayed by the trainees. They may be considered "competent" or "not yet competent". The operator should follow two steps in order to assess competencies, specific to the operator itself:

a) establish a rating scale; and

b) establish success criteria.

2.10.4 Detailed guidance on the establishment of a rating scale and success criteria is presented in Chapter 17.

2.11 COMPETENCY-BASED TRAINING AND PERFORMANCE-BASED REGULATIONS

2.11.1 The foundation of competency-based training and assessment is performance-based regulations, which differ from the traditional, prescriptive approach:

a) prescriptive regulations establish "what" is to be achieved and "how" it must be achieved:

e*xample — An operator shall not conduct fuelling procedures when passengers are embarking, on board or disembarking*;

b) performance-based regulations establish “what” is to be achieved, but provide flexibility on “how” it must be achieved:

e*xample — An operator shall establish procedures for the protection against fire during fuelling operations.*

2.11.2 Performance-based regulations establish what is to be achieved through the cabin crew training programme and the competency-based approach provides flexibility for how the operator will achieve this. Following this same concept, the competency-based training and assessment approach can serve as a means to mitigate identified risk within the operation. Practically, this means that training moves from the concept of “teaching” (i.e. hours define the training) to the concept of “learning” (i.e. the competencies acquired). The operator’s training programme can then be designed taking into account planned hours (i.e. the amount of time which is needed for cabin crew to acquire the defined competencies) rather than being designed based on programmed hours (i.e. number of hours prescribed by the State for a specific topic).

2.12 LINK TO THE OPERATOR’S SAFETY MANAGEMENT SYSTEM

2.12.1 An operator considering transitioning to a competency-based training and assessment programme should have a fully implemented safety management system (SMS). An SMS should be viewed as a prerequisite for competency-based training and assessment, because this approach is data-driven (e.g. data from operations, training, auditing, etc., all feed into the training programme) and relies on data sources in order to design training that addresses operational issues. It also relies on two of the main components of SMS: safety risk management and safety assurance.

2.12.2 The safety risk management process allows the operator to identify, analyse, assess and control the safety risks associated with identified hazards, as part of its SMS. The safety risk management process may result in the establishment of mitigation strategies. These strategies may involve the need for training or improvements in training to address specific issues identified by the safety risk management process. Consequently, the data collected provides valuable inputs into the safety risk management process and/or training design.

2.12.3 Once mitigation strategies have been approved and implemented (e.g. modifications to the content of the training programme), any associated impact on safety performance should be directed to the operator’s safety assurance process. If a safety issue was addressed by a training initiative, the safety assurance process should be used to determine whether or not such initiative has met its intended goal. For example, an operator experiences a significant amount of inadvertent slide deployments. An analysis of the occurrences highlights deficiencies in cabin crew training related to door operations. Therefore, a mitigation strategy is developed, which involves modifying door training. Once its cabin crew members have been trained based on the modified curriculum, the operator can monitor the effectiveness of its training intervention through its safety assurance process to determine if the number of inadvertent slide deployments decreases. Based on the outcome of this assessment, the operator may need to readjust training or address other issues, in the event that the number of occurrences does not decrease as expected.

2.12.4 The goal of competency-based training and assessment is continuous improvement: data from different sources should be utilized to enhance the training programme and address any deficiencies. As part of the transition, the State should require the operator to adequately document the training programme in line with SMS requirements.

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Appendix to Chapter 2

ICAO COMPETENCY FRAMEWORK FOR CABIN CREW MEMBERS

Note 1.— The competencies and observable behaviours in the table below are not listed according to any pre-defined priority. Observable behaviours may include, but are not limited to, the observable behaviours listed in the table.

Note 2.— Observable behaviours are performed to a criterion, e.g. accurately or correctly, generally not stated.

Competency	*Description*	*Observable behaviours (OB)*
Application of policies and procedures	Identifies and applies appropriate policies and procedures in accordance with published operating instructions and applicable regulations	OB 1.1 Identifies where to find policies and procedures OB 1.2 Applies relevant policies and procedures OB 1.3 Applies procedures or adapts them to ensure safety OB 1.4 Operates cabin systems and equipment OB 1.5 Complies with applicable policies and procedures
Communication	Communicates through appropriate means in the operational environment, in both normal, abnormal and emergency situations	OB 2.1 Determines that the recipient is ready and able to receive information OB 2.2 Selects appropriately what, when, how and with whom to communicate OB 2.3 Conveys messages clearly, using designated common language (e.g. multilingual flight/cabin crew) OB 2.4 Confirms that the recipient demonstrates understanding of important information OB 2.5 Listens actively and demonstrates understanding when receiving information OB 2.6 Asks relevant and effective questions OB 2.7 Uses appropriate escalation in communication to resolve identified deviations OB 2.8 Uses and interprets non-verbal communication in a manner appropriate to the organizational and social culture

Competency	*Description*	*Observable behaviours (OB)*
		OB 2.9 Adheres to standard operator phraseology and procedures
Leadership and teamwork	Influences others to contribute to a shared purpose Collaborates to accomplish the goals of the team	OB 3.1 Encourages crew participation and open communication OB 3.2 Demonstrates initiative and provides direction when required OB 3.3 Engages others in planning OB 3.4 Considers inputs from others OB 3.5 Gives and receives feedback constructively OB 3.6 Addresses and resolves conflicts and disagreements in a constructive manner OB 3.7 Exercises decisive leadership when required OB 3.8 Accepts responsibility for decisions and actions OB 3.9 Carries out instructions when directed OB 3.10 Identifies deviations and safety hazards and applies effective intervention strategies OB 3.11 Manages cultural and language challenges
Passenger management	Demonstrates effective passenger management techniques	OB 4.1 Exhibits assertive behaviour, when applicable, e.g. during an evacuation or ditching OB 4.2 Identifies and manages conflict and disagreements between passengers OB 4.3 Demonstrates conflict resolution techniques OB 4.4 Informs and monitors passengers for compliance with operator policies, procedures and regulations OB 4.5 Uses effective communication and tone of voice appropriate to the circumstances
Problem solving and decision making	Identifies precursors, mitigates problems; and makes decisions	OB 5.1 Identifies, assesses and manages threats and errors in a timely manner OB 5.2 Seeks accurate and adequate information from appropriate sources

Competency	*Description*	*Observable behaviours (OB)*
		OB 5.3 Identifies and verifies what and why things have gone wrong, if appropriate OB 5.4 Perseveres in working through problems while prioritizing safety OB 5.5 Identifies and considers appropriate options OB 5.6 Applies appropriate and timely decision-making techniques OB 5.7 Monitors, reviews and adapts decisions as required OB 5.8 Adapts when faced with situations where no guidance or procedure exists OB 5.9 Demonstrates resilience when encountering an unexpected event
Situation awareness and management of information	Perceives, comprehends and manages information and anticipates its effect on the operation.	OB 6.1 Monitors and assesses passenger and crew behaviour OB 6.2 Monitors and assesses the general environment, state of the aircraft and cabin systems as these may affect the operation OB 6.3 Validates the accuracy of information and checks for errors OB 6.4 Maintains awareness of the people involved in or affected by the operation and their capacity to perform as expected OB 6.5 Develops effective contingency plans based upon risks associated with threats and errors OB 6.6 Responds to indications of reduced personal situation awareness
Workload management	Maintains available workload capacity by prioritizing and distributing tasks using appropriate resources	OB 7.1 Plans, prioritizes and monitors tasks through the utilization of all available resources OB 7.2 Manages time efficiently when carrying out tasks OB 7.3 Offers and gives assistance OB 7.4 Delegates tasks OB 7.5 Seeks and accepts assistance, when appropriate OB 7.6 Monitors, reviews and cross-checks actions

Competency	*Description*	*Observable behaviours (OB)*
		OB 7.7 Verifies that tasks are completed to the expected outcome OB 7.8 Manages and recovers from interruptions, distractions, variations and failures effectively while performing tasks

Chapter 3

AVIATION INDOCTRINATION TRAINING

3.1 DEFINITION AND GOAL OF AVIATION INDOCTRINATION TRAINING

3.1.1 Aviation indoctrination training is defined as an introduction to the aviation environment. The goal of indoctrination training is to provide cabin crew trainees with 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 situation 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.

3.1.2 The knowledge imparted during indoctrination training serves to provide a general overview and is not meant to produce experts on the subjects.

3.2 CONTENT OF AVIATION INDOCTRINATION TRAINING

3.2.1 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.

3.2.2 The material covered in indoctrination training addresses overarching processes, policies and procedures that cabin crew should be knowledgeable on, in order to perform specific tasks (e.g. hazard reporting). The content of this training should be based on the CCOM and applicable regulations. Classroom or computer-based training are appropriate conditions for training and assessment.

3.3 APPLICABLE REGULATIONS

Training should include, but is not limited to, the following topics:

a) objectives of and roles played by ICAO and other relevant regulatory aviation organizations;

b) objectives of and roles played by national civil aviation entities (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 national regulations applicable to all crew members in general;

e) applicable regulations related to cabin operations, cabin crew members and aircraft type qualification;

f) regulations applicable to the transport and management of special categories of passengers, including refusal policies, stowage of assist devices and wheelchair operation;

g) cabin crew tasks during normal operations and in abnormal and emergency situations;

h) other tasks such as the maintenance and update of manuals, and responsibilities such as complying with flight and duty time limitations;

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; and

j) objectives of and roles played by relevant non-regulatory aviation organizations, such as the International Air Transport Association (IATA).

3.4 AVIATION TERMINOLOGY

Training should include, but is not limited to, the following topics:

a) aviation 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 SOPs for reporting all inoperative equipment/items;

f) standard measurement units used in aircraft operations;

g) the 24-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).

3.5 THEORY OF FLIGHT AND AIRCRAFT OPERATIONS

Training should include, but is not limited to, the following topics:

a) general components of an aircraft and their basic function both on the ground and in flight, including appropriate terminology (e.g. flaps, slats, etc.);

b) theory of flight and the basic environment relating to aircraft operations — flight control surfaces 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 and 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 reporting observed 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, turbulence, etc.) and their effects on aircraft operations and cabin environment.

Note.— Training aids, such as diagrams depicting aircraft components, should be included as reference materials. This subject can also be covered during an aircraft visit.

3.6 ALTITUDE PHYSIOLOGY

Training should include, but is not limited to, the following topics:

a) the atmosphere and atmospheric pressure;

b) pressurized and 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.), including the differences between the physiological effects on adults and infants, and additionally, the physiological effects of scuba diving and cabin altitude on the body;

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 and passengers due to a significant reduction of available oxygen in the event of a cabin pressurization problem or 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.

Note.— Guidance on cabin crew training related to fume events is contained in the Guidelines on Education, Training and Reporting Practices related to Fume Events (Cir 344).

Chapter 4

NORMAL OPERATIONS TRAINING

4.1 DEFINITION AND GOAL OF NORMAL OPERATIONS TRAINING

4.1.1 Normal operations training is defined as training which addresses the operator's procedures related to cabin crew members' safety-related tasks during routine, day-to-day operations.

4.1.2 Training encompasses safety procedures established for normal operations by the operator in the CCOM.

4.1.3 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 tasks, management of, and assistance to passengers, and coordination with flight crew, ground crew, and other cabin crew members.

4.1.4 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).

4.1.5 Procedures related to the operation of aircraft systems relevant to cabin crew tasks 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.

4.2 CONTENT OF NORMAL OPERATIONS TRAINING

4.2.1 Normal operations training should address cabin crew members' safety-related tasks, 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).

4.2.2 This chapter focuses on the development of initial training. For recurrent training, the content may vary with regard to the tasks covered, the training media used for training as well as the competencies that may be assessed.

4.3 HANDS-ON EXERCISES AND SIMULATED EXERCISES

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 15).

4.4 TRAINING ON CABIN CREW TASKS FOR NORMAL OPERATIONS

The following sections provide detailed guidance for the development of training for cabin crew members to perform safety-related tasks during normal operations. These tasks are derived from the task list presented in the Appendix to this chapter, which presents cabin crew tasks during normal operations by phases of flight. Each task has a series of competencies associated to it. The full list of cabin crew competencies is presented in the Appendix to Chapter 2. Cabin crew should demonstrate these competencies while performing the tasks, as part of scenario-based training (refer to Chapter 16).

Note.— Some tasks, their associated sub-tasks and task list standards are repeated in different phases of flight throughout this chapter (e.g. task list 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 tasks to be performed by the cabin crew during a normal flight. However, it does not mean to imply that these tasks need to be covered multiple times during training. All the tasks should be covered a minimum of one time during training.

4.5 PHASE OF FLIGHT 1 — GROUND AND PRE-FLIGHT OPERATIONS

The tasks 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.

4.5.1 Planning tasks

Task 1.1: Perform planning tasks	
Sub-tasks:	
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

4.5.1.1 *Knowledge*

a) system/method used to report for duty;

b) regulatory requirements regarding specific items required for duty;

c) use of substances in the aviation workplace, including the use of one or more psychoactive substances (e.g. alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other stimulants, hallucinogens, and volatile solvents) by aviation personnel in a way that constitutes a direct hazard to the user or endangers the lives, health, or welfare of others, and/or causes or worsens an occupational, social, mental, or physical problem or disorder;

Note.— Guidance on substance use is contained in the Manual on Prevention of Problematic Use of Substances in the Aviation Workplace *(Doc 9654).*

d) types of documents and information required, where/how to obtain them and how to complete and/or update them, including the use of a cabin electronic flight bag (C-EFB), where applicable; and

Note.— Guidance on the use of C-EFBs is contained in the Manual on the Implementation and Use of Cabin Electronic Flight Bags *(Doc 10111).*

e) minimum cabin crew complement for each aircraft type, in accordance with the applicable regulations.

Note.— Guidance on the minimum cabin crew complement is contained in the Manual on the Establishment of Minimum Cabin Crew Requirements *(Doc 10072).*

4.5.1.2 *Reference material*

a) CCOM; and

b) company policies and procedures.

4.5.1.3 *Training media*

Classroom and/or computer-based training.

4.5.1.4 *Task list standards*

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:

1) revisions to the operations manual;

2) safety bulletins;

3) destination- or sector-specific information;

4) emergency checklists; and

5) passenger information;

c) review documents required for the flight, including cabin crew member qualification document(s), 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.

4.5.1.5 *Competencies*

a) application of policies and procedures; and

b) workload management.

4.5.2 Flight crew and cabin crew briefings

Task 1.2: Participate in flight crew and cabin crew briefings	
Sub-tasks:	
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

4.5.2.1 *Knowledge*

Pre-flight briefing, including crew communication and coordination, establishing expectations, reviewing knowledge and procedures.

4.5.2.2 *Reference*

a) CCOM;

b) documentation relating to destination information; and

c) standard briefing form, if applicable.

4.5.2.3 *Training media*

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

b) simulated exercise on conducting a pre-flight briefing.

4.5.2.4 *Task list standards*

a) participate in a joint briefing between the flight crew and cabin crew, when operations permit in accordance with operator's procedures. A briefing may 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:

1) the assignment of duties to individual cabin crew members, such as public announcements, cabin crew stations, and special categories of passengers;

2) review of safety, emergency, security and communication procedures and information;

3) customized briefing for the aircraft type;

4) route-specific information;

5) meteorological information; and

6) cabin defects; and

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.).

Note.— Some of the items in the cabin crew briefing 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.

4.5.2.5 *Competencies*

a) communication;

b) leadership and teamwork; and

c) workload management.

4.5.3 Pre-flight checks

Task 1.3: Perform pre-flight checks
Sub-tasks:
1.3.1 Communicate with ground personnel
1.3.2 Check relevant documentation or systems 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

4.5.3.1 *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.

4.5.3.2 *Reference material*

CCOM.

4.5.3.3 *Training media:*

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

b) hands-on exercise on verifying operative equipment (e.g. gauges, brackets, etc.).

4.5.3.4 *Task list standards*

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 or systems for cabin defects (e.g. cabin defect log or C-EFB, if applicable) and communicate them to the other cabin crew members;

c) check equipment and aircraft systems relevant to cabin crew tasks, as per operator procedures. This may include, but is not limited to:

1) 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

2) 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:

1) 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, suspicious items or unauthorized persons;

2) completing any required documentation; and

3) communicating any observations to the in-charge cabin crew member or the flight crew members; and

f) update the other cabin crew members on any additional information that is relevant to the flight, if applicable.

4.5.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) problem solving and decision making; and

d) workload management.

4.5.4 Passenger boarding and pre-pushback tasks

Task 1.4: Perform passenger boarding and pre-pushback tasks	
Sub-tasks:	
1.4.1	Check minimum 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

4.5.4.1 *Knowledge*

a) minimum crew complement for each aircraft type, in accordance with the applicable regulations;

b) components of apron (ramp) 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 portable electronic device (PEDs);

Note.— Guidance on the use of PEDs is contained in the Guidelines for the Expanded Use of Portable Electronic Devices *(Cir 340).*

d) pre-take-off passenger safety briefings, knowledge and understanding of the intent of mandatory announcements and when they must be performed;

Note.— Guidance on the content of passenger safety briefings is contained in the Manual on Information and Instructions for Passenger Safety *(Doc 10086).*

e) knowledge and operation of equipment used in passenger safety briefings, including the use of interphone and public address system on the aircraft type that the cabin crew member operates;

f) briefing requirements for special categories of passengers;

g) procedures for handling special categories of passengers, including safety briefings, seating restrictions and stowage of mobility aids;

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 CRS;

Note.— Guidance on CRS is contained in the Manual on the Approval and Use of Child Restraint Systems *(Doc 10049).*

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 authorization 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;

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; and

x) procedures applied to identify and respond to suspected cases of trafficking in persons.

Note.— Guidance on identifying and responding to trafficked person is contained in Guidelines for Training Cabin Crew on Identifying and Responding to Trafficking in Persons *(Cir. 352).*

4.5.4.2 *Reference*

CCOM.

4.5.4.3 *Training media*

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;

e) simulated exercise on conducting announcements to passengers; and

f) simulated exercise on conducting a passenger briefing (e.g. briefing a passenger seated at an emergency exit, if required).

4.5.4.4 *Task list standards*

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:

1) monitoring passengers on the apron to ensure safe movement;

2) verifying compliance with procedures related to ramp safety, such as not smoking, compliance with the operator's policy on the use and stowage of PEDs, earphones, headphones, etc.; and

3) 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:

1) verifying passengers' boarding passes, as per operator procedures;

2) monitoring carry-on baggage for compliance with operator allowance and remaining vigilant for suspicious items;

3) monitoring passengers who may display suspicious behaviour and raise security concerns, may be under the influence of psychoactive substances or display unruly behaviour;

4) where an operator accepts the carriage of weapons removed from passengers, applying specific procedures;

5) monitoring for intoxicated passengers who should be denied boarding;

6) monitoring for passengers who may require specific assistance (e.g. special categories of passengers);

7) monitoring passengers with infants in rows to ensure sufficient oxygen masks are available;

8) monitoring passengers for possible cases of trafficking in persons;

9) making appropriate announcements regarding safety instructions;

10) 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

11) 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:

1) staffing cabin crew stations;

2) verifying that exits are clear of obstructions;

3) monitoring designated emergency exits;

4) monitoring for fuel spills or fumes in the cabin;

5) advising passengers to refrain from fastening seat belts, smoking, using PEDs, using lavatories, walking around the cabin or obstructing the aisles and cross-aisles due to refuelling; and

6) 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:

1) passenger compliance with carry-on baggage allowance and any suspicious items;

2) suspicious passenger behaviour, such as being under the influence of psychoactive substances, or possible unruly behaviour; and

3) restricted seating at emergency exits, as per operator procedures;

f) reconcile/count passengers, if applicable, as per operator procedures;

g) check safe stowage of carry-on baggage, as per operator procedures;

h) brief passengers. This may include, but is not limited to:

1) conducting a safety briefing demonstration appropriate to the aircraft type;

2) conducting exit briefings (such as unstaffed exits or any other exits as per operator procedures); and

3) 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:

   1) looking for debris adhering to wings, fuselage, and windows, ice, frost, or snow build-up; and

   2) communicating any concerns from passengers to the flight crew members;

k) secure galley. This may include, but is not limited to:

   1) applying brakes on service carts;

   2) latching equipment;

   3) turning off electrical appliances (e.g. ovens);

   4) securing curtains and interior doors/partitions to open position; and

   5) stowing all service items safely;

l) secure cabin. This may include, but is not limited to:

   1) verifying that passengers fasten their seat belts including securing infants in compliance with the operator's policy;

   2) verifying that seat back and table trays are in the upright position;

   3) verifying that carry-on baggage is stowed;

   4) verifying that overhead bins are closed and latched;

   5) verifying compliance with the operator's policy on the use and stowage of PEDs;

   6) verifying compliance with the operator's policy on the use of earphones and headphones;

   7) verifying that passenger headrests, armrests and footrests are stowed;

   8) stowing/retracting monitors;

   9) verifying that aisles are clear and exits are not obstructed;

   10) verifying that seating restrictions at emergency exit rows are adhered to;

   11) verifying that window blinds are in a position to see outside; and

   12) verifying that animals in the cabin are secured, as per operator procedures;

m) close aircraft door(s), if applicable, as per operator procedures; and

n) check if flight deck door is closed/secure, as per operator procedures.

4.5.4.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

4.5.5 Abnormal or emergency situations

Task 1.5: Manage abnormal or emergency situations	
Sub-tasks:	
1.5.1	Recognize the abnormal or emergency situation
1.5.2	Apply the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.6 PHASE OF FLIGHT 2 — PUSHBACK AND TAXI

The tasks 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.

4.6.1 Pushback and taxi tasks

Task 2.1: Perform pushback and taxi tasks	
Sub-tasks:	
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

4.6.1.1 *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 situation 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.

4.6.1.2 *Reference*

CCOM

4.6.1.3 *Training media*

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.

4.6.1.4 *Task list standards*

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, no PEDs).

d) perform a safety demonstration. This may include, but is not limited to:

1) the use of seat belts;

2) the location and presentation of the passenger safety briefing card and the need for passengers to review it prior to take-off;

3) the location of emergency exits;

4) emergency lighting (emergency escape path lighting, exit signs);

5) use of oxygen masks;

6) the location and use of life jackets or individual flotation devices;

7) smoking restrictions;

8) policy on the use and stowage of PEDs;

9) compliance with illuminated ordinance signs, posted placards and crew members' instructions;

10) cabin secured aspects (e.g. correct stowage of cabin baggage, caution when opening overhead bins, required position of: tray tables, seat backs, headrests, armrests, footrests and window blinds during critical phases of flight, etc.); and

11) additional information relevant to evacuation (e.g. evacuation methods with infants and small children, brace positions, restrictions on evacuation movement on a multiple-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:

1) passengers fasten their seat belts;

2) seat back and table trays are in the upright position;

3) carry-on baggage is stowed;

4) overhead bins are closed and latched;

5) policy on the use and stowage of PEDs is followed;

6) passenger compliance with the operator's policy on the use of earphones and headphones;

7) passenger headrests and footrests are stowed;

8) monitors are stowed and retracted;

9) aisles are clear;

10) exits are not obstructed;

11) seating restrictions at emergency exit rows are adhered to; and

12) window blinds are in position to see outside;

f) check galley. This may include, but is not limited to, verifying that:

1) brakes on service carts are applied;

2) equipment is latched;

3) electrical appliances are turned off (e.g. ovens);

4) curtains and interior doors and partitions are secured to open position; and

5) 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 or 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;

l) adopt the position that the operator requires for take-off during normal operations (including the brace position, if appropriate) while waiting for the take-off roll to commence; and

m) perform the silent review. This may include, but is not limited to, items such as:

1) brace position;

2) emergency notification procedures;

3) location and operation of exits;

4) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;

5) passenger management and the visual identification of potential able-bodied passengers who may be able to assist in an emergency, number of passengers on board the aircraft, and special categories of passengers;

6) brace commands;

7) interior and exterior evacuation conditions;

8) protective position while commanding the evacuation; and

9) evacuation commands.

4.6.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

4.6.2 Abnormal or emergency situations

Task 2.2: Manage abnormal or emergency situations	
Sub-tasks:	
2.2.1	Recognize the abnormal or emergency situation
2.2.2	Apply the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.7 PHASE OF FLIGHT 3 — TAKE-OFF

The tasks 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.

4.7.1 Take-off tasks

Task 3.1: Perform take-off tasks	
Sub-tasks:	
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

4.7.1.1 *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 situation 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) emergency procedures relating to take-off (e.g. rejected take-off, runway excursion or inoperative exits in the event of an evacuation).

4.7.1.2 *Reference*

CCOM.

4.7.1.3 *Training media*

Classroom and/or computer-based training.

4.7.1.4 *Task list standards*

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

b) remain in the position that the operator requires for take-off during normal operations (including the brace position, if appropriate) during the take-off roll;

c) continue to perform the silent review. This may include, but is not limited to, items such as:

1) brace position;

2) emergency notification procedures;

3) location and operation of exits;

4) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;

5) passenger management and the visual identification of potential able-bodied passengers who may be able to assist in an emergency, number of passengers on board the aircraft, and special categories of passengers;

6) brace commands;

7) interior and exterior evacuation conditions;

8) protective position while commanding the evacuation; and

9) evacuation commands.

4.7.1.5 *Competencies*

a) application of policies and procedures;

b) communication; and

c) situation awareness and management of information.

4.7.2 Abnormal or emergency situations

Task 3.2: Manage abnormal or emergency situations
Sub-tasks:
3.2.1 Recognize the abnormal or emergency situation
3.2.2 Perform the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.8 PHASE OF FLIGHT 4 — CLIMB

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

4.8.1 Climb tasks

Task 4.1: Perform climb tasks
Sub-tasks:
4.1.1 Comply with ordinance signs and instructions from the flight crew
4.1.2 Check passenger compliance with ordinance signs and instructions
4.1.3 Monitor cabin

4.8.1.1 *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 tasks for any abnormalities.

4.8.1.2 *Reference*

CCOM.

4.8.1.3 *Training media*

Classroom and/or computer-based training.

4.8.1.4 *Task list standards*

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).

4.8.1.5 *Competencies*

a) communication;

b) passenger management;

c) problem solving and decision making; and

d) situation awareness and management of information.

4.8.2 Abnormal or emergency situations

Task 4.3: Manage abnormal or emergency situations	
Sub-tasks:	
4.2.1	Recognize the abnormal or emergency situation
4.2.2	Apply the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.9 PHASE OF FLIGHT 5 – CRUISE

The tasks 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.

4.9.1 Systems operations

Task 5.1: Perform systems operations	
Sub-tasks:	
5.1.1	Operate systems, as required
5.1.2	Monitor operation of systems

4.9.1.1 *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.

4.9.1.2 *Reference*

CCOM.

4.9.1.3 *Training media*

Classroom and/or computer-based training.

4.9.1.4 *Task list standards*

a) as per operator procedures, operate aircraft systems relevant to cabin crew tasks. These may include, but are not limited to:

   1) communication systems and associated signalling panels;

   2) control panels;

   3) electrical systems (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);

   4) lighting system; and

   5) water and waste systems;

b) monitor operation of aircraft systems relevant to cabin crew tasks for any abnormality and apply applicable procedure, as required. These may include, but are not limited to:

   1) communication systems and associated signalling panels;

   2) control panels;

   3) electrical systems (galley, lavatory, in-flight entertainment system, in-seat electrical system, circuit breaker panels, etc.);

   4) lighting system;

   5) water and waste systems;

   6) fire prevention systems;

   7) oxygen system;

   8) smoke detection system; and

   9) air conditioning, ventilation and pressurization systems.

4.9.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) problem solving and decision making;

d) situation awareness and management of information; and

e) workload management.

4.9.2 Cruise tasks

Task 5.2: Perform cruise tasks	
Sub-tasks:	
5.2.1	Apply procedures in the event of turbulence
5.2.2	Apply procedures for the safe use of service equipment
5.2.3	Check passenger compliance with ordinance signs and instructions
5.2.4	Monitor cabin
5.2.5	Monitor galley
5.2.6	Monitor lavatory
5.2.7	Monitor remote area, if applicable
5.2.8	Manage passengers

4.9.2.1 *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 or security of the aircraft, passengers and crew (e.g. suspicious items or behaviours, 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);

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;

o) the effects of altitude on alcohol and drug consumption; and

p) regulatory requirements and cabin crew responsibilities related to identifying and responding to suspected cases of trafficking in persons.

4.9.2.2 *Reference*

CCOM.

4.9.2.3 *Training media*

Classroom and/or computer-based training.

4.9.2.4 *Task list standards*

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

1) 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; and
— securing self;

2) 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 bassinettes and secured;
— stowing on-board wheelchairs provided by the operator;
— stowing equipment such as service carts; and
— checking that lavatories are unoccupied;

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

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

4) comply with signal to resume service and duties;

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

— contacting the flight crew;
— checking cabin and lavatories, cabin crew and passengers; and
— administering first aid, if required;

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

1) stowing/latching equipment;

2) applying brakes on service carts;

3) securing hot beverages pots;

4) 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; and
— 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:

1) use of PEDs, as applicable;

2) unruly behaviour;

3) smoking;

4) alcohol consumption (including passengers drinking their own alcohol);

5) passengers under the effect of psychoactive substances;

6) wellbeing of passengers;

7) concentration and movement of passengers in specific areas of the aircraft (e.g. passengers congregating around lavatories, galleys, exits, etc.);

8) passenger adherence to flight crew and cabin crew instructions; and

9) passengers that may be victims of trafficking in persons.

4.9.2.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

4.9.3 Security procedures

Task 5.3: Perform security procedures
Sub-tasks:
5.3.1 Apply flight deck access procedures
5.3.2 Monitor “clear zone” outside the flight deck
5.3.3 Monitor cabin for security-related issues

4.9.3.1 *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.

4.9.3.2 *Reference*

CCOM.

4.9.3.3 *Training media*

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

b) simulated exercise of flight deck access procedures.

4.9.3.4 *Task list standards*

a) apply flight deck access procedures. This may include, but is not limited to:

1) 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);

2) checking that there are no passengers present in the “clear zone”;

3) admission to the flight deck; and

4) 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.

4.9.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) problem solving and decision making; and

e) situation awareness and management of information.

4.9.3.6 Refer to Chapter 9 for guidance on training on cabin crew members' tasks related to unlawful interference.

4.9.5 Abnormal or emergency situations

Task 5.4: Manage abnormal or emergency situations
Sub-tasks:
5.5.1 Recognize the abnormal or emergency situation
5.5.2 Apply the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.10 PHASE OF FLIGHT 6 — DESCENT AND APPROACH

The tasks 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.

4.10.1 Prepare cabin for landing

Task 6.1: Prepare cabin for landing
Sub-tasks:
6.1.1 Check compliance with ordinance signs
6.1.2 Secure cabin
6.1.3 Secure galley
6.1.4 Check lavatory
6.1.5 Check crew rest area, if applicable
6.1.6 Check remote area, if applicable
6.1.7 Check that emergency exits/aisles are not obstructed
6.1.8 Comply with ordinance signs or instructions from the flight crew

6.1.9	Take assigned station/seat for landing and remain secure in required position
6.1.10	Confirm "cabin readiness" for landing to the flight crew
6.1.11	Apply sterile flight deck procedure
6.1.12	Comply with the pre-landing signal
6.1.13	Take appropriate safety seating position for landing (including brace, if appropriate)
6.1.14	Perform silent review

4.10.1.1 *Knowledge*

a) importance of securing the cabin and galley, the hazards associated with unrestrained equipment or items and the risk of injuries to aircraft occupants;

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

4.10.1.2 *Reference*

CCOM.

4.10.1.3 *Training media*

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).

4.10.1.4 *Task list standards*

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:

1) making appropriate announcements regarding baggage stowage and safety instructions;

2) verifying that passengers fasten their seat belts including securing of infants in compliance with the operator's policy;

3) verifying that seat back and table trays are in the upright position;

4) verifying that carry-on baggage is stowed;

5) verifying that overhead bins are closed and latched;

6) verifying compliance with the operator's policy on the use and stowage of PEDs;

7) verifying compliance with the operator's policy on the use earphones and headphones;

8) verifying that passenger headrests, armrests and footrests are stowed;

9) stowing and retracting monitors;

10) verifying that aisles are clear;

11) verifying that exits are not obstructed;

12) verifying that seating restrictions at emergency exit rows are adhered to;

13) verifying that window blinds are in a position to see outside; and

14) verifying that animals in the cabin are secured, as per operator procedures;

c) secure galley. This may include, but is not limited to:

1) applying brakes on service carts;

2) latching equipment;

3) turning off electrical appliances (e.g. ovens);

4) securing curtains and interior doors/partitions to open position; and

5) 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 rows are occupied by passengers who are able and willing to assist in case of an emergency, as per operator procedures. 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;

k) 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:

1) brace position;

2) emergency notification procedures;

3) location and operation of exits;

4) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;

5) passenger management and the visual identification of potential able-bodied passengers who may be able to assist in an emergency, number of passengers on board the aircraft, and special categories of passengers;

6) brace commands;

7) interior and exterior evacuation conditions;

8) protective position while commanding the evacuation; and

9) evacuation commands.

4.10.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

4.10.2 Abnormal or emergency situations

Task 6.2: Manage abnormal or emergency situations
Sub-tasks:
6.2.1 Recognize the abnormal situation
6.2.2 Perform the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.11 PHASE OF FLIGHT 7 — LANDING

The tasks 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.

4.11.1 Landing tasks

Task 7.1: Perform landing tasks
Sub-tasks:
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

4.11.1.1 *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 situation awareness and of limiting communications between cabin crew members to safety-related information during landing; and

e) emergency procedures related to landing (e.g. touch-and-go landing: causes, effects on occupants and relevant procedures such as communication.

4.11.1.2 *Reference*

CCOM.

4.11.1.3 *Training media*

Classroom and/or computer-based training.

4.11.1.4 *Task list standards*

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

b) remain in the position that the operator requires for landing during normal operations (including the brace position, during the landing roll; and

c) continue to perform the silent review. This may include, but is not limited to, items such as:

1) brace position;

2) emergency notification procedures;

3) location and operation of exits;

4) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;

5) passenger management and the visual identification of potential able-bodied passengers who may be able to assist in an emergency, number of passengers on board the aircraft, and special categories of passengers;

6) brace commands;

7) interior and exterior evacuation conditions;

8) protective position while commanding the evacuation; and

9) evacuation commands.

4.11.1.5 *Competencies*

a) application of policies and procedures;

b) communication; and

c) situation awareness and management of information.

4.11.2 Abnormal or emergency situations

Task 7.2: Manage abnormal or emergency situations
Sub-tasks:
7.2.1 Recognize the abnormal or emergency situation
7.2.2 Perform the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.12 PHASE OF FLIGHT 8 — POST-LANDING AND POST-FLIGHT OPERATIONS

The tasks 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.

4.12.1 Post-landing and post-flight tasks

Task 8.1: Perform post-landing and post-flight tasks	
Sub-tasks:	
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

4.12.1.1 *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 tasks 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 authorization 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 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:

1) which documents to complete;

2) how to complete and submit documents; and

3) the importance of proper reporting.

4.12.1.2 *Reference*

CCOM.

4.12.1.3 *Training media*

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.

4.12.1.4 *Task list standards*

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:

1) 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, suspicious items, or unauthorized persons;

2) completing any required documentation; and

3) 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.

4.12.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) passenger management;

d) problem solving and decision making; and

e) situation awareness and management of information.

4.12.2 Abnormal or emergency situations

Task 8.2: Manage abnormal or emergency situations
Sub-tasks:
8.2.1 Recognize the abnormal or emergency situation
8.2.2 Perform the procedure for the abnormal or emergency situation

Refer to Chapter 5 for detailed training on emergency procedures.

4.12.3 Transit tasks

Task 8.3: Perform transit tasks
Sub-tasks:
8.3.1 Manage passenger disembarkation process

8.3.2	Perform security checks
8.3.3	Obtain flight crew briefing, if applicable
8.3.4	Conduct cabin crew briefing, if applicable
8.3.5	Check minimum crew complement
8.3.6	Manage passenger boarding process

4.12.3.1 *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 coordination, 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:

   1) seating restrictions;

   2) proper selection of passengers seated at emergency exit row seats, and relocation of passengers in compliance with seating procedures; and

   3) acceptance and use of CRS;

h) cabin crew responsibilities for passenger supervision while the aircraft is on the ground; and

i) procedures related to transit stops, if applicable.

4.12.3.2 *Reference*

a) CCOM;

b) documentation relating to destination information; and

c) standard briefing form, if applicable.

4.12.3.3 *Training media*

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

b) simulated exercise on conducting a pre-flight briefing.

4.12.3.4 *Task list standards*

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:

1) 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, suspicious items or unauthorized persons;

2) completing any required documentation; and

3) communicating any observations to the in-charge cabin crew member and the flight crew members;

c) participate in a joint briefing between the flight crew and cabin crew, when operations permit in accordance with operator's procedures. 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:

1) safety, emergency, security and communication procedures;

2) the assignment of duties to individual cabin crew members, such as public announcements, cabin crew stations, and special categories of passengers;

3) review of safety and emergency procedures and information;

4) customized briefing for the aircraft type;

5) destination-specific information;

6) meteorological information;

7) cabin defects; and

8) 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:

1) verifying passengers' boarding passes, as per operator procedures;

2) monitoring carry-on baggage for compliance with operator allowance and remaining vigilant for suspicious items;

3) monitoring passengers who may display suspicious behaviour or raise security concerns, may be under the influence of psychoactive substances or display unruly behaviour;

4) monitoring for intoxicated passengers who should be denied boarding;

5) monitoring for passengers who may require specific assistance (e.g. special categories of passengers);

6) monitoring passengers with infants in rows to ensure sufficient oxygen masks are available;

7) making appropriate announcements regarding safety instructions;

8) checking that emergency exit rows are occupied by passengers who are able and willing to assist in case of an emergency, as per operator procedures;

9) monitoring restricted seating at/or adjacent to the emergency exit rows, as per operator procedures; and

10) applying procedures related to transit stops, if applicable (e.g. in case of a crew change, communication between the incoming and outgoing crew regarding passenger needs, cabin defects, etc.).

4.12.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

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Appendix to Chapter 4

CABIN CREW TASKS
DURING NORMAL OPERATIONS

CABIN CREW MEMBER TASKS DURING NORMAL OPERATIONS				
Phase of flight: 1. Ground and pre-flight operations				
The tasks 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.				
Task		*Sub-task*	*I/C Duty*	*Reference*
1.1 Perform planning tasks	1.1.1	Report for duty		CCOM 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	CCOM 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	CCOM
	1.3.2	Check relevant documentation or systems 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	

1.4 Perform passenger boarding and pre-pushback tasks	1.4.1	Check minimum crew complement	X	CCOM
	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		CCOM
	1.5.2	Apply the procedure for the abnormal or emergency situation		

Phase of flight: 2. Pushback and taxi

The tasks 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.

Task	*Sub-task*		*I/C Duty*	*Reference*
2.1 Perform pushback and taxi tasks	2.1.1	Arm aircraft door(s), if applicable		CCOM
	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		CCOM
	2.2.2	Apply the procedure for the abnormal or emergency situation		

Phase of flight: 3. Take-off				
The tasks 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 or until gear‑up selection, whichever comes first.				
Task		*Sub-task*	*I/C Duty*	*Reference*
3.1 Perform take-off tasks	3.1.1	Apply sterile flight deck procedure		CCOM
	3.1.2	Remain in appropriate safety seating position for take-off (including brace position, if appropriate)		
	3.1.3	Perform silent review		
3.2 Manage abnormal or emergency situations	3.2.1	Recognize the abnormal or emergency situation		CCOM
	3.2.2	Perform the procedure for the abnormal or emergency situation		

Phase of flight: 4. Climb

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

Task	*Sub-task*	*I/C Duty*	*Reference*
4.1 Perform climb tasks	4.1.1 Comply with ordinance signs and instructions from the flight crew		CCOM
	4.1.2 Check passenger compliance with ordinance signs and instructions		
	4.1.3 Monitor cabin		
4.2 Manage abnormal or emergency situations	4.2.1 Recognize the abnormal or emergency situation		CCOM
	4.2.2 Apply the procedure for the abnormal or emergency situation		

Phase of flight: 5. Cruise

The tasks 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.

Task	*Sub-task*	*I/C Duty*	*Reference*
5.1 Perform systems operations	5.1.1 Operate systems, as required		CCOM
	5.1.2 Monitor operation of systems		
5.2 Perform cruise tasks	5.2.1 Apply procedures in the event of turbulence		CCOM
	5.2.2 Apply procedures for the safe use of service equipment		
	5.2.3 Check passenger compliance with ordinance signs and instructions		
	5.2.4 Monitor cabin		
	5.2.5 Monitor galley		
	5.2.6 Monitor lavatory		
	5.2.7 Monitor remote area, if applicable		
	5.2.8 Manage passengers		

5.3 Perform security procedures	5.3.1	Apply flight deck access procedures		CCOM
	5.3.2	Monitor “clear zone” outside the flight deck		
	5.3.3	Monitor cabin for security-related issues		
5.4 Manage abnormal or emergency situations	5.4.1	Recognize the abnormal or emergency situation		CCOM
	5.4.2	Apply the procedure for the abnormal or emergency situation		

Phase of flight: 6. Descent and approach				
The tasks 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.				
6.1 Prepare cabin for landing	6.1.1	Check compliance with ordinance signs		CCOM
	6.1.2	Secure cabin		
	6.1.3	Secure galley		
	6.1.4	Check lavatory		
	6.1.5	Check crew rest area, if applicable		
	6.1.6	Check remote area, if applicable		
	6.1.7	Check that emergency exits/aisles are not obstructed		
	6.1.8	Comply with ordinance signs or instructions from the flight crew		
	6.1.9	Take assigned station/seat for landing and remain secure in required position		
	6.1.10	Confirm "cabin readiness" for landing to the flight crew	X	
	6.1.11	Apply sterile flight deck procedure		
	6.1.12	Comply with the pre-landing signal		
	6.1.13	Take appropriate safety seating position for landing (including brace, if appropriate)		
	6.1.14	Perform silent review		
6.2 Manage abnormal or emergency situations	6.2.1	Recognize the abnormal situation		CCOM
	6.2.2	Perform the procedure for the abnormal or emergency situation		

Phase of flight: 7. Landing

The tasks 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.

Task	*Sub-task*	*I/C Duty*	*Reference*
7.1 Perform landing tasks	7.1.1 Apply sterile flight deck procedure		CCOM
	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		CCOM
	7.2.2 Perform the procedure for the abnormal or emergency situation		

Phase of flight: 8. Post-flight operations

The tasks 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.

Task	*Sub-task*	*I/C Duty*	*Reference*
8.1 Perform post-landing and post-flight tasks	8.1.1 Remain in assigned station/seat and remain secure in required position		CCOM
	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 Manage abnormal or emergency situations	8.2.1	Recognize the abnormal or emergency situation		CCOM
	8.2.2	Perform the procedure for the abnormal or emergency situation		
8.3 Perform transit tasks	8.3.1	Manage passenger disembarkation process		CCOM Documentation relating to destination information Standard briefing form (if applicable)
	8.3.2	Perform security checks		
	8.3.3	Obtain flight crew briefing, if applicable		
	8.3.4	Conduct cabin crew briefing, if applicable	X	
	8.3.5	Check minimum crew complement	X	
	8.3.6	Manage passenger boarding process		

Chapter 5

ABNORMAL AND EMERGENCY SITUATIONS TRAINING

5.1 DEFINITION AND GOAL OF ABNORMAL AND EMERGENCY SITUATIONS TRAINING

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

5.1.2 "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.

5.1.3 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, as required to 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.

5.2 CONTENT OF ABNORMAL AND EMERGENCY SITUATIONS TRAINING

5.2.1 Abnormal and emergency situations training should include, but not be limited to the following topics:

a) firefighting;

b) fume events;

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.

5.2.2 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.

5.2.3 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regard to the tasks covered, the training media used, as well as the competencies that may be assessed.

5.3 HANDS-ON EXERCISES AND SIMULATED EXERCISES

5.3.1 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 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 SOPs indicated in the CCOM.

5.3.2 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 tasks 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.

5.3.3 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.

5.3.4 It is also recommended that cabin crew trainees and employees act the role of passengers in simulated exercises, such as: firefighting, 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 standard 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.

5.4 TRAINING ON CABIN CREW TASKS FOR ABNORMAL AND EMERGENCY SITUATIONS

The following sections provide detailed guidance for the development of training for cabin crew members to perform tasks during an abnormal or emergency situation. These tasks are derived from the task list presented in the Appendix to Chapter 5, which presents cabin crew tasks during abnormal and emergency situations. Each task has a series of competencies associated to it. The full list of cabin crew competencies is presented in the Appendix to Chapter 2. Cabin crew should demonstrate these competencies while performing the tasks, as part of scenario-based training (refer to Chapter 16).

5.5 CABIN CREW TASKS DURING ABNORMAL OR EMERGENCY SITUATIONS

The tasks described in this section relate to abnormal or emergency situations which may occur during any phase of flight. Unlike training for normal operations, cabin crew tasks are not presented by phase of flight.

5.5.1 Firefighting

Task 1.1: Apply firefighting procedure
Sub-tasks:
1.1.1 Detect and eliminate fire hazards
1.1.2 Locate source of smoke/fire
1.1.3 Identify the type of fire
1.1.4 Apply communication procedures
1.1.5 Use appropriate firefighting 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-firefighting procedure
1.1.9 Complete the applicable documentation

5.5.1.1 *Knowledge*

a) identification of the different types of fires, means of fire detection, firefighting systems and established firefighting procedures;

b) location, pre-flight check and use of firefighting and protective equipment on board the aircraft type. This may include, but is not limited to:

1) smoke detectors;

2) portable extinguishers;

3) installed automatic extinguishers (e.g. in lavatory);

4) crowbar;

5) axe;

6) protective breathing equipment;

7) protective gloves; and

8) equipment specific to accessible cargo compartments/combi aircraft;

c) understanding of fire prevention techniques. This may include, but is not limited to:

1) monitoring smoking in the cabin and lavatories;

2) inspecting the integrity of automatic lavatory extinguisher;

3) checking that the lavatory waste bin cover flap is closed at all times;

4) preventing ignited materials from being discarded in trash carts; and

5) identifying and eliminating hazardous flammable materials;

d) techniques and procedures for fighting fires. This may include, but is not limited to:

1) immediate and aggressive approach to finding the source of the fire;

2) fighting the fire aggressively and effectively;

3) type of extinguisher to use based on the type of fire;

4) additional firefighting equipment needed such as protective breathing equipment (PBE);

5) techniques for using extinguishers; and

6) communicating while using PBE;

e) firefighting procedures for specific types/locations of fires. This may include, but is not limited to:

1) galleys;

2) lavatories;

3) overhead bins;

4) electrical systems;

5) ovens;

6) flammable liquids;

7) metal fires;

8) lithium battery fires;

9) upholstery;

10) remote locations (e.g. crew rest or lower lobe galleys);

11) hidden fires; and

12) assisting with flight deck fires, if the flight crew requires assistance;

f) specific crew member responsibilities for firefighting and the importance of being prepared to apply appropriate firefighting procedures;

g) importance of crew communication and coordination in fighting a fire and providing the flight crew with accurate updates on:

1) fire source/location;

2) extent/severity of smoke/fire;

3) actions taken, including relocation of passengers;

4) notification of any injuries to passengers and/or crew members;

5) types and the number of firefighting equipment used; and

6) current status of smoke/fire (as the situation progresses);

h) obstructions to firefighting on board aircraft. This may include, but is not limited to:

1) limited visibility due to smoke or fumes;

2) firefighting in confined spaces;

3) difficulty in locating/accessing the source of the fire (e.g. hidden fires); and

4) resources to fight the fire (e.g. limited number of portable extinguishers);

i) hazards associated with on-board fires. This may include, but is not limited to:

1) toxicity of smoke and fumes;

2) flammability of cabin materials; and

3) variety of combustible materials and volatility;

j) external fires (e.g. engine fires, tailpipe 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.

5.5.1.2 *Reference*

CCOM.

5.5.1.3 *Training media*

a) classroom and/or computer-based training;

b) hands-on exercise on retrieving and operating firefighting and protective equipment;

c) simulated firefighting 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.— PBE should be used and operated in a simulated firefighting exercise within a smoke filled environment.

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

5.5.1.4 *Task list standards*

a) Conduct cabin surveillance to monitor for/identify potential sources of fire. This may include, but is not limited to:

1) debris in ovens (e.g. oil spills, papers, inserts);

2) electrical malfunctions (e.g. tripped circuit breakers, overheating in-flight entertainment (IFE));

3) lavatories (e.g. waste bins, panels);

4) PEDs;

5) investigating abnormal smells; and

6) detecting smoke (e.g. coming from panels, due to electrical systems, etc.);

b) use visual, audio and physical clues when locating the source of smoke or fire. This may include, but is not limited to:

1) using hands to feel if panels are hot;

2) noticing tripped circuit breaker;

3) noticing unusual odours; and

4) listening for crackling sound;

c) as per operator procedures, extinguish fire while using firefighting and protective equipment appropriate for the type of fire;

d) apply communication procedures. This may include, but is not limited to:

1) back-up duties;

2) crew coordination; and

3) 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:

1) relocating passengers;

2) reassuring passengers;

3) instructing passengers to breathe into a cloth (cover nose and mouth); and

4) relocating equipment such as oxygen bottles, if required;

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

1) monitoring area for re-ignition;

2) continued communication with flight crew, other cabin crew and passengers; and

3) administering first aid, if required.

5.5.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

5.5.2 Procedure for fume events

Task 1.2: Apply procedure for fume events	
Sub-tasks:	
1.2.1	Identify and locate the source of the fumes
1.2.2	Identify the type and intensity of the fumes
1.2.3	Apply communication procedures
1.2.4	Manage passengers and cabin, as required
1.2.5	Apply post-event procedures
1.2.6	Complete the applicable documentation

5.5.2.1 *Knowledge*

a) sources and types of on-board fumes;

b) odour descriptors to recognize the presence of oil and hydraulic fluid fumes;

c) potential for crew member impairment (including a list potential acute symptoms that may be experienced as a result of exposure to oil or hydraulic fluid fumes) and its impact on flight safety;

d) procedures to apply in fume events; and

e) procedures for completing the applicable documentation, such as an incident report form.

Note.— Guidance on cabin crew training related to fume events is contained in the Guidelines on Education, Training and Reporting Practices related to Fume Events *(Cir 344).*

5.5.2.2 *Training media*

Classroom and/or computer-based training.

5.5.2.3 *Reference*

CCOM.

5.5.2.4 *Task list standards*

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

a) cabin surveillance to identify and monitor potential sources of fumes. This may include, but is not limited to:

1) de-icing and/or anti-icing fluid;

2) exhaust (aircraft or ground vehicles);

3) fuel;

4) disinsectants; and

5) food items;

b) identify the location or source, type and intensity of fumes (i.e. air supply system or cabin equipment/item) and attempt to identify the type of odour (e.g. dirty socks, musty or mouldy, acrid) and intensity (e.g. mild, moderate or strong) of the fumes;

c) apply communication procedures. This may include providing information on:

1) nature of the fumes;

2) intensity of the fumes;

3) any visible signs (e.g. haze or mist);

4) apparent source and, for suspected air supply system fumes, confirmation that cabin sources have been ruled out, to the extent possible;

5) location within the cabin;

6) phase of flight when the odour was first noticed, as well as subsequent times when it was noticed;

7) action(s) already taken (if any) and coordination with flight crew members on actions to be taken; and

8) presence of any affected passengers and/or crew members, including the type of symptoms and the administration of first aid, if applicable;

c) manage passengers and cabin, as required. This may include, but is not limited to:

1) relocating passengers, if required;

2) informing passengers and reassuring them; and

3) administering first aid to passengers and/or crew members; and

d) apply post-event procedures for the remainder of the flight. These may include, but are not limited to:

1) monitoring the area;

2) continued communication with the flight crew and other cabin crew members; and

3) applying crew member incapacitation procedures, if applicable.

5.5.2.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

5.5.3 Cabin pressurization problem/decompression

Task 1.3: Manage cabin pressurization problem/decompression	
Sub-tasks:	
1.3.1	Recognize signs and symptoms of cabin pressurization problem/decompression
1.3.2	Don nearest oxygen mask, if installed
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

5.5.3.1 *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. emergency 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.

5.5.3.2 *Reference*

CCOM.

5.5.3.3 *Training media*

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.

5.5.3.4 *Task list standards*

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:

1) mist in the cabin;

2) hissing sound;

3) euphoria;

4) dizziness;

5) cold temperature; and

6) ear pain;

b) don nearest oxygen mask (if installed), 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, especially when an emergency descent has not started or in the absence of any information from the flight crew; and

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

1) contacting the flight crew;

2) checking cabin and lavatories, cabin crew and passengers; and

3) administering first aid, if required.

5.5.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making; and

f) situation awareness and management of information.

5.5.4 Anticipated emergency landing or ditching

Task 1.4: Apply procedures for an anticipated emergency landing or ditching

Sub-tasks:

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 for further instructions

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

5.5.4.1 *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:

1) cabin crew tasks;

2) brace position;

3) appropriate commands;

4) precautions and adaptations for passenger management;

5) time element and time management;

6) donning of life jackets; and

7) 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.

5.5.4.2 *Reference*

CCOM.

5.5.4.3 *Training media*

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.

5.5.4.4 *Task list standards*

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:

1) not to take any carry-on baggage;

2) brace position;

3) nearest and alternate exits;

4) if/when to remove high-heeled shoes;

5) not to inflate life jackets inside the aircraft; and

6) any items specific to briefing special categories of passengers;

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 and brief able-bodied passengers, as required. Items covered during the briefing may include tasks such as:

1) assessment of internal/external conditions;

2) opening exits;

3) crowd control during evacuation;

4) bringing safety and emergency equipment;

5) assisting other passengers, including special categories of passengers, if possible; and

6) asking able-bodied passengers to repeat, clarify and acknowledge the information provided by cabin crew members;

i) secure cabin as per operator procedures. This may include, but is not limited to, verifying that:

1) carry-on baggage is stowed;

2) seat belts are fastened and infants are secured in compliance with the operator's policy;

3) headrests, armrests and footrests are stowed;

4) seatbacks are in the upright position;

5) tray tables are stowed;

6) life jackets are donned;

7) the IFE is switched off;

8) in-seat monitors are stowed;

9) overhead monitors are retracted, if applicable;

10) PEDs are not used;

11) bassinets are stowed; and

12) animals in the cabin are secured, as per operator procedures;

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:

1) brace position;

2) emergency notification procedures;

3) location and operation of exits;

4) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;

5) passenger management and the visual identification of potential able-bodied passengers who may be able to assist in an emergency, number of passengers on board the aircraft, and special categories of passengers;

6) brace commands;

7) interior and exterior evacuation conditions;

8) protective position while commanding the evacuation; and

9) 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.

5.5.4.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

5.5.5 Unanticipated emergency landing or ditching

Task 1.5: Apply procedures for an unanticipated emergency landing or ditching	
Sub-tasks:	
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

5.5.5.1 *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.

5.5.5.2 *Reference*

CCOM.

5.5.5.3 *Training media*

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.

5.5.5.4 *Task list standards*

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:

1) brace position;

2) emergency notification procedures;

3) location and operation of exits;

4) location of safety and emergency equipment and removal of equipment designated to the cabin crew station;

5) passenger management and the visual identification of potential able-bodied passengers who may be able to assist in an emergency, number of passengers on board the aircraft, and special categories of passengers;

6) brace commands;

7) interior and exterior evacuation conditions;

8) protective position while commanding the evacuation; and

9) 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.

5.5.5.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) problem solving and decision making; and

d) situation awareness and management of information.

5.5.6 Evacuation

Task 1.6: Evacuate aircraft	
Sub-tasks:	
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

5.5.6.1 *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:

1) recognizing and managing the different types of passenger behaviour (e.g. passive, aggressive, hysterical, etc.);

2) redirecting passengers, as necessary;

3) avoiding panic;

4) imparting confidence; and

5) 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:

1) fire, smoke or fumes;

2) water;

3) human behaviour;

4) fuselage damage; and

5) 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 situation 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, if applicable. This may include, but is not limited to:

1) activation and deployment of slides/slide rafts;

2) aircraft-specific knowledge of exits that cannot be used in certain scenarios (e.g. gear-up landing or ditching);

3) exit status appropriate to the evacuation;

4) methods for automatic and manual activation of exits;

5) slide-raft: operation, boarding, supplementary survival kits, canopy installation, disconnection, time management, and seaworthiness;

6) 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

7) 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:

1) emergency locator transmitter;

2) radio locator beacon; and

3) signalling equipment;

r) aquatic survival techniques and physiological limitations in water;

s) survival techniques for other environments (e.g. polar, jungle), if applicable;

t) transmitting signals at time of sunrise/sunset or moonrise/moonset, as aid in establishing position; and

u) procedures for completing the applicable documentation, such as an incident report form.

5.5.6.2 *Reference*

CCOM.

5.5.6.3 *Training media*

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.

5.5.6.4 *Task list standards*

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:

1) passengers rushing to exits (crowd control);

2) water level inside/outside the cabin (ditching);

3) aircraft attitude;

4) debris/obstacle outside the exit; and

5) smoke/fire;

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 inflation 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:

1) giving appropriate instructions;

2) preventing passengers (as much as possible) from going down the slide in high-heeled shoes, and/or with carry-on baggage;

3) dealing with hesitating/panicked passengers in an assertive manner;

4) redirecting passengers as necessary;

5) using a flashlight in a smoke filled environment or in darkness to indicate the location of the exit(s) to passengers; and

6) 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:

1) the cabin crew member using their voice to call passengers towards them;

2) verifying rows and floor in case passengers are unconscious;

3) using a flashlight in a smoke filled environment or in darkness; and

4) verifying that lavatories, flight deck and crew rest area are vacated, if conditions permit;

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:

1) first-aid kit;

2) radio beacon/emergency locator transmitter;

3) axe;

4) additional survival kits;

5) flashlight; and

6) 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:

1) directing passengers to remove life rafts from stowage areas and position them at the exit(s), if applicable;

2) instructing passengers to board the raft on alternating sides; and

3) if possible, preventing passengers from jumping directly into the water;

n) perform post-evacuation duties. These may include but are not limited to:

1) administering first aid while waiting for medical assistance;

2) crowd control; and

3) 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:

1) putting the canopy on the life raft/slide-raft;

2) aquatic survival techniques; and

3) distress signalling.

5.5.6.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

5.5.7 Flight crew incapacitation

Task 1.7: Apply flight crew member incapacitation procedures	
Sub-tasks	
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

5.5.7.1 *Knowledge*

a) operation of the flight deck seat, harness and oxygen system;

b) procedures associated with flight crew member incapacitation;

c) first-aid procedures; and

d) procedures for completing the applicable documentation, such as an incident report form.

5.5.7.2 *Reference*

CCOM.

5.5.7.3 *Training media*

a) classroom and/or computer-based training;

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 8).

5.5.7.4 *Task list standards*

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).

5.5.7.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork ;

d) problem solving and decision making;

e) situation awareness and management of information; and

f) workload management.

5.5.8 Cabin crew incapacitation

Task 1.8: Apply cabin crew member incapacitation procedures
Sub-tasks:
1.8.1 Administer first aid
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
1.8.5 Complete the applicable documentation

5.5.8.1 *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.

5.5.8.2 *Reference*

CCOM.

5.5.8.3 *Training media*

a) classroom and/or computer-based training;

b) simulated exercise of an incapacitated cabin crew member (such as crew restraint/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 8).

5.5.8.4 *Task list standards*

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' tasks, including the role of the in-charge cabin crew member.

5.5.8.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) problem solving and decision making;

e) situation awareness and management of information; and

f) workload management.

5.5.9 Single cabin crew member incapacitation

Task 1.9: Apply single cabin crew member incapacitation procedures	
Sub-tasks:	
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 assist the cabin crew member
1.9.5	Complete the applicable documentation

5.5.9.1 *Knowledge*

a) preventive measures in case of any doubt of own fitness to perform tasks, 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.

5.5.9.2 *Reference*

CCOM.

5.5.9.3 *Training media*

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

b) simulated exercise of an incapacitated cabin crew member 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 interacting with the passenger.

5.5.9.4 *List task standards*

Provide a verbal or written description of the applicable procedure.

5.5.9.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) problem solving and decision making;

e) situation awareness and management of information; and

f) workload management.

Note.— This task and its associated sub-tasks may be carried out by someone other than the operating cabin crew member, if they are unconscious. However, if the incapacitated cabin crew member is conscious, they may provide instructions to the person acting on their 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.

5.5.10 Rapid disembarkation

Task 1.10: Conduct a rapid disembarkation
Sub-tasks:
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

5.5.10.1 *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.

5.5.10.2 *Reference*

CCOM.

5.5.10.3 *Training media*

Classroom and/or computer-based training.

5.5.10.4 *Task list standards*

Provide a verbal or written description of the applicable procedure.

5.5.10.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

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Appendix to Chapter 5

CABIN CREW TASKS DURING ABNORMAL AND EMERGENCY SITUATIONS

CABIN CREW TASKS DURING ABNORMAL AND EMERGENCY SITUATIONS			
Phase of flight: 1. Applicable to any phase of flight			
The tasks described below relate to abnormal or emergency situations which may occur during any phase of flight			
Task	*Sub-task*	*I/C Duty*	*Reference*
1.1 Apply firefighting procedure	1.1.1 Detect and eliminate fire hazards		CCOM
	1.1.2 Locate source of smoke/fire		
	1.1.3 Identify the type of fire		
	1.1.4 Apply communication procedures		
	1.1.5 Use appropriate firefighting 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-firefighting procedure		
	1.1.9 Complete the applicable documentation	X	
1.2 Apply procedure for fume events	1.2.1 Identify and locate the source of the fumes		CCOM
	1.2.2 Identify the type and intensity of the fumes		
	1.2.3 Apply communication procedures		
	1.2.4 Manage passengers and cabin, as required		
	1.2.5 Apply post-event procedures		
	1.2.6 Complete the applicable documentation	X	

1.3 Manage cabin pressurization problem/ decompression	1.3.1	Recognize signs and symptoms of cabin pressurization problem/decompression		CCOM
	1.3.2	Don nearest oxygen mask, if installed		
	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		CCOM
	1.4.2	Obtain briefing from the flight crew on the situation	X	
	1.4.3	Stow service-related items and stand-by for further instructions		
	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 (galley, lavatories, remote areas)		
	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	
1.5 Apply procedures for an unanticipated emergency landing or ditching	1.5.1	Recognize emergency signal from the flight crew		CCOM
	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		CCOM
	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	

1.7 Apply flight crew member incapacitation procedures	1.7.1 Respond to call from the flight crew		CCOM
	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		CCOM
	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		CCOM
	1.9.2 Secure the incapacitated cabin crew member		
	1.9.3 Administer first aid		
	1.9.4 Assign an able-bodied passenger to assist 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		CCOM
	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		

* *Note.— This task and its associated sub-tasks 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).*

	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	

Chapter 6

DANGEROUS GOODS TRAINING

6.1 DEFINITION AND GOAL OF DANGEROUS GOODS TRAINING

6.1.1 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 *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) or which are classified according to those Instructions.

6.1.2 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.

6.1.3 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 such as portable gaseous or air cylinders) may cause an incident.

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

6.1.5 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.

6.1.6 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.

6.1.7 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.

6.1.8 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.

6.1.9 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).

6.2 CONTENT OF DANGEROUS GOODS TRAINING

6.2.1 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.

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

6.3 CABIN CREW TASKS RELATED TO DANGEROUS GOODS

The following sections provide detailed guidance for the development of training for cabin crew tasks related to dangerous goods. These tasks are derived from the task list presented in the Appendix to Chapter 6. Each task has a series of competencies associated to it. The full list of cabin crew competencies is presented in the Appendix to Chapter 2. Cabin crew should demonstrate these competencies while performing the tasks, as part of scenario-based training (refer to Chapter 15).

6.4 PHASE OF FLIGHT 1 — ON THE GROUND OR IN-FLIGHT

The tasks described in this section relate to dangerous goods found in the cabin during normal operations and may occur during any phase of flight (while the aircraft is on the ground or in-flight).Unlike training for normal operations, cabin crew tasks are not presented by individual phases of flight.

6.4.1 Permitted dangerous goods by passengers and crew

Task 1.1: Apply procedures for permitted dangerous goods by passengers and crew
Sub-tasks:
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

6.4.1.1 *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.

6.4.1.2 *Reference*

CCOM.

6.4.1.3 *Training media*

Classroom and/or computer-based training.

6.4.1.4 *List task standards*

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

a) identify the item by determining if it meets the criteria of a dangerous good;

b) assess the restrictions as per the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284, Table 8-1 – Provisions for Dangerous Goods) and any operator-specific restrictions; and

c) allow 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).

6.4.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) passenger management;

d) problem solving and decision making; and

e) situation awareness and management of information.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

6.4.2 Forbidden dangerous goods found on board on the ground

Task 1.2: Apply procedures for forbidden dangerous goods found on board on the ground	
Sub-tasks:	
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

6.4.2.1 *Knowledge*

a) 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) procedures when dangerous goods are found in the cabin;

d) the limitations in the transport of dangerous goods, i.e. provisions for passenger and crew;

e) the importance of communication between the flight crew, cabin crew and ground personnel to ensure coordination of all actions related to the dangerous goods found on board;

f) the various dangerous goods resources available, e.g. dangerous goods coordinators, operations manual; and

g) rapid disembarkation procedures if dangerous goods pose a risk to the aircraft and occupants.

6.4.2.2 *Reference*

CCOM.

6.4.2.3 *Training media*

Classroom and/or computer-based training.

6.4.2.4 *Task list standards*

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.

6.4.2.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

6.4.3 Forbidden dangerous goods found on board during flight

Task 1.3: Apply procedures for forbidden dangerous goods found on board during flight	
Sub-tasks:	
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

6.4.3.1 *Knowledge*

a) 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) procedures when dangerous goods are found in the cabin;

d) the limitations in the transport of dangerous goods, i.e. provisions for passenger and crew;

e) the various dangerous goods resources available, e.g. *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481), dangerous goods coordinators, operations manual;

f) the importance of communication between the flight crew and cabin crew to ensure coordination of all actions related to the dangerous goods found on board;

g) emergency procedures for managing a dangerous goods incident in-flight;

h) apply the procedures for a rapid disembarkation if necessary, and

i) coordinate the removal of the item upon landing.

6.4.3.2 *Reference*

CCOM.

6.4.3.3 *Training media*

Classroom and/or computer-based training.

6.4.3.4 *Task list standards*

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.

6.4.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

6.5 PHASE OF FLIGHT 2 — APPLICABLE TO ANY PHASE OF FLIGHT

The tasks described in this section relate to an incident involving dangerous goods. Additional information can be found in Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods *(Doc 9481).*

6.5.1 Fire involving dangerous goods

Task 2.1: Apply procedures in case of fire involving dangerous goods	
Sub-tasks:	
2.1.1	Identify the item
2.1.2	Apply firefighting procedure
2.1.3	Monitor for any re-ignition
2.1.4	Apply procedures for spillage or leakage of dangerous goods, if required, once the fire has been extinguished (see Task 2.6)
2.1.5	Apply post-incident procedures, after landing at the next destination

6.5.1.1 *Knowledge*

a) identification of the different classes of dangerous goods;

b) techniques and procedures for fighting fires as referenced in Chapter 5;

c) procedures for spillage or leakage of dangerous goods as referenced in 6.5.6; and

d) post-incident procedures for incidents involving dangerous goods.

6.5.1.2 *Reference*

a) CCOM; and

b) Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (Doc 9481).

6.5.1.3 *Training media*

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

b) hands-on exercise on firefighting procedures and simulated firefighting exercise.

Note.— This exercise may be combined with the exercises presented in 5.5.1.

6.5.1.4 *Task list standards*

a) monitor the cabin to detect any potential carriage of dangerous goods;

b) if smoke or fumes appear, determine the source, and identify the item;

c) if fire is discovered, apply firefighting procedures as referenced in Chapter 5, using appropriate firefighting and protective equipment;

d) apply post-firefighting procedures, including monitoring for any re-ignition and apply firefighting procedures again if smoke or flames reappear;

e) apply procedures for spillage or leakage of dangerous goods as referenced in 6.5.6, if required, once the fire has been extinguished; and

f) apply post incident procedures. These may include, but is not limited to:

1) identifying where the item is stowed to ground personnel; and

2) providing all information about the item and completing the applicable documentation, such as an incident report form.

6.5.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

6.5.2 Fire or smoke involving a stand-alone lithium battery or PED

Task 2.2: Apply procedures for battery/PED fire/smoke	
Sub-tasks:	
2.2.1	Identify the item
2.2.2	Apply firefighting procedure
2.2.3	Remove power
2.2.4	Douse the device with water (or other non-flammable liquid)
2.2.5	Leave the device in its place and monitor for any re-ignition
2.2.6	Obtain a suitable empty container
2.2.7	Fill the container with enough water (or other non-flammable liquid) to submerge the device
2.2.8	Place the device in the container and completely submerge in water (or other non-flammable liquid), using protective equipment, when the device has cooled
2.2.9	Stow and secure (if possible) the container to prevent spillage
2.2.10	Monitor the device and the surrounding area for the remainder of the flight
2.2.11	Apply post-incident procedures, after landing at the next destination

6.5.2.1 *Knowledge*

a) the different aspects of battery fires versus other types of fires and the possibility of re-ignition of battery fires;

b) fire prevention techniques and limitations on passengers recharging batteries;

c) understanding that the device can be moved with caution following a certain period, once it has cooled down and if there is no evidence of smoke, heat, or if there is a reduction in the crackling or hissing sound usually associated with a lithium battery fire;

d) cooling period for devices (e.g. after approximately 10-15 minutes), including an understanding that the cooling period may vary based on the device and its size;

e) suitable empty containers that may be found on board the aircraft and used to completely submerge the device, such as a pot, jug, galley unit or toilet waste bin;

f) use of water extinguishers or other non-flammable liquids to cool the device and prevent additional battery cells from re-igniting, including the importance of filling the container with enough liquid to completely submerge the device and the importance of wearing available protective equipment;

g) understanding that the liquid used to douse the device should be non-alcoholic (ice should not be used as this will not cool the battery as required);

h) electrical systems or outlets and how the system can be powered down, or power removed, by either the flight or cabin crew; and

i) post-incident procedures for incidents involving dangerous goods.

6.5.2.2 *Reference*

a) CCOM; and

b) *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481).

6.5.2.3 *Training media*

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

b) hands-on exercise on retrieving and operating firefighting and protective equipment for use in a fire involving a PED or a stand-alone lithium battery;

c) simulated firefighting 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; and

Note.— This exercise may be combined with the exercises presented in 5.5.1.

6.5.2.4 *Task list standards*

a) monitor the cabin to detect any potential sources of fire, smoke or fumes;

b) if smoke or flames appear, determine the source, and identify the item;

c) apply firefighting procedures as referenced in Chapter 5, using appropriate firefighting and protective equipment;

d) remove power, without attempting to remove the battery from the device. This includes:

1) disconnecting the device from the power supply, if safe to do so;

2) turning off in-seat power, if applicable; and

3) verifying that power to the remaining electrical outlets remains off, if applicable;

e) douse the device with water (or other non-flammable liquid) and leave it in its place (without attempting to pick it up, move or cover it);

f) monitor for any re-ignition and apply firefighting procedures if smoke or flames reappear;

g) when the device has cooled, carry out the following actions:

1) obtain a suitable empty container;

2) fill the container with enough water (or other non-flammable liquid) to submerge the device;

3) using protective equipment, place the device in the container and completely submerge in water (or other non-flammable liquid); and

4) stow and secure (if possible) the container to prevent spillage;

h) monitor the device and the surrounding area to verify that the device does not pose further risk; and

i) apply post-incident procedures. These may include, but are not limited to:

1) identifying where the item is stowed to ground personnel; and

2) providing all information about the item and completing the applicable documentation, such as an incident report form. This incident report form may include information about model and series of the device and/or cabling and whether it was charging or not.

6.5.2.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

6.5.3 Fire or smoke involving a stand-alone lithium battery or PED in an overhead bin

Task 2.3: Apply procedures for overhead bin battery/PED fire/smoke
Sub-tasks:
2.3.1 Apply firefighting procedure
2.3.2 Identify the item
2.3.3 Douse the device (baggage) with water (or other non-flammable liquid)

2.3.4	Obtain a suitable empty container
2.3.5	Fill the container with enough water (or other non-flammable liquid) to submerge the device
2.3.6	Place the device in the container and completely submerge in water (or other non-flammable liquid), using protective equipment, when the device has cooled
2.3.7	Stow and secure (if possible) the container to prevent spillage
2.3.8	Monitor the device and the surrounding area for the remainder of the flight
2.3.9	Apply post-incident procedures, after landing at the next destination

6.5.3.1 *Knowledge*

a) the different aspects of battery fires versus other types of fires and the possibility of re-ignition of battery fires;

b) firefighting techniques for overhead bin fire or smoke and the risk that such events pose to flight safety (e.g. risk of becoming a hidden fire);

c) understanding that the device can be moved with caution following a certain period, once it has cooled down and if there is no evidence of smoke, heat, or if there is a reduction in the crackling or hissing sound usually associated with a lithium battery fire;

d) cooling period for devices (e.g. after approximately 10-15 minutes), including an understanding that the cooling period may vary based on the device and its size;

e) suitable empty containers that may be found on board the aircraft and used to completely submerge the device, such as a pot, jug, galley unit or toilet waste bin;

f) use of water extinguishers or other non-flammable liquids to cool the device and prevent additional battery cells from re-igniting, including the importance of filling the container with enough liquid to completely submerge the device and the importance of wearing available protective equipment;

g) understanding that the liquid used to douse the device should be non-alcoholic (ice should not be used as this will not cool the battery as required);

h) procedures to follow in different scenarios: if the device is visible and accessible, if the device is contained in baggage and flames are visible, or if smoke is coming from the overhead bin, but the device is not visible or accessible, or there is no indication of fire;

i) techniques to avoid injury from a flash fire if it is deemed necessary to slightly open baggage to allow entry of the extinguishing agent and non-flammable liquid; and

j) post-incident procedures for incidents involving dangerous goods.

6.5.3.2 *Reference*

a) CCOM; and

b) *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481).

6.5.3.3 *Training media*

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

b) hands-on exercise on retrieving and operating firefighting and protective equipment for use in a fire involving a PED or a stand-alone lithium battery;

c) simulated firefighting 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; and

Note.— This exercise may be combined with the exercises presented in 5.5.1.

6.5.3.4 *Task list standards*

a) monitor the cabin to detect any potential sources of fire, smoke or fumes;

b) if fire, smoke or fumes appear, apply firefighting procedures as referenced in Chapter 5, using appropriate firefighting and protective equipment;

c) identify the item:

1) if the device is visible and accessible, or, if the device is contained in baggage and flames are visible, apply firefighting procedures; or

2) if smoke is coming from the overhead bin, but the device is not visible or accessible:

i) remove other baggage from the overhead bin to access the affected baggage/item;

ii) identify the item; and

iii) apply firefighting procedures;

Caution — In order to avoid injury from a flash fire, it is not recommended to open the affected baggage when there is any indication of smoke or flames. However, in certain situations, cabin crew members may assess and deem it necessary to slightly open baggage to allow entry of the extinguishing agent and non-flammable liquid. This should be done with extreme caution and only after donning appropriate protective equipment available on the aircraft.

d) douse the device (baggage) with water (or other non-flammable liquid) and leave it in its place (without attempting to pick it up, move or cover it);

e) monitor for any re-ignition and apply firefighting procedures if smoke or flames reappear;

f) when the device has cooled, carry out the following actions:

1) obtain a suitable empty container;

2) fill the container with enough water (or other non-flammable liquid) to submerge the device;

3) using protective equipment, place the device in the container and completely submerge in water (or other non-flammable liquid); and

4) stow and secure (if possible) the container to prevent spillage;

g) monitor the device and the surrounding area to verify that the device does not pose further risk; and

h) apply post incident procedures. These may include, but are not limited to:

1) identifying where the item is stowed to ground personnel; and

2) providing all information about the item and completing the applicable documentation, such as an incident report form.

6.5.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

6.5.4 Overheated lithium battery or electrical smell involving a PED without visible fire or smoke

Task 2.4: Apply procedures for overheated battery or electrical smell Involving a PED — no visible fire or smoke
Sub-tasks:
2.4.1 Identify the item
2.4.2 Instruct the passenger to turn off the device immediately
2.4.3 Remove power

2.4.4	Instruct the passenger to keep the device visible and monitor closely
2.4.5	Apply procedures for battery/PED fire/smoke, if smoke or flames appear (see Task 2.2)
2.4.6	Apply post-incident procedures, after landing at the next destination

6.5.4.1 *Knowledge*

a) the different aspects of battery fires versus other types of fires and the possibility of re-ignition of battery fires;

b) fire prevention techniques and limitations on passengers recharging batteries;

c) procedures for battery/PED fire/smoke;

d) electrical systems or outlets and how the system can be powered down, or power removed, by either the flight or cabin crew; and

e) post-incident procedures for incidents involving dangerous goods.

6.5.4.2 *Reference*

a) CCOM; and

b) *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481).

6.5.4.3 *Training media*

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

b) hands-on exercise on retrieving and operating firefighting and protective equipment for use in a fire involving a PED or a stand-alone lithium battery;

c) simulated firefighting 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; and

Note.— This exercise may be combined with the exercises presented in 5.5.1.

6.5.4.4 *Task list standards*

a) monitor the cabin to detect any potential sources of fire, smoke or fumes;

b) identify the source of overheat or electrical smell or ask the passenger concerned to identify the item;

c) instruct the passenger to turn off the device immediately, to keep the device visible (not stowed such as in baggage or seat pocket or on a person (pocket)) and monitor it;

d) remove power, without attempting to remove the battery from the device. This includes:

1) disconnecting the device from the power supply, if safe to do so;
2) turning off in-seat power, if applicable; and

3) verifying that power to the remaining electrical outlets remains off, if applicable;

e) if smoke or flames appear, apply procedures for battery / PED fire / smoke as referenced in 6.5.2, using appropriate firefighting and protective equipment; and

f) apply post-incident procedures. These may include, but are not limited to:

1) identifying where the item is stowed to ground personnel; and

2) providing all information about the item and completing the applicable documentation, such as an incident report form. This incident report form may include information about model and series of the device and/or cabling and whether it was charging or not, etc.

6.5.4.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

6.5.5 PED inadvertently crushed or damaged in an electrically adjustable seat

Task 2.5: Apply procedures for PED inadvertently crushed or damaged in electrically adjustable seat
Sub-tasks:
2.5.1 Notify the pilot-in-command/other cabin crew members
2.5.2 Obtain information from the passenger
2.5.3 Retrieve and use protective equipment, if available

2.5.4	Retrieve the item
2.5.5	Apply procedures for battery/PED fire/smoke, if smoke or flames appear (see Task 2.2)
2.5.6	Apply post-incident procedures, after landing at the next destination

6.5.5.1 *Knowledge*

a) the importance of communication between the flight crew and cabin crew to ensure coordination of all actions;

b) the different aspects of battery fires versus other types of fires and the possibility of re-ignition of battery fires;

c) information that should be obtained from the passenger concerned (identify the item, where they suspect it may have dropped or slipped into, and if they have moved the seat since misplacing the item);

d) the importance of not using the electrical or mechanical seat functions in an attempt to retrieve the item, to prevent crushing of the PED and reduce the potential fire risk to the device and the surrounding area;

e) the importance of donning protective gloves, if available, before trying to retrieve the item to prevent injuries;

f) procedures for battery/PED fire/smoke; and

g) post-incident procedures for incidents involving dangerous goods.

6.5.5.2 *Reference*

a) CCOM; and

b) *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481).

6.5.5.3 *Training media*

a) classroom and/or computer-based training;

b) hands-on exercise on retrieving and operating firefighting and protective equipment for use in a fire involving a PED or a stand-alone lithium battery; and

c) simulated firefighting 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; and

Note.— This exercise may be combined with the exercises presented in 5.5.1.

6.5.5.4 *Task list standards*

a) notify the flight crew and in-charge cabin crew, providing details, location and description;

b) ask the passenger concerned to identify the item, where they suspect it may have dropped or slipped into, and if they have moved the seat since misplacing the item;

c) don protective gloves, if available, before trying to retrieve the item;

d) move the passenger and, if applicable, the passenger seated next to the affected seat from the area, to facilitate the search;

e) do not move the seat;

f) relocate the passenger to another seat, if unable to retrieve the item;

g) if smoke or flames appear, apply procedures for battery/PED fire/smoke as referenced in 6.5.2, using appropriate firefighting and protective equipment; and

h) apply post-incident procedures. These may include, but are not limited to:

1) identifying where the item is stowed to ground personnel; and

2) providing all information about the item; as well as completing the applicable documentation, such as an incident report form.

6.5.5.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

6.5.6 Spillage or leakage involving dangerous goods

Task 2.6: Apply procedures for spillage or leakage of dangerous goods	
Sub-tasks:	
2.6.1	Notify the pilot-in-command/other cabin crew members
2.6.2	Identify the item
2.6.3	Collect emergency response kit or other useful items
2.6.4	Don protective gloves and PBE
2.6.5	Move passengers away from the area and distribute wet towels or cloths
2.6.6	Place dangerous good item in polyethylene bags
2.6.7	Stow polyethylene bags
2.6.8	Treat affected seat cushions/covers in the same manner as the dangerous goods item
2.6.9	Cover spillage on carpet/floor
2.6.10	Inspect items stowed away/contaminated furnishings regularly
2.6.11	Apply post-incident procedures, after landing at the next destination

6.5.6.1 *Knowledge*

a) location and utilization of available resources and references on board to help identify the dangerous goods (e.g. operations manual or *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481));

b) location and utilization of available equipment for managing dangerous good spillage or leakage;

c) 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) post-incident procedures for incidents involving dangerous goods.

6.5.6.2 *Reference*

a) CCOM; and

b) *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481).

6.5.6.3 *Training media*

a) classroom and/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.

6.5.6.4 *Task list standards*

a) notify the pilot-in-command and other cabin crew members of spillage;

b) identify the item. This task may include, but is not limited to 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, protective 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 *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 items and contaminated furnishings as per operator procedures; and

k) apply post-incident procedures. These may include, but are not limited to:

1) identifying where the item is stowed to ground personnel;

2) providing all information about the item; as well as completing the applicable documentation, such as an incident report form; and

3) ensuring personal decontamination.

6.5.6.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

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Appendix to Chapter 6

CABIN CREW TASKS RELATED TO DANGEROUS GOODS

CABIN CREW TASKS RELATED TO DANGEROUS GOODS			
Phase of flight: 1. On the ground or in-flight			
The tasks described below relate to dangerous goods found in the cabin during normal operations and may occur during any phase of flight (on the ground or in-flight).			
Task	*Sub-task*	*I/C Duty*	*Reference*
1.1 Apply procedures for permitted dangerous goods by passengers and crew	1.1.1 Identify the item		CCOM
	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		CCOM
	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		CCOM
	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		

Phase of flight: 2. Applicable to any phase of flight			
The tasks described below relate to incidents involving dangerous goods in the cabin.			
Task	*Sub-task*	*I/C Duty*	*Reference*
2.1 Apply procedures in case of fire involving dangerous goods	2.1.1 Identify the item		CCOM *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481)
	2.1.2 Apply firefighting procedure		
	2.1.3 Monitor for any re-ignition		
	2.1.4 Apply procedures for spillage or leakage of dangerous goods, if required, once the fire has been extinguished (see Task 2.6)		
	2.1.5 Apply post-incident procedures, after landing at the next destination	X	
2.2 Apply procedures for battery/PED fire/smoke	2.2.1 Identify the item 2.2.2 Apply firefighting procedure		CCOM Doc 9481
	2.2.3 Remove power		
	2.2.4 Douse the device with water (or other non-flammable liquid) 2.2.5 Leave the device in its place and monitor for any re-ignition		
	2.2.6 Obtain a suitable empty container 2.2.7 Fill the container with enough water (or other non-flammable liquid) to submerge the device 2.2.8 Place the device in the container and completely submerge in water (or other non-flammable liquid), using protective equipment, when the device has cooled		
	2.2.9 Stow and secure (if possible) the container to prevent spillage		
	2.2.10 Monitor the device and the surrounding area for the remainder of the flight		

	2.2.11	Apply post-incident procedures, after landing at the next destination	X	
2.3 Apply procedures for overhead bin battery/PED fire / smoke	2.3.1	Apply firefighting procedure		CCOM Doc 9481
	2.3.2	Identify the item		
	2.3.3	Douse the device (baggage) with water (or other non-flammable liquid)		
	2.3.4	Obtain a suitable empty container		
	2.3.5	Fill the container with enough water (or other non-flammable liquid) to submerge the device		
	2.3.6	Place the device in the container and completely submerge in water (or other non-flammable liquid), using protective equipment, when the device has cooled		
	2.3.7	Stow and secure (if possible) the container to prevent spillage		
	2.3.8	Monitor the device and the surrounding area for the remainder of the flight		
	2.3.9	Apply post-incident procedures, after landing at the next destination	X	
2.4 Apply procedures for overheated battery or electrical smell involving a PED — no visible fire or smoke	2.4.1	Identify the item		CCOM Doc 9481
	2.4.2	Instruct the passenger to turn off the device immediately		
	2.4.3	Remove power		
	2.4.4	Instruct the passenger to keep the device visible and monitor closely		
	2.4.5	Apply procedures for battery/PED fire/smoke, if smoke or flames appear (see Task 2.2)		
	2.4.6	Apply post-incident procedures, after landing at the next destination		
2.5 Apply procedures for PED inadvertently crushed or damaged in electrically adjustable seat	2.5.1	Notify the pilot-in-command/other cabin crew members		CCOM Doc 9481
	2.5.2	Obtain information from the passenger		
	2.5.3	Retrieve and use protective equipment, if available		
	2.5.4	Retrieve the item		

	2.5.5 Apply procedures for battery/PED fire/smoke, if smoke or flames appear (see Task 2.2)		
	2.5.6 Apply post-incident procedures, after landing at the next destination		
2.6 Apply procedures for spillage or leakage of dangerous goods	2.6.1 Notify the pilot-in-command/other cabin crew members 2.6.2 Identify the item		CCOM Doc 9481
	2.6.3 Collect emergency response kit or other useful items		
	2.6.4 Don protective gloves and PBE 2.6.5 Move passengers away from the area and distribute wet towels or cloths		
	2.6.6 Place dangerous good item in polyethylene bags 2.6.7 Stow polyethylene bags 2.6.8 Treat affected seat cushions/covers in the same manner as the dangerous goods item		
	2.6.9 Cover spillage on carpet/floor		
	2.6.10 Inspect items stowed away/contaminated furnishings regularly 2.6.11 Apply post-incident procedures, after landing at the next destination	X	

Chapter 7

HUMAN PERFORMANCE TRAINING

7.1 DEFINITION AND GOAL OF HUMAN PERFORMANCE TRAINING

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

7.1.2 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.

7.1.3 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 competencies. Human performance training should be oriented towards recognizing and solving practical problems

7.2 CONTENT OF HUMAN PERFORMANCE TRAINING

7.2.1 Human performance training should include the following topics:

a) human factors in aviation;

b) human error;

c) cabin crew competencies;

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 management (may be covered separately; refer to Chapter 11); and

h) human performance in relation to SMS.

7.2.2 Sections 7.4 to 7.10 present detailed guidance on the topics listed in 7.2.1 a) to h) above.

7.2.3 The content in this chapter is not linked to a specific cabin crew task. The material covered addresses overarching processes, policies and procedures about which cabin crew should be knowledgeable, in order to perform specific tasks (e.g. hazard reporting). The content of this training should be based on the CCOM and/or the cabin crew training manual, as applicable. This chapter focuses on the development of initial training. For recurrent training, the content may vary in regard to the topics covered and the training media used.

7.3 TRAINING MEDIA

Classroom and/or computer-based training are appropriate media for training and assessment for the majority of the topics. However, crew resource management (CRM) concepts and cabin crew competencies should be trained and assessed as part of simulated exercises, which may be integrated into human performance training or may be trained and assessed as part of scenario-based training (refer to Chapter 16). Through such exercises, cabin crew trainees are able to demonstrate competencies and apply concepts learned in CRM training in the performance of their tasks.

7.4 HUMAN FACTORS IN AVIATION

Training should include, but is not limited to, the following topics:

a) human factors model(s) used by the operator, such as the SHELL (software /hardware/ environment/liveware) 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, including the human's contribution to safety and the human operational performance necessary to achieve the established goal;

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.— Further guidance can be found in the 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).*

7.5 HUMAN ERROR

Training should include, but is not limited to, the following topics:

a) general aspects of human physiology and psychology related to aviation;

b) understanding human performance. 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.);

c) processes and outcomes (operational errors, normalized deviations, causes and consequences);

d) distinction between errors and violations;

e) the concept of an organizational accident, which includes the interaction between organizational processes, workplace conditions, latent conditions, active failures and defences and how these can result in an accident. This may include understanding errors and their root cause in an operational context. Accident causation (e.g. Reason's "Swiss Cheese" model) may include the error chain (notion of accident causation, including error, deviation and amplification) and how humans contribute to incidents and accidents;

f) organizational factors and their impact on safety (e.g. on-time performance); and

g) defence strategies to prevent or control operational errors, including error prevention, detection and recovery/management techniques. This may include strategies such as error reduction, error capturing and error tolerance.

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

7.6 CABIN CREW COMPETENCIES

As part of its competency-based training approach, ICAO developed a set of competencies that cabin crew members should possess, presented in the Appendix to Chapter 2. These competencies should be addressed as part of human performance or CRM training and assessed during scenario-based training (refer to Chapters 16 and 17).

7.7 CREW RESOURCE MANAGEMENT (CRM)

7.7.1 Training should include, but is not limited to, the following topics:

a) CRM concepts, general principles and processes during operations. This may include, but is not limited to definition, purpose and benefits;

b) use of CRM as a tool to prevent accidents/incidents through improved crew coordination, enhanced crew performance and safety awareness;

c) CRM specific to aircraft types, if applicable (e.g. single/multi-deck aircraft, narrow/wide body aircraft, single/multi crew operation);

d) the need for individual commitment to CRM principles;

e) benefits of joint-CRM training, if applicable;

f) interaction between crew members and other 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;

g) competencies that foster CRM, including the components of the competencies outlined in the Appendix to Chapter 2 (i.e. communication, leadership and teamwork, passenger management, etc.);

h) understanding one’s own role and impact on the operation;

i) the concept of synergy (e.g. the critical effect that teambuilding has on creating solutions);

j) cultural differences and their impact on individual and team performance;

k) the statutory responsibility and accountability of the pilot-in-command as the commander;

l) the role of the in-charge cabin crew member as the team leader;

m) “team required” versus “individual” tasks; the notion that some problems require a team solution while others may be solved through individual effort;

n) awareness of behaviours that affect crew effectiveness;

o) competencies needed to be effective team leaders and team members;

p) decision-making processes;

q) resources available: identification and use; and

r) 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 be tailored to cabin operations. It should focus on their tasks, as well as their interactions with flight crew members and others such as ground personnel.

7.7.2 Some of the topics listed in this section may be covered during classroom and/or computer-based training. Classroom exercises that require the application of CRM concepts and competencies, relevant to cabin operations (e.g. group discussions, role playing, simulations, etc.) should be conducted in groups. Joint flight and cabin crew CRM is recommended 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.

7.8 THREAT AND ERROR MANAGEMENT

Training should include, but is not limited to, the following topics:

a) the Threat and Error Management (TEM) model and its components, relevant to cabin operations;

b) examples of different threats, errors and undesired states, relevant to cabin operations that impact on safety; and

c) threat, error and undesired state management techniques (e.g. detecting threats, trapping errors, etc.), 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 Line Operations Safety Audit (LOSA) Manual *(Doc 9803).*

7.9 CASE STUDIES

Training should include, but is not limited to, the following topics:

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 unlawful interference);

c) the operator's incidents/accidents, relevant to cabin operations; and

d) incidents/accidents with cabin operations' dimension (e.g. an evacuation, unlawful interference, in-flight smoke, pressurization malfunctions, etc.), including positive examples of how cabin crew contribute to preventing incidents/accidents or increasing survivability once they occur.

Note.— The operator should use its own occurrences, when applicable, primarily based on cabin crew reports. Accident and incident investigation reports can also serve as a source of training references. Case studies involving accidents that had significant cabin safety components are contained in the Manual on the Investigation of Cabin Safety Aspects in Accidents and Incidents *(Doc 10062).*

7.10 HUMAN PERFORMANCE IN RELATION TO SMS

Training should include, but not be limited to, the following topics:

a) the importance of cabin crew reporting as part of the operator's SMS; and

b) how cabin crew reporting of safety information (including the proactive identification of hazards) contributes to the overall achievement of the SMS objectives.

Chapter 8

CABIN HEALTH AND FIRST-AID TRAINING

8.1 INTRODUCTION

8.1.1 In addition to the operational safety-related tasks on board aircraft, cabin crew members are required to manage medical events and administer first aid to passengers and crew members. Since cabin crew may be exposed to travellers with a communicable disease, it is the responsibility of the operator to provide the appropriate training. The training should include procedures for the universal precaution kit (UPK), signs and symptoms, and action required when dealing with a suspected or actual case of a communicable disease. Even though a medical professional may be on board and willing to seek voluntary emergency assistance, the crew retains overall responsibility for management of such events.

8.1.2 Cabin crew should have a basic understanding of the human anatomy and physiology. First-aid training should include the management of commonly occurring medical conditions and cardiopulmonary resuscitation (CPR).

8.1.3 Cabin crew should recognize a medical emergency and provide first-aid 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 equipment that is carried.

8.1.4 Cabin crew should be familiar with the contents of the medical kit carried on the aircraft (refer to *Preparation of an Operations Manual* (Doc 9376)) and 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).

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

8.1.6 According to the flight route, cabin crew may need to perform cabin disinsection.

8.1.7 In order for cabin crew to perform their tasks, they require an understanding of the potential stresses and health risks associated with their work, such as the effect of altitude and fatigue. Such topics are part of cabin health and first-aid training and are addressed in Chapters 3 and 12, respectively.

8.2 CONTENTS OF CABIN HEALTH AND FIRST-AID TRAINING

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

a) management of on-board medical events;

b) food safety;

c) cabin disinsection, if required;

d) altitude physiology (may be covered separately, refer to Chapter 3); and

e) fatigue (may be covered separately, refer to Chapter 12).

8.2.1 The content of this chapter focuses on the development of initial training. For recurrent training, the content may vary in regard to the tasks covered, the training media used as well as the knowledge and competencies that may be assessed.

8.3 HANDS-ON EXERCISES AND SIMULATED EXERCISES

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. Practising scenario-based event management and first-aid techniques during training is very valuable and facilitates retention (refer to Chapter 16).

8.4 TRAINING ON CABIN CREW TASKS FOR CABIN HEALTH AND FIRST AID

The following sections provide detailed guidance for the development of training for cabin crew members to perform tasks related to the management of on-board medical events and cabin health issues. These tasks are derived from the task list presented in the Appendix to Chapter 8, which presents cabin crew tasks related to cabin health and first aid. Each task has a series of competencies associated to it. The full list of cabin crew competencies is presented in the Appendix to Chapter 2. Cabin crew should demonstrate these competencies while performing the tasks, as part of scenario-based training (refer to Chapter 16).

8.5 CABIN CREW TASKS RELATED TO CABIN HEALTH AND FIRST AID

The tasks described in this section relate to on-board medical events and cabin health issues which may occur during any phase of flight. Unlike training for normal operations, cabin crew tasks are not presented by individual phases of flight.

8.5.1 Management of on-board medical events

Task 1.1: Manage on-board medical events	
Sub-tasks:	
1.1.1	Monitor the cabin to identify ill or injured 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

8.5.1.1 *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). Additional information can be found at: https://www.who.int/ihr/en/;

j) procedures for specific on-board medical events, including managing assistance from the on-board volunteer health professional;

k) specific crew member responsibilities for on-board medical events and the importance of being prepared to apply appropriate procedures;

l) importance of crew communication and coordination in responding to on-board medical events and communication with the flight crew members, qualified on-board health professional, and ground-based medical assistance provider;

m) actions to assess and manage potential communicable disease, including using universal precautions (e.g. personal protective equipment, cleaning up spilled body fluids, etc.);

n) location, pre-flight check and use of first-aid and medical equipment. This may include, but is not limited to: first-aid kit (FAK), emergency medical kit (EMK), universal precautions kit (UPK), automated external defibrillator (AED), and telemedicine device;

o) contents of the FAK, EMK, and UPK;

p) policies concerning a death on board, including who can pronounce someone dead;

q) operator policy on DNR, if appropriate;

r) operator indemnity/liability provisions; and

s) procedures for completing the applicable documentation, such as an incident report form.

8.5.1.2 *Reference*

a) CCOM; and

b) ILCOR (International Liaison Committee on Resuscitation) publications. Additional information can be found at https://www.ilcor.org/home/.

8.5.1.3 *Training media*

a) classroom and/or computer-based training;

b) hands-on exercise on retrieving the FAK, EMK, UPK, 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 they 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.

8.5.1.4 *Task list standards*

a) identify ill or injured passengers. This may include, but is not limited to, a person:

1) appearing obviously unwell;

2) with persistent cough;

3) frequently going to the washroom;

4) with breathing difficulties;

5) vomiting;

6) with a visible rash;

7) bleeding;

8) with confusion; and

9) having a seizure;

b) apply active listening and seek additional information. This may include, but is not limited to:

1) being attentive and receptive to comments from passengers regarding their or other passenger's health status; and

2) asking additional questions about passenger's health history, (e.g. allergies, medications, their last meal and events leading up to illness);

c) recognize an on-board medical event:

1) determining if the event is life-threatening;

2) identifying typical presenting signs and/or symptoms of illness in-flight;

3) recognizing ways that passengers may signal an in-flight medical event in themselves or others; and

4) recognizing medical events which can be immediately life-threatening (e.g. obstructed airway, cardiac arrest, and loss of consciousness).

d) use first-aid techniques appropriate to the situation. This may include, but is not limited to:

1) assessing airway/breathing;

2) performing CPR, if required;

3) performing abdominal thrusts;

4) controlling bleeding;

5) administering oxygen;

6) immobilizing a fracture; and

7) applying burn dressing;

e) assess and manage potential communicable disease. This may include, but is not limited to:

1) using universal precautions e.g. personal protective equipment, cleaning up spilled body fluids and disposal of waste, etc.;

2) eliciting proper information from the ill passenger;

3) taking body temperature with a thermometer if available, or by other means if not available;

4) identifying the signs and symptoms compatible with a communicable disease;

5) offering a face mask to an ill passenger, to other passengers, and to one or more cabin crew, when required;

6) providing basic advice to a passenger with gastrointestinal symptoms (e.g. vomiting, diarrhoea);

7) isolating a lavatory for the use of the ill passenger, if possible;

8) moving a passenger suspected of having a communicable disease, if applicable; and

9) advising the pilot-in-command;

f) apply communication procedures. This may include, but is not limited to:

1) applying communication procedure with in-charge cabin crew and/or pilot-in-command;

2) applying procedure for obtaining assistance from:

i) qualified on-board health professional, if available;

ii) other crew members; and

iii) ground-based medical assistance provider, if available;

3) applying crew coordination procedures; and

4) reassuring an ill passenger and any accompanying family members;

g) use available first-aid and medical equipment appropriate to the event, as applicable, This may include, but is not limited to:

1) retrieving FAK, EMK, UPK, telemedicine device, or AED as appropriate;

2) operating the telemedicine device and/or the AED, if available; and

3) applying equipment post-use procedures;

h) manage assistance from the on-board volunteer health professional. This may include, but is not limited to:

1) eliciting credentials of the volunteer health professional, if it is an operator policy;

2) advising the volunteer health professional of the equipment available on board;

3) stating the operator's indemnity/liability provisions for the volunteer health professional;

4) staying with the volunteer health professional to provide assistance;

5) requesting contact details and clinical notes from the volunteer health professional; and

6) applying operator policy on DNR, if required; and

i) manage a death or presumed death on board. This may include, but is not limited to:

1) recognizing signs of death or presumed death;

2) ceasing CPR, in situations that dictate it;

3) applying the communication procedure with the pilot-in-command;

4) applying the operator policy on how to take care of a dead or presumed dead passenger; and

5) applying the communication procedure for an accompanying person(s).

Note.— Guidance on declaration of health and communicable diseases is contained in Annex 9 — Facilitation, Appendix 1 — General Declaration.

8.5.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

8.5.2 Food safety and sanitation[1]

Task 1.2: Apply procedures for food safety and sanitation	
Sub-tasks:	
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

8.5.2.1 *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;

f) details of food poisoning protocol; and

g) procedures for completing the applicable documentation, such as an incident report form.

8.5.2.2 *Reference*

a) CCOM; and/or

b) other operator documentation (e.g. passenger injury report, crew injury report, telemedicine checklist, occurrence report).

8.5.2.3 *Training media*

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.

1. May be covered as part of service training.

8.5.2.4 *Task list standards*

a) take appropriate actions to minimize or prevent the contamination of food and related service items. This may include, but is not limited to:

   1) conducting food and beverage service operations in accordance with operator policies to minimize contamination;

   2) maintaining perishable food and beverages at appropriate cold or hot temperatures; and

   3) cleaning galleys, pantries and other places where food is prepared, served, or stored 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:

   1) identifying the symptoms of possible food poisoning;

   2) collecting pertinent information from the ill passenger(s); and

   3) applying the basic criteria for considering the operator's 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; and

   Note.— See Task 1.1 – Manage on-board medical events.

e) preserve evidence. This may include, but is not limited to:

   1) applying the procedure for preserving and storing passenger and/or crew meal(s) for subsequent testing; and

   2) taking appropriate actions if the operator's catering is the suspected cause of the illness.

8.5.2.5 *Competencies*

a) communication;

b) leadership and teamwork;

c) passenger management;

d) problem solving and decision making; and

e) situation awareness and management of information.

8.5.3 Cabin disinsection

Task 1.3: Apply procedures for cabin disinsection
Sub-tasks:
1.3.1 Advise passengers on disinsection procedures
1.3.2 Carry out disinsection, as per operator procedures

8.5.3.1 *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 their 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.

8.5.3.2 *Reference*

CCOM.

8.5.3.3 *Training media*

a) classroom or computer-based training; and

b) video or demonstration of proper handling and spraying technique.

8.5.3.4 *Task list standard*s

a) advise passengers on disinsection, as per the operator procedures, if applicable;

b) carry out disinsection procedures, if required. This may include, but is not limited to:

1) spraying disinsectant, as per the operator procedures; and

2) taking appropriate actions for proper hygiene following disinsection (e.g. hand washing).

Note.— Guidance on disinsection is contained in Annex 9 — Facilitation, Appendix 1 — General Declaration *and* Appendix 4 — Certificate of Residual Disinsection.

8.5.3.5 *Competencies*

Communication.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

8.6 POTENTIAL AVIATION-ASSOCIATED HEALTH RISKS

8.6.1 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:

1) 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:

i) non-ionizing radiation — including ultraviolet light, radio waves and microwaves; and

ii) ionizing radiation — including cosmic rays, X-rays and radiation from radioactive materials;

2) the amount of radiation exposure received while flying depends on the amount of time in the air, altitude, latitude, and solar activity; and

3) understanding that there could be health implications for crew members, and particularly pregnant cabin crew members; and

b) cabin air quality:

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

Note.— Guidance on cabin crew training related to fume events is contained in the Guidelines on Education, Training and Reporting Practices related to Fume Events *(Cir 344).*

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Appendix to Chapter 8

CABIN CREW TASKS RELATED TO CABIN HEALTH AND FIRST AID

CABIN CREW TASKS RELATED TO CABIN HEALTH AND FIRST AID			
Phase of flight: 1. Applicable to any phase of flight			
The tasks described below relate to on-board medical events and cabin health issues which may occur during any phase of flight.			
Task	*Sub-task*	*I/C Duty*	*Reference*
1.1 Manage on-board medical events	1.1.1 Monitor the cabin to identify ill or injured passengers		CCOM and International Liaison Committee on Resuscitation (ILCOR)
	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 of 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		CCOM and/or other operator documentation (e.g. passenger injury report, crew injury report, telemedicine checklist ,occurrence report)
	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	1.3.1 Advise passengers on disinsection procedures		CCOM
	1.3.2 Carry out disinsection, as per operator procedures		

Chapter 9

AVIATION SECURITY TRAINING

9.1 DEFINITION AND GOAL OF AVIATION SECURITY TRAINING

9.1.1 An aviation security training programme addresses the operator's procedures related to cabin crew members' security-related tasks, as per the CCOM, and other regulatory or national material.

9.1.2 The goal of aviation security training is to enable cabin crew members to identify and respond appropriately to various security threats so as to prevent and/or minimize the consequences of acts of unlawful interference. Aviation security training must be conducted in accordance with national regulations, where applicable.

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

9.2 CONTENT OF AVIATION SECURITY TRAINING

9.2.1 Aviation security training encompasses two primary concepts:

a) preventive measures during normal operations; and

b) response to acts of unlawful interference.

9.2.2 While the main training aspects addressed in this chapter are related to responding to acts of unlawful interference, 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 in 9.3 as a reminder.

9.2.3 As per 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.

9.2.4 This chapter focuses on the development of initial training. For recurrent training, the content may vary in regard to the tasks covered, the training media used, as well as the competencies that may be assessed.

9.3 PREVENTIVE MEASURES

The preventive measures during normal operations are addressed in Chapter 4. They address measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft. By applying such measures, 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.

9.4 SECURITY OF THE FLIGHT DECK

Cabin crew should recognize that the integrity and security of the flight 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 with the access/egress procedures is an integral part of preventing unlawful interference. Training on security procedures related to flight deck access during normal conditions is further addressed in Chapter 4, 4.9.4.4.

9.5 TRAINING ON CABIN CREW TASKS RELATED TO UNLAWFUL INTERFERENCE

The following sections provide detailed guidance for the development of training for cabin crew members to perform tasks to identify and respond to acts of unlawful interference. These tasks are derived from the task list presented in the Appendix to this chapter. Each task has a series of competencies associated to it. The full list of cabin crew competencies is presented in the Appendix to Chapter 2. Cabin crew should demonstrate these competencies while performing the tasks, as part of scenario-based training (refer to Chapter 16).

9.6 TASKS RELATED TO UNLAWFUL INTERFERENCE

The tasks described in this section relate to situations involving acts of unlawful interference which may occur during any phase of flight. Unlike training for normal operations, cabin crew tasks are not presented by individual phases of flight.

9.6.1 Unruly passengers

Task 1.1: Manage unruly passengers	
Sub-tasks:	
1.1.1	Monitor the cabin to identify potentially unruly passengers
1.1.2	Assess the threat level of the situation
1.1.3	Apply procedures according to the threat level
1.1.4	Communicate relevant information to the flight crew and other cabin crew
1.1.5	Apply appropriate flight deck access procedures
1.1.6	Use appropriate self-defence responses
1.1.7	Identify and manage appropriate able-bodied passenger(s)
1.1.8	Manage the response to the unruly passenger(s) and coordinate the situation with the flight crew and other cabin crew
1.1.9	Use non-lethal protective devices, if required
1.1.10	Maintain control of the cabin
1.1.11	Coordinate the situation with the flight crew and other cabin crew
1.1.12	Monitor the cabin for other threats
1.1.13	Complete the applicable documentation

9.6.1.1 *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. threat level, number of perpetrators, any weapons, physical description(s) of perpetrator(s) and assigned seat number(s);

c) threat levels and appropriate crew responses;

d) means of identifying and procedures for managing, different passenger behaviours which 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, de-escalation techniques, 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) relevant documentation to be completed, e.g. reports, witness statements and notification cards to unruly passengers;

f) appropriate self-defence responses;

g) the use of non-lethal protective devices assigned to crew members where their use is authorized by the State of the Operator, if applicable; and

h) the use of able-bodied passengers, their roles and responsibilities in relation to cabin crew during an incident.

9.6.1.2 *Reference*

CCOM.

9.6.1.3 *Training media*

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 deck environment.

c) hands-on exercise on the use of non-lethal protective devices assigned to crew members where their 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 conflict management and conflict resolution, as well as de-escalation techniques, preferably in a representative training device or an actual aircraft, if practicable.

9.6.1.4 *Task list standards*

a) conduct cabin surveillance to monitor and identify the different threat levels and carry out 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 de-escalate the situation;

d) apply cabin/flight crew communication procedures. This may include notifying the flight crew of following:

1) the type and level of the threat;

2) the number of perpetrators;

3) any weapons;

4) assigned seat numbers; and

5) physical description(s) of the perpetrator(s);

e) apply appropriate flight deck access procedures;

f) use 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(s) and coordinate the situation with the flight crew and other cabin crew;

i) use of non-lethal protective devices (in a safe and effective manner) to gain and maintain control of an aggressive perpetrator;

j) maintain control of the cabin. This may include, but is not limited to:

1) protecting the subdued unruly passenger(s) from other passengers' reactions (e.g. attempts to physically assault the unruly passenger in response to their initial behaviour);

2) monitoring the welfare of the subdued unruly passenger (e.g. checking the effectiveness of the non-lethal protective devices and the positioning of their body so as to avoid injury or suffocation);

3) preparing the subdued unruly passenger for landing, as per operator procedures; and

4) using assertiveness to manage the situation;

k) coordinate the situation with the flight crew and other cabin crew; and

l) monitor the cabin for other threats.

9.6.1.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making; and

f) situation awareness and management of information

9.6.2 Bomb threat or bomb on board in flight

Task 1.2: Apply procedures for a bomb threat or bomb on board in flight	
Sub-tasks:	
1.2.1	Monitor the cabin to identify suspicious items or behaviours
1.2.2	Notify the flight crew and other cabin crew or obtain information from the flight crew
1.2.3	Evaluate the threat
1.2.4	Apply aircraft search procedures
1.2.5	Communicate relevant information to the flight crew and other cabin crew
1.2.6	Coordinate the situation with the flight crew and other cabin crew
1.2.7	Manage the passengers and cabin, including appropriate information to passengers, if determined as necessary
1.2.8	Apply emergency procedures once suspect explosive device is located
1.2.9	Apply least-risk bomb location procedures if determined as necessary
1.2.10	Prepare the cabin for landing
1.2.11	Conduct a rapid disembarkation/evacuation, as applicable
1.2.12	Complete the applicable documentation

9.6.2.1 *Knowledge*

a) understanding the components of an explosive device and different types of explosives;

b) 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) awareness of other available resources in the event of suspicious items or bomb discovered on board;

e) procedures for the handling of suspicious items on board while an aircraft is in flight;

f) procedures for the handling of bomb threat or bomb on board in flight;

g) procedures for notifying the flight crew of an act of unlawful interference inside the cabin including the presence of suspicious items;

h) checklists for aircraft search and how to use them;

i) understanding passengers reactions to security incidents;

j) procedures for rapid disembarkation and evacuation; and

k) procedures for completing the applicable documentation, such as an incident report form.

9.6.2.2 *Reference*

CCOM.

9.6.2.3 *Training media*

a) classroom or computer-based training; and

b) simulated exercise on applying the bomb search and location procedures.

9.6.2.4 *Task list standards*

a) conduct cabin surveillance to monitor for/identify suspicious items or behaviours;

b) 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 suspicious item, such as location, packaging, components and characteristics of the bomb;

c) apply aircraft search procedures;

d) manage passengers and cabin in a controlled manner taking into account passenger reaction;

e) apply least-risk bomb location procedures, including handling the suspect explosive device; and

f) prepare the cabin for landing (e.g. in the event of a rapid disembarkation or evacuation).

9.6.2.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

9.6.3 Bomb threat or bomb on board on the ground

Task 1.3: Apply procedures for a bomb threat or bomb on board on the ground	
Sub-tasks:	
1.3.1	Monitor the cabin to identify suspicious items or behaviours
1.3.2	Notify the flight crew, other cabin crew and ground personnel, or obtain information from the flight crew
1.3.3	Manage the passengers and cabin
1.3.4	Communicate relevant information to the flight crew and other cabin crew
1.3.5	Coordinate the situation with the flight crew and other cabin crew
1.3.6	Conduct a rapid disembarkation/evacuation, as applicable
1.3.7	Complete the applicable documentation

9.6.3.1 *Knowledge*

a) understanding the components of an explosive device and different types of explosives;

b) the evolution of improvised explosives devices, including awareness of threat evolution;

c) 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);

d) awareness of other available resources in the event of suspicious items or bomb discovered on board;

e) procedures for handling of the suspicious item on board while an aircraft is on the ground;

f) procedures for handling the bomb threat or bomb on board on the ground;

g) procedures for notifying the flight crew of an act of unlawful interference inside the cabin including the presence of suspicious item;

h) procedures for the application of security checks;

i) procedures for rapid disembarkation and evacuation; and

j) procedures for completing the applicable documentation, such as an incident report form.

9.6.3.2 *Reference*

CCOM.

9.6.3.3 *Training media*

Classroom or computer-based training.

9.6.3.4 *Task list standards*

a) conduct cabin surveillance to monitor for/identify suspicious items or behaviours;

b) notify the flight crew and other cabin crew or ground personnel, as per operator procedures. This may include details of the bomb or suspicious item, such as location, packaging, components and characteristics of the bomb;

c) communicate and coordinate within the crew or with others, if necessary;

d) manage passengers and cabin in a controlled manner taking into account passenger reaction; and

e) conduct rapid disembarkation or evacuation, as per operator procedures.

9.6.3.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

9.6.4 Hijacking

Task 1.4: Apply procedures in case of hijacking	
Sub-tasks:	
1.4.1	Monitor the cabin to identify security concerns
1.4.2	Notify the flight crew and other cabin crew
1.4.3	Conduct lockdown of the flight deck/prevent entry into flight deck
1.4.4	Apply procedures according to the level of threat (Level 3 or 4)
1.4.5	Manage passengers and cabin
1.4.6	Communicate relevant information to flight crew if possible, other cabin crew and personnel on the ground.
1.4.7	Complete the applicable documentation

9.6.4.1 *Knowledge*

a) the importance of situation awareness and of being vigilant and observant when security concerns are suspected;

b) procedures for dealing with hijackers and understanding their intentions and expected behaviours;

c) techniques for managing distressed passengers;

d) monitoring the cabin for additional threats;

e) symptoms and behaviours associated with situations of captivity, such as a hijacking (e.g. Stockholm Syndrome)

f) procedures related to flight deck door and flight crew actions;

g) use of resources during security-related emergencies;

h) different means of communications with the ground;

i) procedures for hijack resolution; and

j) procedures for completing the applicable documentation, such as an incident report form.

9.6.4.2 *Reference*

CCOM.

9.6.4.3 *Training media*

a) classroom and computer-based training;

b) hands-on exercise on the use of non-lethal protective devices assigned to crew members where their use is authorized by the State of the Operator (this exercise is covered in 9.6.1); 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.

9.6.4.4 *Task list standards*

a) conduct cabin surveillance to monitor for/identify security concerns;

b) notify the flight crew and other cabin crew, as per operator procedures;

c) prevent entry into the flight deck by applying operator procedures for establishing the clear zone;

d) apply operator's procedures for a hijack or threat of hijack, such as the use of resources to manage the situation (including interventions by sky marshals, if applicable);

e) identify and enlist able-bodied passengers to assist;

f) manage passengers and cabin in a controlled manner taking into account passenger reaction; and

g) maintain communication with flight crew, other cabin crew, and ground personnel if possible using any available means.

9.6.4.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making;

f) situation awareness and management of information; and

g) workload management.

9.6.5 Chemical/biological/radiological weapons

Task 1.5: Apply procedures for chemical/biological/radiological incidents

Sub-tasks:

1.5.1 Monitor the cabin to identify suspicious items or behaviours

1.5.2 Notify the flight crew and other cabin crew

1.5.3 Apply procedures for suspicious spilled substance or suspicious item, as applicable

1.5.4 Manage passengers and cabin

1.5.5 Communicate relevant information to flight crew and other cabin crew

1.5.6 Coordinate the situation with the flight crew and other cabin crew

1.5.7 Complete the applicable documentation

9.6.5.1 *Knowledge*

a) recognition of signs and symptoms of chemical, biological and radiological (CBR) agent exposure;

b) the importance of cabin surveillance to detect suspicious behaviour or items;

c) distinction between handling dangerous goods, explosive devices and CBR agents, and associated procedures;

d) importance of containing the agent's aerosol potential before it spreads;

e) procedures for in-flight CBR incidents; and

f) procedures for completing the applicable documentation, such as an incident report form.

9.6.5.2 *Reference*

CCOM.

9.6.5.3 *Training media*

Classroom and/or computer-based training.

9.6.5.4 *Task list standards*

a) conduct cabin surveillance to monitor for/identify suspicious items or behaviours;

b) notify the flight crew and other cabin crew, as per operator procedures;

c) apply preventative measures and procedures for suspicious item, as per operator procedures. This may include procedures for isolating a suspicious substance;

d) manage passengers and cabin in a controlled manner taking into account passenger reaction; and

e) communicate and coordinate with flight and other cabin crew.

Note.— Guidance on CBR incidents, including dealing with chemical/biological events during flight, is contained in the Aviation Security Manual *(Doc 8973).*

9.6.5.5 *Competencies*

a) application of policies and procedures;

b) communication;

c) leadership and teamwork;

d) passenger management;

e) problem solving and decision making; and

f) situation awareness and management of information.

Note.— The competencies listed above are relevant only if an operator chooses to conduct simulated exercise for this task.

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Appendix to Chapter 9

CABIN CREW TASKS RELATED TO UNLAWFUL INTERFERENCE

CABIN CREW TASKS RELATED TO UNLAWFUL INTERFERENCE			
Phase of flight: 1. Applicable to any phase of flight			
The tasks described below relate to situations involving acts of unlawful interference which may occur during any phase of flight.			
Task	*Sub-task*	*I/C Duty*	*Reference*
1.1 Manage unruly passengers	1.1.1 Monitor the cabin to identify potentially unruly passengers		CCOM
	1.1.2 Assess the threat level of the situation		
	1.1.3 Apply procedures according to the threat level		
	1.1.4 Communicate relevant information to the flight crew and other cabin crew		
	1.1.5 Apply appropriate flight deck access procedures		
	1.1.6 Use appropriate self-defence responses		
	1.1.7 Identify and manage appropriate able-bodied passenger(s)		
	1.1.8 Manage the response to the unruly passenger(s) and coordinate the situation with the flight crew and other cabin crew	X	
	1.1.9 Use non-lethal protective devices, if required		
	1.1.10 Maintain control of the cabin		
	1.1.11 Coordinate the situation with the flight crew and other cabin crew	X	
	1.1.12 Monitor the cabin for other threats		
	1.1.13 Complete the applicable documentation	X	

1.2 Apply procedures for a bomb threat or bomb on board in flight	1.2.1 Monitor the cabin to identify suspicious items or behaviour		
	1.2.2 Notify the flight crew and other cabin crew or obtain information from the flight crew 1.2.3 Evaluate the threat 1.2.4 Apply aircraft search procedures		CCOM
	1.2.5 Communicate relevant information to the flight crew and other cabin crew		
	1.2.6 Coordinate the situation with the flight crew and other cabin crew 1.2.7 Manage the passengers and cabin, including appropriate information to passengers if determined as necessary	X	
	1.2.8 Apply emergency procedures once suspect explosive device is located 1.2.9 Apply least-risk bomb location procedures if determined as necessary 1.2.10 Prepare the cabin for landing		
	1.2.11 Conduct a rapid disembarkation/evacuation, as applicable		
	1.2.12 Complete the applicable documentation	X	
1.3 Apply procedures for a bomb threat or bomb on board on the ground	1.3.1 Monitor the cabin to identify suspicious items or behaviours		
	1.3.2 Notify the flight crew, other cabin crew member and ground personnel or obtain information from the flight crew		CCOM
	1.3.3 Manage the passengers and cabin	X	
	1.3.4 Communicate relevant information to the flight crew and other cabin crew		
	1.3.5 Coordinate the situation with the flight crew and other cabin crew	X	
	1.3.6 Conduct a rapid disembarkation/evacuation, as applicable		
	1.3.7 Complete the applicable documentation	X	

1.4 Apply procedures in case of hijacking	1.4.1	Monitor the cabin to identify security concerns		
	1.4.2	Notify the flight crew and other cabin crew		CCOM
	1.4.3	Conduct lockdown of the flight deck/prevent entry into flight deck		
	1.4.4	Apply procedures according to the level of threat (Level 3 or 4)		
	1.4.5	Manage passengers and cabin		
	1.4.6	Communicate relevant information to flight crew if possible, other cabin crew and personnel on the ground		
	1.4.7	Complete the applicable documentation	X	
1.5 Apply procedures for chemical/biological/ radiological incidents	1.5.1	Monitor the cabin to identify suspicious items or behaviours		CCOM
	1.5.2	Notify the flight crew and other cabin crew		
	1.5.3	Apply procedures for suspicious spilled substance or suspicious item, as applicable		
	1.5.4	Manage passengers and cabin	X	
	1.5.5	Communicate relevant information to flight crew and other cabin crew		
	1.5.6	Coordinate the situation with the flight crew and other cabin crew	X	
	1.5.7	Complete the applicable documentation	X	

Chapter 10

TRAINING ON IDENTIFYING AND RESPONDING TO TRAFFICKING IN PERSONS

10.1 DEFINITION AND GOAL OF TRAINING ON IDENTIFYING AND RESPONDING TO TRAFFICKING IN PERSONS

10.1.1 Trafficking in persons refers to the process through which individuals are placed or maintained in an exploitative situation for economic gain. Trafficking is a worldwide criminal activity and can occur within a State or may involve movement across borders.

10.1.2 Trafficking in persons is defined as the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

10.1.3 Aviation is one of the modes of transportation utilized by traffickers. It is likely that crew members and other operator employees, as well as airport personnel would encounter a situation of trafficking on the ground or in flight. Annex 9 — *Facilitation* recommends that States take measures to ensure that airport and aircraft operators' personnel in direct contact with the travelling public are provided with awareness training on trafficking in persons. This includes cabin crew and flight crew members.

10.1.4 The goal of this training is to enable crew members and all airport personnel to apply the operator's policy and procedures including reporting guidelines related to trafficking in persons. Given the increasing complexity of the global human trafficking enterprise, training to recognize the indicators of suspected tracking and how to report cases will benefit both States and operators in uniting forces and working together in combating trafficking in persons.

10.2 CONTENT OF TRAINING FOR IDENTIFYING AND RESPONDING TO TRAFFICKING IN PERSONS

10.2.1 Detailed guidance on the content of crew training of trafficking in persons can be found in the *Guidelines for Training Cabin Crew on Identifying and Responding to Trafficking in Persons* (Cir 352), and the *Guidelines for Reporting Trafficking in Persons in Aviation* (Cir 357) developed jointly between ICAO and the Office of the United Nations High Commissioner for Human Rights (OHCHR).

10.2.2 The circulars can be obtained from the ICAO website at: www.icao.int/cabinsafety.

Chapter 11

SAFETY MANAGEMENT SYSTEM (SMS) TRAINING

11.1 DEFINITION AND GOAL OF SMS TRAINING

11.1.1 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 SMS training 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 enable cabin crew members to competently carry out relevant tasks within the SMS.

Note.— Guidance on SMS and developing SMS training is contained in the 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 for cabin crew members should address their specific involvement in the SMS. The material covered in SMS training addresses overarching processes, policies and procedures that cabin crew should be knowledgeable on in order to perform specific tasks within the SMS. This includes, but is not limited to, the following topics:

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 of this training should be based on the CCOM and/or the operator's SMS manual. Classroom or computer-based training are appropriate conditions for training and assessment. This chapter focuses on the development of initial training. For recurrent training, the content may vary in regard to the topics covered and the media used for training.

11.3 SMS FUNDAMENTALS AND OVERVIEW OF THE OPERATOR'S SMS

Training should include, but is not limited to, the following topics:

a) fundamental SMS concepts (e.g. basic safety risk management principles and proactive safety management);

b) the operator's SMS, its components, safety objectives, SMS processes and procedures. This includes the 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) the role of cabin crew within the operator's SMS. This includes the tasks that are assigned to individual crew members (e.g. hazard and incident reporting) and how these fit into the overall operation of the SMS.

11.4 THE OPERATOR'S SAFETY POLICY

Training should include, but is not limited to, the following topics:

a) organizational safety roles and responsibilities related to safety;

b) positive safety culture, its contribution to safety management, and how individual attitudes and behaviours impact on safety;

c) operator's safety policy and its objectives. This includes how the safety policy reflects organizational commitments regarding safety and how it relates to cabin crew members' tasks as individuals in the organization;

d) cabin crew members' individual responsibility, their involvement in relation to the safety policy, and their contribution to a positive safety culture;

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). This includes examples of acceptable and unacceptable behaviours and how these affect the overall success of the SMS within a positive safety culture;

f) the time frame within which reports should be submitted to the operator and/or State, as applicable; and

g) the policies and procedures in place for the protection of the information reported by crew members.

11.5 HAZARD IDENTIFICATION AND REPORTING

Training should include, but is not limited to, the following topics:

a) hazard identification and analysis (how to identify hazards and consequences). 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) mandatory reporting systems and events that must be reported. These may include, but are not limited to:

1) evacuation of crew and/or passengers;

2) use of fire extinguishing or suppression agents;

3) fire, smoke and fume events;

4) events requiring the use of emergency systems or equipment;

5) anticipated emergency landing;

6) significant safety and security related events, including for example: bomb threats, hijack or similar events, security breaches, unruly passengers, stowaways and severe turbulence;

7) cabin crew incapacitation that renders him or her unable to perform critical safety duties;

8) spillage, leakage or any event related to the transport of dangerous goods;

9) carriage of dangerous goods in a manner that does not conform with the provisions of Annex 18 — *The Safe Transport of Dangerous Goods by* Air and the Technical Instructions; and

10) 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;

c) the operator's voluntary reporting systems (which may be confidential) and means of reporting. These may include, but are not limited to:

1) observed hazards;

2) errors; and

3) deviations from procedures and minor violations;

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;

e) the importance of accurate and timely reporting (including reporting style/technique and use of terminology) and legal and/or statutory obligations related to reporting, where applicable; and

f) how the operator utilizes safety information reported by cabin crew members to improve the overall level of safety.

Note.— During training, cabin crew should be shown how to fill in a relevant report form (or an occurrence report and other relevant forms) 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

Training should include, but is not limited to, the following topics:

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:

1) ensuring that all cabin crew are fully aware of the SMS;

2) conveying safety critical information in a timely manner;

3) explaining why particular safety actions are taken; and

4) 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. This includes, but is not limited to:

1) safety policies and procedures;

2) newsletters;

3) bulletins;

4) website;

5) emails; and

6) C-EFBs; 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. This includes actions relevant to specific communications, such as safety bulletin informing crew of a change to a procedure.

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, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational 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 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 the operator to establish:

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 In a prescriptive approach to fatigue management, the operator must manage its fatigue-related risks within the prescribed limits using its SMS processes. With an approved FRMS, an operator may move outside of the prescribed limits and manage its fatigue-related risks using its FRMS processes. 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. Training should also provide a clear understanding of individual cabin crew member's responsibility, that of the State and 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. Section 12.3 focuses on the development of initial fatigue management training as part of a prescriptive fatigue management approach. The content of this training should be based on the CCOM, as well as the SMS manual and relevant reporting form(s). Section 12.4 focuses on the development of initial fatigue management training as part of an operator's FRMS. The training should be

based on the CCOM, as well as the SMS manual, the FRMS manual and relevant reporting form(s). Section 12.5 focuses on recurrent training related to fatigue management. Classroom training is recommended for initial training and may be complemented by computer-based training. For recurrent training, computer-based training may be appropriate for training and assessment.

Note.— Guidance for fatigue management approaches, including relevant training, can be found in the Manual for the Oversight of Fatigue Management Approaches *(Doc 9966) and the* ICAO-IATA-IFALPA Fatigue Management Guide for Airline Operators*. These documents are available on the ICAO website at:* https://www.icao.int/safety/fatiguemanagement/Pages/default.aspx.

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 topics:

a) consequences of fatigue on cabin crew performance:

1) 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);

2) cognitive effects: e.g. difficulties in concentrating, slower reaction times, more haphazard performance, fixation; less creative problem-solving;

3) emotional effects: e.g. depression, increased irritability, apathy, withdrawal; and

4) operational implications: e.g. degradation of productivity, slower reaction in case of an emergency, and impact on communication skills;

b) the scientific principles on which fatigue management is based:

1) sleep is a physiological need:

i) the different types and stages of sleep;

ii) restorative sleep;

iii) the pressure to sleep increases the longer a person is awake (homeostatic sleep drive);

iv) napping and sleep inertia; and

v) 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);

2) the body clock affects the timing and quality of sleep and how humans perform at various tasks:

i) circadian rhythms;

ii) circadian influences on sleep (going to sleep, waking up, sleep propensity, wake maintenance zones);

iii) shift work; and

iv) jet lag and adaptation;

3) a sleep debt accumulates over consecutive days of inadequate sleep. Recovery requires consecutive nights of adequate sleep:

i) cumulative sleep loss and the effects on performance; and

ii) recovery sleep – quantity and quality;

4) the type of task being performed has varying fatigue effects:

i) physical vs. cognitive demands;

ii) environmental factors that influence fatigue; and

iii) workload – the fatigue risks of too much or too little;

c) State, operator and individual cabin crew member responsibilities for fatigue management when complying with prescriptive limits:

1) the State is responsible for providing a regulatory framework that enables fatigue management and ensuring that the operator is managing fatigue-related risks to achieve an acceptable level of safety performance;

2) operator responsibilities relate to:

i) providing fatigue management training;

ii) implementing work schedules that enable individual cabin crew members to perform their duties safely. This includes identifying and following limitations and scheduling rules that allow opportunities for adequate rest and restorative sleep; and

iii) having processes for monitoring and managing fatigue hazards (including those outside the operator's control). This includes managing operational risks within the constraints of the prescriptive regulations as part of their SMS;

3) individual cabin crew member responsibilities relate to:

i) arriving fit for duty. This involves using the resources provided (including training, sleep opportunities and facilities) to assure they are adequately rested to perform their duties;

ii) using personal and operational mitigation strategies appropriately while on duty; and

iii) identifying and reporting fatigue hazards, including "non-fitness to fly";

d) rules and protocols relating to scheduling, reporting of fatigue risk and implementation of mitigations:

1) limitations for flight time, flight duty period, duty period and rest periods and scheduling rules according to type of operation (e.g. long haul, short haul, multiple stops, etc.)

2) scheduling changes (operator and cabin crew member initiated) that may affect pre-planned rest and sleep opportunities:

i) on-call/callout notification time;

ii) extended duties; and

iii) swaps;

3) layover accommodations provisions;

4) in-flight rest policies and crew rest areas;

5) when and how to report a fatigue hazard and the operator's response:

i) sleep deprivation (for whatever reason); and

ii) sleep disorders;

e) personal fatigue management strategies. These may include, but are not limited to:

1) a variety of different practices and habits (at home and in-flight) necessary to have good night-time sleep quality and full daytime alertness;

2) nutrition;

3) physical exercise;

4) strategic use of caffeine and medications;

5) relaxation exercises; and

6) workload management.

Note.— Guidance on the medical aspects of fatigue are considered in Part III, Chapter 17 of the 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 to is to ensure that cabin crew members are trained and competent to identify and manage fatigue and to perform their tasks within the FRMS, if applicable. The amount of training required and the topics that should be covered depend on each individual's involvement in the FRMS. For example, a cabin crew member may also be a member of the Fatigue Safety Action Group (FSAG) and require appropriate training.

12.4.3 FRMS training should include, but is not limited to, the following topics:

a) consequences of fatigue on cabin crew performance:

1) 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);

2) cognitive effects: e.g. difficulties in concentrating, slower reaction times, more haphazard performance, fixation, less creative problem-solving;

3) emotional effects: e.g. depression, increased irritability, apathy, withdrawal; and

4) operational implications: e.g. degradation of productivity, slower reaction in case of an emergency, and impact on communication skills;

b) scientific principles on which fatigue management is based:

1) sleep is a physiological need:

i) the different types and stages of sleep;

ii) restorative sleep;

iii) the pressure to sleep increases the longer a person is awake (homeostatic sleep drive);

iv) napping and sleep inertia; and

v) 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);

2) how the body clock affects the timing and quality of sleep and how humans perform at various tasks:

i) circadian rhythms;

ii) circadian influences on sleep (going to sleep, waking up, sleep propensity, wake maintenance zones);

iii) shift work; and

iv) jet lag and adaptation;

3) a sleep debt accumulates over consecutive days of inadequate sleep. Recovery requires consecutive nights of adequate sleep:

i) cumulative sleep loss and the effects on performance; and

ii) recovery sleep – quantity and quality;

4) how the type of task being performed has varying fatigue effects:

i) physical vs. cognitive demands;

ii) environmental factors that influence fatigue; and

iii) workload — the fatigue risks of too much or too little;

c) State, operator and individual cabin crew member responsibilities for fatigue management under an FRMS:

1) the State is responsible for providing a regulatory framework that enables fatigue management and ensuring that the operator is managing fatigue-related risks to achieve an acceptable level of safety performance;

2) operator responsibilities relate to identifying and following limitations and scheduling rules that allow opportunities for adequate rest and restorative sleep:

i) providing fatigue management training;

ii) assessing and managing fatigue risks;

iii) providing working conditions that allow a cabin crew member to manage their fatigue-related risk on any given day or time (e.g. providing adequate on-board crew rest facilities);

iv) fostering an effective reporting culture that encourages fatigue hazard reporting and provision of data by crew members; and

v) using the data provided for continuous improvement to the FRMS;

3) individual cabin crew member responsibilities relate to:

i) arriving fit for duty. This involves using the resources provided (including training, sleep opportunities and facilities) to assure he/she is adequately rested to perform his/her duties effectively;

ii) providing accurate data when participating in any fatigue data collection activity;

iii) using personal and operational mitigation strategies appropriately while on duty; and

iv) identifying and reporting fatigue hazards, including “non-fitness to fly”;

d) the operator’s FRMS processes:

1) the operator’s FRMS policy:

i) the operations to which the FRMS applies;

ii) a description of the operator’s FRMS and its aim; and

iii) FRMS documentation and forms and how to access them; and

iv) role of the FSAG;

2) fatigue hazard reporting:

   i) involvement in data collection activities;

   ii) reporting fatigue hazards and the operator's response:

      — what should be reported when;

      — how to report;

   iii) how this information will be used and managed;

   iv) how cabin crew members will receive feedback; and

   v) how the operator will respond in different situations;

3) protocols for the implementation of fatigue mitigations:

   i) rostering management:

      — rostering practices; and

      — implementing roster changes (operator- and cabin crew member-initiated);

   ii) in-flight rest policies and crew rest areas; and

   iii) layover accommodations; and

e) personal fatigue management strategies. These may include, but are not limited to:

   1) a variety of different practices and habits (at home and in-flight) that are necessary to have good night-time sleep quality and full daytime alertness;

   2) nutrition;

   3) physical exercise;

   4) strategic use of caffeine and medications;

   5) relaxation exercises; and

   6) workload management.

12.5 RECURRENT FATIGUE MANAGEMENT TRAINING

12.5.1 The operator's fatigue management training should be conducted on an initial and recurrent basis. The interval between training should be determined by the operator given their operational characteristics and training needs analysis driven by the SMS processes. This means that the State should ensure that the training programme, and the way in which the operator assesses the effectiveness of its training programme, is commensurate and sufficient for its needs.

12.5.2 Prescriptive fatigue management recurrent training should include, but is not limited to, the following topics:

a) rules and operational processes relating to scheduling, operational mitigations of fatigue, and reporting of fatigue risk, including any changes in processes;

b) personal fatigue management strategies; and

c) a review of the operator's occurrences, relevant to cabin operations, which may have involved fatigue as a contributing factor.

12.5.3 FRMS recurrent training should include, but is not limited to, the following topics:

a) the processes to be followed by a cabin crew member within the operator's FRMS, including any changes;

b) personal fatigue management strategies; and

c) a review of the operator's occurrences, relevant to cabin operations, which may have involved fatigue as a contributing factor.

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, on-board leader, senior cabin crew member, etc.) is a designated cabin crew member who has overall responsibility for the conduct and coordination of cabin procedures applicable during normal operations and during abnormal and emergency situations. This role involves added responsibilities and tasks which require training in addition to that applicable to all cabin crew members.

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 towards the flight crew for coordination of normal, abnormal and emergency procedures specified in the operations manual and for managing situations with all the other cabin crew members, and with other personnel (e.g. ground crew).

13.1.3 In a single-cabin crew operation, the single-cabin crew member should be designated as an in-charge cabin crew member by the operator. The single-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 passengers, and with other personnel (e.g. ground crew).

13.1.4 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.

13.1.5 Completion of the operator's cabin crew training programme provides specialized knowledge 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 tasks of a cabin crew member leader and provides him/her with the competencies required to assume that role.

13.1.6 The training encompasses specific aspects of the operator's1 SOPs 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.

13.1.7 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.

13.1.8 In-charge cabin crew members should receive in-depth training to reinforce their competencies as on-board leaders. Amongst all cabin crew competencies, special emphasis should be placed on the following competencies: leadership and teamwork; problem solving and decision making; and workload management (refer to the Appendix to Chapter 2), in addition to any applicable national regulations and requirements.

13.2 TRAINING FOR IN-CHARGE CABIN CREW MEMBER

Chapters 1 through 12 provide detailed guidance on cabin crew training. In a multi-crew environment, some of the tasks 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's tasks. However, it presents an overview of the recommended in-charge cabin crew member training programme structure and content 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:

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.), as well as safety occurrences at the operator and recent changes to procedures;

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.

13.3.3 Further guidance on these topics is presented in 13.4 through 13.11.

13.4 BRIEFINGS

In-charge cabin crew member training should cover the specific elements required to be obtained and disseminated during the pre-flight briefing with the flight crew members and/or amongst cabin crew members (refer to Chapter 4, 4.5.2) and the briefing required during an abnormal or emergency situation (refer to Chapter 5, 5.5.4 - anticipated emergency landing or ditching).

13.5 COMMUNICATION, COOPERATION AND COORDINATION WITHIN THE CREW AND WITH OTHER PERSONNEL

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, cooperation and communication;

c) awareness of multi-cultural and multi-national crews; and

d) modification of crew roles and responsibilities in the event of cabin crew and flight crew member incapacitation.

13.6 OPERATOR'S PROCEDURES AND LEGAL REQUIREMENTS

Training should address the following items:

a) minimum equipment list;

b) flight and duty time limitations and/or the operator's FRMS, if applicable; and

c) tasks related to the operator's SOPs as required by the position.

13.7 ADMINISTRATIVE TASKS REQUIRED BY THE OPERATOR

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

Training should address the following items:

a) review of human performance aspects (e.g. Human Factors, CRM, TEM), as they relate to the role of the in-charge cabin crew member;

b) review of competencies important to in-charge cabin crew member (refer to 13.1.8) and their application in the management of specific occurrences, including but not limited to:

   1) passenger management;

   2) security incidents;

   3) the management of medical diversions; and

4) interaction with the flight crew members, including an understanding of the differences in flight crew and cabin crew workload by phase of flight;

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

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) tasks specific to the in-charge cabin crew, including documentation; and

c) review of relevant incident/accident cases.

13.10 FATIGUE MANAGEMENT

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, 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 of their responsibility to be well rested prior to duty;

f) the importance of reconsidering 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

Training should address, but is not limited to, the following items:

a) leadership function;

b) effective and ineffective leadership styles;

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 tasks;

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 competencies and remain proficient on the tasks specific to that role. In order to achieve this goal, cabin crew members designated as in-charge cabin crew should receive recurrent training. The modes of delivery 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;

f) safety review/reinforcement (from sources such as SMS, audit feedback, etc.); and

g) operator procedural reminders and legal updates.

Chapter 14

MANAGEMENT ASPECTS OF THE CABIN SAFETY TRAINING PROGRAMME

14.1 OVERVIEW

Cabin crew training managers, course developers, instructors and evaluators 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 behaviour. Training development and continued evaluation of training programmes are also needed to obtain quality training. Therefore, operators and approved training organizations (ATOs) 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) knowledge of applicable regulations and operator's SOPs.

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 training and guidance is provided;

f) assuming responsibilities delegated by the relevant management;

g) supervising the training of cabin crew members, in accordance with the approved training programme;

h) maintaining cabin crew training records;

i) determining the training strategy;

j) liaising with other company departments to ensure that cabin safety objectives are met;

k) liaising with regulatory authorities;

l) in their absence, delegating all responsibilities to another adequately qualified person as determined by the operator; and

m) administering and communicating as necessary to fulfil the foregoing responsibilities.

14.3 THE ICAO CABIN CREW INSTRUCTOR AND EVALUATOR COMPETENCY FRAMEWORK

14.3.1 Similar to the cabin crew competencies, mastering a set of cabin crew instructor and evaluator competencies should enable an instructor or evaluator to perform instruction and evaluation tasks and manage the full spectrum, ranging from ground instruction to evaluations during line operations.

14.3.2 The ICAO competency framework for cabin crew instructors and evaluators is presented in the Appendix to this chapter. In this framework, the evaluator is a person authorized to conduct the formal and final summative assessment of a trainee's performance. Operators and ATOs who elect to implement competency-based training and assessment for their instructors and evaluators may develop an adapted competency model to suit the context of their organization.

14.4 CABIN CREW INSTRUCTOR AND EVALUATOR

14.4.1 National regulations may require the operator to qualify and assign different individuals to fulfil the distinct roles of cabin crew instructors and evaluators. If this is not the case, both the roles of the instructor and evaluator may be assigned to the same individual. If the instructor also performs the role of an evaluator for trainees that they instructed, they should remain impartial during the assessment.

14.4.2 Prior to the issue of a cabin crew instructor or evaluator 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 or evaluate on matters that deal with their area of expertise.

14.4.3 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. Qualified and authorized evaluators may be assigned to carry out assessments and auditing duties to determine that all required performance standards have been satisfactorily achieved. The evaluator is responsible for making a determination of the actual competency standards attained and any recommendation for corrective action, if necessary.

14.4.4 The instructor and evaluator qualifications should be in accordance with national regulations, where applicable.

14.4.5 Prior to an organization authorizing the provision of instruction or evaluation within competency-based training and assessment environments, instructors and evaluators should undergo a selection process designed to assess that the individual's knowledge, capability and competency are suitable for the 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 they expect to instruct.

14.4.6 Training programmes for the role of instructor or evaluator should focus on development of the competencies listed in Appendix 1 to this chapter. Sample content for an initial training programme for cabin crew instructors and evaluators is presented in Appendix 2 to this chapter.

14.4.7 Prior to the issuance of an instructor or evaluator qualification, all candidates should successfully complete a formal competency assessment in their role while conducting the training. The final assessment of instructor or evaluator competence should be made against the competency framework contained in Appendix 1 to this chapter.

14.4.8 All instructors and evaluators should receive refresher training and be re-assessed 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 COURSE DEVELOPER

14.5.1 The course developer is responsible for the development of a cabin crew training and assessment programme that meets the applicable regulatory requirements. Course developers should possess the ability to develop training in accordance with the features of a competency-based approach to training and assessment as outlined in Chapter 2.

14.5.2 Recommended qualifications should include, but are not limited to, the following:

a) experience in instructional and training skills;

b) knowledge of applicable material, regulations and operator's SOPs; and

c) computer skills and knowledge of necessary software.

14.5.3 The course developer's responsibilities should 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) providing guidance on modes of delivery;

f) determining/selecting training media;

g) producing competency-based training content 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 MODES OF DELIVERY

14.6.1 Competency-based training and assessment requires the acquisition of both knowledge and skills. A variety of training methods should be used (e.g. classroom, digital learning, 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 trainees' various experience, ages, cultures and language proficiency. Various training methods should be utilized:

a) any digital learning should include technology support;

b) some learners may require more interactive learning techniques; and

c) different learning styles.

14.6.3 Any computer-based 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 15).

14.7 EVALUATOR RELIABILITY

14.7.1 Reliability is needed to ensure consistency in assessments conducted by evaluators. When evaluators use an assessment instrument, a process should be in place to ensure the consistency or stability of results given by a single evaluator (intra-evaluator reliability) to the same performances at different moments in time and the consistency or stability of results between different evaluators (inter-evaluator reliability).

14.7.2 If the assessment consists of a multiple-choice questionnaire, limited training of evaluators for inter and intra-evaluator reliability may be required. Evaluators need to apply an answer key.

14.7.3 If evaluators need to judge against criteria, reliability training comes into play since evaluators need to be calibrated and standardized in how they interpret the criteria.

14.7.4 Further information on evaluator reliability can be found in the *Manual of Evidence-based Training* (Doc 9995).

14.8 CONTINUOUS IMPROVEMENT OF THE TRAINING PROGRAMME

14.8.1 *Overview*

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*

The instructor should evaluate the effectiveness of the training by utilizing trainee feedback and trainee performance outcomes of the training. For further information, refer to the competency framework contained in the appendix to this chapter.

14.8.3 *Instructor and evaluator performance*

As part of the continuous improvement of the training programme, each instructor and evaluator should undergo a periodic performance review to ensure competency and standardization. In addition, each instructor and each evaluator should evaluate their effectiveness and sustain personal development. For further information, refer to the competency framework contained in the appendix to this chapter.

14.8.4 *Training material evaluation*

The training material should be evaluated at the managerial level. This may include, but is not limited to the following:

a) validating competency-based training content and assessment materials and results;

b) evaluating whether performance criteria are met; and

c) evaluating whether organizational and operational objectives are met.

14.9 DOCUMENTATION

14.9.1 *Instructor/evaluator qualification/requalification*

The operator should maintain the following records of their instructors and evaluators:

a) training records;

b) records of performance review;

c) training classes conducted;

d) assessments conducted;

e) observation flights and relevant cabin crew documentation, if applicable;

f) checks carried out by State-authorized officers or evaluators; 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, the 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 is not limited to:

a) training (training dates, assessment results, course name, etc.);

b) aircraft qualifications (including familiarization 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*

The operator should maintain material, including, but not limited to the following:

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

ICAO COMPETENCY FRAMEWORK FOR CABIN CREW INSTRUCTORS AND EVALUATORS

Note 1.— The competencies and observable behaviours in the table below are not listed according to any pre-defined priority. Observable behaviours may include, but are not limited to, the observable behaviours listed in the table below.

Note 2.— Observable behaviours are performed to a criterion, e.g. accurately or correctly, generally not stated.

Competency	*Description*	*Observable behaviours (OB)*
Management of the learning environment	Ensures that the instruction and assessment are conducted in a suitable and safe environment.	OB 1.1 Ensures that equipment meets safety requirements OB 1.2 Communicates evacuation and occupational, health and safety procedures of the training facility OB 1.3 Creates a safe learning environment (e.g. facilities, training devices, cabin simulator, firefighting facilities, etc.) OB 1.4 Identifies and manages hazards (e.g. slippery floor) OB 1.5 Prioritizes safety above instructing the trainee OB 1.6 Ensures the facilities are scheduled and adequate to meet the learning outcomes objectives OB 1.7 Ensures that the physical environment is suitable for learning OB 1.8 Ensures environment and conditions exist for the training objectives OB 1.9 Ensures that the training equipment is available, accessible and functional OB 1.10 Follows approved training syllabus or checklists

Competency	*Description*	*Observable behaviours (OB)*
Mentoring and coaching	Supports trainee integration into the professional environment by mentoring, advising, guiding and creating a positive learning experience.	OB 2.1 Identifies and demonstrates awareness of trainee characteristics (experience, language, culture) OB 2.2 Develops a rapport with the trainee and provides encouragement and support OB 2.3 Promotes positive working relationships OB 2.4 Encourages a positive approach to learning OB 2.5 Demonstrates empathy and understanding, recognizing situations when extra support is required OB 2.6 Encourages trainee to self-reflect to identify strengths and weaknesses and areas for improvement OB 2.7 Encourages trainee to look for positive learning experiences from each training session, even those that did not go well OB 2.8 Encourages trainee to extract maximum training value from any feedback, including negative points OB 2.9 Encourages trainee to ask questions as part of the overall learning experience OB 2.10 Helps trainee to build and maintain confidence through encouragement and motivation OB 2.11 Ensures sufficient repetition of learning activities OB 2.12 Ensures opportunities for increasing complexity OB 2.13 Helps trainee to develop strategies to improve any gaps in competencies

Competency	*Description*	*Observable behaviours (OB)*
Instruction	Provides instruction and facilitates learning in the training environment.	OB 3.1 Demonstrates exemplary role model behaviour (meaning the behaviours expected in the technical role being trained, according to the competencies and related knowledge and skills) OB 3.2 Demonstrates respect for organizational goals and requirements (SOPs, dress code, appearance, acceptable personal conduct, etc.) OB 3.3 Sets the objectives for the session and explains clearly to the trainee the required competency standards OB 3.4 Ensures the trainee understands the situation prior to beginning a simulated exercise OB 3.5 Uses targeted training techniques to enable learning (e.g. talk aloud problem solving techniques, demonstration, immediate skill correction, trainee involvement, questioning techniques) OB 3.6 Adapts training techniques and style to meet the needs of the trainee OB 3.7 Ensures appropriate timing of teaching opportunities OB 3.8 Recognizes and responds appropriately to the trainee's behaviour (e.g. stress, under confidence, over-confidence) OB 3.9 Allows the trainee to make decisions appropriate to their level of competence and experience OB 3.10 Confirms understanding of the trainee's intended actions and plans (e.g. using questioning techniques) and, when appropriate, trusts the trainee to try their own plans OB 3.11 Remains calm when having to intervene OB 3.12 Provides constructive and balanced feedback in a timely and appropriate manner OB 3.13 Debriefs the trainee after the training session to review the performance emphasising positive actions, areas to work on and strategies for improvement OB 3.14 Allocates time appropriately on activities OB 3.15 Adjusts time spent on activities to ensure that objectives are met OB 3.16 Implements contingency plans for situations in which activities must be eliminated, reduced or replaced OB 3.17 Clarifies any inadequate knowledge and/or misinterpretation of SOPs

Competency	*Description*	*Observable behaviours (OB)*
Communication	Communicates effectively with the trainee in verbal, non-verbal and written form.	OB 4.1 Listens actively OB 4.2 Encourages constructive discussion about the trainee's performance OB 4.3 Speaks clearly, accurately and in a calm and measured manner OB 4.4 Adjusts speech techniques to suit the instructional situation (e.g. conveying sense of urgency, speaks calmly) OB 4.5 Adapts content of communication to the needs of the trainee (e.g. does not overload with too much information) OB 4.6 Explains complex situations clearly (e.g. application of procedures, management of emergencies) OB 4.7 Explains cognitive strategies clearly (e.g. how to analyse situations, prioritize, select a course of action, distribute attention) OB 4.8 Delivers difficult messages with tact and sensitivity OB 4.9 Writes objective and comprehensive reports on the trainee's performance
Assessment	Evaluates the performance of the trainee for the purposes of enabling learning, monitoring progress and/or determining if competence has been achieved.	OB 5.1 Gathers factual evidence of the trainee's performance against the objectives OB 5.2 Gathers factual evidence for all the required competencies OB 5.3 Evaluates the trainee's performance in relation to the competencies, objectives and standards OB 5.4 Analyses poor performance to determine root causes, when appropriate OB 5.5 Determines remedial actions required to address deficiencies in performance, when appropriate OB 5.6 Determines if the evidence gathered, supports a decision that the trainee is competent OB 5.7 Provides clear and concise feedback to the trainee OB 5.8 Applies consistent standards when assessing performance OB 5.9 Identifies systemic safety issues, unexpected outcomes, barriers to the transfer of learning and strengths and/or weaknesses of the training content OB 5.10 Makes recommendations to the course developer for improvements relating to course design, course documentation, training media and training facilities

Competency	*Description*	*Observable behaviours (OB)*
Collaboration	Collaborates with relevant parties to facilitate a robust training experience for the trainee.	OB 6.1 Gathers relevant information in advance for the purpose of tailoring the training approach and to maximize productivity of the training session (e.g. from the training organization, human resources department, previous training reports) OB 6.2 Engages with the trainee, other instructors and the cabin crew training manager(s) for the purposes of adapting the training approach OB 6.3 Requests supplementary resources to help the trainee, when required (e.g. learning support specialist, counselling, additional practice on a simulator) OB 6.4 Contributes information on the trainee's progress to the training team
Self-assessment	Improves teaching, instructional and coaching capabilities through self-assessment.	OB 7.1 Remains open to feedback OB 7.2 Improves performance based on accurate and balanced feedback OB 7.3 Maintains self-control in challenging training situations OB 7.4 Responds as needed to deal with the demands of challenging training situations
Ethics and integrity	Demonstrates openness, respect and fairness towards the trainee and considers the consequences when making a decision or taking action.	OB 8.1 Treats the trainee respectfully, fairly and objectively regardless of differences OB 8.2 Answers questions truthfully without embellishment OB 8.3 Maintains privacy and confidentiality when appropriate OB 8.4 Manages professional relationships with appropriate role boundaries OB 8.5 Acts with integrity OB 8.6 Remains objective and starts each training session without prejudice or bias

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Appendix 2 to Chapter 14

INITIAL TRAINING PROGRAMME FOR CABIN CREW INSTRUCTORS AND EVALUATORS

Unit	*Description*	*Detailed content*
Knowledge	This unit outlines the operator's procedures which is the fundamental knowledge required to deliver the training programme under a competency-based approach.	• Understanding of the operator's SOPs • Understanding of an SMS • Aircraft-specific knowledge, if applicable • Building scenarios as part of competency-based training and assessment • Coaching, mentoring and guiding trainees • National regulations applicable to training and operations
Facilitation/ instruction style and skills	This unit provides tools and techniques to ensure that an audience is engaged throughout the delivery of a presentation and to optimize the trainee experience.	• Group facilitation skills • Understanding non-verbal cues (e.g. body language) • Verbal skills — tone, pitch, clarity, speed, language • Observation skills used to monitor individual and group progress • Objective feedback delivery • Mentoring trainees to foster the development of competencies • Supporting trainees in their various learning styles
Course management and documentation/ administrative tasks	This unit outlines duties related to the management of the course as well as those related to documentation and administrative tasks of the instructor/evaluator	• Understanding lesson plans and timetables • Time management • Remedial training • Management of situations that might disrupt a planned sequence of events (e.g. inoperative cabin training device) • Recording of assessments • Relevant administrative functions • Production of reports using appropriate forms and media
Operation of training aids, devices and equipment	This unit outlines the operation of all training aids, devices and equipment used by the instructor/evaluator during training and assessments, and considerations for a safe training environment	• Use of presentation equipment and training devices • Use of presentation equipment and devices within occupational health and safety guidelines • Instruction and assessments conducted in a suitable and safe environment

Assessments	This unit provides an understanding of the competencies of the trainee and decisions in assessments based on the outcome of the summative information	• Applying rating scales • Understanding of the assessment process • Assessing trainees' competencies • Performing appropriate grading • Delivery of strengths and weaknesses of the training environment, including feedback from trainees • Objectivity versus subjectivity differences • Standardization and calibration of instructors/evaluators

Note.— Instructor/evaluator refresher training should be undertaken if a period of absenteeism has occurred. This provides the instructor/evaluator with the opportunity to familiarize themselves with changes to training modules, content and facilities. This training should include an overview of the content presented in this appendix.

Chapter 15

TRAINING FACILITIES AND DEVICES

15.1 FACILITIES AND EQUIPMENT FOR CLASSROOM TRAINING

15.1.1 General space requirements

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

a) classroom facilities

b) the trainee work stations;

c) the area required for hands-on exercises;

d) the instructor work stations; and

e) the storage area and/or location for additional equipment.

15.1.2 Classroom facilities

15.1.2.1 The size of classrooms is dependent on the following:

a) number of trainees in a class;

b) trainee and instructor 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).

15.1.2.2 The range of recommended space for each adult in a classroom varies from 1.4 m^2 to 6.7 m^2. 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.

15.1.2.3 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 material during training.

15.1.2.4 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, television, virtual simulations, etc.) should be taken into consideration when selecting a learning environment.

15.1.3 The learning environment

15.1.3.1 The learning environment should include, but is not limited to, 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.

15.1.4 Use of instructional aids

15.1.4.1 Instructional aids include the use of CBT. For the purposes of this manual, CBT encompasses the use of a data storage medium as well as web-based training (commonly referred to as e-learning), distance learning and digital learning (such as virtual learning and gamification).

15.1.4.2 Digital learning is any mode of delivery that effectively uses technology, such as virtual and augmented reality, or gamification, to strengthen the trainee's knowledge and skills. It emphasizes instruction and provides access to content and feedback through formative assessments. Digital learning should support classroom training and hands-on exercises with new technologies. Digital learning is not meant to replace classroom training, hands-on exercises, or traditional simulated exercises in their entirety. Based on the technological methods used, digital learning can recreate a realistic environment that best simulates real line operations. This level of realism in training reinforces the development and application of competencies alternatively trained in a classroom setting or through hands-on exercises. Digital learning should be selected as a training media when it is deemed suitable to attain the learning outcomes and its use results in an equivalent or increased level of competence for the trainee.

15.1.4.3 According to the type of training media and instructional aids used, the trainee should have access to an instructor to resolve questions throughout the training programme. Therefore, the operator should consider the availability of instructors when evaluating the competence acquired by the trainee through digital learning. This provides trainees with the opportunity to resolve questions that may arise as a result of the digital learning material. The operator

should consider instructor follow-up with trainees after the completion of the digital learning portion of the training. This may be accomplished when the trainee arrives at a centralized training location and prior to hands-on and simulated exercises (e.g. a scenario-based training such as an aircraft evacuation).

Note.— Guidance on digital learning is contained in the Guidelines on Digital Learning for Cabin Crew Training *(Cir 356).*

15.2 TRAINEE-TO-INSTRUCTOR RATIO

15.2.1 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 training media, such as classroom, CBT and hands-on instruction will require a different number of instructors. ICAO recommends that the operator determine a ratio of trainees per instructor which is satisfactory to the State and meets the specific training needs.

15.2.2 In order to provide for sufficient supervision and control, a maximum of 20 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 training.

15.2.3 When facilitating CBT, the trainee-to-instructor ratio may be more flexible. A maximum of 30 trainees per instructor is recommended, assuming that the presence of the instructor is limited to providing support.

15.2.4 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 10 trainees per instructor is recommended. However, the type of hands-on exercise being performed should be considered. Individual hands-on exercises on safety and emergency equipment versus group simulated exercises may prompt an adjustment of the proposed trainee to instructor ratio. For further information on assessing competencies in group scenario-based training, refer to Chapter 17.

15.2.5 When conducting a familiarization flight (also referred to as "line indoctrination"), the operator should establish limits on the ratio of trainees to the person who conducts the familiarization flight (i.e. the evaluator). These limits should be in accordance with national regulations, where applicable. If the evaluator is an operating cabin crew member, the trainee-to-evaluator ratio should be limited to one trainee per evaluator. If the evaluator has no other assigned tasks during the flight other than conducting the familiarization flight, the trainee-to-evaluator ratio may be increased to two trainees per evaluator. Additional considerations include: the size of the aircraft (e.g. narrow-body vs. wide-body aircraft type), the cabin crew complement, and the anticipated cabin crew workload during the flight. Trainee numbers shall not exceed more than 50 per cent of the required minimum cabin crew complement. For example, if the minimum cabin crew complement is eight cabin crew members, there should be no more than four trainees on the flight. These trainees should not be part of the minimum number of operating cabin crew members required by the State. For further information on familiarization flights, refer to Chapter 1, 1.10.

15.3 REPRESENTATIVE TRAINING DEVICES

15.3.1 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. The appendix to this chapter provides an example of a checklist that may be used by the State to approve an operator or an ATO representative training devices used for the purpose of training cabin crew.

15.3.2 Representative training devices include:

a) safety and emergency equipment;

b) cabin training devices;

c) emergency exit trainers;

d) training devices used for firefighting; and

e) training devices used for water survival.

15.4 SAFETY AND EMERGENCY EQUIPMENT

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

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

a) *safety equipment:* equipment carried to be used during day-to-day normal operations for the safe conduct of the flight and protection of occupants; and

b) *emergency equipment:* equipment 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 its occupants, including life preservation. Some of this equipment may also be referred to as "survival equipment".

15.4.3 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).

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

a) portable fire extinguishers;

b) axe;

c) protective gloves;

d) smoke goggles;

e) 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) life-raft;

k) survival kit;

l) portable emergency signalling equipment (e.g. beacon, emergency locator transmitter, radio locator beacon);

m) CRS;

n) extension seat belt;

o) non-lethal restraining device;

p) first-aid kit, universal precaution kit, and medical kit;

q) automated external defibrillator and associated equipment (CPR masks, shields, resuscitator bags, etc.); and

r) any other equipment (including any additional equipment suited to the likely environment e.g. arctic gear).

15.4.5 Equipment that is removed from operation (e.g. a portable oxygen bottle), or other representative training equipment considered acceptable by the State, can be used for training purposes.

15.5 CABIN TRAINING DEVICES

15.5.1 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.

15.5.2 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 simulated exercises that are carried out on a particular device (e.g. firefighting 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).

15.5.3 The following components/items should be representative in function/operation 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 relevant safety and emergency equipment, secured with representative brackets or mounting devices.

15.5.4 If CTDs are not available, or do not meet the criteria specified in 15.5.3, training may be covered through other means acceptable to the State.

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

a) relevant 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 tasks representative of those installed on an aircraft, including but not limited to:

1) operational cabin call chimes (aural and visual indicators);

2) 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;

3) normal and emergency cabin lighting, including fail features; and

4) 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.

15.5.6 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 of 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 methods 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 B777 doors opposite each other as opposed to one B777 and one A350 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).

15.6 EMERGENCY EXIT TRAINER

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

15.6.2 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.

15.6.3 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.

15.7 TRAINING DEVICES USED FOR FIREFIGHTING

15.7.1 A simulated firefighting 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 firefighting exercise should include aircraft furnishings as found on board an aircraft, such as seats, galley units, lavatories, panels, overhead bins and waste bins. Firefighting equipment and the restraints used should be representative to those installed on an aircraft with respect to weight, dimensions, controls, types and operations. A device used for live firefighting and the facilities where it is housed should meet applicable safety standards for that type of training environment, as required by the State.

15.7.2 Fire extinguishers used for live firefighting should be charged with the appropriate agent or with an environmentally friendly agent.

15.8 TRAINING DEVICES USED FOR WATER SURVIVAL

15.8.1 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.

15.8.2 A life-raft exercise should be conducted using life-saving equipment that is representative of 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 should address any differences in the operation of the raft.

15.9 TRAINING DEVICES USED FOR SIMULATED FLIGHT CREW INCAPACITATION

A simulated exercise of flight crew incapacitation should be conducted using equipment that is representative of that installed on the aircraft with respect to weight, dimensions, appearance, features and operation, or on an actual aircraft. The device used for a simulated flight crew incapacitation exercise should include the operation of the flight deck seat, harness and flight deck oxygen system.

15.10 USE OF OTHER OPERATOR OR ATO FACILITIES AND TRAINING DEVICES

15.10.1 Where an operator arranges to use facilities and training devices owned by another operator, or by an ATO, the training should comply with the approved training programme and operating procedures of the operator whose crew are being trained.

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

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Appendix to Chapter 15

SPECIFIC APPROVAL CHECKLIST FOR REPRESENTATIVE TRAINING DEVICES

1. INTRODUCTION

The checklist below constitutes an example of what may be used by the State to approve an operator or ATO's representative training devices used for the purpose of training cabin crew. The checklist should be developed in accordance with the training programme and training device manual. Checklist items can be customized to the specific training devices and features being evaluated. Checklist items are designed so that some points may be not applicable (check "N/A"). Items answered as "No" are meant to allow identifying deficiencies that should be corrected and revalidated prior to approval being issued.

2. EXAMPLE OF CHECKLIST

Part 1

SAFETY AND EMERGENCY EQUIPMENT		
The piece of equipment was removed from operation, or is considered a representative training equipment acceptable by the State, and can be used for training purposes.		
Instructions: Check for presence, condition and expiry date, if applicable.		
Specific piece of equipment	Meets requirements	Comments
1.1 Portable fire extinguisher	Yes □ No □ N/A □	
1.2 Axe	Yes □ No □ N/A □	
1.3 Protective gloves	Yes □ No □ N/A □	
1.4 Smoke goggles	Yes □ No □ N/A □	

1.5 Protective breathing equipment (PBE)	Yes □ No □ N/A □	
1.6 Portable oxygen equipment (bottles, passenger mask, full face mask, flight deck oxygen mask)	Yes □ No □ N/A □	
1.7 Emergency flashlight	Yes □ No □ N/A □	
1.8 Megaphone	Yes □ No □ N/A □	
1.9 Adult/child and infant life jackets, or other individual flotation device	Yes □ No □ N/A □	
1.10 Life raft	Yes □ No □ N/A □	
1.11 Survival kit	Yes □ No □ N/A □	
1.12 Installed/portable emergency signalling system (e.g. beacon, emergency locator transmitter, radio locator beacon)	Yes □ No □ N/A □	
1.13 Child restraint systems (CRS)	Yes □ No □ N/A □	
1.14 Extension seat belt	Yes □ No □ N/A □	
1.15 Restraining device	Yes □ No □ N/A □	
1.16 First-aid kit, universal precaution kit, and medical kit	Yes □ No □ N/A □	
1.17 Automated external defibrillator and associated equipment (CPR masks, shields, resuscitator bags, etc.)	Yes □ No □ N/A □	

1.18 Any other equipment (specify) includes any additional equipment suited to the likely environment (e.g. arctic gear)	Yes □ No □ N/A □	

Part 2

CABIN TRAINING DEVICE (CTD)		
For the purposes of emergency procedures training, the CTD is able to create an environment which may not be created in a classroom.		
Instructions: Check for presence, condition and accuracy.		
Specific part, component/item or feature	Meets requirements	Comments
2.1 The CTD includes the following cabin parts:		
a) lavatory (training of e.g. cabin preparation procedure, firefighting simulated exercise, etc.);	Yes □ No □ N/A □	
b) galley (training of e.g., restraining equipment, firefighting simulated exercise, etc.);	Yes □ No □ N/A □	
c) one type of emergency exit used in an aircraft currently in the operator's fleet;	Yes □ No □ N/A □	
d) some seat rows;	Yes □ No □ N/A □	
e) cabin crew seats;	Yes □ No □ N/A □	
f) attendant panels; and	Yes □ No □ N/A □	
g) overhead bins (training of e.g. emergency equipment location, firefighting simulated exercise, etc.).	Yes □ No □ N/A □	
2.2 The following components/items of the CTD are 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;	Yes □ No □ N/A □	

b) the weight of emergency exit hatches;	Yes □ No □ N/A □	
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);	Yes □ No □ N/A □	
d) stowage location of relevant safety and emergency equipment, secured with representative brackets or mounting devices;	Yes □ No □ N/A □	
2.3 The CTD used for cabin crew training includes the following features:		
a) relevant safety and emergency equipment currently required on an aircraft in locations and the restraint brackets representative of those installed on an aircraft;	Yes □ No □ N/A □	
b) aircraft systems relevant to cabin crew tasks representative of those installed on an aircraft, including but not limited to:	Yes □ No □ N/A □	
1) operational cabin call chimes (aural and visual indicators);	Yes □ No □ N/A □	
2) 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;	Yes □ No □ N/A □	
3) normal and emergency cabin lighting, including fail features; and	Yes □ No □ N/A □	
4) deployable oxygen masks for passenger and cabin crew;	Yes □ No □ N/A □	
c) internal cabin markings, such as placards and exit markings;	Yes □ No □ N/A □	
d) emergency exit(s);	Yes □ No □ N/A □	
e) a flight deck door and related-security features;	Yes □ No □ N/A □	

f) operational ordinance signs visible from each passenger seat and cabin crew station/seat;	Yes □ No □ N/A □	
g) seat dimensions and seat pitch;	Yes □ No □ N/A □	
h) simulated cabin windows and features necessary to darken the cabin;	Yes □ No □ N/A □	
i) facilities and sufficient speakers to simulate sound effect/crash noises audible throughout the cabin; and	Yes □ No □ N/A □	
j) smoke simulation capabilities.	Yes □ No □ N/A □	
2.4 The CTD used for emergency evacuation training includes the following features, according to the applicable scenario for which it will be used:		
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;	Yes □ No □ N/A □	
b) cabin crew and passenger seat positioning that is representative of that on an aircraft, with particular accuracy for seats immediately adjacent to exits;	Yes □ No □ N/A □	
c) capability to operate exits in normal and emergency modes, particularly in relation to method of operation and forces required to operate them;	Yes □ No □ N/A □	
d) width, height and angle of inflated evacuation slides;	Yes □ No □ N/A □	
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);	Yes □ No □ N/A □	
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 CTD;	Yes □ No □ N/A □	
g) cabin crew stations and the associated attendant panel(s) that are representative of an aircraft;	Yes □ No □ N/A □	

h) simulation of an unserviceable exit(s); and	Yes □ No □ N/A □	
i) simulation of hazards at emergency exits (e.g. obstacle, fire, water).	Yes □ No □ N/A □	

Part 3

EMERGENCY EXIT TRAINER		
For the purposes of training, the operator may use an emergency exit trainer instead of an actual aircraft.		
Instructions: Check for presence, condition and accuracy.		
Specific part, component/item or feature	Meets requirements	Comments
3.1 The emergency exit trainer replicates the following characteristics of the exit of the aircraft type on which the cabin crew member will operate:		
a) size;	Yes □ No □ N/A □	
b) weight; and	Yes □ No □ N/A □	
c) operating characteristics (e.g. direction of movement of handles).	Yes □ No □ N/A □	
3.2 The emergency exit trainer is 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.	Yes □ No □ N/A □	

Part 4

TRAINING DEVICES USED FOR FIREFIGHTING		
A simulated firefighting exercise should be conducted in a confined area, to simulate cabin fire, and under the supervision of an instructor		
Instructions: Check for presence, condition and accuracy.		
Specific part, component/item or feature	Meets requirements	Comments

4.1 The device used for a simulated firefighting exercise includes aircraft furnishings as found on board an aircraft, such as seats, galley units, lavatories, panels, overhead bins and waste bins.	Yes □ No □ N/A □	
4.2 Firefighting equipment and the restraints used are representative to those installed on an aircraft with respect to weight, dimensions, controls, types and operations.	Yes □ No □ N/A □	
4.3 The device used for live firefighting and the facilities where it is housed meet applicable safety standards for that type of training environment, as required by the State.	Yes □ No □ N/A □	
4.4 Fire extinguishers used for live firefighting are charged with the appropriate agent or with an environmentally friendly agent.	Yes □ No □ N/A □	

Part 5

TRAINING DEVICES USED FOR WATER SURVIVAL		
When the operator is required by the State to conduct wet drills, these should meet the following criteria.		
Instructions: Check for presence, condition and accuracy.		
Specific criteria	Meets requirements	Comments
5.1 Wet drills are carried out in a body of water or pool of sufficient depth to realistically perform the simulated exercise.	Yes □ No □ N/A □	
5.2 The life-raft exercise is conducted using life-saving equipment that is representative of that installed on the aircraft with respect to weight, dimensions, appearance, features and operation. *Note.— The rafts may be substituted if the equipment used is similar with respect to weight, dimensions, appearance, and features. In such cases, training should address any differences in the operation of the raft*	Yes □ No □ N/A □	

Part 6

TRAINING DEVICES USED FOR SIMULATED FLIGHT CREW INCAPACITATION		
A simulated exercise of flight crew incapacitation should be conducted using a representative training device, or on an actual aircraft.		
Instructions: Check for presence, condition and accuracy.		
Specific criteria	Meets requirements	Comments
6.1 The device used for a simulated flight crew member incapacitation exercise is representative of that installed on aircraft with respect to dimensions, appearance, features and operation.	Yes □ No □ N/A □	
6.2 The device used for a simulated exercise of flight crew incapacitation includes the operation of the flight deck seat, harness and flight deck oxygen system.	Yes □ No □ N/A □	

Part 7

DEFICIENCIES AND RECOMMENDATIONS: (MAKE REFERENCE TO APPROPRIATE PARTS)		
Part	Remarks	
Action by [State] Office (e.g. “Approved”)	Initials of Responsible Person in [State] Office:	
State Cabin Safety Inspector's Name	Signature	Date
Director, Civil Aviation Review:		
Specialist's Name	Signature	Date

Chapter 16

SCENARIO-BASED TRAINING

16.1 GENERAL

16.1.1 Human error does not happen in isolation; scenario-based training allows the operator to simulate realistic cabin conditions where errors may occur. Investigations have shown that accidents are rarely the result of a single point of failure in the system which result from a chain of events. Scenario-based training allows trainees the opportunity to look at specific situations under certain factors and aims to recreate, to the extent possible, those conditions and situations that cabin crew members could encounter on the line. This allows them to apply knowledge and skills in the context of performing their actual tasks.

16.1.2 Scenario-based training also allows the operator to integrate competency development and assessment into the exercise. A scenario also allows the operator to assess how crew members perform as a team versus individuals. For example, a firefighting simulation can be used to assess a cabin crew member's performance in the use of firefighting equipment but it can also serve as a means to evaluate how they communicate and work as part of a team (i.e. a specific competency). Providing realistic training builds cabin crew members' confidence and better prepares them for the challenges they will face on the line.

16.1.3 The operator should utilize its own occurrences to build scenarios, if possible, and have an SMS in place to identify hazards to support a data-driven approach to the development of training. In the event that no significant events have taken place in recent years, the operator should look to occurrences from other operators as an alternative. Consideration should be given to the following:

a) operators that have the same or similar aircraft types in their fleets;

b) location of the occurrence (i.e. did the incident occur on a route/at a destination that the operator also operates?);

c) type of operation (e.g. charter flights, aeromedical flights, etc.); and

d) significance of the event.

16.1.4 As part of the scenario development, the operator should define key elements:

a) objectives of the exercise;

b) location of the training;

c) all training aids required during the scenario;

d) conditions of the scenario which will be communicated to trainees;

e) participation in the scenario;

f) trigger(s) of the scenario; and

g) distracter(s) which will be included in the scenario to increase its complexity.

16.1.5 Sections 16.2 to 16.7 present detailed guidance on the points noted above.

16.1.6 The operator should incorporate cabin crew competencies, which will be practiced or assessed, in order to address CRM as part of the exercise. These should not be assessed as standalone items in training but rather embedded in the scenario. Trainees will apply concepts learned in CRM training, in the context of performing their assigned tasks. As part of the scenario, the operator should capture different roles (e.g. flight crew members, persons acting as passengers).

16.1.7 The training programme content should include clear guidance for instructors and/or evaluators taking part in the scenario. The operator should also conduct a trial of the scenario prior to implementing it.

16.2 DEFINING THE OBJECTIVES

16.2.1 The objective(s) encompass what will be trained or assessed during the scenario. Objectives include, but are not limited to:

a) applying the operator's procedures;

b) operating specific pieces of equipment or systems;

c) applying specific competencies (e.g. communication, team work, etc.); and

d) demonstrating an understanding of the operations manual (e.g. use of emergency checklists in preparing the cabin for an emergency landing).

16.2.2 If all of the above are selected, the operator's scenario should be developed in a manner that results in all of these points occurring during the exercise. Cabin crew members (trainees) taking part in the scenario would then need to:

a) apply specific procedures;

b) operate certain pieces of equipment;

c) use certain checklists; and

d) apply specific competencies

16.2.3 This enables the instructors and evaluators to assess if the cabin crew members meet the pre-defined objectives and the associated performance criteria.

16.2.4 A single scenario can be developed to evaluate multiple items (e.g. firefighting and injury treatment), to a certain extent. The operator should avoid overloading the scenario with too many objectives, as they may render the exercise difficult to execute and assess.

16.3 DEFINING THE LOCATION

16.3.1 Once the objectives of the scenario have been defined, the operator needs to decide where the exercise will take place.

— Can the scenario be executed in a classroom?

— Does it involve hands-on exercise?

— Will it be a simulated exercise in a cabin training device?

— Will it take place on board an actual aircraft?

16.3.2 The operator should select the preferred training media to execute the scenario. The operator's facilities should be considered to ensure an equivalent standard of delivery in any simulated environment, including:

a) training aids; and

b) training devices.

16.3.3 In addition, the operator should establish contingency plan(s), in case cabin training devices become inoperative, to prevent rescheduling training sessions.

Note.— Further information regarding representative training devices can be found in Chapter 15.

16.4 USE OF TRAINING AIDS

16.4.1 The operator should create lists of all the training aids required for the exercise. Training aids include, but are not limited to:

a) safety and emergency equipment;

b) props (e.g. portable smoke simulator, infant dolls);

c) briefing cards; and

d) service equipment.

16.4.2 As the operator can only build scenarios based on available training aids, such aids need to be consistent and reliable.

16.4.3 The operator should ensure that all the necessary training aids are available and functional prior to commencing the exercise. For example, instructors should distribute samples of emergency checklists to participants if the scenario will involve an anticipated emergency landing event where the cabin crew will need to use the checklists. A lack of training aids during the exercise can result in trainee confusion, and have a negative effect on the training. (e.g. is equipment that should be in cabin training device purposely missing?). Instructors and evaluators should reset the equipment and systems after the exercise to ensure they remain available for subsequent exercises.

16.5 DEFINING CONDITIONS OF THE SCENARIO

16.5.1 The operator should define applicable conditions for the scenario and produce an outline of conditions including:

a) the aircraft type in which the scenario is taking place;

b) route (departure and destination cities);

c) assigned crew positions; and

d) phase of flight at the time the simulation begins.

16.5.2 A description of the flight should be provided to the trainees prior to commencing the exercise, in order to set the scene (e.g. this scenario is on wide body aircraft flying from A to B, three hours into the flight, cabin crew are in aisle picking up after a meal service when the exercise begins).

16.5.3 Training device and aids should support conditions to provide a realistic environment for trainees. This attention to detail provides context so that the scenario make sense (e.g. if the occurrence is during cruise, aircraft doors are closed and armed).
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16.5.4 The conditions at the beginning of the scenario are the only information that should be shared with the trainees. They should not be informed of the rest of the scenario (e.g. the instructor should not start the scenario by telling the trainees that there will be a decompression, or a lavatory fire during the exercise).

16.5.5 The element of surprise is meant to create a realistic scenario; in normal line operations, crew members will be confronted with unexpected situations and will need to react accordingly.

16.6 DETERMINING PARTICIPATION

16.6.1 When designing the scenario, the operator should decide how many trainees can actively participate in the exercise. Active participants are trainees which act as operating cabin crew members in the scenario. Passive participants may act as passengers or observers of the exercise.

16.6.2 Active participants should have clear tasks to accomplish (e.g. one cabin crew member flights the fire, another communicates with the flight crew members, the third provides additional fire extinguishers and manages the passengers.). There should be a comparable amount of activity for each trainee to create a fair amount of work for each active participant and avoid overloading some participants.

16.6.3 Class size should be considered when developing a scenario. Scenarios should match its typical minimum crew requirements for the aircraft in its fleet and consider how many people are needed to support the scenario (e.g. if the operator’s firefighting procedure requires three cabin crew members, a firefighting scenario should involve a minimum of three active participants).

16.7 DEFINING TRIGGERS AND DISTRACTERS

16.7.1 A trigger is the method by which the scenario begins (e.g. a “passenger” alerts the cabin crew of another passenger being ill).

16.7.2 A distracter is a role assumed by a “passenger” in the scenario. Their role is to distract the trainees acting as cabin crew members from performing specific tasks (e.g. a passenger is concerned over missing connection due to medical diversion and becomes unruly). The operator should not incorporate excessive or multiple-related variable distracters in order to create realistic training scenarios without overloading the trainee.

16.7.3 Distracters can allow for increased workload and a better distribution of tasks among trainees. Distracters allow the operator to combine occurrences (e.g. in-flight smoke and anxious “passengers” due to it). They also allow for additional tasks: a set of trainees fight fire, while another manages anxious passengers. Therefore, the operator can cover more than one topic in exercise.

16.7.4 Consistency is needed for both triggers and distracters. The instructor or trainee selected to act in the scenario should know what to do and when to do it. Triggers should be very specific as they define what happens and when. For example, if a trainee playing the passenger is expected to shout “fire” at a specific moment in the scenario, the operator should ensure that each of the trainees playing that role, across the multiple times the scenario will be executed, do it at approximately the same moment. Triggers should require cabin crew members to take specific actions (e.g. smoke coming from the lavatory should prompt the trainees to begin firefighting procedures). Consistency of triggers is important to prompt the same response when the scenario is repeated with different participants.

16.7.5 If the scenario involves a medical situation, for example, and the trainee acting as the ill passenger needs to describe symptoms to the cabin crew members, the same symptoms should be described every time the scenario is executed. Therefore, clear instructions should be provided for each participant playing a role. The operator may use cue cards with information (e.g. list the symptoms that must be described to the crew member) or conduct side briefings prior to each exercise to ensure the participants understand their role. Such standardization is needed to ensure consistency for scenarios which are carried out multiple times, with different groups of trainees, so that every trainee’s performance can be observed and assessed under the same conditions.

16.8 TRIALLING A SCENARIO

To find and avoid potential problems, the operator should conduct a trial of the scenario, prior to implementing it into the training programme,. The scenario may be too complex or participants may have difficulty understanding triggers or distracters. For the trial, the operator should obtain cabin crew volunteers to run through the scenario. Trials allow the operator to determine potential improvements or modification which should be made to the scenario before it is implemented into the training programme.

16.9 LENGTH OF A SCENARIO

16.9.1 The time dedicated to a scenario is dependent on the time needed by the cabin crew members to carry out the specific tasks which are being trained or assessed. A scenario may last 10 to 15 minutes, some scenarios may require more time, based on the activities that should be carried out by the crew members (e.g. preparing the cabin for a ditching). In addition to the time allocated for the scenario itself, sufficient time should be allocated for setting up the scenario. During this time, participants should be given the opportunity to conduct a walk around in the cabin training device or aircraft to familiarize themselves with the environment. Sufficient time should also be allocated for debriefing the scenario (see Chapter 17, 17.4.5).

16.9.2 An example of a scenario is presented in the appendix to this chapter, which includes a case study of a fictitious operator introducing scenario-based training for its cabin crew members.

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Appendix to Chapter 16

EXAMPLE OF A SCENARIO DEVELOPMENT

1. INTRODUCTION OF THE CASE STUDY

1.1 An operator conducts scheduled passenger flights on both domestic and international routes. The operator's fleet is composed of Airbus A320 and Boeing B737-700 aircraft. Both aircraft types are operated with a minimum of four cabin crew members.

1.2 The operator has two training facilities in two different cities: one in City A and one in City B. The training facility in City A is equipped with an emergency evacuation training device capable of simulating smoke and motion, as well as a static cabin training device without smoke simulating capabilities. The training facility in City B is equipped with a static cabin training device, without smoke simulating capabilities and a classroom equipped with some rows of aircraft seats and mock-up parts of aircraft galleys. Both facilities are equipped with portable smoke generators.

1.3 The operator is transitioning to competency-based training and assessment and will include scenario-based training during recurrent training next year. The class size will be 20 trainees. The training department has been tasked with developing a firefighting scenario to complement classroom and computer-based training. The following sections present the scenario which was developed.

2. USE OF THIS MANUAL

2.1 Chapter 5, 5.5.1 presents a task list related to firefighting. The following is an excerpt from that chapter:

Task: Apply fire-fighting procedure

Sub-tasks:

1.1.1 Detect and eliminate fire hazards
1.1.2 Locate source of smoke/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

2.2 The course developer can use tasks and sub-tasks presented in Chapter 5, 5.5.1 to develop the scenario's objectives (as shown in section 4).

3. SCENARIO DESCRIPTION

3.1 For a firefighting scenario, the following description was produced: three hours into a flight from City A to City B, as the cabin crew members are picking up after the meal service a passenger alerts them of smoke coming from the lavatory and smoke seeping out the door. The cabin crew members will have to respond to the situation and also manage an unruly passenger who is intoxicated and demanding more alcohol, unaware of the situation. The scenario description should only be available to the training team, not the trainees.

3.2 The trainees will only be informed of the following points regarding the conditions of the scenario, prior to commencing the exercise: “You are operating a flight on this A320, from City A to City B. When we begin the scenario, you will be three hours into the flight and in the process of picking up after the meal service”. They will not be made aware of what will happen afterwards.

4. SUMMARY TABLE

4.1 The course developer should produce a summary table, for use by the instructors and evaluators, which summarizes the key elements of the scenario (refer to Chapter 16, 16.1.4). Table A-1 presents the summary table for the firefighting scenario, which includes all the key elements for the exercise.

Table A-1. Example of a table summarizing the key elements of the firefighting scenario

Objectives	Perform the following sub-tasks related to the task of firefighting: 1.1.2 Locate source of smoke/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 1.1.6 Fight fire 1.1.7 Manage passengers and cabin, as required Apply the following competencies when dealing with the in-flight fire: a) communication; and b) leadership and teamwork.
Location	Static cabin training devices (at both centres).
Training aids	— Portable smoke generator — Sound that simulates the lavatory alarm — Red flashing light that simulates fire — Extinguishers — Portable breathing equipment (PBE) — Cloths — Restraint devices — Service cart — Meal trays and plastic cups

Conditions of the scenario	— Narrow-body aircraft — Three hours into the flight — Cabin crew members are in the aisle picking up after the meal service
Participation	— Four trainees will be assigned as operating cabin crew members — All other trainees act as passengers, including two trainees in the role of passengers that will create the trigger and the distractor.
Triggers	Passenger (other trainee) alerts crew member to smoke coming from aft lavatory.
Distracters	Passenger (other trainee) distracts cabin crew from performing fire-fighting procedures because they are intoxicated after meal service and have been refused more alcohol (and becomes unruly).

4.2 When developing the objectives, not all the sub-tasks related to the task need to be included in the scenario. Some sub-tasks may be trained separately, if the scenario can be successfully completed without them, or without sacrificing the realism of the situation. For the purpose of this example, the course developer chooses sub-tasks 1.1.2 through 1.1.7 from the firefighting task list for the scenario. The sub-task 1.19, complete the applicable documentation, was excluded from the objectives, as this can be trained in a classroom setting, and does not require the use of a cabin training device. In addition to the sub-tasks, two competencies were also selected to be observed during the execution of the tasks (refer to the Appendix to Chapter 2).

4.3 As cabin crew are based in both cities, the decision was made to hold the scenario-based training sessions at both of the operator's training facilities. In order to create a fair training environment across its facilities and to ensure consistency in the delivery of the simulated exercises, the static cabin training devices were chosen. These are available at both centres and the portable smoke generators can be used to create the smoke which will seep out of the lavatory during the exercise. Although one of the facilities has an emergency evacuation training device capable of simulating motion, this particular feature is not needed for the scenario (i.e. no turbulence is planned to be included). Therefore, the static training device is considered adequate as it is supplemented with the smoke generator.

4.4 A list of training aids is included in the summary table. The items include safety and emergency equipment that cabin crew members should use to respond to the situation. Restraint devices are included in case the cabin crew members need to restrain the trainee acting as an "unruly passenger". Items in the list also include service articles that are used to create a realistic scenario, such as meal trays and a service cart, since the scenario begins with the cabin crew members picking up the cabin after the meal service. Other items in the list include the portable smoke generator that will be needed to simulate a smoke-filled environment, as well as cloths that cabin crew members may distribute to passengers to cover nose and mouth (as specified in the task list standard).

4.5 The conditions of the scenario contain the limited information that will be communicated to the trainees, based on the scenario description. Triggers and distractors are also presented in the table and should only be known to the instructor and evaluator and the trainees selected to act out one of the roles in the scenario, if applicable (e.g. the unruly passenger).

5. DETAILS OF THE SCENARIO

5.1 In addition to the summary table, the course developer should produce a list of details for the specific scenario. This list includes, but is not limited to, the following:

a) trainees' assigned positions in the cabin training device;

b) how tasks are expected to be distributed amongst the active participants (participants should not be pre-assigned a role, such as “firefighter” by the instructor. It is expected that trainees will naturally assume the roles based on their knowledge of the operator’s procedure, for example “the person who finds the fire fights the fire”);

c) the number and role (e.g. observing, acting as a flight crew member) of the instructors that will participate in the scenario; and

d) a detailed description of triggers and distractors (refer to sections 6 and 7, respectively).

5.2 For the sample firefighting scenario, the course developer produced the following details regarding the scenario, as presented in Table A-2.

Table A-2. Example of details of the firefighting scenario

Positions of the cabin crew members (to be assigned by the instructor)	— One trainee as the in-charge cabin crew member (in the forward part of the cabin) — Two trainees as cabin crew members in forward part of cabin, on either side of the service cart — One trainee as a cabin crew member in the rear part of the cabin (“galley” area)
Expected distribution of tasks amongst the active participants	— One firefighter — One communicator — One helper — One to manage the unruly passenger and the cabin
Number and role of the instructors in the scenario	— Two instructors in total, both assessing the trainees: 1) one instructor in the forward cabin; and 2) the other near the aft lavatory (where the fire will take place).

6. TRIGGER

For the sample firefighting scenario, the course developer produced the following details regarding the trigger, as presented in Table A-3.

Table A-3. Example of details for the trigger of the firefighting scenario

Trigger	A passenger alerts the cabin crew of smoke/fire in the aft lavatory.
Who is it assigned to?	A trainee (selected by the instructor).
How will it occur in the scenario?	The trainee acting as passenger will stand up suddenly and shout “Fire!”.

When will it occur in the scenario?	When cabin crew are still picking up after the meal service and the service cart is in the aisle (smoke will begin to seep out of the aft lavatory, activated by an instructor).
What is the desired cabin crew response?	— Cabin crew members will respond to smoke by initiating the firefighting procedure — They will apply relevant procedures and the use appropriate equipment *Note.— Specifics of lavatory firefighting should be noted by the instructors (e.g. cabin crew members should not fully open the lavatory door).* — One cabin crew member will manage the cabin and passengers while the others respond to the fire
How will the consistency of the trigger be guaranteed when the scenario is repeated by other trainees?	The trainee playing the role of the alerting passenger will be briefed separately by an instructor, away from others, prior to commencement of the scenario.

7. DISTRACTOR

For the sample firefighting scenario, the course developer produced the following details regarding the distractor, as presented in Table A-4.

Table A-4. Example of details for the distractor of the firefighting scenario

Distractor	An unruly, intoxicated passenger interferes with cabin crew members as they try to carry out the firefighting procedure.
Who is it assigned to?	A trainee (selected by the instructor).
How will it occur in the scenario?	The trainee acting as the unruly passenger will stand up and distract the cabin crew members, shout and become unruly.
When will it occur in the scenario?	When the cabin crew members have begun the firefighting procedure and are attempting to move in the aisle, the “passenger” will get up and start to argue with the cabin crew member that is attending to passengers (distributing wet cloths) and block the aisle.
What is the desired crew response?	— One cabin crew member will manage the unruly passenger — The other three should not be distracted and should continue to focus on the fire — They will only join the other cabin crew member who is dealing with the unruly passenger once the fire is extinguished

How will the consistency of the distractor be guaranteed when the scenario is repeated by other trainees?	— The trainee playing the role of the unruly passenger will be briefed separately by an instructor, away from others, and given verbal instructions on what to say and when — The trainee will be handed a cue card explaining language to use, how far to escalate and when to stop acting unruly

Chapter 17

TRANSITIONING FROM TRADITIONAL TO COMPETENCY-BASED ASSESSMENTS

17.1 HOW TO ESTABLISH A RATING SCALE

17.1.1 The operator needs to identify a rating methodology to grade crew member performance. Criteria should be defined in the adapted competency model to include performance criteria for cabin crew members, as well as the task list standards. When developing a rating scale, the operator should consider the following points:

a) the criticality of cabin crew members' actions and inactions, including errors;

b) the impact of the above on the safety of flight; and

c) the final outcome(s) of the event.

17.1.2 For example, if a trainee does not use the exact wording of shouted commands during an evacuation simulation, this could be considered an instant fail in traditional training. However, in competency-based training, the evaluator should look at the criticality of the action (i.e. did the cabin crew manage to evacuate the aircraft? Did their error have a direct impact on the safety of occupants on board?). These aspects should be considered when assessing the trainee's performance.

17.1.3 Figure 17-1 presents a sample rating scale, from the FAA. It presents a five-point scale where a score of "3" is considered the passing grade. However, the score of 3 requires that the trainee be debriefed by the instructor or evaluator to attain the expected standard. Scores of 1 and 2 are considered failures. Scores 4 and 5 are considered passing grades which do not require an individual debriefing to correct any issues. This example should not be taken as limiting possible intervals to a five-point scale. With appropriate scale construction and instructor and evaluator training, the operator may elect to define other scales that maximize the quality (sensitivity, reliability, validity) of the collected data.

17.1.4 As part of the assessment tools, the operator should define the terminology used in the criteria of the rating scale. For example, in the criteria associated with a grade of four (i.e., satisfactory), presented in Figure 17-1, the operator should establish clear definitions for the following:

a) What is considered a "minor deviation"?

b) What is a "timely manner"?

c) How to observe that skills are "clearly effective"?

Grade		*Criteria*
1	Unsatisfactory	Major deviations from the prescribed qualification standards occur that are not recognized or corrected. Individual or crew performance could result in hull loss or loss of life. CRM skills are not effective.
2	Below standard	Deviations from the prescribed qualification standards occur that are not recognized or corrected. Individual or crew performance is safe but would be unsatisfactory if diminished by any amount. CRM skills are not completely effective.
3	Standard with debrief	Deviations occur from the prescribed qualification standards that are recognized and most corrected. Individual or crew performance meets expectations. CRM skills are effective.
4	Standard	Minor deviations occur from the prescribed qualification standards that are recognized and corrected in a timely manner. Individual or crew performance meets expectations. CRM skills are clearly effective.
5	Excellent	Performance remains well within the prescribed qualification standards. Individual or crew performance, management and CRM skills are exemplary.

Figure 17-1. Sample rating scale (source: FAA AC 120-54a)

17.1.5 Clear guidance needs to be developed for instructors and evaluators when applying the rating scale for the consistency of assessments. The operator should also incorporate specific evidence (observable behaviours) on trainees' performance that the evaluator should be gathering as part of the assessment. This includes parameters within definitions, and examples specific to the scenario to be assessed (e.g. firefighting).

17.2 HOW TO ESTABLISH SUCCESS CRITERIA

17.2.1 In addition to the rating scale, the operator should establish specific success criteria for the scenarios conducted during training. These should be based on:

a) the performance criteria related to each specific competency being assessed; and

b) the tasks, which are part of the objectives of the exercise.

17.2.2 Evidence used to assess competencies and tasks may be gathered in separate forms or combined under a single criterion (as in the example in Figure 17-1). This manual contains examples of performance criteria associated with the competencies defined in the ICAO competency framework for cabin crew members. The manual also provides guidance for the development of success criteria associated with the recommended cabin crew member task lists.

17.3 THE ROLE OF INSTRUCTORS AND EVALUATORS

17.3.1 Competency-based training and assessment require an increased number of instructors and evaluators. As noted in Chapter 16, several aspects are required to execute a scenario (e.g. triggers, distracters, training aids, etc.). In scenario-based training, some instructors may play specific roles (e.g. "the captain"), while the evaluators may be in cabin assessing trainees. As part of its training programme, the operator should develop guidance for its instructors and evaluators. A competency-based approach requires extensive initial and recurrent training for instructors and evaluators, so that they may carry out their tasks. Guidance material developed by the operator should include instructions on how to facilitate scenarios, to obtain consistency across all the instructors/evaluators.

17.3.2 Training for instructors and evaluators should include, but not be limited to, the following:

a) conducting briefings;

b) executing scenarios (see Chapter 16);

c) conducting assessments;

d) standardization and reliability; and

e) conducting debriefings.

17.3.3 Conducting briefings

The instructor and evaluator should set up the scenario with a briefing. The briefing is needed to set the scene for the "flight" and to prepare the trainees portraying the role of distractor and trigger. It also provides the trainees with an opportunity to familiarize themselves with the training environment (e.g. walk around the cabin training device).

17.3.4 Conducting assessments

17.3.4.1 Reliability is needed to ensure consistency in assessments conducted by evaluators. When evaluators use an assessment tool, a process should be in place to ensure the following:

a) *intra-evaluator reliability* – consistency or stability of results given by a single evaluator to same performances at different moments in time; and

b) *inter-evaluator reliability* – consistency or stability of results between different evaluators.

Note.— Evaluators need to be calibrated on how they interpret criteria, to ensure consistency.

17.3.4.2 When developing assessment tools, the operator should consider the following aspects, as a minimum:

a) How many instructors and evaluators are needed to brief and assess the scenario? This is related to the number of trainees active in scenario.

b) What can the instructors and evaluators see? Is their view obstructed in the cabin training device (e.g. due to a monument)?

c) What can each instructor and evaluator assess (e.g. number of competencies to be assessed in a single scenario)?

17.3.4.3 When deciding whether to assess trainees as individuals or as a crew, the operator should consider the impact of the trainees actions and inactions on the safety of flight (e.g. did the cabin crew act incorrectly as a crew? Was the issue related to a specific crew member?). The differing levels of participation expected during a scenario (i.e. some trainees may be very active while others do not participate significantly) should be considered. Guidance for instructors and evaluators should address the issue of individual versus team assessments and criteria used for decision making on the matter.

17.3.4.4 While scenario-based training may be used to assess trainees as individuals or as a crew, it may not be possible for each trainee to execute all sub-tasks related to a task, or demonstrate all competencies during a single scenario. For example, in a firefighting scenario, such as the one presented in the Appendix to Chapter 16, one trainee may act as the firefighter while two others take on the roles of communicator and helper, respectively. Therefore, in order to determine whether or not the acceptable level of performance in the role of a firefighter has been achieved by all three trainees, for example, the operator may need to complement the scenario-based training with other modes of delivery (e.g. a standalone, hands-on exercise on extinguishing a fire). All trainees should demonstrate that they meet the established competency standards, regardless of individual or team exercises. The operator should use a combination of training media (classroom, digital learning, etc.) to generate evidence that an instructor or an evaluator can use to determine whether an individual trainee meets the requirements of each competency standard.

17.3.5 Conducting debriefings

17.3.5.1 Regardless of the outcome of a scenario and the performance of the trainees which participated in it, the operator should require the instructor or evaluator to conduct a debriefing with all the participants. A debriefing allows participants to recognize and understand their performance and that of the other trainees acting as cabin crew members in the exercise. A debriefing provides the trainee with a self-assessment opportunity. It allows the trainee to learn from their own experience and recognize errors without the need for the instructor or evaluator to point them out. A debriefing provides a forum for correcting minor deviations (e.g. a review of the firefighting technique by the instructor if it was an issue for some of the trainees during the exercise). In a dynamic environment, such as a simulated exercise, trainees may not know what others were doing at certain times during the scenario. For example, one or two trainees may be applying first aid while three others fight a fire. During the debriefing, all trainees can obtain the missing pieces, which they did not witness due to the division of tasks. The operator should include the following points in each debriefing, as a minimum:

a) summarize what occurred;

b) discuss how the entire crew performed (including flight crew members, if it is a joint exercise):

    1) including from a CRM perspective (the application of competencies); and

    2) address both positive and negative aspects of performance;

c) assessment participants as in a crew context versus individual trainees:

    1) including the level of participation by individual trainees;

d) allow participants the opportunity to discuss what they would have done differently if the scenario was to be repeated; and

e) allow for questions from participants and facilitate a discussion on the issues raised.

17.3.5.2 An example of an assessment of a scenario is presented in the appendix. The example is a continuation of the case study presented in the Appendix to Chapter 16.

17.3.6 Implementing remediation actions

17.3.6.1 As part of the assessment plan, the operator should establish a process to diagnose deficiencies and provide remediation to trainees, in a timely manner. This process should be acceptable to the State. The plan for remediation is a key part of the process to obtain competent trainees.

17.3.6.2 In a competency-based training and assessment programme, the instructor (or evaluator for final summative assessments) is responsible for making a determination of the actual standards attained by each trainee and any recommendation for immediate remediation, if necessary. As part of the transition to a competency-based training and assessment approach, the operator should verify that cabin crew instructors and evaluators are qualified, competent in executing scenarios, and possess the ability to make accurate assessments and recommendations for remediation, whenever necessary (refer to Chapter 14). The operator should verify that remediation actions are taken, if in-training or post-training evaluation indicates a need to do so.

17.3.6.3 An appropriate remediation action is one that addresses the cause of the trainee's failure to meet the competency standard (e.g. failure to communicate in a timely manner, incorrect application of knowledge related a procedure or a piece of equipment). An appropriate remediation action should result in the trainee's achievement of desired level of performance, as defined by the operator. In order to achieve this result, the instructor or evaluator should use training media or strategy best suited to address the cause of the trainee's sub-standard performance (e.g. hands-on exercise, coaching).

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Appendix to Chapter 17

EXAMPLE OF A SCENARIO ASSESSMENT

1. INTRODUCTION

As part of the development of competency-based training and assessment for cabin crew recurrent, the operator's training department has the task to develop guidance to assess the training scenario presented in the Appendix to Chapter 16.

2. EXAMPLE OF A RATING SCALE FOR A COMPETENCY

One of the cabin crew competencies included in the scenario presented in the Appendix to Chapter 16 was selected: communication. Based on the rating scale presented in Figure 17-1, criteria was developed for each of the grades in the scale, specific to the competency of communication. The criteria includes evidence that the evaluator should identify (observable behaviours) and clearly defined terms (e.g. what constitutes exemplary communication in the scenario?). The Appendix to Chapter 2 contains observable behaviours for cabin crew member competencies and was used as the basis for the performance criteria. The conditions related to the performance criteria were defined in the scenario (e.g. smoke-filled cabin). The final competency standard uses a 1 to 5 scale (refer to Table A-1).

Table A-1. Example of a rating scale for the communication competency

Grade		**Performance Criteria**
1	Unsatisfactory	— Lack of ability to relay information or to accurately answer queries.
2	Below standard	— Is hesitant in delivery of speech — Delays in answering queries — Uses inaccurate information given — Uses incorrect terminology
3	Standard with debrief	— Is confident in delivery of speech — Correct terminology as per standards — Some details require clarification — Conveys message adequately with some details missing
4	Standard	— Is confident in delivery of speech — Uses correct terminology as per operator standards — Some details require clarification — Conveys message effectively

5	Excellent	— Uses concise, specific terminology. — Transmits all details accurately — Conveys message without clarifications required — Pro-actively communicates with others

3. EXAMPLE OF A RATING SCALE FOR A TASK OR SUB-TASK

One of the objectives included in the scenario presented in the Appendix to Chapter 16 was selected: sub-task 1.1.5, use of appropriate fire-fighting equipment and protective equipment. A task list standard related to this objective is the use of a portable extinguisher. Based on the rating scale presented in Figure 17-1, criteria, specific to the operation of the extinguisher, was developed for each of the grades in the scale. The criteria includes evidence that the evaluator should identify (observable actions related to the sub-task) and clearly defined terms (e.g. what constitutes a “major deviation” in the scenario?). Chapter 5, 5.5.1.4 contains task list standards for the cabin crew member firefighting task and was used as the basis for the performance criteria. The conditions related to the performance criteria were defined in the scenario (e.g. smoke-filled cabin). The final competency standard uses a 1 to 5 scale (refer to Table A-2).

Table A-2. Example of a rating scale for the sub-task related to the operation of a portable fire extinguisher

Grade		*Performance Criteria*
1	Unsatisfactory	— Major deviations from SOPs — Extinguisher not initially located — Incorrect operation of the extinguisher leading to an undesired aircraft state (smoke and fire intensify)
2	Below standard	— Difficulty in locating the extinguisher — Deviations in the use of the extinguisher are recognized but operation is not effective, whereby the situation has worsened — Undesired aircraft state (smoke and fire intensify)
3	Standard with debrief	— Minor deviations in the use of the extinguisher occur — Initially incorrect operation of the extinguisher, mistakes recognized and most of the deviations are self-corrected — Used within an appropriate timeframe with some hesitation, whereby the situation has been managed effectively
4	Standard	— Minor deviations in the use of the extinguisher occur — Initially incorrect operation of the extinguisher, mistakes recognized and all of the deviations are self-corrected — Used within an appropriate timeframe, whereby the situation has been managed effectively
5	Excellent	— Confident operation of the fire extinguisher with no deviations observed — Situation managed in a time-efficient manner

— END —

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