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# **FLIGHT ATTENDANT TRAINING STANDARD**

**Revision 5 – April 15, 2005**

**COMMERCIAL AND BUSINESS AVIATION**

**Canada**

**OWNER'S NAME:**

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**INTRODUCTION**

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**(1) INTRODUCTION**

This training standard outlines the minimum requirements for compliance with the regulations respecting the use of aircraft in airline operations, and contains three components:

- a) TRAINING SYLLABUS – Identifies the main subjects required for Initial, Annual, Aircraft Type, and Requalification Training.
- b) PROGRAM CONTENT – Specifies the training objective, scope, specific information associated with each of the subjects; and the practical drills which must be completed.
- c) SCHEDULE A – AIRCRAFT EXIT COMPATIBILITY GROUPS – Identifies exits by aircraft type, and where applicable, identifies a compatible alternative for that exit.

When developing training programs for regulatory approval, the air operator shall incorporate the components from this standard, which are applicable to their operation (*e.g. aircraft type, model, series operated; applicable regulatory requirements/standards; safety and emergency equipment carried etc.*).

**Note:** *Optional items, guidance information, recommended practices, explanations, and other information items will in all cases be italicized and where applicable, be shown in an enclosed box. These items do not form part of the standard, but provide additional information for the assistance of users of this standard.*

Information published in an air operator's Flight Attendant Training Program may be organized in a different order than presented in this Standard, however, the air operator must provide a detailed index/cross reference

**(2) PROGRAM OVERVIEW**

- a) INITIAL TRAINING – The contents of Parts One to Six reflect minimum criteria and are intended to ensure that each trainee is provided with the knowledge necessary to fulfill the responsibilities and duties assigned in the interest of safety. This will primarily be accomplished through instruction. The contents of Part Seven, Drills, reflect minimum criteria for equipment, performance and evaluation and are intended to provide the trainee with the skills necessary to perform their responsibilities and duties.
- b) ANNUAL TRAINING – Designed to focus more upon the verification of the crew member's knowledge and skills than upon instruction and has been developed with three objectives:
  - i. Verification of knowledge;
  - ii. Instruction relating to new safety/emergency equipment and procedures, and air operator accident/incident review (Part Five);
  - iii. Verification of skills (Part Seven).

Parts One through Six, with the exception of Part Five, contain the training objectives, which define the scope of knowledge that shall be verified either by examination, or by other approved equivalent means. Part Five does not require a verification of knowledge. Part Seven specifies the drills that shall be conducted and identifies the minimum criteria for equipment, performance and evaluation associated with the skills that shall be verified.

As Annual Training focuses upon the verification of knowledge and skills, an examination or drill failure indicates a lack of knowledge or skill that will need to be reinforced through instruction before a crew member re-writes an examination or repeats a drill.

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- c) REQUALIFICATION TRAINING – Designed to ensure that the trainee, who is returning to work following an absence during which qualifications lapsed, receives sufficient instruction to enable qualifications to be regained by successful completion of annual training. This will encompass:
- Verification of, and/or review or instruction and practice (where necessary) of those subjects which are required requalification training program content and which will not be included in the annual training;
  - Update on company's operating policy and procedures, company operations manual, flight attendant manual, and pre-flight safety responsibilities; and
  - Equipment and procedures training for any equipment or operational procedures introduced by the air operator during the term of absence.

The required subject content for requalification training is based upon initial training subject matter content; however, the air operator has some flexibility regarding the scope of the material covered. Using the initial training subject matter content as a base level, the onus is on the air operator to ensure that the trainee has sufficient knowledge and skills levels to enable the regaining of qualifications through successful completion of annual training.

**Note 1:** *This process may require the air operator to consult with the trainee with respect to the trainee's specific training needs.*

**Note 2:** *Requalification training is never given in isolation. It is always followed by attendance at the annual training.*

d) STRUCTURE OF STANDARD

Following each training objective is a list of subject areas (or scope of knowledge) with associated information points which constitutes the minimum core content of information that shall be incorporated into the respective program, where applicable to the air operator's operation, in order to attain the prescribed objective.

During Initial Training, the air operator shall verify the trainee's/flight attendant's knowledge or skill based upon at least this minimum core content.

During each subsequent Annual Training, the air operator is expected to verify knowledge in each of the subject areas, not necessarily each of the information points. Knowledge verification by written exam or other approved equivalent means, in each of the subject areas, shall vary from year to year.

*An operator may verify knowledge aspects during the conduct of a Line Check.*

Details of any portion of knowledge verification, which is completed during a Line Check, shall be reflected on an individual's record of training. Details of any drill performed by an individual prior to an operational flight, shall be reflected on an individual's record of training.



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*Verification of Knowledge – The intent of Initial Training is to ensure that each trainee is provided with the knowledge necessary to fulfill his or her responsibilities. Thus, verification that the knowledge has been assimilated is an integral component of Initial Training.*

*During Initial Training, knowledge may be verified on an on-going basis by means of tests, oral quizzes, instructor questioning, as well as the formal examinations. Numerous teaching points may be verified through the trainee's performance during drills, through instructor questions, and from trainee's questions. Many lesson plans include a review of the subject matter at the end of a presentation. Provided the training program incorporates such a mechanism to verify each information point during the conduct of the training, the formal examination need only verify each subject area.*

*While the purpose of verification during Initial Training is to ensure that the trainee has assimilated the knowledge and skills necessary to perform their responsibilities, the purpose of verification during Annual Training is to ensure that the flight attendant has retained the knowledge and skills since their last training session. The means by which the knowledge and skills are verified may therefore need to be different. The verification means during Annual Training must be auditable.*

## e) DEVELOPMENT

*Training program instruction may be developed and delivered using teaching methods such as: demonstrations, classroom lectures, computer based training (CBT); audio-visual presentations, or other methods devised by the air operator provided that the method(s) used ensures that each trainee or crew member is adequately trained in accordance with the standard. Training programs may be organized in a different order than that presented in this standard and drills may be combined (e.g. life preserver drill, life raft drill and ditching drill).*

*Documents such as the Canadian Aviation Regulations (CARs), Commercial and Business Aviation Advisory Circulars (CBAACs), Aeronautical Information Publications (AIPs), Minimum Equipment List (MELs), etc. may be referenced to assist in gathering information for the development of training programs.*

## f) SAFETY

Training that involves safety and emergency drills shall be as realistic as possible; however, there are potential dangers associated with these aspects of training. Air operators shall take into account the potential for injury during training and apply appropriate safeguards to minimize this risk.

## g) REGULATORY APPROVAL

Air operator crew member training programs require regulatory approval by the Minister of Transport in accordance with Canadian Aviation Regulation (CAR) 705.124. To obtain regulatory approval of an Initial, Annual, Aircraft Type, or Requalification Flight Attendant Training program, or a revision to an approved program, an air operator shall submit the program to the Minister. Ministerial approval will be granted provided it meets with the requirements of this standard. Once approval has been issued, the program or revision can be implemented.

## (3) APPLICABILITY

- a) Initial Training is required for persons who have not been previously employed by the air operator as a flight attendant and for those whose annual training validity has expired for the periods shown in the requalification requirements in (4) below.

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- b) Line Indoctrination shall be completed within ninety days of fulfilling the requirements of the ground-training portion of the air operator's approved training program. Where the trainee has not completed Line Indoctrination within the required ninety days, the trainee may requalify by completing Requalification Training, Annual Training and Line Indoctrination or another Initial course.
- c) Operational Experience is required for persons only during their first year following Initial Training. Where the person has not acted as a crew member at least once in each 90-day period following Line Indoctrination, they may requalify by completing Requalification Training and Annual Training.
- d) Annual Training is required each twelve-month period following completion of Initial Training and for those crew members whose training validity has expired for the periods shown in the requalification requirements in (4) below.
- e) Aircraft Type Training is required in order to qualify and maintain qualifications on each aircraft type to which that crew member will be assigned to duty. When an air operator introduces a new aircraft to the fleet, Initial (aircraft specific) is required but may be modified to highlight differences where the operator has other aircraft of the same type/manufacturer in the fleet already. Where a modified program is submitted for approval, the operator shall show that its content is adequate to ensure qualification standards are met.

**Note:** The phrase "same type/manufacturer" means where the air operator has other aircrafts by the same manufacturer AND the aircraft type is similar. For example, an operator that currently is operating the Airbus A-320 could provide differences training when introducing the A-319; however, an operator who is operating a Boeing 737 would not be able to provide differences training when introducing a Boeing 747 to the fleet.

- f) Requalification Training is required for crew members whose training validity period has expired for a period specified in the requalification requirements as shown in (4) below.

**(4) FLIGHT ATTENDANT REQUALIFICATION REQUIREMENTS**

The requirements for requalification as a flight attendant are as follows:

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

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

- If a period of thirteen up to twenty-four months or part thereof has elapsed since the last required training, the flight attendant shall complete Requalification Training and Annual Training.
- If a period of 24 up to 36 months or part thereof has elapsed since the last required training and the flight attendant has 3 continuous years experience with the air operator, the flight attendant shall complete Requalification Training, Annual Training, and Line Indoctrination.
- If a period of 24 months or more has elapsed since the last required Annual Training and the flight attendant does not have 3 continuous years experience with the air operator, the flight attendant shall complete Initial Training and Line Indoctrination.
- If a period of more than 36 months has elapsed since the last required Annual Training with the air operator, the flight attendant shall complete Initial Training and Line Indoctrination.

The chart on page v illustrates these requirements.



**(5) FLIGHT ATTENDANT COMPETENCY REQUIREMENTS**

The air operator training program shall ensure that a flight attendant is competent to perform the duties and functions assigned in the interest of passenger safety by examining knowledge and testing skills to reflect proficiency to 100%.

The air operator training program shall specify the examination and test marks that constitute a pass and failure, the procedures for administering marks which constitute a failure, and the procedures for administering corrections when a pass mark is less than 100%.

- a) EXAMINATION(S) – Safety Procedures, Emergency Procedures, and Aircraft Type(s)
  - i. The safety and emergency procedures examination(s) shall verify the flight attendant's knowledge of standard safety and emergency procedures as contained in the flight attendant manual.
  - ii. The aircraft examination(s) shall verify the flight attendant's knowledge of each aircraft type including but not limited to: systems, exits, safety and emergency equipment, as well as the normal, abnormal, alternate and emergency operating limitations relating thereto.
- b) PRACTICAL EXAMINATION(S) – Safety Equipment, Emergency Equipment, and Emergency Procedures
  - i. The practical examinations of the safety equipment, emergency equipment, and emergency procedures shall verify the flight attendant's skills in the operation of the safety and emergency equipment and their ability to accomplish appropriate emergency procedures.

**(6) AVIATION FIRST AID**

a) REGULATORY APPROVAL PROCESS

To obtain regulatory approval of an Aviation First Aid Training Program, or a revision to an approved program, an air operator shall submit the program to the Minister together with written evidence from an "accepted agency" or Health Canada that the program or revision meets the first aid training standard and that the content is technically accurate. Ministerial approval will then be granted and the program or revision can be implemented.

b) ACCEPTED AGENCIES

An accepted agency is a first aid organization/agency that has received acceptance from Health Canada for their Aviation First Aid Training Program.

*For more information of becoming an "accepted agency" contact HEALTH CANADA, Civil Aviation Medicine Division (AARG), Place de Ville, Tower C, 330 Sparks Street, Ottawa, Ontario, K1A 0N8.*

c) INSTRUCTOR QUALIFICATION

Instructors shall be qualified in accordance with CAR 705.124 and the program of the "accepted agency".

d) EQUIPMENT AND PROCEDURES CRITERIA

Training program content and delivery shall be consistent with the amount and type of equipment carried on the air operator's aircraft and the air operator procedures that have been published.

e) VALIDITY PERIOD

First Aid Training is valid for three years from the month in which the course was completed

**Note:** *The air operator may submit a checklist with their training program to cross reference the standard with the lesson plans. This will assist the process.*

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**SYLLABUS**

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Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

	INITIAL	ANNUAL	RE-QUALIFICATION	A/C TYPE
<b>PART ONE AVIATION INDOCTRINATION</b>				
<b>AIR OPERATOR INDOCTRINATION</b>				
Air Operator Specific	●			
Flight Attendant Specific	●			
<b>REGULATORY OVERVIEW</b>				
Regulatory Overview	●			
Legislation	●	●	●	
<b>AVIATION TERMINOLOGY</b>				
Terminology	●			
Terms of Reference	●			
<b>THEORY OF FLIGHT</b>				
General Aircraft Description	●			
Aerodynamics of Flight	●			
Air Traffic Control	●			
<b>PHYSIOLOGY OF FLIGHT</b>				
General	●	●	●	
Effects of Altitude	●	●	●	
<b>PART TWO ROLES AND RESPONSIBILITIES</b>				
<b>AIR OPERATOR</b>				
Operating Requirements	●		●	
Operations Manual/Flight Attendant Manual	●		●	
<b>CREW MEMBERS</b>				
General	●	●	●	
<b>TRANSPORT CANADA – AVIATION INSPECTORS</b>				
General	●			

Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

INITIAL                      ANNUAL                      RE-QUALIFICATION                      A/C TYPE

<b>PART THREE SAFETY PROCEDURES</b>				
<b>CREW COORDINATION</b>				
General	•		•	
Crew Coordination	•	•	•	
<b>COMMUNICATION</b>				
General	•	•	•	
Communication	•	•	•	
Passenger Announcements	•			
<b>SURFACE CONTAMINATION</b>				
General	•	•	•	
Crew Member Responsibilities	•	•	•	
De-icing/Anti-icing	•	•	•	
<b>BRIEFINGS</b>				
Crew Briefings	•	•	•	
Passenger Briefings	•	•	•	
<b>SAFETY CHECKS</b>				
General	•	•	•	
<b>PASSENGER HANDLING</b>				
General	•	•	•	
Passenger Boarding	•	•	•	
<b>PASSENGER AND CREW MEMBER SEATS AND RESTRAINTS</b>				
Passenger Seating	•	•	•	•
Crew Seating	•	•	•	•
<b>CARRY-ON BAGGAGE</b>				
Passenger Carry-on Baggage	•	•	•	•
Crew Carry-on Baggage	•	•	•	•
<b>ELECTRONIC DEVICES</b>				
General	•	•		
<b>SERVICE TO PASSENGERS ON THE GROUND</b>				
General	•		•	
Crew Member Responsibilities	•	•	•	

Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

	INITIAL	ANNUAL	RE-QUALIFICATION	A/C TYPE
<b>FUELLING WITH PASSENGERS ONBOARD</b>				
General	●	●	●	
Crew Member Responsibilities	●	●	●	
<b>PRE-TAKE-OFF AND PRE-LANDING</b>				
Cabin Preparation	●		●	
Crew Member Responsibilities	●	●	●	
Abnormal Situations	●	●	●	
<b>PROPELLER ABNORMALITIES</b>				
General	●	●	●	●
<b>APRON SAFETY</b>				
Hazards on Aprons	●	●	●	
Crew Member Responsibilities	●	●	●	
Helicopter Operators	●	●	●	
<b>TURBULENCE</b>				
General	●	●	●	
Crew Member Responsibilities	●	●	●	
<b>CREW MEMBER INCAPACITATION</b>				
General	●	●	●	
Pilot Incapacitation	●	●	●	
Flight Attendant Incapacitation	●	●	●	
<b>FLIGHT DECK PROTOCOL</b>				
General	●		●	
<b>FUEL DUMPING</b>				
General	●		●	
<b>POST-FLIGHT DUTIES</b>				
Documentation	●	●	●	
Communication	●	●	●	
<b>OXYGEN ADMINISTRATION</b>				
General	●		●	
Procedures	●		●	

Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

	INITIAL	ANNUAL	RE-QUALIFICATION	A/C TYPE
<b>PART FOUR EMERGENCY PROCEDURES</b>				
<b>FIRE FIGHTING</b>				
General	•	•	•	
Crew Member Responsibilities	•	•	•	
Procedures – Cabin	•	•	•	
Procedures – External	•	•	•	
<b>SMOKE/FUMES IN THE CABIN</b>				
General	•	•	•	
Crew Member Responsibilities	•	•	•	•
<b>RAPID DECOMPRESSIONS AND CABIN PRESSURIZATION PROBLEMS</b>				
General	•	•	•	
Crew Member Responsibilities	•	•	•	
<b>EVACUATIONS</b>				
General	•	•	•	
Crew Member Responsibilities	•	•	•	
External Factors	•	•	•	
Communication	•	•	•	
Brace Position	•	•	•	
Exit Procedures	•	•	•	
Evacuation Responsibilities	•	•	•	
Preparation for Evacuation	•	•	•	
Evacuation Procedures	•	•	•	
Rapid Deplanement	•	•	•	
Post-Evacuation	•	•	•	
Accident/Incident Review	•			
<b>CARGO FIRE TRAINING</b>				
General	•			
Crew Responsibilities	•			
Procedures	•			
Drills	•	See Part 7		

Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

	INITIAL	ANNUAL	RE-QUALIFICATION	A/C TYPE
<b>PART FIVE EMERGENCY EQUIPMENT</b>				
<b>EQUIPMENT OVERVIEW</b>				
General	•		•	•
Accident/Incident, New Equipment and Procedures Review		•		•
<b>PART SIX AIRCRAFT SPECIFIC</b>				
<b>PHYSICAL DESCRIPTION</b>				
General	•			•
Exterior Description	•			•
Interior Description	•		•	•
<b>GALLEYS</b>				
General	•	•		•
<b>COMMUNICATION SYSTEMS</b>				
General	•			•
Interphone	•		•	•
Public Address System	•		•	•
Passenger Call System	•		•	•
Entertainment System	•		•	•
Automatic Announcement System	•		•	•
<b>LIGHTING SYSTEMS</b>				
General	•	•	•	•
<b>WATER AND WASTE SYSTEMS</b>				
General	•	•	•	•
<b>OXYGEN SYSTEMS</b>				
General	•	•	•	•
Oxygen Systems and Safety/Emergency Equipment		•		
<b>HEATING AND VENTILATION SYSTEMS</b>				
General	•	•	•	•
<b>EXITS</b>				
General	•	•	•	•

Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

	INITIAL	ANNUAL	RE-QUALIFICATION	A/C TYPE
Normal Operation	●	●	●	●
Abnormal Operation	●	●	●	●
Emergency Operation	●	●	●	●
Airstairs	●	●	●	●
<b>UNIQUE FEATURES</b>				
General	●	●	●	●
<b>PART SEVEN DRILLS</b>				
Public Address System and Interphone System Drills	●		●	
Passenger Briefing Drills	●		●	
<b>AIRCRAFT EXIT OPERATION DRILLS – EACH AIRCRAFT TYPE</b>				
Equipment Criteria	●	●	●	●
Normal Door Operation Performance Criteria	●		●	●
Emergency Door Operation Performance Criteria	●	●		●
Cabin Window Exit Operation	●	●		●
Evaluation Criteria	●	●	●	●
<b>EVACUATION DRILLS</b>				
General	●	●		●
Simulation Scenarios	●	●		●
Unprepared Land and Inadvertent Water Contact Evacuation Drill Performance Criteria	●	●		
Evaluation Criteria	●	●		
Crew Prepared Land and Ditching Evacuation Drill Performance Criteria	●	●		●
Evaluation Criteria	●	●		●
<b>RAFT DRILL</b>				
Equipment Criteria	●	●	●	
Performance Criteria	●	●	●	

Requalification and Aircraft Type Training (A/C Type), shall follow the scope as published for Initial.

	INITIAL	ANNUAL	RE-QUALIFICATION	A/C TYPE
<b>LIFE PRESERVER DRILL</b>				
Equipment Criteria	●	●		
Performance Criteria	●	●		
<b>AIRCRAFT SLIDE DRILL</b>				
Equipment Criteria	●	●		
Performance Criteria	●	●		●
<b>FIRE FIGHTING DRILLS</b>				
General	●	●		
Equipment Criteria	●	●		
Equipment Practice	●	●		
Live Fire Fighting	●	●		
Fire Fighting/Cabin Performance Criteria	●	●	●	
Evaluation Criteria	●	●	●	
Fires/Class B Main Deck Cargo Compartment	●	●	●	●
<b>OXYGEN ADMINISTRATION DRILL</b>				
Equipment Criteria	●		●	
Portable Oxygen Bottle Performance Criteria	●		●	
Fixed First Aid Oxygen Performance Criteria	●		●	●
<b>PART EIGHT OTHER TRAINING</b>				
First Aid	●			

**OTHER TRAINING** - Flight Attendants may also be required to have other training in other areas such as Dangerous Goods, Security and Aviation Occupational Health and Safety (AOHS). Refer to the Transportation of Dangerous Goods Regulations for details regarding the Dangerous Goods Training and to the Air Operator Security Measures developed pursuant to the Air Operator Security Regulations for details regarding the Security Training.

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**INITIAL – PART ONE**

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**AVIATION INDOCTRINATION**

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**1.1 AIR OPERATOR INDOCTRINATION**

**Training Objective:** The trainee will be able to identify and describe the air operator's corporate structure and the administrative requirements of the operation relating to crew members.

**Scope:** Air Operator Specific  
Flight Attendant Specific

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**1.1A Air Operator Specific**

1.1A.1 *Outline the corporate history.*

*(Use of guest speakers from various departments would enhance the presentation.)*

1.1A.2 *Define the corporate mission statement and goals.*

1.1A.3 Describe the organizational structure with emphasis on reporting authority. Clearly show the organizational link between pilots (Flight Operations) and flight attendants.

*(Corporate visual aids and tours of facilities, where possible.)*

1.1A.4 *Identify the type and scope of the operator's operations, e.g., regional, international, charter, commuter, etc.*

1.1A.5 *Describe the corporate alliances and their impact on the operation.*

1.1A.6 Describe the air operator's fleet and route structure.

1.1A.7 Identify the location of facilities and bases and the operational tasking carried out at each (e.g. maintenance base).

1.1A.8 *Outline the operator's future plans.*

**1.1B Flight Attendant Specific**

1.1B.1 Describe the administrative requirements relating to flight attendants (e.g. assignments, duties, documentation).

1.1B.2 *Describe any crew member union/contractual obligations.*

1.1B.3 *Identify the operator's policies and procedures relating to flight attendants (e.g. discipline, expectations).*

## **1.2 REGULATORY OVERVIEW**

**Training Objective:** The trainee will be able to identify the international and national aviation regulatory bodies and describe the legislation relating to crew members.

**Scope:** Regulatory Overview  
Legislation

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### **1.2A Regulatory Overview**

- 1.2A.1 Identify international and national aviation regulatory authorities and describe their role especially as they relate to crew members. Describe how flight attendants are required to comply with international regulations and penalties for breach of these regulations (e.g. company vs. individual liabilities).
- 1.2A.2 Identify other regulatory authorities that crew members may be in contact with and describe their role in aviation (e.g. Customs, Police, Immigration, Health, Drug Enforcement, Agriculture).
- 1.2A.3 Describe the aviation regulatory system in Canada and how it functions to draft regulations and standards, ensure compliance and investigate accidents and incidents.

### **1.2B Legislation**

- 1.2B.1 Identify and describe the legislation governing air crew in Canada.
- 1.2B.2 *Identify the trends in the industry (e.g. Open Skies, mergers, harmonization).*
- 1.2B.3 *Identify historic legislation in cabin safety and describe its effect on aviation safety (e.g. fire protection, minimum crew).*
- 1.2B.4 *Identify other sources of regulatory guidance and compliance requirements.*
- 1.2B.5 Identify and describe the specific regulations applicable to crew members and cabin safety including:
  - a) Seat Belts and Related Restraint Systems;
  - b) Life-Saving Equipment (e.g. life rafts, life preservers, survival kits);
  - c) Oxygen Equipment;
  - d) First Aid Kits;
  - e) Minimum Equipment Lists;
  - f) Floor Proximity Lighting;
  - g) Take-Off and Landing Stations;
  - h) Infant - definition;
  - i) Minimum Crew Requirements;
  - j) Passenger Safety Briefings
  - k) Passenger Safety Briefing Cards;
  - l) Surface Contamination Training;
  - m) Carry-on Baggage;
  - n) Aircraft Journey Log/Cabin Log Book (or equivalent);
  - o) Liquor/Drugs;
  - p) Fuelling With One Engine Running;
  - q) Survival Equipment;
  - r) *Duty Time Limitations - Flight Crew/Cabin Crew;*
  - s) *Crew Rest - Flight Crew/Cabin Crew;*

- t) *Designated Crew Rest Areas/Policies;*
- u) Flight Attendant Manual as part of Company Operations Manual;
- v) Non-Smokers Health Act;
- w) ELTs and Fire Extinguishers;
- x) Stowage of Equipment and Supplies;
- y) Seatbacks and Chair Table Positioning.

**1.3 AVIATION TERMINOLOGY**

**Training Objective:** The trainee will be able to define aviation terminologies common to the air operator and be able to use them in the appropriate context.

**Scope:** Terminology  
Terms of Reference

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**1.3A Terminology**

1.3A.1 Identify and define aviation terminologies common to the operator including terms relating to airports, ground operations and flight operations.

*(Self-instruction booklet, with verification of knowledge.)*

1.3A.2 Describe the importance to flight safety of using correct terminology.

**1.3B Terms of Reference**

1.3B.1 Identify and describe the 24-hour clock and its application in aviation.

1.3B.2 Describe what is meant by time zones and outline how to calculate elapsed time when crossing time zones.

1.3B.3 Define what is meant by the International Date Line and describe its application in aviation.

1.3B.4 Define what is meant by GMT/UTC and its application in aviation.

1.3B.5 List and identify the airport location identifiers used by the operator and describe how and why they are used.

1.3B.6 Define and describe the phonetic alphabet and describe its importance in aviation-related communication.

1.3B.7 *Identify the way that airspeed is measured and describe the conversion from knots to miles/hour.*

**1.4 THEORY OF FLIGHT**

**Training Objective:** The trainee will be able to identify and describe the basic components of the theory of flight relating to the aircraft environment they will be operating in.

**Scope:** General Aircraft Description  
Aerodynamics of Flight  
Meteorology  
Air Traffic Control

---

*(To enhance communication between flight crew and flight attendants, it is recommended that this portion of the training be delivered by a qualified pilot.)*

**1.4A General Aircraft Description**

1.4A.1 Identify the main components of an aircraft and describe their function including but not limited to:

- a) Wing - leading edge, trailing edge, wing tip, wing root, winglet;
- b) Control systems - ailerons, flaps, rudder, elevator;
- c) Tail - fixed vertical stabilizer, rudder, elevators; and
- d) Miscellaneous - fuselage, spoilers, speed brakes, undercarriage, main gear, nose wheel, chocks/blocks, pins.

1.4A.2 Define what is meant by aircraft operating abnormalities, which do not constitute an emergency (e.g. flap, landing gear, visible fluid leaks, etc.).

**1.4B Aerodynamics of Flight**

1.4B.1 Identify and describe the four forces acting on an aircraft in-flight.

1.4B.2 Identify and describe the three axes of an aircraft and describe the movement around each.

1.4B.3 Define what is meant by aircraft attitude.

1.4B.4 Describe how lift is achieved and factors which adversely affect lift.

1.4B.5 *Describe how a piston engine, turbine engine and a jet engine function (as applicable to the operator's operation).*

1.4B.6 Describe how and when an aircraft is pressurized and how pressurization is maintained. Include a description of aircraft altitude and cabin altitude.

1.4B.7 Describe the aerodynamic forces at work when aircraft engines fail in flight with specific reference to the operator's aircraft.

1.4B.8 Identify the importance for crew members to be alert for abnormal aircraft functioning and how to recognize and report it to flight crew members.

1.4B.9 Define what is meant by weight and balance (center of gravity), its effect on aircraft controllability and factors which affect weight and balance.

**1.4C Meteorology**

1.4C.1 *Describe types of common cloud formations and their effect on weather, e.g., frontal systems, thunderstorms.*

1.4C.2 *Describe the types of wind phenomena and their effect on aircraft in flight, e.g., jet stream, wind shear.*

1.4C.3 *Identify the hazards to flight associated with volcanic ash/dust. Describe how to recognize it, e.g., smoke or dust in the cabin, acrid odour, and bright orange glow in the engine intakes.*

**1.4D Air Traffic Control**

1.4D.1 *Define what is meant by VFR and IFR and identify the most common restrictions for an aircraft flying under VFR and IFR flight plans.*

1.4D.2 *Identify what is meant by air traffic control and who is responsible for ensuring aircraft separation under VFR and under IFR conditions.*

1.4D.3 *Describe how aircraft are controlled on the ground and in the air with specific reference to the operator's operation.*



**1.5      PHYSIOLOGY OF FLIGHT**

**Training Objective:**      The trainee will be able to identify and describe the most common physiological effects of flight in pressurized and non-pressurized aircraft including likely causes, recognition and ways to minimize these effects.

**Scope:**                      General  
                                      Effects of Altitude

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**1.5A      General**

1.5A.1    Describe the physiology of respiration and circulation.

1.5A.2    Identify the body's requirement for oxygen and the potential for crew member incapacitation due to lack of oxygen.

1.5A.3    Describe the most common physiological effects of altitude and the pressurized cabin, including but not limited to: varicose veins, dehydration, effects of trapped gasses, water retention, etc.

1.5A.4    Describe the circumstances under which carbon monoxide (CO) poisoning may occur, the signs and symptoms, ways to detect it and minimize its effects. Include the potential for CO poisoning from ground air conditioning units or as a result of a ground-heating unit (i.e. Herman-Nelson, Ground Power Unit).

**1.5B      Effects of Altitude**

1.5B.1    Define what is meant by decompression sickness and describe the physiological effects of pressure changes on gases in the body. Define "safe" times between scuba diving and flight.

1.5B.2    Define what is meant by hypoxia, the hazards associated with it, signs and symptoms, ways to detect it and minimize its effects.

1.5B.3    Define Time of Useful Consciousness and factors affecting it.

1.5B.4    Identify persons most susceptible to the effects of hypoxia.

1.5B.5    *Describe the effects of altitude on night vision and the impact this has on flight safety and personal safety.*

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**INITIAL – PART TWO**

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**ROLES AND RESPONSIBILITIES**

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**2.1 AIR OPERATOR**

**Training Objective:** The trainee will be able to describe the roles and responsibilities of the air operator, which have been legislated in the interests of aviation safety.

**Scope:** Operating Requirements  
Operations Manual/Flight Attendant Manual

---

**2.1A Operating Requirements**

- 2.1A.1 Describe the air operator's operating policy as it relates to safety and requirement to maintain this safety emphasis.
- 2.1A.2 Describe the relationship between regulatory requirements and the air operator's policy and procedures.
- 2.1A.3 Describe the air operator's responsibility to conduct operations according to approved procedures and to ensure that any companies contracted by the air operator also comply with these procedures.
- 2.1A.4 Identify the requirement to have an organizational chart with clearly defined reporting responsibilities. Clearly outline the organizational links between pilots (Flight Operations) and flight attendants.
- 2.1A.5 Identify the requirement for the air operator to provide appropriate training ensuring crew member competency in safety and emergency duties relating to the carriage of passengers.
- 2.1A.6 Identify the air operator's policy and procedures for the reporting of accidents and incidents. Include information regarding investigations and follow-up that may occur.
- 2.1A.7 State the air operator's responsibility to ensure that whenever more than one flight attendant is carried, one flight attendant is designated as in charge.
- 2.1A.8 Describe the air operator's responsibility to ensure that the minimum crew is carried.
- 2.1A.9 Identify the circumstances when the air operator may delegate crew duties to persons who are not crew members. (Authority issued by an Operations Specification.)

**2.1B Operations Manual/Flight Attendant Manual**

- 2.1B.1 Define Operations Manual and Flight Attendant Manual. Describe the air operator's responsibility to develop and maintain an operations manual and a flight attendant manual and for ensuring crew members are familiar with the portions relating to their duties.
- 2.1B.2 Identify the Flight Attendant Manual as part of the Operations Manual, and as a required and legislated separate publication. Describe its contents and the requirement to have an up-to-date manual readily available by each flight attendant during flight.
- 2.1B.3 Describe the means used by the air operator's to update, revise and amend the Flight Attendant Manual, and the requirement of the flight attendant to maintain an up to date manual at all times.

**2.2 CREW MEMBERS**

**Training Objective:** The trainee will be able to describe their legislated roles and responsibilities relating to their duties and in the interest of aviation safety.

**Scope:** General

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**2.2A General**

- 2.2A.1 Describe the responsibility of crew members to maintain knowledge of all safety and emergency procedures relating to their duties.
- 2.2A.2 Identify the requirement for crew members to perform their duties in accordance with approved procedures.
- 2.2A.3 Outline crew member responsibilities to ensure all flight documentation, publications, manuals are up to date and readily available onboard and that crew members are familiar with their contents. Flight Attendants are required to ensure that:
  - a) A Record of Revisions is in the Flight Attendant Manual tracking the amendments received and when they were inserted into the Flight Attendant Manual; and
  - b) All amendments are reviewed and inserted in the appropriate section of the Flight Attendant Manual and not in their issued format (e.g. stapled, cello-wrapped).
- 2.2A.4 Identify the responsibility of crew members to report any onboard safety concerns to the pilot-in-command.
- 2.2A.5 Identify the requirement to keep all documentation relative to flight duties up to date at all times (e.g. passport, security pass).
- 2.2A.6 Outline crew member responsibilities to ensure that all equipment is available, in good working order, and properly secured when not in use.
- 2.2A.7 Identify the responsibility of crew members to report unserviceable equipment following established company procedures.
- 2.2A.8 Identify the requirement for crew members to successfully complete required training and maintain qualifications.
- 2.2A.9 Define the chain-of-command and describe the authority of the pilot-in-command and describe their importance relating to flight safety.
- 2.2A.10 Describe the responsibility to be aware of the duties and responsibilities of other crew members and be prepared to assume those duties, if necessary.
- 2.2A.11 Define the procedure regarding attending and participating in crew briefings.
- 2.2A.12 Define what is meant by "person carried for the completion of non-safety related duties" who are not qualified Flight Attendants. Describe the function they perform when assigned on a flight, activities they may/may not be assigned, and identification to differentiate them from other crew members as per Operations Specifications. Include:
  - a) Trainees on familiarization or line indoctrination flights; and

- b) Public relations assignments (e.g. crew from "partner" air operators, translators, etc.).
- 2.2A.13 Identify the importance for crew members to be constantly alert and therefore prepared to handle any abnormal/emergency situation as it may occur.
- 2.2A.14 Identify the responsibility of the crew members to comply with and enforce regulatory requirements.
- 2.2A.15 Describe crew member uniform policies.
- 2.2A.16 Identify the importance of the uniform as an identifier, especially in abnormal and emergency situations and the air operator's policy regarding the wearing of the uniform in an emergency.

**2.3 TRANSPORT CANADA – AVIATION INSPECTORS**

**Training Objective:** The trainee will be able to describe the roles and responsibilities of Transport Canada Civil Aviation and its Safety Inspectors.

**Scope:** General

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**2.3A General**

- 2.3A.1 Identify the types of regulatory control Transport Canada Civil Aviation exercises in areas of aviation safety.
- 2.3A.2 Outline the authority of Transport Canada Civil Aviation Safety Inspectors to inspect the operations of air operators. Describe the actions they may take if non-conformances are identified.
- 2.3A.3 Describe the types of inspectors that crew may come into contact with in addition to Cabin Safety Inspectors (e.g. Civil Aviation Inspectors, Dangerous Goods, Airworthiness, Security).
- 2.3A.4 Describe the types of inspections that may be carried out by Transport Canada Civil Aviation Safety Inspectors.
- 2.3A.5 Describe the procedure for the in-charge to advise the pilot-in-command whenever an Inspector has identified him/herself as being onboard, and conducting an inspection (Transport Canada Official Inspector Credentials).
- 2.3A.6 Define the requirement for Transport Canada Civil Aviation Safety Inspectors to provide official identification. Describe the forms of identification that may be presented on the aircraft whenever a pre-flight or in-flight inspection is conducted (Transport Canada Official Inspector Credentials).
- 2.3A.7 *Identify the circumstances under which a Transport Canada Inspector could occupy a flight deck observer seat or a flight attendant jump seat.*



**INITIAL – PART THREE**

**SAFETY PROCEDURES**

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**3.1 CREW COORDINATION**

**Training Objective:** The trainee will be able to identify the components of crew coordination, its importance to operational safety and ways it may be achieved.

**Scope:** General  
Crew Coordination

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**3.1A General**

- 3.1A.1 Describe the importance of common terminology and the "one crew concept" in maintaining flight safety.
- 3.1A.2 Describe the importance of crew members being aware of other crew member's duties, responsibilities, workloads and expectations.
- 3.1A.3 Outline the importance of pre-flight briefings to share relevant flight and safety information, outline expectations and develop communication channels.

**3.1B Crew Coordination**

- 3.1B.1 Describe the importance of crew coordination when applying approved procedures, especially in abnormal and emergency situations
- 3.1B.2 Outline the benefits of crew coordination on working environment and morale and the positive effect this has on flight safety.
- 3.1B.3 Define the one crew concept and list ways this may be achieved.
- 3.1B.4 Identify how poor crew coordination has contributed to aircraft accidents and incidents and outline strategies to improve crew coordination.

### **3.2 COMMUNICATION**

**Training Objective:** The trainee will be able to describe the importance of, and the procedures for, effective communication in normal, abnormal and emergency situations.

**Scope:** General  
Communication  
Passenger Announcements

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#### **3.2A General**

- 3.2A.1 Define normal, abnormal and emergency communication.
- 3.2A.2 Describe the procedures for normal, abnormal and emergency communication and describe ways of communicating effectively in these situations (e.g. speed, volume, choice of words, enunciation, etc.).
- 3.2A.3 Describe the importance of effective communication especially when dealing with abnormal and emergency situations.
- 3.2A.4 Describe the responsibility of crew members to provide complete and accurate information to the pilot-in-command to assist in decision-making.

#### **3.2B Communication**

- 3.2B.1 Identify the difference between verbal and non-verbal communication and describe the effects of communicating different messages. Describe the potential hazards to flight safety if communication is not effective.
- 3.2B.2 Identify how poor communication has contributed to aviation accidents and incidents and discuss ways to minimize these communication deficiencies.

#### **3.2C Passenger Announcements**

- 3.2C.1 List the systems onboard for passenger announcements (e.g. PA, pre-recorded announcements, etc.).
- 3.2C.2 Describe recommended passenger address techniques (e.g. how to hold the handset, volume, feedback in systems, etc.).
- 3.2C.3 Describe when, and by whom cabin announcements must be made, and the minimum content of each announcement (e.g. cabin baggage, pre-departure safety, after take-off, etc.).
- 3.2C.4 *Define the one crew concept and list ways this may be achieved.*
- 3.2C.5 Identify the importance of listening to all announcements in the event that the announcement may contain emergency signals or information.
- 3.2C.6 *Identify how poor crew coordination has contributed to aircraft accidents and incidents and outline strategies to improve crew coordination.*

### **3.3 SURFACE CONTAMINATION**

**Training Objective:** The trainee will be able to define what is meant by surface contamination, describe their responsibilities and identify the procedures for reporting suspected surface contamination to the pilot-in-command.

**Scope:** General  
Crew Responsibilities  
De-Icing/Anti-Icing

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**Note:** Transport Canada Surface Contamination Training Program including video "When in Doubt..." must be used or an equivalent approved program.

#### **3.3A General**

- 3.3A.1 Define surface contamination and hazards to flight associated with surface contamination.
- 3.3A.2 Define aircraft critical surfaces for each of the aircraft types in the operator's fleet.
- 3.3A.3 Identify an awareness of the conditions most likely to produce surface contamination.
- 3.3A.4 Give examples of "clean" wing and visible signs of surface contamination (e.g. frost, ice, snow, including rain).

#### **3.3B Crew Responsibilities**

- 3.3B.1 Define the responsibilities of crew members to report suspected surface contamination, prior to take-off roll, to the pilot-in-command as soon as it is discovered either by a crew member or passenger.
- 3.3B.2 State the requirement for the pilot-in-command or designate to investigate reports of suspected surface contamination.
- 3.3B.3 Describe the requirement of the pilot-in-command to ensure that crew members are advised of the decision to de-ice/anti-ice before the procedure occurs.
- 3.3B.4 Describe the air operator's procedures for advising crew members, e.g., brief in-charge, public address announcement, etc.
- 3.3B.5 Describe the requirement to advise passengers before aircraft de-icing/anti-icing takes place, the content of this advice to passengers, and who is responsible for advising the passengers.

#### **3.3C De-Icing/Anti-Icing**

- 3.3C.1 Describe the different types of equipment used to accomplish de-icing (e.g. cherry picker, car wash, rope, etc.) and aircraft de-icing/anti-icing procedures.
- 3.3C.2 Identify that icing conditions can re-occur on critical surfaces of the aircraft if the take-off is prolonged for any period of time after de-icing/anti-icing has occurred. (Hold-Over Time Tables)

- 3.3C.3 Describe the possible hazards whenever de-icing/anti-icing is taking place (e.g. inhaling de-icing/anti-icing fluid, de-icing/anti-icing fluid entering cabin through open doorways, the presence of glycol fumes in the cabin). Identify the procedures to deal with these situations.
- 3.3C.4 Describe the types, purposes, characteristics, and uses of de-icing/anti-icing fluids.

**3.4 BRIEFINGS**

**Training Objective:** The trainee will be able to identify the different types of briefings which are required, and the information which must be included in each.

**Scope:** Crew Briefings  
Passenger Briefings

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**3.4A Crew Briefings**

- 3.4A.1 Identify the importance of crew briefings including enhancing crew communication and coordination, establishing expectations and clarifying procedures.
- 3.4A.2 Outline when crew briefings are required including normal, abnormal and emergency situations.
- 3.4A.3 Identify the types of crew briefings (e.g. pilot/in-charge flight attendant and in-charge flight attendant/other flight attendants).
- 3.4A.4 Describe the topics to be covered in the crew briefing(s).
- 3.4A.5 Identify the crew member responsibility to ask questions if all the required information has not been given in a briefing or if the information is unclear.
- 3.4A.6 Identify who is required to attend each type of crew briefing and their expected level of preparedness and participation.

**3.4B Passenger Briefings**

- 3.4B.1 Identify the requirement for passenger safety briefings prior to departure.
- 3.4B.2 Identify the content of the mandatory announcements and when they must be performed:
  - a) Cabin baggage;
  - b) Pre-flight safety announcement/demonstration;
  - c) After take-off;
  - d) Enroute turbulence;
  - e) Pre-landing;
  - f) After landing; and
  - g) Special attention passenger individual pre-flight briefing.
- 3.4B.3 Identify the requirement to relay safety related messages to passengers (e.g. whenever flight conditions change, abnormal or emergency situations).
- 3.4B.4 Identify the equipment used in a passenger safety briefing. Describe and demonstrate how the safety demonstration will be performed.
- 3.4B.5 Describe the crew member responsibility for passenger briefings (e.g. who performs the briefing).
- 3.4B.6 Identify the means for gaining and maintaining passenger attention when delivering safety briefings, including eye contact, enthusiasm, clear words, and synchronized actions with announcement and with other crew members.

- 3.4B.7 Describe the operator's procedures for delivering the passenger safety briefing and the equipment available to accomplish this. Where briefings are given using pre-recorded tape or audio-visual equipment, describe the procedures established in the case of equipment failure.
- 3.4B.8 Identify and describe the briefing requirements for passengers requiring special handling including who briefs them, when the briefing occurs and the different briefing points for each type of special handling passenger.
- 3.4B.9 Describe the company procedure and minimum content of short taxi announcements.



**3.5 SAFETY CHECKS**

**Training Objective:** The trainee will be able to identify the importance of cabin and passenger safety checks and will define what is meant by the aircraft minimum equipment list.

**Scope:** General

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**3.5A General**

- 3.5A.1 Identify the importance of safety checks and their impact on flight safety. Describe the procedures applied to complete cabin and passenger pre-flight, in-flight and pre-landing safety checks.
- 3.5A.2 Identify the logbooks which are required on the aircraft and unserviceable tags. Identify the procedures for recording information in them including when and by whom entries are to make. Identify the types of items which would not be logged.
- 3.5A.3 Define what is meant by the Minimum Equipment List and identify the cabin items which are included.
- 3.5A.4 Identify the 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 seals, excessive water spills or leaks, obvious structural damage).
- 3.5A.5 Identify the procedures for reporting, removing and repairing all unserviceable items.

**3.6 PASSENGER HANDLING**

**Training Objective:** The trainee will be able to identify the types of passengers which may be carried, and the general handling considerations which relate to safety.

**Scope:** General  
Passenger Boarding

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**3.6A General**

3.6A.1 Identify the requirement for passengers to comply with instructions of crew members.

3.6A.2 Describe the types of passengers which may be carried including passengers who require special handling.

3.6A.3 Describe the procedures for acceptance and carriage of the special attention passengers and items listed below:

- a) Incubators;
- b) Stretchers;
- c) Persons with a disability unable to sit upright;
- d) Persons travelling with medical oxygen;
- e) Persons travelling with an attendant;
- f) Child restraint systems;
- g) Service animals;
- h) Unaccompanied minors;
- i) Prisoners; and
- j) Unescorted and escorted deportees.

For each of the above cases, identify special handling considerations, seating (including restrictions on different aircraft types), securing persons and equipment (as applicable) for all phases of flight, and safety briefings.

3.6A.4 Identify the air operator's policy for accepting or denying boarding to passengers and who is responsible for making this decision.

3.6A.5 Outline the regulatory requirements regarding passengers who appear to be impaired due to alcohol or drugs, and the air operator's policies and procedures regarding alcohol service to passengers. Include crew responsibilities in serving passengers who appear to be impaired.

**3.6B Passenger Boarding**

3.6B.1 Define crew member responsibilities for passenger supervision while the aircraft is on the ground, including boarding, deplaning, and station stops. Include the number of crew members that must be present on the aircraft for the above.

3.6B.2 Identify the importance of safety duties over service duties during passenger boarding.

**3.7 PASSENGER AND CREW MEMBER SEATS AND RESTRAINTS**

**Training Objective:** The trainee will be able to identify the requirements of and the established procedures relating to seats and restraint systems for passengers and crew members.

**Scope:** Passenger Seating  
Crew Seating

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**3.7A Passenger Seating**

- 3.7A.1 Outline the requirement for each person to have a seat with an individual safety belt.
- 3.7A.2 Define exit row and describe the operator's policy and procedures regarding exit row seating, and who may not occupy seats in these rows.
- 3.7A.3 Describe the procedures associated with the relocation of passengers in compliance with exit row seating policies.
- 3.7A.4 Describe where special attention passengers may be seated, taking into consideration proximity to exits, availability of supplemental oxygen, ease of evacuation, etc.
- 3.7A.5 Identify the passenger seating restrictions on aircraft equipped with upper deck/lower deck passenger seating, where applicable.
- 3.7A.6 Outline the seating restrictions regarding arm held infants.
- 3.7A.7 Describe the procedures for the use of onboard skycots, stating when these devices may be used, and restrictions regarding the occupant of the skycot.
- 3.7A.8 Describe the requirement for passengers to be seated in their assigned seats with safety belts fastened for taxi, take-off, landing and whenever advised by a crew member. Describe the required positioning of seats for take-off and landing.
- 3.7A.9 Describe the different types of safety belts/harnesses found on passenger seats on aircraft in the fleet, and the correct method of operation for each. Include a description of extensions and the importance of verifying compatibility.
- 3.7A.10 Identify any placards or signage associated with passenger seating and describe appropriate usage (e.g. "Seat Unserviceable", "For Crew Use Only").

**3.7B Crew Seating**

- 3.7B.1 Identify the persons authorized to occupy any of the crew seats onboard and who has the authority to make this decision.
- 3.7B.2 Identify the persons authorized to occupy any of the observer seats in the flight deck.
- 3.7B.3 Describe the importance of ensuring serviceability of flight attendant seats, who is responsible to ensure this, and when to check serviceability.
- 3.7B.4 Identify the components of a pre-flight serviceability check for a flight attendant seat (e.g. "sit and fit" to enable quick access).

- 3.7B.5 Describe the procedures to follow and the approved alternate seating in case of an unserviceable flight attendant seat.
- 3.7B.6 Describe the requirements for flight attendants to be seated with restraint systems fastened for aircraft movement on the surface (except for safety related duties), for take-off, landing and turbulence and whenever directed to do so by the pilot-in-command or the in-charge flight attendant.
- 3.7B.7 Identify the correct way to sit in a flight attendant seat including the preferred position of hands, feet, legs and head to ensure maximum protection.
- 3.7B.8 Identify the rationale behind wearing the safety belt and shoulder harness and the hazards of improper use.
- 3.7B.9 Identify any placards or signage associated with crew seating and describe appropriate usage (e.g. *"Seat Unserviceable"*, *"For Crew Use Only"*).
- 3.7B.10 Identify the signals/verbal command for flight attendants to take their assigned seats and to secure themselves. State who is responsible for giving these signals.

**3.8 CARRY-ON BAGGAGE**

**Training Objective:** The trainee will be able to define what is meant by carry-on baggage and will describe the procedures for accepting and stowing carry-on baggage and any applicable restrictions.

**Scope:** Passenger Carry-on Baggage  
Crew Carry-on Baggage

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**3.8A Passenger Carry-on Baggage**

- 3.8A.1 Define carry-on baggage and describe the range of articles that are considered carry-on baggage by the air operator.
- 3.8A.2 Describe carry-on baggage regulations and company procedures.
- 3.8A.3 Identify the safety implications of improperly stowed carry-on baggage.
- 3.8A.4 Identify the approved stowage locations for carry-on baggage, any specific areas of the cabin where carry-on baggage may not be stowed (e.g. lavatory compartments). Identify the requirement for placarding overhead bins, closets and drawers and the types of placarding used in the air operator's fleet.
- 3.8A.5 Describe the procedures for stowing awkward types of carry-on baggage, example:
  - a) Strollers;
  - b) Musical instruments;
  - c) Canes, crutches, walking sticks; and
  - d) Diplomatic mail.
- 3.8A.6 Describe the procedures for accepting carry-on baggage and procedures for non-acceptance.
- 3.8A.7 Describe announcement to passengers regarding carry-on baggage, when it is made, who is responsible for making it and how often it is made.
- 3.8A.8 Identify the crew responsibilities for ensuring that all carry-on baggage is correctly stowed when required and prior to door closing.
- 3.8A.9 Outline the air operator's procedures for dealing with carry-on baggage that cannot be correctly stowed.
- 3.8A.10 Identify the importance of crew consistency in applying these requirements.
- 3.8A.11 Outline the air operator's policies and procedures for the carriage of live animals in the passenger cabin.
- 3.8A.12 Describe the crew responsibility for monitoring carry-on baggage.
- 3.8A.13 Identify the effects of carry-on baggage on weight and balance (as applicable to the air operator's fleet).
- 3.8A.14 Describe the approved procedures for accepting and restraining seat-loaded baggage and cargo in the passenger cabin, and approved devices/equipment for accomplishing this.

- 3.8A.15 Describe the requirement to keep the exit areas clear and free from obstructions, such as carry-on baggage.
- 3.8A.16 Describe the requirement to maintain clear access to emergency equipment.
- 3.8A.17 Describe safety precautions for cabin personnel when opening overhead bins, and when handling items of carry-on baggage in order to prevent personal injury.

**3.8B Crew Carry-on Baggage**

- 3.8B.1 Describe the policies and procedures for stowing crew baggage in the passenger cabin including accepting baggage from deadheading crew.
- 3.8B.2 Identify the crew carry-on baggage stowage locations for each aircraft type.

**3.9 ELECTRONIC DEVICES**

**Training Objective:** The trainee will be able to define what is meant by electronic devices, and describe policies and procedures for their acceptance and use onboard aircraft.

**Scope:** General

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**3.9A General**

- 3.9A.1 Define "electronic devices".
- 3.9A.2 Identify the electronic devices most likely to be carried onboard aircraft.
- 3.9A.3 List the potential hazards to flight safety associated with these electronic devices.
- 3.9A.4 Describe the company policy/procedures relating to electronic devices and list exceptions to these regulations.
- 3.9A.5 Describe the conditions under which onboard phones provided by the operator are approved for use.
- 3.9A.6 Identify the safety concerns associated with the use of "walkman" type headsets during critical phases of flight, abnormal operations, boarding, deplaning and while walking across an open apron.
- 3.9A.7 Outline the notification process to passengers regarding the use of electronic devices onboard aircraft and who is responsible for advising passengers.
- 3.9A.8 Describe crew responsibilities for monitoring passengers to ensure that only acceptable electronic devices are used onboard and that passengers comply with the conditions of use.

**3.10 SERVICE TO PASSENGERS ON THE GROUND**

**Training Objective:** The trainee will be able to identify what is meant by service to passengers on the ground, the conditions under which this can be accomplished and the procedures to do so.

**Scope:** General  
Crew Responsibilities

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**3.10A General**

3.10A.1 Describe service to passengers on the ground and the types of service, which may be provided in normal situations and also in abnormal situations (delays).

3.10A.2 Identify when this service is to be offered and who is responsible for making this decision.

**3.10B Crew Responsibilities**

3.10B.1 Identify the need for crew communication and coordination whenever passenger service is being offered on the ground (e.g. crew to let pilot know service is taking place and pilot to let crew know how much time before aircraft movement on the surface).

3.10B.2 State the requirement for the pilot-in-command to give crew adequate notice prior to aircraft movement so that equipment and supplies may be stowed and pre-take-off duties can be completed.

3.10B.3 Describe the prohibition against removing trolleys or serving carts from their stowed positions while aircraft is on the ground.



**3.11 FUELLING WITH PASSENGER ONBOARD**

**Training Objective:** The trainee will be able to identify the regulatory requirements regarding fuelling with passengers onboard and the procedures established for this situation for each aircraft type in the air operator's fleet.

**Scope:** General  
Crew Responsibilities

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**3.11A General**

- 3.11A.1 Describe fuelling and how fuelling may or may not occur (e.g. overwing refuelling and refuelling with an engine running).
- 3.11A.2 List the potential hazards associated with fuelling aircraft to occupants and the aircraft.
- 3.11A.3 Identify the types of fuelling procedures, which require that passengers and crew be off-loaded, and why the potential hazard is greater.
- 3.11A.4 Describe the procedures and precautions for fuelling with passengers onboard.
- 3.11A.5 Define what is meant by designated evacuation exits during fuelling and the associated procedures on each aircraft type in the air operator's fleet.

**3.11B Crew Responsibilities**

- 3.11B.1 Identify crew responsibilities and communication when fuelling with passengers onboard.
- 3.11B.2 Describe the fuel leak or spill procedures and identify the communication and coordination procedures crew members are responsible for.
- 3.11B.3 Describe the procedures whenever fumes are detected in the cabin including crew communication and the decision to deplane passengers.

**3.12 PRE-TAKE-OFF AND PRE-LANDING**

**Training Objective:** The trainee will be able to identify safety procedures associated with take-off, landing, aircraft movement on the surface and be able to implement them.

**Scope:** Cabin Preparation  
Crew Responsibilities  
Abnormal Situations

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**3.12A Cabin Preparation**

- 3.12A.1 List the preparations which must be completed to secure the cabin prior to aircraft movement on the surface, take-off and landing and identify crew responsibilities to do so.
- 3.12A.2 Describe crew communication procedures prior to aircraft movement advising the pilot-in-command that all passengers are seated.
- 3.12A.3 Describe the procedures in place to ensure that the cabin of the aircraft is secure prior door closing, and the commencement of aircraft movement on the surface, take-off/landing.
- 3.12A.4 Describe the requirements and procedures for stowing equipment and securing galleys.

**3.12B Crew Responsibilities**

- 3.12B.1 Define "critical phases of flight", when this is in effect and the procedures associated with it.
- 3.12B.2 Define "sterile flight deck", and associated procedures.
- 3.12B.3 Identify the potential hazards to flight safety of violating the sterile flight deck rule with non-safety related issues.
- 3.12B.4 Identify when crew members are required to violate the sterile flight deck rule. Describe the safety related information that should be conveyed and the need to be clear, concise, specific and timely.
- 3.12B.5 Define "silent review" and identify the components, when it must be done and who is required to complete it.
- 3.12B.6 Describe take-off/landing stations and when they are required to be occupied.
- 3.12B.7 Identify when crew members must have their safety belt and shoulder harnesses fastened at their station/seat.
- 3.12B.8 Describe the signals used by the flight deck to advise flight attendants that take-off/landing is imminent.

**3.12C Abnormal Situations**

- 3.12C.1 Define "rejected take-off", and describe the associated procedures.
- 3.12C.2 Define "missed approach" and describe the associated procedures.

**3.13 PROPELLER ABNORMABILITIES**

**Training Objective:** The trainee will be able to identify the characteristics of an over-speeding and a runaway propeller and be aware of the procedures associated with these situations.

**Scope:** General

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**3.13A General**

- 3.13A.1 Define what is meant by over-speeding and runaway propeller, and emergencies that may occur as a result.
- 3.13A.2 Describe how to recognize these propeller malfunctions and their effect on flight characteristics.
- 3.13A.3 Identify the crew communication procedures associated with these propeller abnormalities.
- 3.13A.4 Outline the procedures for relocating passengers.

**3.14 APRON SAFETY**

**Training Objective:** The trainee will be able to identify the components of apron safety, the responsibilities for passenger movement on airport aprons and the procedures established to accomplish this safely.

**Scope:** Hazard on Aprons  
Crew Responsibilities  
Helicopter Operators

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**3.14A Hazard on Aprons**

3.14A.1 Identify the hazards associated with airport aprons, (e.g. inadequate lighting, aircraft/ground service traffic, noise and weather).

3.14A.2 Describe the hazards associated with traffic on the apron including aircraft movement, propellers, rotors, jet blast/exhaust vehicles.

**3.14B Crew Responsibilities**

3.14B.1 Identify the established procedures and requirements for escorting passengers across airport aprons.

3.14B.2 Describe the coordination required between crew members and ground staff to ensure passenger safety (e.g. stairs in place, props are secured) and ways to achieve it.

3.14B.3 Identify the responsibilities for opening/closing, locking/unlocking airport terminal doors.

**3.14C Helicopter Operators**

3.14C.1 List the apron safety hazards associated with helicopter operations.

3.14C.2 Describe the correct ways to approach a helicopter with and without the rotor engaged.

3.14C.3 Identify communication and coordination procedures between crew and ground staff to ensure passengers are escorted to and from the helicopter.

3.14C.4 Describe when it is safe to board/deplane passengers and who is responsible for this decision, and how this information is conveyed to crew members.

3.14C.5 Describe Operational Regulations differing from fixed wing operations.

**3.15 TURBULENCE**

**Training Objective:** The trainee will be able to identify the hazards associated with turbulence and the procedures for ensuring passenger and crew safety during periods of in-flight turbulence.

**Scope:** General  
Crew Responsibilities

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**3.15A General**

- 3.15A.1 Describe turbulence and the classifications of turbulence (e.g. light, moderate, severe).
- 3.15A.2 List the potential hazards to aircraft, crew and passengers in turbulence.

**3.15B Crew Responsibilities**

- 3.15B.1 Identify the importance of crew communication and crew coordination in conditions of turbulence and describe communication and coordination procedures.
- 3.15B.2 Describe safety advice to passengers during turbulence.
- 3.15B.3 Outline the crew member responsibilities to ensure that passengers comply with the requirements and procedures, and for crew members to comply with the regulation.
- 3.15B.4 Outline crew member responsibilities when the Safety Belt Sign is on in-flight for turbulence. Include impact on in-flight services.

**3.16 CREW MEMBER INCAPACITATION**

**Training Objective:** The trainee will be able to identify the procedures for dealing with incapacitated crew members.

**Scope:** General  
Pilot Incapacitation  
Flight Attendant Incapacitation

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**3.16A General**

- 3.16A.1 Define what is meant by incapacitated crew members and identify possible causes (e.g. illness, injury, death, physical and mental incapacitation).
- 3.16A.2 Identify the impact on flight safety of an incapacitated pilot or flight attendant on different aircraft types in the fleet.
- 3.16A.3 Identify the preferred locations for relocating incapacitated crew members on different aircraft in the air operator's fleet.
- 3.16A.4 Identify how and where to secure an incapacitated crew member for landing or during periods of in-flight turbulence.
- 3.16A.5 Identify the crew communication procedures to advise of crew member incapacitation including flight deck/cabin, in-charge/flight attendants.

**3.16B Pilot Incapacitation**

- 3.16B.1 Identify the assistance flight attendants will be required to provide in the flight deck.
- 3.16B.2 Describe the procedures for assisting an incapacitated pilot.
- 3.16B.3 Describe and demonstrate the procedures for administering first aid oxygen to an incapacitated pilot.
- 3.16B.4 Describe the procedures for removing an incapacitated pilot from the flight deck.

**3.16C Flight Attendant Incapacitation**

- 3.16C.1 Identify the crew coordination procedures to ensure that the safety and emergency duties of the incapacitated flight attendant are assumed, and who is responsible for this decision.
- 3.16C.2 Outline the procedures associated with incapacitated flight attendants.

**3.17 FLIGHT DECK PROTOCOL**

**Training Objective:** The trainee will be able to identify the procedures associated with entry to the flight deck and service to the pilot(s).

**Scope:** General

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**3.17A General**

- 3.17A.1 Identify the credentials/company policy for flight deck entry and describe the authority of the pilot-in-command to give permission for access to the flight deck.
- 3.17A.2 Describe the policies and procedures for locking/unlocking the flight deck door.
- 3.17A.3 Describe the components of flight deck protocol, including:
- a) Coordinating passenger visits with pilot-in-command and available oxygen masks (maximum numbers);
  - b) Supervising passengers in flight deck;
  - c) Awareness of pilot(s) monitoring radio calls;
  - d) Briefing passengers on appropriate behaviour in the flight deck;
  - e) Meal service to pilots: different meals, ovens, times;
  - f) Passing of beverages;
  - g) Use of tray to pass beverages;
  - h) Insulate hot drinks; and
  - i) No alcohol to be served to pilots or flight deck visitors.
- 3.17A.4 Identify crew communication and crew coordination procedures associated with flight deck visits.

**3.18 FUEL DUMPING**

**Training Objective:** The trainee will be able to recognize the characteristics associated with fuel dumping and be able to follow established procedures.

**Scope:** General

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**3.18A General**

3.18A.1 Define fuel dumping.

3.18A.2 Describe the conditions under which fuel dumping may occur.

3.18A.3 Identify the need for crew communication during fuel dumping and the responsibility of crew members to report any unusual conditions to the pilot-in-command.

3.18A.4 *Describe the advice to passengers regarding fuel dumping and who is responsible for this advice.*



**3.19 POST-FLIGHT DUTIES**

**Training Objective:** The trainee will be able to identify their post-flight safety related duties.

**Scope:** Documentation  
Communication

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**3.19A Documentation**

3.19A.1 Describe the safety related documentation procedures which must be completed after each flight and who is responsible for its completion. (*Experience in completing appropriate documentation correctly is recommended for each trainee.*)

**3.19B Communication**

3.19B.1 In instances of a crew change, identify the responsibility of the crew to brief the new crew regarding any unserviceabilities, special passengers and any other safety related matters pertinent to their flight.

**3.20 OXYGEN ADMINISTRATION**

**Training Objective:** The trainee will be able to identify the importance of oxygen, when it may be necessary to administer oxygen, and identify the procedures for oxygen administration using the different oxygen sources on the air operator's aircraft.

**Scope:** General  
Procedures

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**3.20A General**

- 3.20A.1 Identify the physiological importance of oxygen.
- 3.20A.2 List the circumstances when additional oxygen may be required (e.g. decompressions, medical emergencies).
- 3.20A.3 Identify when oxygen must be available for passengers and crew, and the requirement to brief passengers on the availability of oxygen.
- 3.20A.4 Describe in general terms the types of oxygen available on the air operator's aircraft including fixed and portable systems.

**3.20B Procedures**

- 3.20B.1 Describe procedures for use of the fixed cabin oxygen system.
- 3.20B.2 Describe procedures for use of the portable oxygen system.
- 3.20B.3 Describe procedures associated with using the flight deck oxygen system.
- 3.20B.4 List the precautions whenever oxygen is being administered (e.g. no open flame, monitor supply, etc.).
- 3.20B.5 Describe the crew communication procedures in each circumstance when oxygen is being used.
- 3.20B.6 Describe procedures for oxygen provided by passenger or operator for continuous use during flight.
- 3.20B.7 Describe advice to passengers and who is responsible for briefing the passengers.
- 3.20B.8 Describe how to administer oxygen to an adult, child and infant.

**INITIAL – PART FOUR**

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**EMERGENCY PROCEDURES**

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**4.1 FIRE FIGHTING**

**Training Objective:** The trainee will be able to identify the types of fire, fire detection and fire fighting systems and the established fire fighting procedures.

**Scope:** General  
Crew Responsibilities  
Procedures – Cabin  
Procedures – External

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**4.1A General**

- 4.1A.1 Identify the threat to safety from in-flight fires.
- 4.1A.2 Identify hazards associated with onboard fires including toxicity of smoke/fumes, flammability of cabin materials, variety of combustible materials.
- 4.1A.3 Identify the impediments to fire fighting onboard aircraft including limited visibility due to smoke/fumes, fire fighting in confined space, difficulty in locating/accessing the source of the fire, limited resources to fight the fire and distance to suitable airport for landing.
- 4.1A.4 Describe experience(s) with fire accidents/incidents. Identify the safety lessons learned as a result.
- 4.1A.5 Describe the legislated requirements regarding fire safety (e.g. onboard smoke detectors, waste receptacle fire extinguishers, fire resistant seat cushions, floor lighting, etc.).
- 4.1A.6 Define fire chemistry, including the elements, which must be present for fire to occur (e.g. fuel, heat, oxygen, chemical reactions).
- 4.1A.7 List the classes of fire which may occur on aircraft: Class A – combustible material fires, Class B – grease/spill fires, Class C – electrical, and Class D – fire involving metals and the possible sources for these fires.
- 4.1A.8 Describe importance of early detection and correct recognition.
- 4.1A.9 Identify the characteristics and behaviour of fire (e.g. what you will see, how the fire will behave) in different cabin environments and fire propagation.
- 4.1A.10 Describe the means of fire/smoke detection (e.g. smell, auditory, visual, tactile).
- 4.1A.11 Describe the chemical properties of each type of fire extinguisher, including hazards to occupants and aircraft systems and how it extinguishes fire.
- 4.1A.12 Describe each piece of fire fighting equipment onboard (including protective breathing equipment, protective clothing) and include the following in the description:
  - a) Purpose;
  - b) Stowage, location, access, retrieval;
  - c) Serviceability;
  - e) Operation;
  - f) Duration;

- f) Limitations;
- g) Conditions of use; and
- h) Care after use.

**4.1B Crew Responsibilities**

- 4.1B.1 Identify the responsibility for crew to maintain situational awareness and investigate immediately whenever an onboard fire situation is suspected and when an onboard fire detection system is activated.
- 4.1B.2 Identify the importance and responsibility to be prepared to implement appropriate fire fighting procedures.
- 4.1B.3 Define the specific crew member responsibilities for fire fighting onboard:
  - a) Fighting fire;
  - b) Back-up equipment/second fire fighter;
  - c) Communication; and
  - d) Passenger control.
- 4.1B.4 List fire prevention measures and crew responsibilities for fire prevention including but not limited to:
  - a) Practicing and maintaining safe work habits;
  - b) Enforcing smoking regulations;
  - c) Monitoring cabin, lavatories, and cargo compartments;
  - d) Awareness of popped circuit breaker procedures; and
  - e) Prompt investigation of fire detection alarms, unusual odours, heat build-up, deformation of aircraft components, etc.
- 4.1B.5 Describe the importance of crew coordination in fire fighting and identify ways that this may be achieved.
- 4.1B.6 Describe the importance of crew communication in fire fighting and providing pilot-in-command with accurate information on fire source, location, extent/severity or fire/smoke, fire fighting actions.

**4.1C Procedures – Cabin**

- 4.1C.1 Describe the fire fighting procedures for specific types of fires (e.g. galley, oven, lavatory, electrical, upholstery, etc.).
- 4.1C.2 Describe the techniques and procedures for fighting fires including finding the source of the fire, type of extinguisher to use, additional fire fighting equipment needed, techniques for using extinguishers, complications to fighting types of fires, limitations to fighting fires, post-fire procedures, crew communication, crew coordination procedures and passenger-handling.
- 4.1C.3 Identify ways to maintain breathing comfort for cabin occupants.
- 4.1C.4 Define flashover and flash-fire. Describe the cause of each and the conditions under which each is likely to occur.

**4.1D Procedures – External**

4.1D.1 Identify the types of external fires, which could affect flight safety including but not limited to:

- a) Engine fires;
- b) APU and engine torching;
- c) Fuel spill/apron fires;
- d) Fires on loading bridges; and
- e) Service vehicle fires.

4.1D.2 Describe established procedures for dealing with fire situations including recognition, crew communication and crew coordination.

4.1D.3 Identify the communication and coordination required with ground personnel and describe the fire fighting assistance ground personnel can offer and the assistance crew members can provide to ground personnel.

**4.2 SMOKE/FUMES IN THE CABIN**

**Training Objective:** The trainee will be able to identify the hazards associated with fumes and/or smoke in the cabin, potential sources and the established procedures if fumes and/or smoke are detected in the cabin, in flight or on the ground.

**Scope:** General  
Crew Responsibilities

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**4.2A General**

- 4.2A.1 Identify the possible sources of fumes and smoke in the cabin.
- 4.2A.2 Describe the potential hazards to the aircraft and the occupants from smoke/fumes in the cabin.

**4.2B Crew Responsibilities**

- 4.2B.1 Describe the requirement of crew to be alert for smoke and fumes in the cabin (e.g. during fuelling, de-icing/anti-icing, etc.).
- 4.2B.2 List the crew communication procedures associated with smoke/fumes in the cabin including how to notify the pilot-in-command of the situation and what information is required.
- 4.2B.3 Describe the procedures for dealing with smoke/fumes in the cabin including locating the source, notifying the pilot-in-command, crew coordination, ensuring passengers breathing comfort, preparation for rapid deplanement or evacuation.
- 4.2B.4 Describe the authority of the pilot-in-command to relocate passengers if smoke/fumes are present in the cabin and when this decision may be made.
- 4.2B.5 Define "smoke removal", and smoke control, and describe the associated procedures on the air operator's aircraft types, as applicable and in accordance with the manufacturer's specifications, including crew communication, crew coordination and advice to passengers.
- 4.2B.6 Describe how to recognize "condensation" in the cabin, its similarity to smoke and describe causes and the phases of flight when it may be visible.
- 4.2B.7 Identify the advice to passengers in case of condensation in the cabin, who gives this advice, when it is given and the importance of communicating with passengers to minimize panic.



**4.3 RAPID DECOMPRESSION AND CABIN PRESSURIZATION PROBLEMS**

**Training Objective:** The trainee will be able to recognize a rapid decompression and cabin pressurization problems, associated crew responsibilities and the established procedures for dealing with each condition.

**Scope:** General  
Crew Responsibilities

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**4.3A General**

- 4.3A.1 Define rapid decompression and cabin pressurization problems.
- 4.3A.2 Identify the potential threat to flight safety caused by a rapid decompression.
- 4.3A.3 Identify the potential causes of a rapid decompression (*e.g. fuselage failure, air pack failure*) and cabin pressurization problems (*e.g. door seal leak, cracked window, system malfunction, etc.*).
- 4.3A.4 Describe the mechanical indications and physiological effects associated with each condition.
- 4.3A.5 Describe the effects of oxygen deficiency on human performance and identify the importance in recognizing these signs and symptoms in other crew members.
- 4.3A.6 Identify the importance of blowout panels and where these may be located on each aircraft type in the air operator's fleet.
- 4.3A.7 List the crew member procedures associated with a rapid decompression and cabin pressurization problems.
- 4.3A.8 Describe the effects of a rapid decompression on any unsecured objects, or persons in the immediate area.
- 4.3A.9 Describe the likely aircraft attitude associated with an emergency or rapid descent following a rapid decompression, and what is meant by safe altitude and the importance of reaching a safe altitude quickly.
- 4.3A.10 Identify the likely cabin conditions in a rapid decompression and the ways crew members can ensure safety for themselves and passengers.

**4.3B Crew Responsibilities**

- 4.3B.1 Describe means and procedures for crew to passenger communication during a rapid decompression and cabin pressurization problems.
- 4.3B.2 Identify the immediate actions crew members must take in the event of a rapid decompression.
- 4.3B.3 Describe the crew communication procedures (*e.g. signal for beginning a post-decompression walk-around, who is responsible for giving this signal and when it will be given, etc.*).
- 4.3B.4 List the crew member duties in a post-decompression walk-around and safety priorities.
- 4.3B.5 Identify the importance of crew coordination and methods of achieving this coordination.

#### **4.4 EVACUATIONS**

**Training Objective:** The trainee will be able to identify the types of evacuations, crew responsibilities and procedures relating to the different types of evacuation situations.

**Scope:** General  
Crew Member Responsibilities  
External Factors  
Communication  
Brasse Position  
Exit Procedures  
Evacuation Responsibilities  
Preparation for Evacuation  
Evacuation Procedures  
Rapid Deplanement  
Post-Evacuation  
Accident/Incident Review

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#### **4.4A General**

- 4.4A.1 Define evacuation and rapid deplanement.
- 4.4A.2 Identify the types of occurrences that may require evacuation or rapid deplanement, who is responsible for making this decision, and the factors to be considered when making this decision.
- 4.4A.3 Define “prepared” and “unprepared” evacuation.
- 4.4A.4 Define "ditching" and "inadvertent water contact". Describe the conditions which may be associated/expected with each type of emergency.
- 4.4A.5 Define Able-Bodied-Person (ABP). Describe the types of persons a crew member would choose for an ABP.

#### **4.4B Crew Member Responsibilities**

- 4.4B.1 Define situational awareness and the responsibility of crew members to be situationally aware (*e.g. unwarranted evacuations*).
- 4.4B.2 Identify the requirement of crew members to be aware of their duties and the duties of other crew members and what this means in an evacuation.
- 4.4B.3 Describe the need to be prepared during critical phases of flight due to increased risk of accidents.
- 4.4B.4 Describe the importance of silent review in preparing for a possible evacuation.
- 4.4B.5 Identify when crew members have the authority and the responsibility to initiate an evacuation. Include who is responsible for activating evacuation signals.
- 4.4B.6 Describe the different types of passenger behaviour (*e.g. passive, aggressive and hysteric*) and identify effective ways of managing passenger behaviour in evacuations.

4.4B.7 Identify the responsibility of crew members to provide leadership in an evacuation and list ways this may be achieved.

**4.4C External Factors**

4.4C.1 Identify how crew members can manage evacuations in adverse conditions (*e.g. heavy smoke, darkness*).

4.4C.2 Describe the different aircraft attitudes possible as a result of accidents/incidents (*e.g. gear collapse, off-runway, shift in center of gravity*).

4.4C.3 Identify the factors that could adversely affect aircraft flotation in water landings (*e.g. structural damage, weight, center of gravity, outside conditions, etc.*).

4.4C.4 Describe the effect of environmental conditions in evacuations (*e.g. strong winds, terrain, snow/ice*).

4.4C.5 Identify the importance of time management in prepared and unprepared evacuations and how time affects survivability in different accident situations.

**4.4D Communication**

4.4D.1 Describe the importance of crew communication in an evacuation and the established communication signals for evacuations.

4.4D.2 Identify the briefings required between flight deck and cabin crew in an emergency situation that may require an evacuation. Include the following information in the description:

- a) Who is responsible to conduct briefing;
- b) When and where to conduct the briefing;
- c) What information is required; and
- d) How to conduct the briefing including time management.

4.4D.3 Identify the briefings required to prepare passengers in an emergency situation that may require an evacuation. Include the following information in the description:

- a) Who is responsible to conduct briefing;
- b) When and where to conduct the briefing;
- c) What information is required; and
- d) How to conduct the briefing including time management.

**4.4E Brace Position**

4.4E.1 Define brace position.

4.4E.2 Identify the brace positions for crew members in forward or aft-facing seats, passengers (seat orientation as appropriate), including pregnant passengers, passengers with a disability, children and infants. Describe the effectiveness of each brace position and the importance of assuming the preferred brace position to minimize injury. Describe the effect of seat pitch on preferred brace positions.

4.4E.3 Identify the signal(s) for assuming the brace position in emergency situations, when it is given, who is responsible for giving it and the crew responsibilities when the brace signal has been given.

4.4E.4 Identify when crew members should assume the brace position if no signal has been given.

**4.4F Exit Procedures**

4.4F.1 Identify crew member responsibility to assess conditions prior to opening any exit.

4.4F.2 Identify the evacuation procedures for each type of exit (*i.e. doors, windows, hatches, ventral exits, tailbones, opening in fuselage*).

4.4F.3 Describe the procedures to operate and use any evacuation aids (*e.g. slides, ramps, ropes*) that are provided on the aircraft. Include instructions on operation and use of these evacuation aids to passengers.

4.4F.4 Identify the inflation times for the different evacuation aids (*e.g. slides, ramps, slide/rafts*). Describe how to recognize if an evacuation device is fully inflated.

4.4F.5 Describe alternate procedures if initial inflation fails and if the inflation fails during the course of the evacuation.

4.4F.6 Describe the preferred techniques for special attention passengers using evacuation slides (*e.g. passengers with a disability, passengers with guide and service animals*).

4.4F.7 Describe purpose and procedures of protective position, including the use of assist handle and assist space or alternates as applicable (*e.g. avoiding partial blockage of exit with body*).

4.4F.8 Describe the importance of maintaining a balanced flow of passengers to all available exits (*e.g. to minimize evacuation time*).

**4.4G Evacuation Responsibilities**

4.4G.1 Identify the shouted commands for each type of evacuation and describe the rationale behind each of the commands. Describe the ways to increase the effectiveness of commands (*e.g. assertive, loud, positive, short, body language, phraseology, commands in unison, etc.*).

4.4G.2 Identify the responsibility of crew members to assist passengers and fellow crew members in an evacuation and any limitation to this responsibility. Outline the conditions when crew members should evacuate themselves.

4.4G.3 Describe ways to assist incapacitated passengers and fellow crew members in evacuations.

4.4G.4 Identify the importance of checking the cabin, flight deck and lavatories after all passengers have been evacuated and describe how and under what conditions this should be accomplished.

4.4G.5 Identify the crew responsibilities for removal of equipment when they evacuate the aircraft and under what conditions this should be accomplished.

**4.4H Preparation for Evacuation**

Outlined below are steps involved for the preparation of an evacuation, including required communications between crew members and passengers. The evacuation of the aircraft when it is stopped is outlined in 4.4I.1 below.

These steps are arranged in order of priority to allow the more important duties to be completed first, on a time available basis. If during any step the situation dictates that preparations must

cease or that there is no more time available, the cabin crew must immediately proceed to Step j) in the evacuation preparation list shown below in 4.4H.1 and prepare themselves for the emergency landing.

Each operator will develop their own established procedures and commands as required by their operation.

4.4H.1 The list below identifies, in order of importance, the cabin crew duties required to prepare the cabin, passengers and crew for an evacuation when time permits. Describe the established procedures for each of the duties for a prepared evacuation on land and outline the differences for a ditching.

a) CONDUCT BRIEFINGS

i. Pilot-in-Command to In-charge Flight Attendant

- Nature of emergency
- Land or water evacuation
- Time available for preparation
- Who will advise passengers and when
- Any other information/instructions

ii. In-charge Flight Attendant to Flight Attendants

- Information provided by PIC briefing
- Preferred exits
- Crew communication signals during preparation (i.e. thumbs-up)
- Confirm F/A's assume position in cabin for announcement and emergency demonstration

iii. In-charge Flight Attendant to Pilot-in-Command

- Crew briefing completed
- Update any information as required

iv. Pilot-in-Command or In-charge Flight Attendant to Passengers

- Nature of situation
- Follow crew instructions

b) SECURE GALLEY & STOW EQUIPMENT

- Re-stow meal trays, trolleys, serving utensils and equipment
- Stow garbage
- Close and lock compartment doors
- Turn off circuit breakers, if applicable

c) CLEAR EXITS & ENSURE EXITS IN PROPER MODE

d) SECURE CABIN & BRIEF PASSENGERS

(F/A's to conduct cabin checks throughout process)

- Position seat backs upright
- Stow chair tables
- Loosen collars and ties
- Remove sharp objects
- Remove high heeled shoes (if applicable to equipment)
- Don warm clothing (inclement weather/ditching)
- Secure baggage
- Distribute infant life preservers (if applicable)
- Don life preservers (If applicable)
- Secure safety belts
- Review brace position and when to assume

- Review exit locations
  - Review floor proximity lighting
  - Advise to review safety features card
- e) BRIEF SPECIAL ATTENTION PASSENGERS
- f) BRIEF ABP'S
- i. Assisting Special Attention Passengers
    - How to best assist during evacuation
  - ii. Operating unmanned exit
    - When to open exit
    - Assess for safe exit conditions
    - Exit opening procedure
    - Procedure if exit unsafe/unusable
    - Location and operation of slide, slide raft, life rafts, and/or stairs, escape ropes, etc.
  - iii. Crowd Control
    - How to block
    - Assist at bottom of slide/stairs
- g) COMPLETE FINAL CABIN CHECK
- i. Ensure window shades are positioned up or down as appropriate
- h) ADVISE PIC WHEN CABIN READY & OBTAIN TIME UPDATE
- i) ADJUST CABIN LIGHTS
- j) F/A'S ASSUME BRACE POSITION IN ASSIGNED SEAT
- i. Begin silent review
- k) COMMENCE SHOUT COMMANDS WHEN REQUIRED
- l) PERFORM ASSIGNED EVACUATION DUTIES

**4.4I Evacuation Procedures**

4.4I.1 Describe the established evacuation procedures in order of priority, as shown in the Evacuation flow chart on page 4-12, for each of the following types of evacuations:

- a) Land - prepared;
- b) Land - unprepared;
- c) Ditching ;
- d) Inadvertent water contact;
- e) Tidal flat;
- f) Evacuation with passenger transfer vehicle (PTV) mated to aircraft;
- g) Evacuation at an airport gate/ramp jetway; and
- h) Any other scenario applicable to the operator.

**4.4J Rapid Deplanement**

4.4J.1 Describe the established procedures for rapid deplanement.

**4.4K Post-Evacuation**

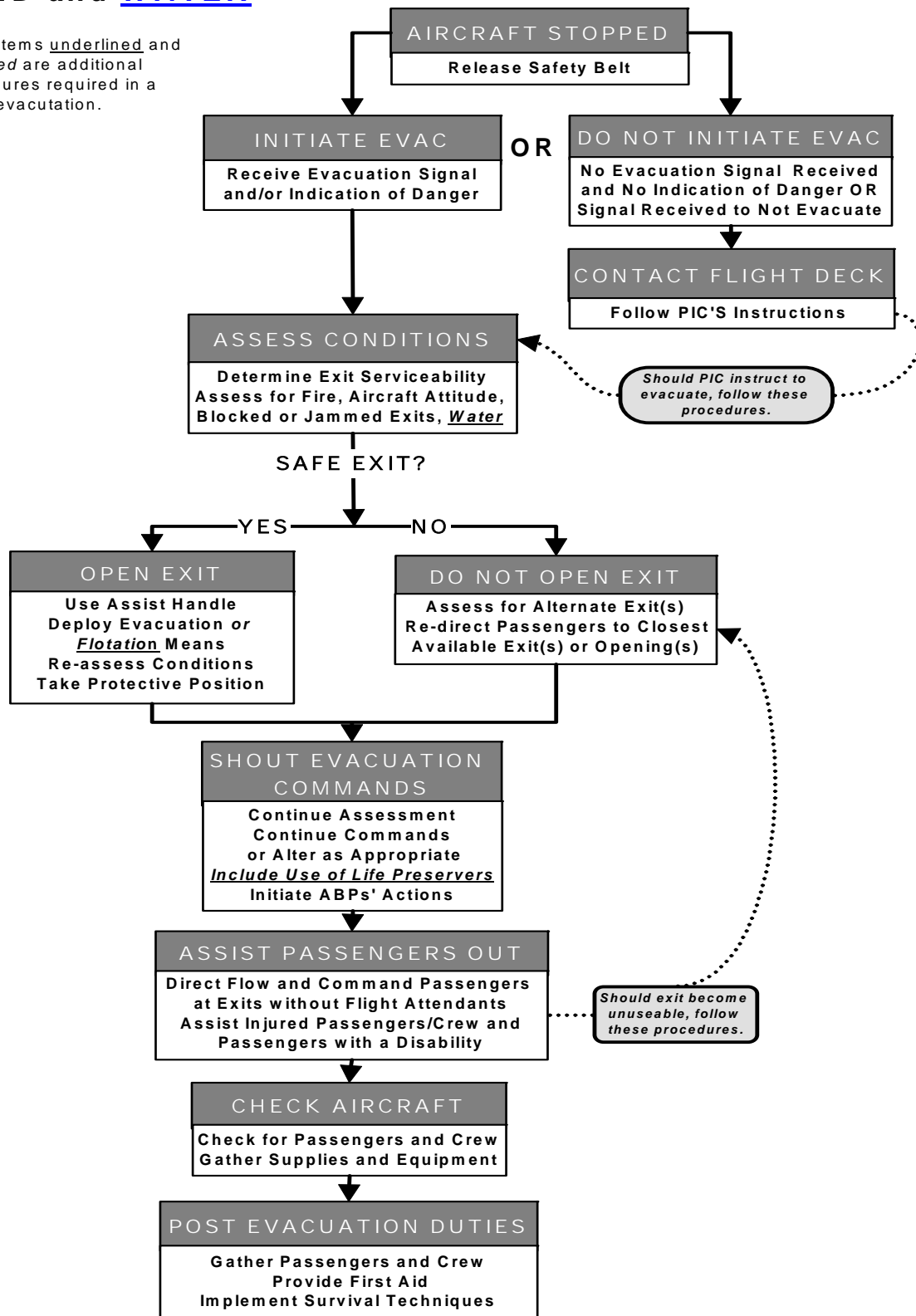
- 4.4K.1 Describe the responsibilities of crew members after an evacuation (*e.g. grouping passengers, assisting with first aid, etc.*).
- 4.4K.2 Identify the supplies and equipment available after an evacuation that will provide assistance and enhance survivability (*e.g. ELT, survival kit, blankets, megaphone, raft, life preservers, flashlight, food, water, axe, etc.*).
- 4.4K.3 Describe the type of assistance, which may be available at the various airports in the operator's route system. Include ways crew members can manage the evacuation to coordinate their actions with the ground rescue personnel.
- 4.4K.4 Describe the different groups (*e.g. media, legal, accident investigators*) that will attempt to solicit information from cabin crew after an evacuation and outline the procedures for dealing with these groups.
- 4.4K.5 List the types of survival situations crew members may encounter as a result of an evacuation including wilderness, arctic, sea, desert, jungle survival as appropriate to the air operator's operation.
- 4.4K.6 Identify the importance of post-crash procedures to increase survivability in each of the survival situations. Include the following:
  - a) Survival first aid;
  - b) Survival priorities;
  - c) Hazards inherent in different environments;
  - d) Survival skills for different environments;
  - e) Survival equipment and supplies carried on the aircraft; and
  - f) Signalling and recovery techniques.
- 4.4K.7 Describe the search-and-rescue systems, their scope of operation and how they are able to locate downed aircraft.
- 4.4K.8 Describe the process of accident investigation and describe the official groups tasked with accident investigation, internationally and nationally. Identify their mandate and their role in aviation safety.

**4.4L Accident/Incident Review**

- 4.4L.1 Describe the air operator's experience with accidents/incidents involving rapid deplanements and evacuations
- 4.4L.2 List both the positive and negative factors affecting survivability in evacuation such as fuselage break-up, smoke, fire, etc. *It is acceptable to use the accident/incident data from other operators when the teaching points can be universally applied.*

# EVACUATION LAND and WATER

**Note:** Items underlined and *italicized* are additional procedures required in a water evacuation.





**4.5 CARGO FIRE TRAINING**

**Training Objective:** The trainee will be able to identify fire detection and fire fighting systems and the established fire fighting procedures; and recognize the Class B cargo compartment and its features.

**Scope:** General  
Crew Responsibilities  
Procedures  
Drills

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**4.5A General**

4.5A.1 Review available data and/or experience(s) with cargo compartment fire accidents/incidents. (*i.e. South African Airways accident involving a B747 combi, which suffered an in-flight fire resulting in the total loss of the aircraft*). Identify the safety lessons learned as a result.

4.5A.2 Identify which Transport Canada document govern main deck Class B cargo compartment fire procedures.

4.5A.3 Describe the Class B cargo compartment and its features. Include the following in the description:

- a) Cargo loading envelope and limitations;
- b) Fire protection systems (*i.e. fire containment covers and/or suppression systems, as appropriate*);
- c) Smoke and fire detection systems and monitoring systems, if installed;
- d) Load carrying methods (*i.e. pallets, igloos, unit load devices, etc.*) and restraint systems;
- e) Access to cargo compartment (*i.e. door key, barrier net, etc.*);
- f) Cargo compartment layout: restricted access routes and areas, roller ball mat systems, container/pallet restraints and cargo loading device step;
- g) Communication systems and equipment; and
- h) Lighting system controls.

4.5A.4 Describe each piece of cargo fire fighting equipment onboard including protective clothing and breathing equipment. Include the following in the description:

- a) Purpose;
- b) Stowage, location, access, retrieval;
- c) Serviceability;
- d) Operation;
- e) Duration;
- f) Limitations;
- g) Conditions of use; and
- h) Care after use.

**4.5B Crew Responsibilities**

4.5B.1 Define specific pre-flight crew member responsibilities in regard to the pre-flight inspection of the Class B cargo compartment and fire fighting equipment, and the in-flight inspection if applicable.

4.5B.2 Define specific crew member responsibilities in regard to the Class B cargo compartment fire procedures:

- a) Communication;
- b) Passenger control;
- c) Monitoring cargo compartment fire/monitoring for re-ignition of fire.

4.5B.3 Identify the importance of non-intervention (monitoring).

**4.5C Procedures**

4.5C.1 Describe procedures for immediate and continuous communication, including terminology, as follows:

- a) Upon detection of smoke/fumes/fire in the Class B cargo compartment;
- b) During the fire; and
- c) Post-fire.

4.5C.2 Describe the monitoring and/or fire fighting procedures for specific types of fire protection systems (*i.e. fire containment covers and/or fire suppression systems as appropriate*).

4.5C.3 Describe communication procedures between the flight deck crew and cabin crew during normal flight operations for movement through the cargo compartment on aircraft equipped with a fire suppression system.

4.5C.4 Describe established verification procedure(s) that fire is out.

4.5C.5 Describe established procedure(s) for dealing with fire re-ignition problems.

**4.5D Drills**

4.5D.1 Fire fighting equipment and the brackets used for restraint shall be identical to those installed in the aircraft with respect to weight, dimensions, controls, types and operations. (*Self-contained portable breathing equipment may be substituted with a training smoke hood, which is not operational.*)

4.5D.2 Each trainee will practice the following:

- a) Don protective clothing and equipment in the correct sequence; and while wearing:
- b) Don and activate or simulate activation of protective breathing equipment;
- c) Select and remove from stowage the proper fire extinguishing equipment;
- d) Attach wand extension to the extinguisher; and
- e) Disengage and re-engage the barrier net coupling.

*The drill set out below may be performed in conjunction with other fire fighting drills.*

4.5D.3 Each trainee shall participate in at least one drill that demonstrates the ability to effectively carry out flight attendant duties and responsibilities in an in-flight Class B cargo fire. Each drill shall include the following procedures:

- a) Recognize that there is a potential fire situation (*i.e. smoke detector signal, unusual fumes, call from flight deck*);
- b) Apply communication and coordination procedures with flight deck and cabin crew;
- c) Inform, assist and control passengers;

- d) Monitor cargo fire/monitor for re-ignition; and
- e) Apply post-fire follow-up procedures.

4.5D.4 Trainee performance will be observed and debriefed according to:

- a) Recognition or identification of the problem;
- b) Effective communication/coordination procedures throughout the drill (*i.e. notify cabin crew members of the situation, establish and maintain communication with the flight deck, provide clear, concise information to the pilot-in-command, inform and assist passengers, etc.*);
- c) Responds in a timely manner;
- d) Correct usage of fire fighting equipment and procedures consistent with the type of fire protection system in place;
- e) Undertake further action as required; and
- f) (Safety) consequences of error.

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**INITIAL – PART FIVE**

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**EMERGENCY EQUIPMENT**

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**5.1 EQUIPMENT OVERVIEW**

**Training Objective:** The trainee will be able to identify each piece of safety and emergency equipment onboard the operator's aircraft, describe its uses and the procedures associated with its operation.

**Scope:** General

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**5.1A General**

5.1A.1 Define safety and emergency equipment.

5.1A.2 Describe each piece of safety and emergency equipment the operator has available onboard each aircraft based on the following points:

- a) General description;
- b) Uses;
- c) Location(s);
- d) Pre-flight serviceability check(s);
- e) Removal from stowage;
- f) How to operate;
- g) Conditions for operation;
- h) Operational limitations;
- i) Operation under adverse conditions;
- j) Precautions for use; and
- k) Care after use.

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**INITIAL – PART SIX**

**AIRCRAFT SPECIFIC**

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**6.1 PHYSICAL DESCRIPTION**

**Training Objective:** The trainee will be able to recognize the aircraft's main characteristics and be able to describe the interior and exterior features.

**Scope:** General  
Exterior Description  
Interior Description

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**6.1A General**

6.1A.1 Identify the manufacturer.

6.1A.2 Identify the model and series number of the aircraft, aircraft family.

6.1A.3 Describe the aircraft type (*e.g. wide-body, commuter, STOL*).

6.1A.4 Describe the performance features of the aircraft (e.g. range, cruising altitudes, cruising speeds).

6.1A.5 *Identify the physical dimensions of the aircraft including height, length, wingspan.*

6.1A.6 *Identify the number of aircraft operator has in fleet, where they are based, their age, routes.*

**6.1B Exterior Description**

6.1B.1 Identify how many engines the aircraft has, where they are located and the accepted way to refer to them. Include the APU in this description.

6.1B.2 Identify all the exits on the aircraft, the air operator's way to refer to them and their principle uses (*e.g. L1; main boarding door*).

6.1B.3 List and describe any distinguishing features (*e.g. upper deck, winglets*). Describe surface contamination critical surfaces.

6.1B.4 Identify exterior markings and features and their significance including but not limited to: tail/fin number, registration, navigation lights, landing lights, taxi lights, rotating beacon, strobe light(s), exits, etc.

**6.1C Interior Description**

6.1C.1 Describe the flight deck configuration including seats, special features.

6.1C.2 Describe the cabin features of the aircraft including: crew and passenger seating, galleys, lavatories, cabin stowage areas, partitions, safety and emergency equipment locations, blow-out panels and any special features (*e.g. crew rest areas*). Include the following:

- a) How many, locations, access, retrieval;
- b) Special features of each;
- c) Operation including description of controls;
- d) Precautions, limitations and conditions of use;
- e) Serviceability checks; and
- f) Procedures for malfunction and care after use.

- 6.1C.3 Describe the operation of each of the crew seats, cabin and flight deck, and when they are occupied. Include the correct operation of the restraint system for each seat; the correct method for securing it to minimize injury; and the assigned crew member take-off/landing stations.
- 6.1C.4 Describe the fire detection systems onboard the air operator's aircraft relative to flight attendant procedures (e.g. in the passenger cabin, main deck cargo compartments, crew rest facilities, and/or galleys, as applicable), and include the following in the description:
- a) Location;
  - b) Serviceability;
  - c) Limitations;
  - d) Activation;
  - e) Signals when activated;
  - f) Shut-off/re-set; and
  - g) Care after activation.
- 6.1C.5 Describe flight attendant cabin positions, in all configurations, for: pre-flight passenger safety demonstrations, and emergency landing briefings.
- 6.1C.6 Describe the aircraft's floatation characteristics, as well as the different aircraft attitudes possible as a result of accidents/incidents on land and water and any effect on exit usability.

**6.2 GALLEYS**

**Training Objective:** The trainee will be able to identify the components of the galleys and describe the operation and procedures relating to their use.

**Scope:** General

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**6.2A General**

- 6.2A.1 Identify the components of the galley (*e.g. ovens, trolleys, electrical panels*).
- 6.2A.2 Describe the operation of each of these components.
- 6.2A.3 Identify the safety procedures associated with each of the galley components.
- 6.2A.4 Identify the safety implications of "safe work" practices in the galleys and ways to achieve this.
- 6.2A.5 Identify the potential hazards of spills and leaks in galleys and describe the procedures for dealing with them.
- 6.2A.6 Describe what is meant by "galley water shut-off valves" and identify the responsibility of crew members regarding these.
- 6.2A.7 Identify the function of circuit breakers in electrical panels and describe the procedures for tripped circuit breakers including reset and crew communication procedures. Describe the potential hazards to flight safety if circuit breaker procedures are not followed.
- 6.2A.8 Identify the crew procedures for dealing with any electrical malfunctions in the galley.
- 6.2A.9 Describe the procedures for reporting unserviceabilities in the galleys and who is responsible for reporting them. Include the importance of communicating this information to the new crew in case of a crew change.
- 6.2A.10 Identify the types of restraint devices in galleys (and in the cabin for galley equipment). Identify the restraint devices for portable equipment (*e.g. trolleys/carts, etc.*). Include descriptions on how to use them, when they are to be used and who is responsible for securing galley equipment. Describe the procedures and precautions for securing trolleys/carts and galley equipment in case of in-flight turbulence.
- 6.2A.11 Identify the procedures for securing galley curtains and the position they must be secured in for take-off and landing and at station stops with passengers onboard.
- 6.2A.12 Identify the approved stowage for excess galley equipment and supplies, especially during take-off and landing, and the approved location for garbage. Include the importance of keeping exit areas and emergency equipment stowage clear of obstruction and accessible.
- 6.2A.13 Where galleys are located on the lower deck include the following:
  - a) Policies and procedures relating to lower deck galleys;
  - b) Maximum number of persons allowed in the lower deck galley;
  - c) Communication procedures with lower galley crew members; and
  - d) Escape routes from the lower deck galley.

- 6.2A.14 Identify the procedures relating to lifts (*e.g. cart-lifts/dumb-waiter*) how and when they are to be operated, safety features, alternate procedures if lift becomes unserviceable.
- 6.2A.15 Describe the circumstances when galley power may be disrupted (*e.g. during engine start-up/shutdown, aircraft movement on the surface*).

### **6.3 COMMUNICATION SYSTEMS**

**Training Objective:** The trainee will be able to describe the communication systems onboard and be able to use it effectively in any onboard situation.

**Scope:** General  
Interphone  
Public Address System  
Passenger Call System  
Entertainment System  
Automatic Announcement System

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#### **6.3A General**

- 6.3A.1 Describe the components of the communication systems for crew communication and communication to the passengers.
- 6.3A.2 Describe the procedures for using each of these components in normal and emergency situations and inoperative/unserviceable procedures.

#### **6.3B Interphone**

- 6.3B.1 Describe the following points related to the cabin interphone:
- a) Location of the handsets and controls;
  - b) When would it be used/not used;
  - c) What is the established call priority. Describe the priority of system operation (override calling priority);
  - d) Identify the response to flight deck calls;
  - e) Identify interphone protocol;
  - f) Describe and demonstrate use of the interphone;
  - g) Identify accompanying chimes, lights and other signals;
  - h) Describe the reset procedures after use;
  - i) Describe the interphone procedures; normal, emergency; and
  - j) Describe alternate procedures in case of system failure.

#### **6.3C Public Address System**

- 6.3C.1 Describe the following points relating to the public address system:
- a) Location of the PA microphones and controls;
  - b) What is the established PA priority;
  - c) Describe and demonstrate use of the PA;
  - d) Identify accompanying chimes, lights and other signals;
  - e) Describe the reset procedures after use;
  - f) Describe the PA procedures; normal, emergency; and
  - g) Describe alternate procedures in case of system failure.

#### **6.3D Passenger Call System**

- 6.3D.1 Describe the components location, operation and procedures associated with the passenger call system.
- 6.3D.2 Identify the crew responsibilities relating to passenger call system.

**6.3E Entertainment System**

- 6.3E.1 Describe the components, location, operation and procedures of the onboard entertainment system.
- 6.3E.2 If the entertainment system is being used for passenger safety briefings, identify alternate procedures if the system fails.
- 6.3E.3 List the safety procedures associated with the entertainment system (*e.g. stowing of screens for take-off and landing*).

**6.3F Automatic Announcement System**

- 6.3F.1 Describe the automatic announcement system.
- 6.3F.2 Identify the information it is programmed for.
- 6.3F.3 Describe when it is used and what it is used for.
- 6.3F.4 Describe how the system is programmed and activated and who is responsible for this.
- 6.3F.5 Describe the procedures for using the automatic announcement system and alternate procedures in case of system failure.



**6.4 LIGHTING SYSTEMS**

**Training Objective:** The trainee will be able to identify the different components of the interior and exterior lighting systems and be able to use them effectively in any situation.

**Scope:** General

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**6.4A General**

- 6.4A.1 Describe the components of the interior and exterior lighting systems onboard including fixed and portable components.
- 6.4A.2 Describe the function of each of the components of the lighting system.
- 6.4A.3 Describe the controls for the different components of the lighting system, including location and operation. Identify who is responsible for controlling each of them.
- 6.4A.4 Describe the features of each component when used in normal and emergency situations.
- 6.4A.5 Describe the procedures for use of each of the components of the lighting system in normal and emergency situations.
- 6.4A.6 Describe the alternate procedures for use in case of system failure.
- 6.4A.7 Describe the duration of components of the emergency lighting system.
- 6.4A.8 Identify the responsibilities for activating components of the lighting system in normal and emergency situations.

**6.5 WATER AND WASTE SYSTEMS**

**Training Objective:** The trainee will be able to identify the components of the water and waste system and be able to implement the correct procedures relating to these systems.

**Scope:** General

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**6.5A General**

- 6.5A.1 Identify the components of the water and waste system onboard.
- 6.5A.2 Describe the location of the different components of the water and waste system including any cabin controls or gauges.
- 6.5A.3 Identify the potential threat to flight safety in case of large leaks of either the water or the waste system.
- 6.5A.4 Describe the crew responsibilities for the operation/malfunctions of the water and waste system.
- 6.5A.5 Describe the shut-off valves, importance, location, operation and identification.

**6.6 OXYGEN SYSTEMS**

**Training Objective:** The trainee will be able to recognize the components of the fixed oxygen systems and be able to use the systems effectively in any onboard situation.

**Scope:** General

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**6.6A General**

- 6.6A.1 Describe the components of the oxygen systems onboard the aircraft, including flight deck and cabin sources.
- 6.6A.2 Describe when each of the oxygen systems components is used. Include description of use for first aid, decompression and supplemental purposes.
- 6.6A.3 Identify the location of the components of the oxygen system including the location of O<sub>2</sub> masks and spares.
- 6.6A.4 Describe the crew responsibilities for the oxygen system.
- 6.6A.5 Identify how the system is activated, duration of oxygen flow and flow rates. Include how to activate flow to each individual mask and ways to verify that oxygen is flowing to an individual mask.
- 6.6A.6 Identify alternate procedures to access oxygen masks when the system fails.
- 6.6A.7 Describe the crew communication procedures required to activate the oxygen systems.

**6.7 HEATING AND VENTILATION SYSTEMS**

**Training Objective:** The trainee will be able to identify the components of the heating and ventilation systems and be able to implement correct procedures relating to these systems.

**Scope:** General

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**6.7A General**

- 6.7A.1 Describe the components and operation of the heating and ventilation systems.
- 6.7A.2 Identify the location of the heating and exhaust vents of which crew members need to be aware.
- 6.7A.3 Describe the location of the controls and control panels for the heating and ventilation systems, the procedures for use and who is responsible for monitoring them.
- 6.7A.4 Describe any crew communication and crew coordination procedures when using the heating and ventilation systems.
- 6.7A.5 Identify conditions that may occur in the cabin associated with the system (*e.g. condensation, glycol fumes and residual oil smoke*).

**6.8 EXITS**

**Training Objective:** The trainee will be able to identify the features of different types of exits and flight deck escape routes and be able to effectively use them in any onboard situation.

**Scope:** General  
Normal Operation  
Abnormal Operation  
Emergency Operation  
Airstairs

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**6.8A General**

- 6.8A.1 Identify each of the different types of cabin exits and flight deck escape routes onboard the aircraft.
- 6.8A.2 Identify and describe the features of each of the exits and routes, and describe those designated as evacuation exits during fuelling.
- 6.8A.3 Identify what the normal function of the exit/route (e.g. boarding, service, emergency use only).
- 6.8A.4 Identify safety precautions associated with exit/route operation. Include potential hazards (e.g. *inadvertent slide deployment, injury to crew and ground personnel, etc.*).
- 6.8A.5 Identify the MEL relief given to operators when a door or slide is inoperative. Outline the conditions for this relief to be granted and the procedures which must be followed.

**6.8B Normal Operation**

- 6.8B.1 Describe the procedures for operating the exit in normal mode including arming/disarming and opening/closing.
- 6.8B.2 Identify the precautions associated with using this exit in normal mode/situations.
- 6.8B.3 Identify who is responsible for operating the exit in normal situations.
- 6.8B.4 Describe the crew communication and coordination procedures, including any established signals associated with exit operation in normal situations. Identify who is responsible for ensuring that this communication occurs and the importance of this communication for flight safety.

**6.8C Abnormal Operation**

- 6.8C.1 Identify what is meant by abnormal operation of the exit.
- 6.8C.2 Describe the features of the exit associated with abnormal operation.
- 6.8C.3 Describe the procedures for abnormal operation of the exit, including who is responsible for the exit operation, crew communication and crew coordination procedures.
- 6.8C.4 Identify any precautions for abnormal operation of the exit.
- 6.8C.5 Describe the door-reset procedures.

**6.8D Emergency Operation**

- 6.8D.1 Identify what is meant by emergency operation of the exit.
- 6.8D.2 Describe the features of the exit associated with emergency operation.
- 6.8D.3 Describe the procedures for operating the exit in emergency mode.
- 6.8D.4 Identify the precautions for using the exit in emergency situations.
- 6.8D.5 Describe any alternate procedures for use of the exit in the event it becomes unserviceable.
- 6.8D.6 Identify who is responsible for operating the exit in emergency situations.

**6.8E Airstairs**

- 6.8E.1 Define what is meant by airstairs and identify their location(s).
- 6.8E.2 Describe the features of the airstairs relating to normal, abnormal and emergency use.
- 6.8E.3 Describe the procedures for operating the airstairs in normal, abnormal and emergency situations. Identify the crew member responsibility for airstair operation.
- 6.8E.4 Identify the precautions relating to use of the airstairs.
- 6.8E.5 Describe the crew communication and the coordination procedures whenever the airstairs are being used.

**6.9 UNIQUE FEATURES**

**Training Objective:** The trainee will be able to recognize the unique features of each aircraft type and/or the differences within the type as a result of interior configuration or manufacturer series differences.

**Scope:** General

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**6.9A General**

- 6.9A.1 Identify any features, procedures and/or equipment unique or different to each aircraft in the air operator's fleet (*e.g. electrical outlets, main deck cargo compartment fire/smoke detection systems, interior doors/latches*).
- 6.9A.2 Describe each of the differences, their impact on the air operator's standard operating procedures and the importance to flight safety of crew members being familiar with them.
- 6.9A.3 Describe the crew member responsibility to maintain proficiency with all aircraft safety and emergency equipment and systems.

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**INITIAL – PART SEVEN**

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**DRILLS**

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**7.1 PUBLIC ADDRESS SYSTEM AND INTERPHONE SYSTEM DRILLS**

**7.1.1 General**

- a) *Relaying information to fellow crew members and to passengers is an important safety component of the crew member's duties.*
- b) *The PA system and interphone system are tools for relaying safety information thus using the systems correctly and effectively increases the probability of the message being received and understood.*

**7.1.2 Equipment Criteria**

- a) At least one public address system and one interphone system of a type installed in the air operator's aircraft shall be used for the drills.

**7.1.3 Performance Criteria**

- a) Each trainee shall demonstrate communications techniques on a public address system and an interphone system and perform the following:
  - i. Remove the PA microphone/handset from its stowage;
  - ii. Activate the PA system and (if applicable) verify that it is activated;
  - iii. Deliver at least one published safety or emergency announcement;
  - iv. De-activate/reset the system after use;
  - v. Re-stow the handset/microphone after use;
  - vi. Remove the interphone handset from its stowage;
  - vii. Activate, select station;
  - viii. Communicate with receiving station;
  - ix. De-activate/reset the system after use; and
  - x. Re-stow the handset/microphone after use.

**7.1.4 Evaluation Criteria**

- a) Trainee performance shall be observed, rated and debriefed according to:
  - i. Correct operations of the systems;
  - ii. Message clarity (*e.g. well-placed, modulated, good volume, confidence, authority, sincerity*);
  - iii. Appropriate usage of announcement (*e.g. terminology, pronunciation, enunciation*);
  - iv. Follows air operator's procedures (*e.g. identifies station/name, etc.*).

## **7.2 PASSENGER BRIEFING DRILLS**

### **7.2.1 Equipment Criteria**

- a) Demonstration equipment typical of all of the equipment used on the aircraft in the operator's fleet.

### **7.2.2 Performance Criteria**

- a) Each trainee shall perform each of the following:
  - i. Pre-flight safety briefing to a special attention passenger (*e.g. blind, person with a disability, unaccompanied minor*);
  - ii. Individual briefing to an ABP (*e.g. exit operation, crowd control, assisting a special attention passenger, assistance on the ground, raft removal and launching*); and
  - iii. Perform a full passenger pre-flight safety demonstration (*e.g. signs, seat belts, exits, oxygen, life preserver, floor level lighting, safety features card, etc.*).

### **7.2.3 Evaluation Criteria**

- a) Trainee performance shall be observed, rated and debriefed according to:
  - i. Completeness of briefing content (*e.g. all relevant points included*);
  - ii. Effective usage of communication techniques (*e.g. clarity, comprehension, absence of jargon for special attention and ABP briefing*);
  - iii. Correctly modified in accordance with requirements of the individual to whom briefing is being delivered;
  - iv. Proper usage of eye contact, body language;
  - v. Correct usage and simulation of the operation of each piece of demonstration equipment;
  - vi. Synchronizes demonstration actions with announcement;
  - vii. Displays confidence and leadership;
  - viii. Displays openness and ability to answer questions; and
  - ix. Verifies that briefing points were understood.

### **7.3 AIRCRAFT EXIT OPERATION DRILLS – Each Aircraft Type**

#### **7.3.1 Equipment Criteria**

- a) Each drill shall be performed using the appropriate aircraft or approved training device.
- b) Individual aircraft exits may be substituted by the approved equivalent as provided for in Schedule A and as authorized in the training program. Exits equipped with slides shall include slide attached or slide drag simulation for emergency mode operations.

#### **7.3.2 Normal Door Operation Performance Criteria**

- a) Each trainee shall operate each floor level exit type, for each aircraft type, in the normal mode and perform the following:
  - i. Identify the signal and the conditions under which that exit may be opened/closed;
  - ii. Assess the exterior and interior conditions for obstacles or hazards to persons or the exit during opening/closing (*e.g. loading bridge, stairs, barrier straps/cords, equipment*);
  - iii. Identify the signal for arming and disarming the exit;
  - iv. Perform the arming and disarming sequence for the exit;
  - v. Verify the exit mode as armed and disarmed by completing appropriate checks (*e.g. visual checks, physical checks, cross-checks, response to interphone call*);
  - vi. Open and close the exit (in the normal (disarmed) mode);
  - vii. Engage and release exit locking mechanisms and verify functioning of locking mechanisms (*e.g. gust lock*);
  - viii. Install and remove the barrier strap for that exit; and
  - ix. Perform the opening/closing follow-up checks for that exit (*e.g. alignment for markings, closed/locked indicators, etc.*).

#### **7.3.3 Emergency Door Operation Performance Criteria**

- a) Each trainee shall operate each floor level exit type, for each aircraft type, in the emergency mode and perform the following:
  - i. Recognize the signal for or the conditions under which the exit is to be opened in the emergency mode;
  - ii. Verify the exit is in the correct mode;
  - iii. Assess conditions outside the exit to determine exit usability (*e.g. clear of obstruction, fire, and aircraft attitude*);
  - iv. Position escape device (if applicable);
  - v. Open the exit in the armed mode and secure the exit in the fully open position;
  - vi. Pull the manual inflation handle(s) and verify deployment, inflation (*e.g. ramp, slide*);
  - vii. Assume and maintain appropriate protective body and hand positions; and
  - viii. Access release handle(s) (*e.g. slide disconnect, ventral stairs, etc.*).

#### **7.3.4 Cabin Window Exit Performance Criteria**

- a) Each trainee shall operate each cabin window or hatch exit type, for each aircraft type and perform the following:
  - i. Recognize the signal for or the conditions under which the exit is to be opened;
  - ii. Assess conditions outside the exit to determine exit usability (*e.g. clear of obstruction, fire, and aircraft attitude*);
  - iii. Open and correctly stow the exit;

- iv. Verbally describe correct exit placement following removal, if the training procedures differ from the operational procedures, pull the manual inflation handle(s) and verify deployment, inflation (*e.g. ramp, slide*);
- v. Pull the manual inflation handle(s) and verify deployment, inflation (*e.g. ramp, slide*);
- vi. Assume and maintain appropriate protective body and hand positions;
- vii. Access escape tapes or escape ropes; and
- viii. Access release handle(s) (*e.g. slide disconnect, tail cone jettison, etc.*).

### **7.3.5 Evaluation Criteria**

- a) Trainee performance shall be observed, rated and debriefed according to the following:
  - i. Acknowledgment and timely response to signals;
  - ii. Assesses conditions outside the exit to determine exit usability (*e.g. clear of obstruction, fire, aircraft attitude*);
  - iii. Correct usage of exit operating mechanisms including hand and body position;
  - iv. Usage of proper terminologies and procedures;
  - v. Correctly positions escape device;
  - vi. Secures exit in the fully opened position or ensures correct stowage position of exit door, window or hatch;
  - vii. Pulls manual inflation handle(s) and verifies deployment, inflation (*e.g. ramp, slide*);
  - viii. Assumes and maintains appropriate protective hand and body positions;
  - ix. Correctly accesses escape tapes or escape ropes;
  - x. Correctly accesses release handle(s) (*e.g. slide disconnect, tail cone jettison, ventral stairs*); and
  - xi. Correctly applies procedures (*e.g. positioning of seatbacks, armrest, chair tables*).

### **7.3.6 Airstair Operation Performance Criteria**

- a) *For each aircraft type equipped with airstairs not integral to the exit and not used for evacuation each crew member shall perform the following:*
  - i. *Apply the correct procedures to ensure that the exit with the airstairs is in the appropriate mode, e.g., locked, unlocked;*
  - ii. *Select the appropriate airstair controls and deploy/retract the airstairs; and*
  - iii. *Verify that the airstairs are fully extended/retracted and lock them into position.*
- b) *Demonstrate the correct extension/retraction of handrails, assist handles (if applicable).*
- c) *Demonstrate any additional features that are associated with the airstairs, e.g., tread lights.*

## **7.4 EVACUATION DRILLS**

### **7.4.1 General**

- a) *Evacuations are emergency situations which crew members must effectively manage using their knowledge of procedures and the resources available to them. Skills are developed through practice.*
- b) It is recognized that for aircraft with more than one crew member, an evacuation will likely involve multiple exits and crew members. Therefore, where a drill is performed on an aircraft with more than one crew member, the drill scenario shall involve a "typical" number of crew members. Where a cabin simulator is used to conduct the drills, the number of crew members who could participate at any time shall be appropriate to the cabin simulator configuration.
- c) Each trainee shall assume an actual crew position and shall perform the designated evacuation responsibilities for that position. Where a double flight attendant seat is available and would normally be occupied by two crew members the drill shall be conducted to reflect this reality.
- d) A trainee who is to qualify on aircraft operating with more than one crew member shall perform at least one drill with additional trainees when conducting aircraft type training.
- e) *Demonstration should be completed by an instructor or by video demonstration prior to trainee conduct of evacuation drills. This will allow the trainees to see theory put to practice.*

### **7.4.2 Simulation Scenarios**

- a) *An evacuation drill is training and evaluation scenario, which must portray an operational flight and include abnormal and emergency occurrences and interactions amongst flight attendants flight crew members and passengers.*
- b) A drill scenario must not incorporate excessive variables that would overload a trainee, but not be limited so that there is reduced value to the exercise. The variables should differ in sequence from one drill to the next and can include but are not limited to the following:
  - i. Unserviceable exits;
  - ii. Inflation devices that fail or only partially inflate;
  - iii. Aircraft attitude which necessitates a decision to use the exit or redirect passengers;
  - iv. Poor visibility (*e.g. darkness, smoke*);
  - v. Incapacitated crew members;
  - vi. Exits which become unusable during the evacuation;
  - vii. Passengers with a special need (*e.g. elderly, person with a disability, etc.*);
  - viii. Passengers in panic (*e.g. positive, negative, false leadership*);
  - ix. Failure of aircraft emergency systems (*e.g. lighting, evacuation signal, communication, etc.*);
  - x. Decompression; and
  - xi. Exits which require the use of non-standard "commands" (*e.g. ramp with slide, tail cone, ventral stairs, etc.*).

### **7.4.3 Unprepared Land & Inadvertent Water Contact Evacuation Drill Performance Criteria**

- a) Each trainee shall perform at least one land and one inadvertent water contact evacuation drill that incorporates the procedures pertinent to a specific exit and perform the following:
  - i. Secure themselves in a flight attendant seat;
  - ii. Recognize that an emergency situation is developing and react appropriately to the drill scenario;
  - iii. Apply all applicable commands;
  - iv. Recognize when and how to initiate the evacuation (*e.g. commands, evacuation horn, etc.*);

- v. Activate emergency lights, evacuation horn;
- vi. Assess conditions inside and outside the exit to determine exit usability throughout the evacuation;
- vii. Locate and don life preserver and command passengers as appropriate;
- viii. Prepare and open exit;
- ix. Secure exit in fully open position or ensure correct stowage;
- x. Pull inflation handle(s) and ensure deployment, inflation of ramp, slide;
- xi. Access escape tapes or escape ropes;
- xii. Access release handle(s) (e.g. slide disconnect, ventral stairs, tail cone jettison, etc.);
- xiii. Assume appropriate protective position;
- xiv. Initiate passenger evacuation;
- xv. Final cabin, lavatory and flight deck checks and remove required emergency equipment;
- xvi. Exit aircraft/trainer correctly; and
- xvii. Demonstrate post evacuation procedures.

#### **7.4.4 Evaluation Criteria**

- a) Trainee performance shall be observed, rated and debriefed according to:
  - i. Correct usage seat mechanism, restraint system and brace position as appropriate for seat direction, location and drill scenario;
  - ii. Correct and timely reaction to emergency situations;
  - iii. Consistent usage of appropriate terminologies (e.g. *commands, ABP briefings*) with clear, positive, authoritative communication techniques, as appropriate for drill scenario;
  - iv. Activates emergency lights, evacuation horn;
  - v. Selects appropriate exit for the evacuation scenario and the aircraft type;
  - vi. Assesses conditions inside and outside the exit to determine exit usability throughout evacuation (e.g. *clear of obstruction, fire, aircraft attitude, flow rate, slide conditions, etc.*);
  - vii. Preparation and correct operation of exit;
  - viii. Secures exit in the fully open position or ensures correct stowage;
  - ix. Pulls inflation handle(s) and verifies deployment, inflation of ramp, slide;
  - x. Correctly accesses escape tapes or escape ropes;
  - xi. Assumes and maintains appropriate protective body and hand positions;
  - xii. Effective usage of able-bodied persons for special needs passengers (e.g. *assisting outside aircraft and directing people away from the aircraft or onto flotation devices, crowd control, etc.*);
  - xiii. Adequacy of cabin checks, removal of equipment and additional supplies as scenario and operator procedures dictate;
  - xiv. Correctly accesses release handle(s) (e.g. *slide disconnect, ventral stairs, tail cone jettison, etc.*);
  - xv. Correctly applies procedures as related to scenario;
  - xvi. Correctly applies post evacuation procedures; and
  - xvii. Consequences of errors.

#### **7.4.5 Crew Prepared Land & Ditching Evacuation Drill Performance Criteria**

- a) Each trainee shall participate as a crew member in at least one prepared Land evacuation drill and at least one Ditching drill and perform the following:
  - i. Recognize the in-flight emergency signal from the flight deck and react according to procedures;
  - ii. Prepare passengers, cabin and self according to procedures and scenario;
  - iii. Select and brief able-bodied passengers to assist as required (e.g. *opening non-crewed exits, removal, launching rafts, crowd control, buddy-up with special needs passengers, assisting outside aircraft and directing people away from the aircraft or onto rafts*);
  - iv. Recognize the emergency brace and evacuation signals and react accordingly;
  - v. Prepare and operate exits;
  - vi. Evacuate passengers;



- vii. Final cabin, lavatory and flight deck checks, remove required emergency equipment, and evacuate aircraft/trainer; and
- viii. Demonstrate post evacuation procedures.

**7.4.6 Evaluation Criteria**

- a) Trainee performance shall be observed, rated and debriefed according to the contents of 7.4.4 and the following:
  - i. Correct application of emergency landing preparation procedures;
  - ii. Awareness of and appropriate response to passenger behaviour, exit/slide condition, passenger flow rates, interior and exterior condition changes;
  - iii. Communication acknowledgement;
  - iv. Problem identification and alternate solutions;
  - v. Accuracy in briefing of ABPs;
  - vi. Adequacy of cabin checks, removal of equipment and additional supplies as scenario and operator procedures dictates;
  - vii. Drill participants shall demonstrate awareness of the duties/responsibilities that must be completed following the evacuation scenario (*e.g. equipment responsibilities, life-raft/dinghy duties, head count, flotation responsibilities, protection from the elements, location, movement of passengers to a safe area, first aid, etc.*) according to air operator's procedures; and
  - viii. Consequences of error.

**7.5 RAFT DRILL (Wet or Dry)**

**7.5.1 Equipment Criteria**

- a) The raft drill shall be conducted using life saving equipment that is identical to that installed in the aircraft with respect to weight, dimensions, appearance, features and operation.
- b) Rafts may be substituted where they are much the same with respect to weight, dimensions, appearance, features and operations and differences training have been provided.

**7.5.2 Performance Criteria**

- a) Each trainee shall perform the following:
  - i. Access the raft compartment, experience the difficulty associated with moving the weight of a packaged raft within a space representative of the aircraft aisle;
  - ii. Examine all features a fully inflated raft;
  - iii. Board raft(s), assist persons into raft;
  - iv. Access the inflation lanyard (dinghy);
  - v. Access the raft release mechanism while verbally describing the procedure to release the life raft from the aircraft; and
  - vi. Examine the life raft survival kit and review the operation of all components.
- b) Each trainee shall participate in the following:
  - i. Launching, inflating and disconnecting raft(s) either actual or by video;
  - ii. Righting overturned rafts (if applicable), either actual or by video;
  - iii. Effective raft management (*e.g. distribution of passengers, deploying sea anchor, etc.*);
  - iv. Erecting the raft canopy;
  - v. Raft maintenance (*e.g. leak stoppers/clamps, topping up buoyancy chambers, etc.*);
  - vi. Distribution of duties to passengers; and
  - vii. Discuss the hazards associated with moving a packaged life raft through the cabin to an exit (*e.g. inadvertent inflation, passenger movement and panic*).

**7.6 LIFE PRESERVER DRILL**

**7.6.1 Equipment Criteria**

- a) Life preservers used for this drill shall be identical to each model carried on the air operator's fleet.

**7.6.2 Performance Criteria**

- a) Each trainee shall perform the following for each model carried:
  - i. Remove life preserver from the closed/sealed pouch;
  - ii. Don life preserver and inflate using automatic inflation of at least one chamber;
  - iii. Partially inflate second chamber of life preserver orally;
  - iv. Practice deflation technique;
  - v. Locate and review light activation;
  - vi. Locate whistle; and
  - vii. Fit life preserver for a child.

## **7.7 AIRCRAFT SLIDE DRILL**

### **7.7.1 Equipment Criteria**

- a) The evacuation slide shall be of a type installed in the aircraft with respect to the following categories:
  - i. Inflatable, double channel slides;
  - ii. Inflatable slide and ramp combination;
  - iii. B747 upper deck door slide(s);
  - iv. Inflatable, single channel slides; and
  - v. Non-inflatable slide.

### **7.7.2 Performance Criteria**

- a) Each trainee shall perform an aircraft inflatable slide drill according to the following:
  - i. Locate and touch the manual inflation handle and the disconnect handle from a position at the door sill area; and
  - ii. Slide down an inflatable slide from each of the categories; or
  - iii. Slide down an inflatable slide from one of the categories, and for each other inflatable category view an approved video which depicts: the slide, slide/raft, ramp/slide activation and inflation both internally and externally; the video sequence shall also include: inflation sound, disconnect, and "alternate use" (apron) procedures.
- b) Each trainee shall perform an aircraft non-inflatable slide drill according to the following:
  - i. Access and retrieve the evacuation slide, if not door mounted;
  - ii. Attach the evacuation slide clips to the appropriate attachment points on the door frame(s);
  - iii. Position the slide at exit(s); and
  - iv. Slide down the slide.

## **7.8 FIRE FIGHTING DRILLS**

### **7.8.1 General**

- a) *Drill scenarios will provide each trainee with the opportunity to merge procedural knowledge with practical skills. Their ability to successfully react to different fire situations will enhance their level of confidence and their ability to deal with fire in flight.*

### **7.8.2 Simulation Scenarios**

- a) Cabin fire fighting drills may include class A, B, C fires in the following locations:
  - i. Cabin area (*e.g. under seat, overhead bin, closet*);
  - ii. Galley area (*e.g. garbage bin, upper electrical panel, oven*);
  - iii. Confined area (*e.g. waste bin, lavatory*); and
  - iv. Hidden (*e.g. behind panels*).

### **7.8.3 Equipment Criteria**

- a) Fire fighting drills shall be conducted using aircraft furnishings as found on the operator's aircraft, such as seats, galley units, panels, waste bins, etc., as appropriate to the drill.
- b) Fire fighting equipment and the brackets used for restraint shall be identical to those installed in the aircraft with respect to weight, dimensions, controls, types and operations. Fire extinguishers used for live fire fighting shall be charged with the appropriate agent or with an environmentally friendly agent. Protective Breathing Equipment (P.B.E.) consisting of a portable oxygen bottle and full-face mask shall be fully operational and charged with oxygen. Self-contained P.B.E. may be substituted with a training smoke hood which is not operational.
- c) The Equipment Criteria, as specified above, shall apply to the required drills as reflected in 7.8.3, 7.8.4 and 7.8.5.

### **7.8.4 Equipment Practice**

- a) Each trainee shall practice the following:
  - i. Remove from stowage, don and activate protective breathing equipment and practice communications;
  - ii. Remove from stowage and operate each type of fire extinguisher and associated attachments (*e.g. extinguisher fitted with hose attachment, extension/wand, etc.*); and
  - iii. Initiate fire fighting procedures including intervention involving one or more crew members or a passenger.

### **7.8.5 Live Fire Fighting Drill**

- a) Each trainee shall demonstrate the effectiveness of a fire extinguisher correctly applied to an actual fire while wearing a P.B.E.

### **7.8.6 Fire Fighting – Cabin – Performance Criteria**

- a) Each trainee shall demonstrate the ability to carry out fire fighting procedures in a cabin environment as a primary fire fighter and perform the following:
  - i. Recognize that there is a potential fire situation (*e.g. smoke detector signal or unusual fumes, odours*);

- ii. Locate the source of fire;
- iii. Apply communication/co-ordination procedures;
- iv. Select and remove the nearest appropriate fire extinguisher and (if applicable) other fire fighting equipment;
- v. Inform, assist and control passengers;
- vi. Operate the extinguisher; and
- vii. Monitor for re-ignition, and apply post-fire follow-up procedures.

**7.8.7 Evaluation Criteria**

- a) Trainee performance shall be observed, rated and debriefed according to:
  - i. Recognition or identification of the problem;
  - ii. Correctly locates the source of the fire (*e.g. tactile search, use of crash axe, etc.*);
  - iii. Effective communication/coordination procedures throughout the drill (*e.g. notifying fellow crew members of the situation, establish and maintain communication with the flight deck, providing clear, concise information to the pilot-in-command, advice assistance to passengers; etc.*);
  - iv. Responds in a timely manner;
  - v. Correct usage of fire fighting equipment consistent with the type of fire, location of the fire and maximum effective position of the fire extinguisher;
  - vi. Undertake further action as required; and
  - vii. Consequences of error.

**7.8.8 Class B Main Deck Fire Fighting Drill Performance Criteria**

- a) Each trainee shall perform the drills identified in Initial, Part 4.5D.

## **7.9 OXYGEN EQUIPMENT DRILL**

### **7.9.1 Equipment Criteria**

- a) The equipment shall be identical to that installed in the aircraft with respect to dimensions, appearance, features, controls, charge duration, operation and brackets used for restraint.
- b) The following drill does not need to be completed using each type of portable oxygen bottle installed in the aircraft provided the procedures, brackets, oxygen mask tubing, fittings and the means to activate the oxygen flow are the same from one bottle to the other. Where types differ, the drill shall be repeated with the appropriate equipment.

### **7.9.2 Portable Oxygen Bottle Performance Criteria**

- a) Each trainee shall use each portable oxygen bottle type according to the air operator's procedures and perform the following:
  - i. Remove bottle from the bracket, stowage;
  - ii. Retrieve oxygen mask and hose, attach it to the high and low outlets;
  - iii. Use the carrying strap;
  - iv. Prepare the "passenger" for receiving oxygen;
  - v. Prepare the cabin for oxygen administration (*e.g. no smoking in area*);
  - vi. Turn on the oxygen and test for flow, position and secure the mask to the passenger's face;
  - vii. Secure the oxygen bottle and position it to monitor the supply; and
  - viii. Recognize when oxygen is no longer required and apply procedures for shutting off the supply and re-stowing the oxygen mask and bottle.

### **7.9.3 Fixed First Aid Oxygen Performance Criteria**

- a) Each trainee shall perform the following:
  - i. Co-ordinate and communicate with crew members as appropriate;
  - ii. Activate the oxygen system;
  - iii. Retrieve the mask and hose and attach to the system outlet and adjust for desired flow rate; and
  - iv. Reset the oxygen system.

**7.10 PILOT INCAPACITATION DRILL**

**7.10.1 Procedures**

- a) *For each aircraft where the operation of the pilot seats is significantly different, each crew member shall:*
  - i. *Pull the pilot away from the flight controls and correctly fastens and locks the restraint system;*
  - ii. *Position the pilot seat using the controls, e.g., horizontal, vertical, recline; and*
  - iii. *Apply crew coordination and crew communication procedures to assist the remaining flight deck crew.*



**7.11 FLIGHT DECK OBSERVATION FLIGHT**

**7.11.1 General**

- a) *Crew communication and crew coordination depend on each crew member having an understanding of each other's crew duties, responsibilities, workloads and expectations for all phases of flight. While this knowledge can be taught in a classroom, a more valid forum would be in an actual operating environment.*
- b) *At least one flight deck observation flight shall be completed prior to a flight attendant becoming qualified and thereafter on an annual basis. The following conditions shall apply.*
- c) *Crew members shall be in uniform; however, they will be in addition to the minimum crew and shall not be assigned any normal safety or cabin service duties.*
- d) *Each flight deck observation flight shall include a minimum of two takeoffs and two landings over a total flight time of not less than one hour.*
- e) *Each flight deck observation flight shall begin at the regular check-in time for the flight deck crew. Crew members shall observe the normal pre-flight pilot duties, e.g., flight planning, weather briefing, flight deck crew briefing, pre-flight walk-around.*
  - i. *Flight deck workloads and safety duties;*
  - ii. *Crew communication procedures;*
  - iii. *Crew coordination procedures;*
  - iv. *Flight deck layout;*
  - v. *Location of emergency equipment;*
  - vi. *Location and operation of flight deck windows;*
  - vii. *Location and operation of flight deck escape hatches;*
  - viii. *Location of controls and operation of pilot and observer seats;*
  - ix. *Location and operation of flight deck oxygen; and*
  - x. *Location of emergency checklists.*
- f) *Each crew member shall participate in a post-flight debriefing on the flight deck observation flight.*

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**INITIAL – PART EIGHT**

**AVIATION FIRST AID**

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**8.1 IN-FLIGHT EMERGENCY SCENE MANAGEMENT (Including Universal Precautions)**

**Training Objective:** The crew member will be able to define/demonstrate the principles of first aid and emergency scene management required to effectively handle an in-flight medical emergency situation.

**Scope:** Principles of First Aid  
Principles of Safety When Giving First Aid  
Knowledge of First Aid Equipment & Materials  
Principles of Emergency Scene Management  
Scene Survey  
Primary Survey  
Secondary Survey  
Ongoing Casualty Care  
Suspected Death

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**8.1A Principles of First Aid**

8.1A.1 Name the objectives of first aid.

8.1A.2 List the priorities of first aid.

**8.1B Principles of Safety When Giving First Aid**

8.1B.1 Describe how first aid training promotes safety consciousness in a flight attendant.

8.1B.2 State the reasons for universal precautions.

8.1B.3 Describe the use, care, removal and disposal of gloves used for first aid.

8.1B.4 Describe the use, care, decontamination and disposal of personal protective equipment available onboard.

8.1B.5 State the disposal procedures for:

- a) Body fluids; and
- b) Contaminated first aid materials.

**8.1C Knowledge of First Aid Equipment & Materials**

8.1C.1 Describe the onboard location of first aid materials and conditions for use:

- a) First aid kit;
- b) Medical kit; and
- c) Improvised materials carried on the aircraft.

**8.1D Principles of Emergency Scene Management**

8.1D.1 Define emergency scene management.

8.1D.2 List the steps of emergency scene management.

8.1D.3 Name possible sources of help and describe how they may assist in an in-flight emergency situation, e.g.:

- a) Passengers;
- b) Crew members; and
- c) Medical personnel onboard.

8.1D.4 State the authorities that must be notified of an in-flight emergency, e.g.:

- a) In-charge flight attendant; and
- b) Captain who will advise the ground advanced life-support system.

8.1D.5 Describe the process for completing and submitting information to be reported on administrative forms following an in-flight emergency, e.g.:

- a) Medical kit;
- b) First aid kit; and
- c) Name and address of doctor in attendance or anyone providing assistance

8.1D.6 State the air operator's procedures for in-flight passenger control when dealing with a first aid emergency.

8.1D.7 Describe the effect of the aircraft environment on an in-flight emergency situation, e.g.:

- a) Cabin configuration of aircraft;
- b) Number of flight attendants onboard;
- c) Turbulence;
- d) Distance to ground life-support system;
- e) Cabin altitude; and
- f) Movement of the casualty while onboard.

**8.1E Scene Survey**

8.1E.1 Define the term history and describe its use.

8.1E.2 Define the term mechanism of injury and describe its use.

8.1E.3 Define the terms signs and symptoms and describe their uses.

**8.1F Primary Survey**

8.1F.1 Define the term primary survey.

8.1F.2 Demonstrate, on a simulated conscious casualty with suspected head/spinal injuries, the sequential steps of a scene survey followed by a primary survey.

8.1F.3 Demonstrate, on a simulated unconscious casualty without suspected injuries, the sequential steps of scene survey followed by a primary survey.

**8.1G Secondary Survey**

8.1G.1 Describe the steps of the secondary survey.

8.1G.2 List the vital signs used in aviation first aid.

- 8.1G.3 State why it is important to monitor and note the changes in the casualty's level of consciousness.
  - 8.1G.4 State the responses used for assessing the levels of consciousness.
  - 8.1G.5 State how a medical alert device can assist in assessing a casualty's condition.
  - 8.1G.6 Describe effective breathing for a healthy adult casualty at rest.
  - 8.1G.7 State the characteristics of the pulse for a healthy adult at rest.
  - 8.1G.8 Demonstrate, on a simulated casualty, how to perform a secondary survey (including assessment of the vital signs).
- 8.1H Ongoing Casualty Care**
- 8.1H.1 Describe ongoing casualty care.
- 8.1I Suspected Death**
- 8.1I.1 Describe the procedures to be followed in the case of suspected death.

**8.2 SHOCK, UNCONCIOUSNESS AND FAINTING**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for shock, unconsciousness, and fainting required to effectively handle an in-flight emergency situation.

**Scope:** Shock  
First Aid for Shock  
First Aid for Unconsciousness  
Fainting  
First Aid for Fainting

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**8.2A Shock**

- 8.2A.1 Define the term shock.
- 8.2A.2 List the most common signs and symptoms of shock.
- 8.2A.3 List the major causes of shock.

**8.2B First Aid for Shock**

- 8.2B.1 State how to prevent shock from becoming worse.
- 8.2B.2 Identify the position used to alleviate shock.

**8.2C First Aid for Unconsciousness**

- 8.2C.1 Define the term unconsciousness.
- 8.2C.2 Describe the first aid for an unconscious casualty.

**8.2D Fainting**

- 8.2D.1 Define the term fainting.
- 8.2D.2 Name the most common causes of fainting.
- 8.2D.3 Describe the signs and symptoms of an impending faint.

**8.2E First Aid for Fainting**

- 8.2E.1 Describe the first aid for person who:
  - a) Feels faint; and
  - b) Has fainted.



**8.3 ARTIFICIAL RESPIRATION – ADULT**

**Training Objective:** The crew member will be able to define/demonstrate the artificial respiration on an adult required to effectively handle an in-flight emergency situation.

**Scope:** Respiratory System  
Respiratory Emergencies  
Mouth-to-Mouth Method of Artificial Respiration  
Mouth-to-Mouth Method of Artificial Respiration – Casualty with a Suspected Head/Spinal Injury  
Ongoing Casualty Care – Restored Breathing

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**8.3A Respiratory System**

- 8.3A.1 Define the respiratory system.
- 8.3A.2 Define the term respiration.
- 8.3A.3 Name and locate on an anatomical diagram the three major parts of the airway.

**8.3B Respiratory Emergencies**

- 8.3B.1 List the major causes of breathing emergencies in adults.
- 8.3B.2 List the major signs of breathing emergencies (include chest injuries).
- 8.3B.3 State the time period when brain damage may result from lack of oxygen.

**8.3C Mouth-to-Mouth Method of Artificial Respiration**

- 8.3C.1 Define the term artificial respiration.
- 8.3C.2 State why direct methods of AR can sustain a casualty's life.
- 8.3C.3 State the rate and force of ventilations for an adult.
- 8.3C.4 State when, where, and for how long, the pulse is checked and rechecked during AR for an adult.
- 8.3C.5 Demonstrate, on an adult manikin or on a simulated casualty, mouth-to-mouth artificial respiration for a minimum of one minute or 12 to 15 consecutive ventilations, using the head-tilt chin-lift method to open the airway and a facemask with an oxygen port and a one-way valve.
- 8.3C.6 Demonstrate, on an adult manikin or on a simulated casualty, with the assistance of passengers, the technique for ventilations prior to moving a casualty and every 15 seconds thereafter until the casualty is positioned.
- 8.3C.7 Name the complications that may occur when giving AR.
- 8.3C.8 State the most common causes of gastric distention and vomiting during AR.
- 8.3C.9 State how to minimize the risk of gastric distention.
- 8.3C.10 Demonstrate on an adult manikin or a simulated casualty how to deal with vomiting during AR.

**8.3D Mouth-to-Mouth Method of Artificial Respiration – Casualty with a Suspected Head/Spinal Injury**

- 8.3D.1 State when the jaw thrust without head tilt would be used.
- 8.3D.2 Demonstrate, on an adult manikin or on a simulated casualty, how to give mouth-to-mouth AR, using the jaw thrust without head-tilt.
- 8.3D.3 Describe how to take the radial pulse.

**8.3E Ongoing Casualty Care – Restored Breathing**

- 8.3E.1 State when and why the recovery position is used.
- 8.3E.2 State location(s) in the aircraft for the recovery position.
- 8.3E.3 Demonstrate, on an adult manikin or on a simulated casualty, ongoing casualty care following successful AR (recovery position).

**8.4 ARTIFICIAL RESPIRATION – CHILD AND INFANT**

**Training Objective:** The crew member will be able to define/demonstrate artificial respiration on a child or infant required to effectively handle an in-flight emergency situation.

**Scope:** Mouth-to-Mouth Artificial Respiration on a Child  
Mouth-to-Mouth-and-Nose Artificial Respiration on an Infant

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**8.4A Mouth-to-Mouth Artificial Respiration on a Child**

8.4A.1 Define the term "child" as it applies to first aid (and CPR, if included) in training program.

8.4A.2 State the differences in the rate and force of ventilations between an adult and a child.

**8.4B Mouth-to-Mouth-and-Nose Artificial Respiration on an Infant**

8.4B.1 Define the term "infant" as it applies to first aid and CPR, if included in training program.

8.4B.2 State when and where the brachial pulse is taken and rechecked during mouth-to-mouth-and-nose artificial respiration.

8.4B.3 State the rate and the force of ventilations for an infant.

8.4B.4 Demonstrate, on an infant manikin, the mouth-to-mouth-and-nose method of artificial respiration for a minimum of one minute or 20 consecutive ventilations, using the head-tilt chin-lift method to open the airway.

**8.5 CHOKING – ADULT, CHILD AND INFANT**

**Training Objective:** The crew member will be able to define/demonstrate the choking procedures for adult, child and infant required to effectively handle an in-flight emergency situation.

**Scope:** Breathing Emergencies  
Choking  
First Aid for a Choking Adult & Child  
First Aid for a Choking Infant  
Ongoing Casualty Care for Choking

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**8.5A Breathing Emergencies**

8.5A.1 State the causes of choking in an adult, child and infant.

8.5A.2 State the safety measures to prevent choking on foreign objects in an in-flight situation.

**8.5B Chocking**

8.5B.1 Define partial and complete airway obstruction:

- a) Adult;
- b) Child; and
- c) Infant.

8.5B.2 Describe the signs of choking:

- a) General signs;
- b) Partial airway obstruction:
  - i. Good air exchange
  - ii. Poor air exchange
- c) Complete airway obstruction.

**8.5C First Aid for a Choking Adult & Child**

8.5C.1 Describe the first aid for a conscious choking adult and child casualty with a partial airway obstruction.

8.5C.2 Describe the two methods by which a conscious choking adult or child casualty can assist him/herself:

- a) Markedly obese or pregnant casualty; and
- b) Other casualties.

8.5C.3 Demonstrate on a simulated adult or child casualty, the first aid for a choking casualty with a complete airway obstruction:

- a) Conscious;
- b) Becomes unconscious; and
- c) Found unconscious.

8.5C.4 State the instances when chest thrusts should be used on an adult casualty.

- 8.5C.5 Demonstrate on a simulated female in the advanced stages of pregnancy, or a markedly obese casualty, with a complete airway obstruction the first aid for choking using chest thrusts:
- a) Conscious;
  - c) Who becomes unconscious; and
  - d) Found unconscious.

**8.5D First Aid for a Choking Infant**

- 8.5D.1 Demonstrate, on an infant manikin, the first aid for a complete airway obstruction when an infant is:
- a) Conscious;
  - b) Becomes unconscious; and
  - c) Found unconscious.

- 8.5D.2 Describe the first aid for a conscious, choking infant who has a partial airway obstruction:
- a) Foreign object; and
  - b) Croup.

**8.5E Ongoing Casualty Care for Choking**

- 8.5E.1 Describe the ongoing casualty care until handover for a casualty who received first aid for a complete airway obstruction:
- a) Adult;
  - b) Child; and
  - c) Infant.

## **8.6 CARDIOVASCULAR EMERGENCIES**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for cardiovascular emergencies required to effectively handle an in-flight emergency situation.

**Scope:** Cardiovascular Disease  
Risk Factors of Cardiovascular Disease  
Preventive Health Measures  
Principles of First Aid for Cardiovascular Emergencies  
Angina/Heart Attack  
Stroke/TIA

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### **8.6A Cardiovascular Disease**

8.6A.1 Describe in simple terms the following cardiovascular disorders:

- a) High blood pressure (hypertension);
- b) Narrowing of the arteries (arteriosclerosis);
- c) Angina (pectoris);
- d) Heart attack (myocardial infarction);
- e) Cardiac arrest; and
- f) Stroke/TIA.

### **8.6B Risk Factors of Cardiovascular Disease**

8.6B.1 Define the term risk factor as it applies to cardiovascular disease.

8.6B.2 List the risk factors of cardiovascular disease that can be controlled.

8.6B.3 List the risk factors of cardiovascular disease that cannot be controlled.

### **8.6C Preventive Health Measures**

8.5C.1 Describe healthy life-style habits that can help reduce the risk of cardiovascular disease.

### **8.6D Principles of First Aid for Cardiovascular Emergencies**

8.6D.1 List the first aid measures which are a priority for all cardiovascular emergencies.

8.6D.2 State why it is important to get medical help promptly.

### **8.6E Angina/Heart Attack**

8.6E.1 State the cause for angina/heart attack.

8.6E.2 List the signs and symptoms of angina/heart attack.

8.6E.3 State the first aid for angina/heart attack:

8.6E.4 List the rights to be observed when assisting the conscious casualty to take his/her medication.

**8.6F Stroke/TIA**

- 8.6F.1 State the most common causes of a stroke (cerebrovascular accident – CVA).
- 8.6F.2 List the signs and symptoms of a stroke.
- 8.6F.3 Describe the first aid for a stroke.
- 8.6F.4 Define the term Transient Ischemic Attack (TIA) and describe the first aid.

**8.7 WOUNDS AND BLEEDING**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for wounds and bleeding required to effectively handle an in-flight emergency situation.

**Scope:** Wounds  
Types of Bleeding  
Contamination and Infection  
Dressings, Bandages and Slings  
First Aid for Wounds with Internal Bleeding  
First Aid for Wounds with Embedded Objects  
Internal Bleeding  
Bleeding from the Nose

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**8.7A Wounds**

8.7A.1 Define the term wound.

8.7A.2 Describe the types of minor soft tissue injuries.

**8.7B Types of Bleeding**

8.7B.1 Describe the difference between venous and arterial bleeding.

8.7B.2 Define the terms external bleeding and internal bleeding.

8.7B.3 List the signs and symptoms of severe bleeding.

8.7B.4 State how bleeding may be recognized:

- a) External bleeding; and
- b) Internal bleeding:
  - i. Causes;
  - ii. Characteristics; and
  - iii. Signs of internal bleeding.

**8.7C Contamination and Infection**

8.7C.1 Name measures to prevent further contamination and infection of wounds.

8.7C.2 State how to clean a minor wound.

**8.7D Dressings, Bandages and Slings**

8.7D.1 Describe the characteristics of dressings, bandages and slings, and state their uses.

**8.7E First Aid for Wounds with Internal Bleeding**

8.7E.1 Describe the first aid principles for wounds with severe external bleeding.



8.7E.2 Describe the signs and the effects of inadequate distal circulation to the extremities:

- a) Skin temperature;
- b) Color; and
- c) Pulse.

8.7E.3 Demonstrate, on a simulated casualty, the techniques to control severe external bleeding.

8.7E.4 Demonstrate, on a simulated casualty, how to improve impaired distal circulation when a limb has been bandaged.

8.7E.5 Demonstrate, on a simulated casualty, how to check for and monitor distal circulation.

**8.7F First Aid for Wounds with Embedded Objects**

8.7F.1 Describe the first aid for a wound with an embedded object.

8.7F.2 Demonstrate, on a simulated casualty, the techniques for the control of bleeding from a wound with a short embedded foreign object in the lower leg.

**8.7G Internal Bleeding**

8.7G.1 Describe the first aid for a casualty with suspected internal bleeding.

**8.7H Bleeding from the Nose**

8.7H.1 Describe the techniques to control bleeding from the nose by positioning, pressure and time.

**8.8 FRACTURES, DISLOCATIONS AND SPRAINS**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for fractures, dislocations and sprains required to effectively handle an in-flight emergency situation.

**Scope:** Bone & Joint Injuries  
First Aid for Bone & Joint Injuries  
Muscle Strain

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**8.8A Bone & Joint Injuries**

8.8A.1 Define two classifications of fractures.

8.8A.2 Define two types of joint injuries.

8.8A.3 List the signs and symptoms of a/an:

- a) Open fracture;
- b) Closed fracture/sprain; and
- c) Dislocation.

**8.8B First Aid for Bone & Joint Injuries**

8.8B.1 State the general rules of first aid for bone and joint injuries (f.a. principles the same).

8.8B.2 Describe the characteristics of a good splint.

8.8B.3 Describe how to support and immobilize the following bone and joint injuries of the upper limb:

- a) A fracture of the collarbone using two triangular bandages;
- b) Support and immobilization of a dislocated shoulder using padding, three triangular bandages and the application of cold;
- c) An open fracture of the upper arm when the elbow can be bent, using padding and triangular bandages; and
- d) A closed fracture of the wrist using an improvised or a commercial splint and triangular bandages.

8.8B.4 Demonstrate, on a simulated casualty, how to support and immobilize a closed fracture of the forearm using an improvised or a commercial splint and triangular bandages.

8.8B.5 List the factors that increase the seriousness of a femur (hip) fracture.

8.8B.6 Describe how to support and immobilize the following bone and joint injuries of the lower limbs:

- a) A closed fracture of the upper leg using a long, padded (improvised) splint and a body splint;
- b) A closed fracture of the knee, when the knee cannot be straightened, using two padded (improvised) splints, padding and triangular bandages; and

- c) An open fracture of the lower leg using dressings, protective padding, six triangular bandages and the good leg as a body splint.
- 8.8B.7 Demonstrate, on a simulated casualty, how to support and immobilize a sprained ankle using a pillow splint or a blanket splint triangular bandages and the application of cold.

**8.8C Muscle Strain**

- 8.8C.1 Define the term muscle strain.
- 8.8C.2 Name the causes of muscle strain.
- 8.8C.3 State the first aid for muscle strain.

**8.9 BURNS**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for burns required to effectively handle an in-flight emergency situation.

**Scope:** Burns  
First Aid for Burns

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**8.9A Burns**

8.9A.1 State the classifications of burns by mechanism of injury/causes and give an example of each.

8.9A.2 State the factors that determine the seriousness of a burn.

8.9A.3 State the classification of burns by degree and state their signs and symptoms.

8.9A.4 State the complications that may result from a burn.

**8.9B First Aid for Burns**

8.9B.1 State the first aid procedures for a burn caused by:

- a) Heat;
- b) Chemicals:
  - i. Liquid
  - ii. Dry
- c) Electrical current; and
- d) Radiation:
  - i. Sun
  - ii. Radioactivity

8.9B.2 State the instances when medical help is required for a casualty who has been burned.

**8.10 HEAD/SPINAL INJURIES**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for head/spinal injuries required to effectively handle miscellaneous conditions in an in-flight emergency situation.

**Scope:** Head/Spinal Injuries  
First Aid for Head/Spinal Injuries

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**8.10A Head/Spinal Injuries**

8.10A.1 Describe how to recognize the three types of head/spinal injuries by:

- a) History/mechanism of injury; and
- b) Signs and symptoms.

8.10A.2 Name the injuries that are most commonly associated with head/spinal injuries.

**8.10B First Aid for Head/Spinal Injuries**

8.10B.1 Describe the first aid for a scalp wound with an underlying fracture of the skull.

8.10B.2 State the principles of first aid for a head/spinal injury.

8.10B.3 Describe the precautions necessary when moving a casualty with a suspected spinal injury within the limitations of an aircraft configuration.

8.10B.4 State the dangers of improper handling of a casualty with head/spinal injuries.

8.10B.5 State why it is important to get immediate medical help for a casualty with head/spinal injuries.

**8.11 ASTHMA, ALLERGIES AND POISONS**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for asthma, allergies and poisons required to effectively handle an in-flight emergency situation.

**Scope:** Severe Asthma  
Severe Allergic Reactions  
Poisoning  
First Aid for Poisoning by Ingestion

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**8.11A Severe Asthma**

- 8.11A.1 Define the term asthma and state its causes.
- 8.11A.2 State the signs and symptoms of a severe asthmatic attack.
- 8.11A.3 Describe the first aid for a severe asthmatic attack.

**8.11B Severe Allergic Reactions**

- 8.11B.1 State the routes of entry by which allergens are introduced into the body.
- 8.11B.2 Define the term allergic reaction and describe the signs and symptoms.
- 8.11B.3 Describe the first aid for an allergic reaction.
- 8.11B.4 Explain the use of the Epi-pen and the Ana-kit.

**8.11C Poisoning**

- 8.11C.1 Define the term poison.
- 8.11C.2 State the facts that help to determine the history of a poisoning emergency.
- 8.11C.3 List the signs and symptoms of poisoning by ingestion.

**8.11D First Aid for Poisoning by Ingestion**

- 8.11D.1 State the first aid for a conscious and unconscious casualty when a poison has been ingested.

**8.12 MEDICAL CONDITIONS**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for medical conditions required to effectively handle an in-flight emergency situation.

**Scope:** Diabetic Emergencies  
Epilepsy  
Convulsions in Children  
Acute Abdominal Distress  
First Aid for Acute Abdominal Distress

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**8.12A Diabetic Emergencies**

- 8.12A.1 Define the types of diabetic emergencies.
- 8.12A.2 State how the history of an incident helps to identify a diabetic emergency:
  - a) Conscious casualty; and
  - b) Unconscious casualty.
- 8.12A.3 List the signs and symptoms of a diabetic emergency:
  - a) Diabetic coma; and
  - b) Insulin shock.
- 8.12A.4 State the first aid for a diabetic emergency.

**8.12B Epilepsy**

- 8.12B.1 Define the term epilepsy.
- 8.12B.2 List the signs and symptoms of an epileptic seizure.
- 8.12B.3 State the first aid for an epileptic seizure.

**8.12C Convulsions in Children**

- 8.12C.1 State a common cause of convulsions in children.
- 8.12C.2 List the signs and symptoms of an epileptic seizure.
- 8.12C.3 State the first aid for fever convulsions in children.

**8.12D Acute Abdominal Distress**

- 8.12D.1 Define the term acute abdominal distress (acute abdomen), e.g., appendicitis.
- 8.12D.2 Describe the signs and symptoms of an acute abdomen.

**8.12E First Aid for Acute Abdominal Distress**

- 8.12E.1 Describe the first aid for acute abdominal distress:
  - a) Call for medical assistance;
  - b) Give nothing by mouth;
  - c) Place casualty in the position of most comfort; and
  - d) Give first aid for shock.

**8.13 ALTITUDE RELATED CONDITIONS**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for altitude related conditions required to effectively handle an in-flight emergency situation.

**Scope:** Earache & Sinusitis  
First Aid for Earache & Sinusitis  
Hyperventilation Syndrome  
First Aid for Hyperventilation  
Motion Sickness  
First Aid for Motion Sickness

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**8.13A Earache & Sinusitis**

8.13A.1 State the signs and symptoms of an ear infection:

- a) Pain, increasing during descent of aircraft;
- b) Dizziness;
- c) Loss of hearing; and
- d) Possible discharge.

8.13A.2 State the signs and symptoms of a sinusitis:

- a) Headache;
- b) Pain increasing during descent of aircraft;
- c) Possible discharge; and
- d) Dizziness.

**8.13B First Aid for Earache & Sinusitis**

8.13B.1 Describe the first aid for an earache:

- a) Assist in taking prescribed medication; and
- b) Dispose of discharge in an appropriate manner.

8.13B.2 Describe the first aid for sinusitis:

- a) Assist in taking prescribed medication; and
- b) Dispose of discharge in an appropriate manner.

**8.13C Hyperventilation Syndrome**

8.13C.1 State the signs and symptoms of hyperventilation:

- a) Marked anxiety;
- b) Dyspnea; and
- c) Dizziness and light-headedness.



**8.13D First Aid for Hyperventilation**

8.13D.1 Describe the first aid for hyperventilation:

- a) Try to talk the passenger into slowing his or her respiration rate;
- b) Have the passenger breathe into an oxygen mask operating at low flow (**Note:** *Giving oxygen to someone with hyperventilation will not make the condition worse*); and
- c) Recommend that the passenger consult a physician.

**8.13E Motion Sickness**

8.13E.1 List the signs and symptoms of motion sickness:

- a) Nausea and vomiting;
- b) Dizziness;
- c) Pale, clammy skin; and
- d) Fainting.

**8.13F First Aid for Motion Sickness**

8.13F.1 Describe the first aid for motion sickness:

- a) Assist in taking medication;
- b) Provide fresh air;
- c) Recline the passenger's seat;
- d) Place a cool, damp cloth over the passenger's eyes;
- e) Dispose of any vomitus in an appropriate manner; and
- f) Clean and deodorize area as required.

**8.14 EYE INJURIES**

**Training Objective:** The crew member will be able to define/demonstrate the first aid for eye injuries required to effectively handle an in-flight emergency situation.

**Scope:** First Aid for Foreign Objects in the Eye  
First Aid for Burns to the Eye

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**8.14A First Aid for Foreign Objects in the Eye**

- 8.14A.1 Describe the first aid when a foreign object is adhered to or embedded in the eye.
- 8.14A.2 List situations when no attempt should be made to remove a foreign object from the eye.
- 8.14A.3 State the procedures and precautions for the removal of a loose particle from:
  - a) The surface of the eyeball;
  - b) Under the upper eyelid; and
  - c) Under the lower eyelid.

**8.14B First Aid for Burns to the Eye**

- 8.14B.1 State the first aid for burns to the eye resulting from:
  - a) Chemicals
    - i. Liquid
    - ii. Dry
  - b) Intense light sources

**8.15 CHILDBIRTH AND MISCARRIAGE**

**Training Objective:** *The crew member will be able to define/demonstrate the first aid for childbirth and miscarriage required to effectively handle an in-flight emergency situation.*

**Scope:** *Childbirth  
Preparing for an Emergency Delivery  
Emergency Delivery  
Miscarriage  
First Aid for Miscarriage*

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**8.15A Childbirth**

- 8.15A.1 *Define the term labour.*
- 8.15A.2 *List the signs that indicate the beginning of labour.*
- 8.15A.3 *State the signs of imminent delivery.*

**8.15B Preparing for an Emergency Delivery**

- 8.15B.1 *List the materials that will assist a crew member in an emergency delivery.*
- 8.15B.2 *State how to prepare the expectant mother for an emergency delivery.*

**8.15C Emergency Delivery**

- 8.15C.1 *Describe the role of the crew member in an emergency delivery:*
  - a) *Normal delivery;*
  - b) *Delivery with complications:*
    - i. *Umbilical cord;*
    - ii. *Placenta; and*
    - iii. *Haemorrhage.*
- 8.15C.2 *State how to care for the newborn baby.*
- 8.15C.3 *State how to care for the placenta and the umbilical cord following delivery.*
- 8.15C.4 *Describe how to care for the mother following delivery until medical aid is obtained.*

**8.15D Miscarriage**

- 8.15D.1 *Define the term miscarriage.*
- 8.15D.2 *List the signs and symptoms of miscarriage.*

**8.15E First Aid for Miscarriage**

- 8.15E.1 *State the first aid for a woman who has had a miscarriage.*

**8.16 FROSTBITE/HYPOTHERMIA**

**Training Objective:** *The crew member will be able to define/demonstrate the first aid for frostbite/hypothermia required to effectively handle an in-flight emergency situation.*

**Scope:** *Cold Injuries  
First Aid for Cold Injuries*

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**8.16A Cold Injuries**

8.16A.1 *Name the signs and symptoms of:*

- a) *Superficial frostbite; and*
- b) *Deep frostbite.*

8.16A.2 *List signs and symptoms of the progressive stages of hypothermia.*

8.16A.3 *Name the signs of a frozen casualty.*

**8.16B First Aid for Cold Injuries**

8.16B.1 *State the first aid for:*

- a) *Superficial frostbite;*
- b) *Deep frostbite; and*
- c) *Hypothermia.*

8.16B.2 *State the minimum time for pulse assessment in a casualty with severe hypothermia.*

**8.17 HEAT ILLNESSS**

**Training Objective:** *The crew member will be able to define/demonstrate the first aid for heat illnesses required to effectively handle an in-flight emergency situation.*

**Scope:** *Heat Illness  
First Aid for Heat Illness*

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**8.17A Heat Illness**

8.17A.1 *State the conditions that cause heat illnesses.*

8.17A.2 *List the safety measures to prevent heat illnesses.*

8.17A.3 *List the signs and symptoms of:*

- a) *Heat exhaustion; and*
- b) *Heatstroke:*
  - i. *Classic heatstroke; and*
  - ii. *Exertional heatstroke.*

**8.17B First Aid for Heat Illness**

8.17B.1 *State the first aid for:*

- a) *Heat exhaustion; and*
- b) *Heatstroke.*

**8.18 CPR – ADULT, CHILD AND INFANT**

**Training Objective:** *The crew member will be able to define/demonstrate CPR for an adult, child and infant as required to effectively handle an in-flight emergency situation.*

**Scope:** *Cardiac Arrest  
CPR – Adult, Child & Infant*

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**8.18A Cardiac Arrest**

8.18A.1 *List the common causes of cardiac arrest.*

8.18A.2 *State the signs of cardiac arrests.*

**8.18B CPR – Adult, Child & Infant**

8.18B.1 *Define the terms adult, child and infant as they apply to CPR.*

8.18B.2 *State the first aid for cardiac arrest.*

8.18B.3 *Describe one rescuer CPR for adult, child and infant casualties:*

- a) *When to start/when to stop;*
- b) *Techniques;*
- c) *Sequencing; and*
- d) *Timings.*

8.18B.4 *Demonstrate, on an adult manikin, one-rescuer CPR for a minimum of one minute or four continuous cycles of 15 compressions and two ventilations in accordance with the guidelines of the Heart and Stroke Foundation of Canada.*

8.18B.5 *Demonstrate, on a child manikin, one-rescuer CPR for a minimum of one minute or ten continuous cycles of five compressions and one ventilation in accordance with the guidelines of the Heart and Stroke Foundation of Canada.*

8.18B.6 *Demonstrate, on an infant manikin, one-rescuer CPR for a minimum of one minute or ten continuous cycles of five compressions and one ventilation in accordance with the guidelines of the Heart and Stroke Foundation of Canada.*

8.18B.7 *Demonstrate, on an appropriate manikin, one rescuer CPR for and adult, child and infant in combination with oxygen administration.*

**8.19 TOOTHACHE**

**Training Objective:** *The crew member will be able to define/demonstrate the first aid for a toothache to effectively handle a an in-flight emergency situation.*

**Scope:** *Toothache  
First Aid for a Toothache*

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**8.19A Toothache**

8.19.A.1 *List the signs and symptoms of a toothache:*

- a) *Pain;*
- b) *Swelling; and*
- c) *Localized heat.*

**Note:** *Often associated with sinusitis – referred pain.*

**8.19B First Aid for a Toothache**

8.19B.1 *Describe the first aid for a toothache:*

- a) *Call for medical assistance; and*
- b) *Give first aid for shock.*

8.19B.2 *Describe the care for a knocked out tooth:*

- a) *Do not handle the tooth by the root; and*
- b) *Gently replace the tooth into the socket.*

*If the casualty refuses to have the tooth replaced:*

- c) *Place the tooth in moistened gauze or a cup of water; and*
- d) *Seek medical aid as soon as possible.*

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**ANNUAL – PART ONE**

**AVIATION INDOCTRINATION**

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## **1.1 REGULATORY OVERVIEW**

**Training Objective:** The crew member will be able to identify and describe the legislation relating to crew member.

**Scope:** Legislation

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### **1.1A Legislation**

1.1A.1 Identify and describe the specific regulations applicable to crew members and cabin safety and outline the applicable air operator's policies and procedures, including:

- a) Seat belts and Related Restraint Systems;
- b) Live-Saving Equipment (*e.g. life rafts, life preservers, survival kits*);
- c) Oxygen Equipment;
- d) First Aid Kits;
- e) Minimum Equipment Lists;
- f) Floor Proximity Lighting;
- g) Take-Off and Landing Stations;
- h) Infant - definition;
- i) Minimum Crew Requirements;
- j) Passenger Safety Briefings;
- k) Passenger Safety Features Cards;
- l) Surface Contamination Training;
- m) Carry-on Baggage;
- n) Aircraft Journey Log/Cabin Log Book (or equivalent);
- o) Liquor/Drugs;
- p) Fuelling With One Engine Running;
- q) Survival Equipment;
- r) Flight Attendant Manual as part of Operations Manual;
- s) Non-Smokers Health Act;
- t) ELTs and Fire Extinguishers; and
- u) Stowage of Equipment and Supplies.

**1.2 PHYSIOLOGY OF FLIGHT**

**Training Objective:** The crew member will be able to identify and describe the most common physiological effects of flight in pressurized aircraft including likely causes, recognition and ways to minimize these effects.

**Scope:** General  
Effects of Altitude

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**1.2A General**

1.2A.1 Identify the body's requirement for oxygen and the potential for crew member incapacitation due to lack of oxygen.

1.2A.2 Describe the circumstances under which carbon monoxide poisoning may occur, the signs and symptoms, ways to detect it and minimize its effects. Include the potential for carbon monoxide poisoning from ground air conditioning units or as a result of a ground heating unit (e.g. *Herman-Nelson, Ground Power Unit*).

**1.2B Effects of Altitude**

1.2B.1 Define what is meant by decompression sickness and describe the physiological effects of pressure changes on gases in the body. Define "safe" times between scuba diving and flight.

1.2B.2 Define what is meant by hypoxia, the hazards associated with it, signs and symptoms, ways to detect it and minimize its effects.

1.2B.3 Define time of useful consciousness and factors affecting it.

1.2B.4 Describe the effects of oxygen deficiency on human performance and identify the importance in recognizing these signs and symptoms in other crew members.

1.2B.5 Identify persons most susceptible to the effects of hypoxia.

**ANNUAL – PART TWO**

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**ROLES AND RESPONSIBILITIES**

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**2.1 CREW MEMBERS**

**Training Objective:** The crew member will be able to describe their legislated roles and responsibilities relating to their safety duties.

**Scope:** General

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**2.1A General**

- 2.1A.1 Describe the responsibility of crew members to maintain knowledge of all safety and emergency procedures relating to assigned duties.
- 2.1A.2 Identify the requirement for crew members to perform their duties in accordance with the Company Operations/Flight Attendant Manual.
- 2.1A.3 Outline crew member responsibilities to ensure all flight documentation, publications, manuals are up to date and readily available onboard and that crew members are familiar with their contents. Flight Attendants are required to ensure that:
  - a) A Record of Revisions is in the Flight Attendant Manual tracking the amendments received and when they were inserted into the Flight Attendant Manual; and
  - b) All amendments are reviewed and inserted in the appropriate section of the Flight Attendant Manual and not in their issued format (*e.g. stapled, cello-wrapped*).
- 2.1A.4 Identify the responsibility of crew members to report any onboard safety concerns to the pilot-in-command.
- 2.1A.5 Identify the requirement to keep all documentation relative to flight duties up to date at all times (e.g. passport, security pass).
- 2.1A.6 Outline crew member responsibilities to ensure that all safety/emergency equipment is available, in good working order and properly secured when not in use.
- 2.1A.7 Identify the responsibility of crew members to ensure that all galley/service equipment is in good working order and properly secured when not in use.
- 2.1A.8 Identify the responsibility of crew members to report unserviceable equipment following established company procedures.
- 2.1A.9 Identify the responsibility for crew members to successfully complete required training and qualifications.
- 2.1A.10 Define the chain-of-command and describe the authority of the pilot-in-command and describe the importance relating to flight safety.
- 2.1A.11 Describe the requirement to be aware of the duties and responsibilities of other crew members and be prepared to assume those duties, if necessary.
- 2.1A.12 Define the procedure regarding attending and participating in crew briefings.
- 2.1A.13 Describe a crew member under training and the duties they may perform when assigned to a flight.

- 2.1A.14 Identify the importance of crew members to be constantly alert and therefore prepared to handle any abnormal/emergency situation as it may occur.
- 2.1A.15 Identify uniform policies and the importance of the uniform as an identifier especially in abnormal and emergency situations, and the operator's policy regarding the wearing of the uniform in an emergency.



**ANNUAL – PART THREE**

**SAFETY PROCEDURES**

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**3.1 CREW COORDINATION**

**Training Objective:** The crew member will be able to identify the components of crew coordination and its importance to safety.

**Scope:** Crew Coordination

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**3.1A Crew Coordination**

- 3.1A.1 Describe the importance of crew coordination when applying emergency procedures.
- 3.1A.2 List the positive effects of crew coordination in enhancing flight safety.
- 3.1A.3 Outline the benefits of crew coordination on working environment and morale and the effect this has on safety.
- 3.1A.4 Define the ways the "one crew" concept may be achieved.
- 3.1A.5 Identify the importance of crew coordination especially in abnormal and emergency situations.

**3.2 COMMUNICATION**

**Training Objective:** The crew member will be able to describe the importance of, and the procedures for, effective communication in normal, abnormal and emergency situations for each aircraft type in the operator's fleet.

**Scope:** General  
Communication

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**3.2A General**

- 3.2A.1 Describe the procedures for normal, abnormal and emergency communications for each aircraft type in the operator's fleet.
- 3.2A.2 Describe the importance of effective communication especially when dealing with abnormal and emergency situations.
- 3.2A.3 Describe the responsibility of crew members to provide complete and accurate information to the pilot-in-command to assist in decision-making.

**3.2B Communication**

- 3.2B.1 Identify the difference between verbal and non-verbal communication and describe the effects of communicating different messages.

### **3.3 SURFACE CONTAMINATION**

**Training Objective:** The crew member will be able to define what is meant by surface contamination, describe their responsibilities and identify the procedures for reporting suspected surface contamination to the pilot-in-command.

**Scope:** General  
Crew Member Responsibilities  
De-Icing/Anti-Icing

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**Note:** Transport Canada Surface Contamination Training Program including video "When in Doubt..." must be used or an equivalent approved program.

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#### **3.3A General**

- 3.3A.1 Define surface contamination and hazards to flight associated with surface contamination.
- 3.3A.2 Define aircraft critical surfaces for each of the aircraft type.
- 3.3A.3 Identify an awareness of the conditions most likely to produce surface contamination.
- 3.3A.4 Give examples of "clean" wing and visible signs of surface contamination (*e.g. frost, ice, snow, including rain, etc.*).

#### **3.3B Crew Member Responsibilities**

- 3.3B.1 Define the responsibilities of crew members to report suspected surface contamination to the pilot-in-command as soon as it is discovered.
- 3.3B.2 State the requirement for the pilot-in-command or designate to investigate reports of suspected surface contamination.
- 3.3B.3 Describe the requirement of the pilot-in-command to ensure that crew members are advised of the decision to de-ice/anti-ice before the procedure occurs.
- 3.3B.4 Describe the air operator's procedures for advising crew members, e.g., brief In-charge, public address announcement, etc.
- 3.3B.5 Describe the requirement to advise passengers before aircraft de-icing/anti-icing takes place, the content of this advice to passengers, and who is responsible for advising the passengers.

#### **3.3C De-Icing/Anti-Icing**

- 3.3C.1 Describe the different types of equipment used to accomplish de-icing/anti-icing (*e.g. cherry-picker, car wash, rope, etc.*) and aircraft de-icing/anti-icing procedures.
- 3.3C.2 Identify that icing conditions can reoccur on critical surfaces of the aircraft if the take-off is prolonged for any period of time after de-icing/anti-icing has occurred (Hold Over Time Tables).

- 3.3C.3 Identify the procedures to deal with possible hazards whenever de-icing/anti-icing is taking place (*e.g. inhaling de-icing/anti-icing fluid, de-icing/anti-icing fluid entering cabin through open doorways, the presence of glycol fumes in the cabin*).
- 3.3C.4 Describe the types, purpose, characteristics and uses of de-icing/anti-icing fluids.

**3.4 BRIEFINGS**

**Training Objective:** The crew member will be able to identify the different types of briefings, which are required by the Operations Manual and the information which must be included in each.

**Scope:** Crew Briefings  
Passenger Briefings

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**3.4A Crew Briefings**

3.4A.1 Outline when crew briefings are required.

3.4A.2 Describe the topics to be covered in the crew pre-flight briefing(s).

3.4A.3 Identify the crew member responsibility to ask questions if all the required information has not been given in a briefing or if the information is unclear.

3.4A.4 Identify who is required to attend each type of briefing and their expected level of preparedness and participation.

**3.4B Passenger Briefings**

3.4B.1 Identify the content of the mandatory announcements and when they must be performed:

- a) Cabin baggage;
- b) Pre-flight safety announcement/demonstration;
- c) After take-off;
- d) En route turbulence;
- e) Pre-landing;
- f) After landing; and
- g) Special attention passenger individual pre-flight briefing.

**3.5 SAFETY CHECKS**

**Training Objective:** The crew member will be able to identify the importance of cabin and passenger safety checks and will define what is meant by the aircraft Minimum Equipment List.

**Scope:** General

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**3.5A General**

- 3.5A.1 Identify the importance of cabin and passenger safety pre-flight, in-flight and pre-landing checks, and their impact on flight safety.
- 3.5A.2 Define what is meant by the Minimum Equipment List and identify the cabin items which are included.
- 3.5A.3 Identify types of 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 seals, excessive water spills or leaks, obvious structural damage, etc.*).



**3.6 PASSENGER HANDLING**

**Training Objective:** The crew member will be able to identify the types of passenger, which may be carried, and the general handling considerations which relate to safety.

**Scope:** General  
Passenger Boarding

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**3.6A General**

3.6A.1 Identify the requirement for passengers to comply with instructions of crew members.

3.6A.2 Describe the types of passengers which may be carried, including passengers who require special handling.

3.6A.3 Describe the procedures for acceptance and carriage of the special attention passengers and items listed below:

- a) Incubators;
- b) Stretchers;
- c) Persons with a disability unable to sit upright;
- d) Persons travelling with medical oxygen;
- e) Persons travelling with an attendant;
- f) Service animals;
- g) Child restraint systems;
- h) Unaccompanied minors;
- i) Prisoners; and
- j) Unescorted and escorted deportees.

For each of the above cases, identify special handling considerations (including restrictions on different aircraft types), location and securing (as applicable).

3.6A.4 Identify the operator's policy for accepting or denying boarding to passengers and who is responsible for making this decision.

3.6A.5 Outline the regulatory requirements regarding passengers who appear to be impaired due to alcohol or drugs, and the operator's policies and procedures regarding alcohol service to passengers.

**3.6B Passenger Boarding**

3.6B.1 Define crew member responsibilities for passenger supervision while the aircraft is on the ground, including boarding, deplaning, station stops and the number of crew members that must be present.

3.6B.2 Identify the importance of safety duties over service duties during passenger boarding.

**3.7 PASSENGER AND CREW MEMBER SEATS AND RESTRAINTS**

**Training Objective:** The crew member will be able to identify the requirements and established procedures relating to seats and restraint systems for passengers and crew members.

**Scope:** Passenger Seating  
Crew Seating

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**3.7A Passenger Seating**

- 3.7A.1 Outline the requirement for each person to have a seat with an individual safety belt.
- 3.7A.2 Describe the operator's policy and procedures regarding exit row seating, and who may not occupy seats in these rows.
- 3.7A.3 Describe the procedures associated with the relocation of passengers in compliance with exit row seating policies.
- 3.7A.4 Describe where special attention passengers may be seated, taking into consideration proximity to exits, availability of supplemental oxygen, ease of evacuation, etc., for each aircraft type.
- 3.7A.5 Identify the upper deck and lower deck passenger seating restriction.
- 3.7A.6 Outline the seating restrictions regarding arm held infants.
- 3.7A.7 Describe the procedures for the use of onboard skycots, when these devices may be used, and restrictions regarding the occupant of the skycot.
- 3.7A.8 Describe the requirement for passengers to be seated in their assigned seats, with safety belts fastened, for take-off, landing and whenever advised by a crew member. Describe the required positioning of seats for take-off and landing.

**3.7B Crew Seating**

- 3.7B.1 Identify the persons authorized to occupy any of the crew seats and who has the authority to make this decision.
- 3.7B.2 Describe the importance of ensuring serviceability of flight attendant seats, who is responsible to ensure this, when to check serviceability.
- 3.7B.3 Identify the components of a pre-flight serviceability check for a flight attendant seat (e.g. "sit and fit" to enable quick access).
- 3.7B.4 Describe the procedures to follow and approved alternate seating in case of an unserviceable flight attendant seat.
- 3.7B.5 Describe the requirements for flight attendants to be seated with restraint system fastened during taxi (except for safety related duties), take-off, landing and turbulence and whenever directed to do so by the pilot-in-command or the in-charge flight attendant.
- 3.7B.6 Identify the signals and/or verbal command for flight attendants to take their assigned seats and to secure themselves. State who is responsible for these signals.

**3.8 CARRY-ON BAGGAGE**

**Training Objective:** The crew member will be able to define what is meant by carry-on baggage and will describe the procedures for accepting and stowing carry-on baggage and any applicable restrictions.

**Scope:** Passenger Carry-on Baggage  
Crew Carry-on Baggage

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**3.8A Passenger Carry-on Baggage**

- 3.8A.1 Describe carry-on baggage policies and procedures with respect to approved storage areas.
- 3.8A.2 Identify the safety implications of improperly stowed carry-on baggage.
- 3.8A.3 Identify the crew responsibilities for ensuring that all carry-on baggage is correctly stowed when required and prior to door closing.
- 3.8A.4 Describe the operator's procedures for dealing with carry-on baggage that cannot be correctly stowed.
- 3.8A.5 Outline the operator's policies and procedures for the carriage of live animals in the passenger cabin.
- 3.8A.6 Identify the effects of carry-on baggage on weight and balance as applicable to the aircraft type operated by the operator.
- 3.8A.7 Describe the approved procedures for accepting and restraining seat-loaded baggage and cargo in the passenger cabin, and approved devices/equipment for accomplishing this.
- 3.8A.8 Describe the requirement to keep the exit areas clear and free from obstructions, such as carry-on baggage.
- 3.8A.9 Describe the requirement to maintain clear access to emergency equipment.
- 3.8A.10 Describe safety precautions for cabin personnel when opening overhead bins, and when handling items of carry-on baggage in order to prevent personal injury.

**3.8B Crew Carry-on Baggage**

- 3.8B.1 Describe the policies and procedures for stowing crew baggage in the passenger cabin including accepting baggage from deadheading crew.
- 3.8B.2 Identify the crew carry-on baggage stowage locations for each aircraft type.

**3.9 ELECTRONIC DEVICES**

**Training Objective:** The crew member will be able to define what is meant by passenger operated electronic devices, and describe the policies and procedures for their acceptance and use onboard aircraft.

**Scope:** General

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**3.9A General**

- 3.9A.1 Identify the electronic devices most likely to be carried onboard aircraft.
- 3.9A.2 List the potential hazards to flight safety associated with the use of electronic devices onboard the aircraft in-flight.
- 3.9A.3 Describe the company policy and procedures relating to electronic devices and list exceptions.
- 3.9A.4 Identify the safety concerns associated with the use of "walkman" type headsets during critical phases of flight, abnormal operations, boarding and deplaning across an open apron.

**3.10 SERVICE TO PASSENGERS ON THE GROUND**

**Training Objective:** The crew member will be able to identify what is meant by service to passengers on the ground, the conditions under which this can be accomplished and the procedures to do so.

**Scope:** Crew Responsibilities

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**3.10A Crew Responsibilities**

3.10A.1 Identify the need for crew communication and coordination procedures whenever passenger service is being offered on the ground.

3.10A.2 Identify when service to the passengers can be conducted on the ground and the related safety procedures.

**3.11 FUELLING WITH PASSENGERS ONBOARD**

**Training Objective:** The crew member will be able to identify the regulatory requirements regarding fuelling with passengers onboard and the procedures established for this situation for each aircraft type in the operator's fleet.

**Scope:** General  
Crew Member Responsibilities

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**3.11A General**

- 3.11A.1 List the potential hazards to occupants and the aircraft associated with aircraft fuelling.
- 3.11A.2 Identify the types of fuelling conditions which require that passengers and crew to be off-loaded and why the potential hazard is greater.
- 3.11A.3 Describe the procedures and precautions for fuelling with passengers onboard.
- 3.11A.4 Define what is meant by aircraft designated evacuation exits during fuelling and associated procedures for each aircraft type in the operator's fleet.

**3.11B Crew Member Responsibilities**

- 3.11B.1 Identify crew responsibilities and communication when fuelling with passengers onboard.
- 3.11B.2 Describe the fuel leak or spill procedures and identify the crew member communication and coordination procedures.
- 3.11B.3 Describe the procedures whenever fumes are detected in the cabin including crew communication and the decision to deplane passengers.

**3.12 PRE-TAKE-OFF AND PRE-LANDING**

**Training Objective:** The crew member will be able to identify safety procedures associated with take-off and landing.

**Scope:** Crew Responsibilities  
Abnormal Situations

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**3.12A Crew Responsibilities**

3.12A.1 Identify cabin, galley and passenger safety checks.

3.12A.2 Identify when crew members are required to violate the sterile flight deck rule. Describe the safety related information that should be conveyed and the requirement to be clear, concise, specific and timely.

3.12A.3 Define "silent review" and identify the components, when it must be done and who is required to complete it.

**3.12B Abnormal Situations**

3.12B.1 Define "rejected take-off" and describe the associated procedures.

3.12B.2 Define "missed approach" and describe the associated procedures.

**3.13 PROPELLER ABNORMALITIES**

**Training Objective:** The crew member will be able to identify the characteristics of an overspeeding and a runaway propeller and the associated procedures.

**Scope:** General

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**3.13A General**

- 3.13A.1 Describe the characteristics of an overspeeding propeller and a runaway propeller, and emergencies that may occur as a result.
- 3.13A.2 Describe how to recognize these propeller malfunctions and their effect on flight characteristics.
- 3.13A.3 Identify the crew communication procedures associated with these propeller abnormalities.
- 3.13A.4 Outline the procedures for relocating passengers.



**3.14 APRON SAFETY**

**Training Objective:** The crew member will be able to identify apron safety components, the responsibilities for passenger movement on airport aprons and the associated procedures.

**Scope:** Hazards on Apron  
Crew Member Responsibilities  
Helicopter Operators

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**3.14A Hazards on Apron**

- 3.14A.1 Identify the hazards associated with airport aprons (*e.g. aircraft, ground service vehicles, noise and weather*).
- 3.14A.2 Describe the hazards associated with traffic on the apron including aircraft movement, propellers, jet blast/exhaustion vehicles.

**3.14B Crew Member Responsibilities**

- 3.14B.1 Identify the established procedures and requirements for escorting passengers across airport aprons.
- 3.14B.2 Describe the coordination required between crew members and ground staff to ensure passenger safety (*e.g. stairs in place, props are secured and ways to achieve it*).
- 3.14B.3 Identify the responsibilities for opening and closing, locking and unlocking airport terminal doors.

**3.14C Helicopter Operations**

- 3.14C.1 List the ramp safety hazards associated with helicopter operations.
- 3.14C.2 Describe the correct ways to approach a helicopter with and without the rotor engaged.
- 3.14C.3 Identify communication and coordination procedures between crew and ground staff to ensure passengers are escorted to and from the helicopter.
- 3.14C.4 Describe when it is safe to board/deplane passengers and who is responsible for this decision, and the how this information is conveyed to crew members.
- 3.14C.5 Identify Helicopter Operational Regulations differing from fixed wing operations.

**3.15 TURBULENCE**

**Training Objective:** The crew member will be able to identify turbulence classifications, hazards, and the procedures for ensuring passenger and crew safety during periods of in-flight turbulence.

**Scope:** General  
Crew Responsibilities

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**3.15A General**

3.15A.1 Describe turbulence classifications (*e.g. light, moderate, severe, as published in A.I.P. Canada*).

3.15A.2 List the potential hazards to aircraft, crew and passengers associated with turbulence.

**3.15B Crew Responsibilities**

3.15B.1 Identify the importance of crew communication and coordination in conditions of turbulence and associated procedures.

3.15B.2 Describe safety advice to passengers during turbulence.

3.15B.3 Outline the crew procedures and responsibilities to ensure that passengers comply with crew member directions and crew member compliance with the regulation.

**3.16 CREW MEMBER INCAPACITATION**

**Training Objective:** The crew member will be able to identify crew member incapacitation procedures.

**Scope:** General  
Pilot Incapacitation  
Flight Attendant Incapacitation

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**3.16A General**

- 3.16A.1 Identify the possible causes of incapacitation (*e.g. illness, injury, death, physical and mental incapacitation*).
- 3.16A.2 Identify the impact on flight safety of an incapacitated pilot or flight attendant associated with different aircraft types operated by the air operator.
- 3.16A.3 Identify the preferred locations for relocating incapacitated crew members as appropriate to the aircraft type.
- 3.16A.4 Identify how and where to secure an incapacitated crew member for landing or during periods of in-flight turbulence.
- 3.16A.5 Identify the pilot and flight attendant communication procedures to advise of crew member incapacitation.

**3.16B Pilot Incapacitation**

- 3.16B.1 Identify the assistance flight attendants will be required to provide in the flight deck of a two pilot aircraft.
- 3.16B.2 Describe the procedures for assisting an incapacitated pilot.
- 3.16B.3 Describe and demonstrate the procedures for administering first aid oxygen to an incapacitated pilot.
- 3.16B.4 Describe the procedures for removing an incapacitated pilot from the flight deck.

**3.16C Flight Attendant Incapacitation**

- 3.16C.1 Identify the crew coordination procedures to ensure that the emergency duties of the incapacitated flight attendant are assumed, and who is responsible for this decision.
- 3.16C.2 Outline the procedures associated with incapacitated flight attendants.

**3.17 POST-FLIGHT DUTIES**

**Training Objective:** The crew member will be able to identify their post-flight safety related duties.

**Scope:** Documentation  
Communication

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**3.17A Documentation**

3.17A.1 Describe the safety related documentation which must be completed after each flight and who is responsible for its completion.

**3.17B Communication**

3.17A.1 Identify the responsibility associated with a crew change to brief the new crew regarding any unserviceabilities, special passengers, and any other safety related matters pertinent to their flight.

**ANNUAL – PART FOUR**

**EMERGENCY PROCEDURES**

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**4.1 FIRE FIGHTING**

**Training Objective:** The crew member will be able to identify the types of fire, fire detection and fire fighting systems and the established fire fighting procedures.

**Scope:** General  
Crew Member Responsibilities  
Procedures – Cabin  
Procedures – External

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**4.1A General**

- 4.1A.1 Identify hazards associated with onboard fires including toxicity of fumes, flammability of cabin materials, variety of combustible materials.
- 4.1A.2 Identify the impediments to fire fighting onboard aircraft including limited visibility due to smoke/fumes, fire fighting in confined space, difficulty in locating /accessing the source of the fire, limited resources to fight the fire and distance to suitable airport for landing.
- 4.1A.3 Define fire chemistry including the elements which must be present for fire to occur (*i.e. fuel, heat, oxygen, chemical reactions*).
- 4.1A.4 List the classes of fire which may occur on aircraft: Class A – combustible material fires, Class B – grease/spill fires, Class C – electrical and Class D – fire involving metals, and the possible sources for these fires.
- 4.1A.5 Describe the importance of early detection and correct recognition.
- 4.1A.6 Identify the characteristics and behaviour of fire (*e.g. what you will see, how the fire will behave*) in different cabin environments, fire propagation.
- 4.1A.7 Describe the means of fire smoke detection (*e.g. smell, auditory, visual, tactile*).
- 4.1A.8 Describe the chemical properties of each type of fire extinguisher, including hazards to occupants and aircraft systems, and how a fire is extinguished.

**4.1B Crew Member Responsibilities**

- 4.1B.1 List fire prevention measures and crew responsibilities for fire prevention including but not limited to:
  - a) Practicing and maintaining safe work habits;
  - b) Enforcing smoking regulations;
  - c) Monitoring cabin, lavatories, cargo compartments;
  - d) Awareness of popped circuit breaker procedures; and
  - e) Prompt investigation of fire detection alarms, unusual odours, heat build-up, deformation of aircraft components, etc.
- 4.1B.2 Describe the importance of crew coordination in fire fighting and identify ways that this may be achieved.

4.1B.3 Describe the importance of crew communication in fire fighting and providing the pilot-in-command with accurate information on fire source, location, extent/severity of fire/smoke, fire fighting actions.

**4.1C Procedures – Cabin**

4.1C.1 Describe the fire fighting procedures for specific types of fires (*e.g. galley, oven, lavatory, electrical, upholstery, etc.*).

4.1C.2 Describe the techniques and procedures for fighting these fires including finding the source of the fire, type of extinguisher to use, additional fire fighting equipment needed, complications to fighting these types of fires, limitations to fighting this type of fire, post-fire procedures, crew communication and coordination procedures, and passenger-handling.

4.1C.3 Identify ways to maintain breathing comfort for cabin occupants.

4.1C.4 Define flashover and flash-fire and describe the conditions under which each is likely to occur.

**4.1D Procedures – External**

4.1D.1 Identify the types of external fires, which could affect flight safety including but not limited to:

- a) Engine fires;
- b) APU and engine torching;
- c) Fuel spill/apron fires;
- d) Fires on loading bridges; and
- e) Service vehicle fires.

4.1D.2 Describe established procedures for dealing with external fire situations including recognition, crew communication and coordination.

4.1D.3. Identify the communication and coordination required with ground personnel and describe the fire fighting assistance ground personnel can offer and the assistance crew members can provide to ground personnel.



**4.2 SMOKE/FUMES IN THE CABIN**

**Training Objective:** The crew member will be able to identify the hazards associated with fumes and/or smoke in the cabin, potential sources and the established procedures if fumes and/or smoke are detected in the cabin in flight or on the ground.

**Scope:** General  
Crew Member Responsibilities

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**4.2A General**

4.2A.1 Identify the possible sources of fumes and smoke in the cabin.

**4.2B Crew Member Responsibilities**

4.2B.1 List the crew communication procedures associated with smoke/fumes in the cabin including how to notify the pilot-in-command of the situation and what information is required.

4.2B.2 Describe the procedures for dealing with smoke/fumes in the cabin including locating the source, crew coordination, passengers breathing comfort, and preparation for rapid deplanement or evacuation.

4.2B.3 Describe the authority of the pilot-in-command to relocate passengers if smoke/fumes are present in the cabin and when this decision may be made.

4.2B.4 Describe "smoke removal" and smoke control, and the associated procedures on the operator's aircraft types as applicable and in accordance with the manufacturer's specifications, including crew communication and coordination and advice to passengers.

#### 4.3 RAPID DECOMPRESSION AND CABIN PRESSURIZATION PROBLEMS

**Training Objective:** The crew member will be able to recognize a rapid decompression and cabin pressurization problems, associated crew responsibilities and the established procedures for dealing with each condition.

**Scope:** General  
Crew Member Responsibilities

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##### 4.3A General

- 4.3A.1 Identify the potential causes of a rapid decompression (*e.g. fuselage failure, air pack failure*) and cabin pressurization problems (*e.g. door seal leak, cracked window, system malfunction*).
- 4.3A.2 Describe the mechanical indications and physiological effects associated with each condition.
- 4.3A.3 Describe the effects of oxygen deficiency on human performance and identify the importance in recognizing the symptoms in other crew members.
- 4.3A.4 Describe the effect a rapid decompression could have on any unsecured objects or persons in the immediate area.
- 4.3A.5 Describe the likely aircraft attitude associated with an emergency or rapid descent following a rapid decompression, and what is meant by safe altitude and the importance of reaching a safe altitude quickly.

##### 4.3B Crew Member Responsibilities

- 4.3B.1 Describe the means and procedures for crew to passenger communication during a rapid decompression and cabin pressurization problems.
- 4.3B.2 Identify the immediate actions crew members must take in the event of a rapid decompression.
- 4.3B.3 Describe the crew communication procedures (*e.g. signal for beginning a post-decompression walk around, who is responsible for giving this signal and when it will be given*).
- 4.3B.4 List the crew member duties in a post-decompression walk around and safety priorities.
- 4.3B.5 Identify the importance of crew coordination and the methods of achieving this coordination.

#### **4.4 EVACUATIONS**

**Training Objective:** The crew member will be able to identify the types of evacuations, crew responsibilities and procedures relating to the different types of evacuation situations.

**Scope:** General  
Crew Member Responsibilities  
External Factors  
Communication  
Brace Position  
Exit Procedures  
Evacuation Responsibilities  
Preparation for Evacuation  
Evacuation Procedures  
Rapid Deplanement  
Post-Evacuation

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#### **4.4A General**

- 4.4A.1 Identify the types of occurrences that may require evacuation or rapid deplanement, who is responsible for making this decision and the factors to be considered when making this decision.
- 4.4A.2 Describe the types of persons a crew member would choose for an Able-Bodied-Person (ABP), the assistance they could provide, and the special briefing instructions.

#### **4.4B Crew Member Responsibilities**

- 4.4B.1 Identify when crew members have the authority and the responsibility to initiate an evacuation. Include who is responsible for activating evacuation signals.
- 4.4B.2 Describe the different types of passenger behaviour (*e.g. passive, aggressive and hysteric*) and identify effective ways of managing passenger behaviour in evacuations.
- 4.4B.3 Identify crew member responsibility to provide leadership in an evacuation and list ways this may be achieved.

#### **4.4C External Factors**

- 4.4C.1 Identify how crew members can manage evacuations in adverse conditions (*e.g. heavy smoke, darkness*).
- 4.4C.2 Describe the flotation characteristics of each aircraft type and identify the factors which could adversely affect aircraft flotation in water landings (*e.g. structural damage, weight, center of gravity, outside conditions*).
- 4.4C.3 Describe the different aircraft attitudes possible as a result of accidents/incidents (*e.g. gear collapse, off-runway, shift in center of gravity*). Include any effect on exit usability.
- 4.4C.4 Describe the effect of environmental conditions on evacuations (*e.g. strong winds, terrain, snow/ice*).

4.4C.5 Identify the importance of time management in prepared and unprepared evacuations and how time affects survivability in different accident situations.

**4.4D Communication**

4.4D.1 Describe the importance of crew communication in an evacuation, and the established communication signals for evacuations.

4.4D.2 Identify the briefings required between flight deck, and cabin crew in an emergency situation, which may require an evacuation. Include the following information in the description:

- a) Who is responsible to conduct briefing;
- b) When and where to conduct the briefing;
- c) What information is required; and
- d) How to conduct the briefing including time management.

4.4D.3 Identify the briefings required to prepare passengers in an emergency situation that may require an evacuation. Include the following information in the description:

- a) Who is responsible to conduct briefing;
- b) When and where to conduct the briefing;
- c) What information is required; and
- d) How to conduct the briefing including time management.

**4.4E Brace Position**

4.4E.1 Describe the effect of seat pitch on preferred brace positions.

4.4E.2 Identify the brace positions for crew members in forward or aft-facing seats, passengers (seat orientation as appropriate), including pregnant passengers, passengers with a disability, children and infants. Describe the effectiveness of each brace position and the importance of assuming the preferred brace position to minimize injury.

4.4E.3 Identify the signal for assuming the brace position in different evacuation situations, when it is given, who is responsible for giving it and the crew responsibilities when the brace signal has been given.

4.4E.4 Identify when crew members should assume the brace position if no signal has been given.

**4.4F Exit Procedures**

4.4F.1 Identify crew member responsibility to assess conditions prior to opening any exit.

4.4F.2 Identify the evacuation procedures for each type of exit (*e.g. doors, windows, hatches, ventral exits, tailcones, opening in fuselage*).

4.4F.3 Describe the procedures to operate and use any evacuation aids (*e.g. slides, ramps, ropes*) that are provided on the aircraft. Include instructions on operation and use of these evacuation aids to passengers.

4.4F.4 Identify the inflation times for the different evacuation aids (*e.g. slides, ramps, slide/rafts*). Describe how to recognize if an evacuation device is fully inflated.

4.4F.5 Describe alternate procedures if initial inflation fails and if the inflation fails during the course of the evacuation.

4.4F.6 Describe the preferred techniques for special attention passengers using evacuation slides (*e.g. person with a disability, person with a service animal*).

**4.4G Evacuation Responsibilities**

4.4G.1 Identify the shouted commands for each type of evacuation and describe the rationale behind each of the commands. Describe ways to increase the effectiveness of commands (*e.g. assertive, loud, positive, short, body language, phraseology, commands in unison, etc.*).

4.4G.2 Identify the crew member responsibility to assist passengers and fellow crew members in an evacuation, and any limitation to this responsibility. Outline the conditions when crew members should evacuate themselves.

4.4G.3 Describe ways to assist incapacitated passengers and fellow crew members in evacuations.

4.4G.4 Identify the importance of checking the cabin, flight deck and lavatories, after all passengers have been evacuated and describe how and under what conditions this should be accomplished.

4.4G.5 Identify the crew responsibilities for removal of equipment when they evacuate the aircraft and under what conditions this should be accomplished.

**4.4H Preparation for Evacuation**

4.4H.1 Describe procedures for preparation of an evacuation for each of the following:

- a) Land - prepared; and
- b) Ditching.

**4.4I Evacuation Procedures**

4.4I.1 Describe evacuation procedures for each of the following:

- a) Land - prepared;
- b) Land - unprepared;
- c) Ditching;
- d) Inadvertent water contact;
- e) Tidal flat;
- f) Evacuation with a passenger transfer vehicle (PTV) mated to aircraft;
- g) Evacuation at an airport gate/apron jetway; and
- h) Any other scenario applicable to the operator.

**4.4J Rapid Deplanement**

4.4J.1 Describe the established procedures for rapid deplanement.

**4.4.K Post-Evacuation**

4.4K.1 Describe crew member responsibilities after an evacuation (*e.g. grouping passengers, assisting with first aid, etc.*).

4.4K.2 Identify the supplies and equipment available after an evacuation that will provide assistance and enhance survivability (*e.g. ELT, survival kit, blankets, megaphone, raft, life preservers, flashlight, food, water, axe, etc.*).

- 4.4K.3 Identify the importance of post-crash procedures to increase survivability in each of the survival situations. Include the following:
- a) Survival first aid;
  - b) Survival priorities;
  - c) Hazards inherent in different environments;
  - d) Survival skills for different environments;
  - e) Survival equipment and supplies carried on the aircraft; and
  - f) Signalling and recovery techniques.

**ANNUAL – PART FIVE**

**ACCIDENT/INCIDENT**

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**5.1 ACCIDENT/INCIDENT, NEW EQUIPMENT AND PROCEDURES REVIEW**

**Training Objective:** The crew member will be able to demonstrate an understanding of pertinent factors involved in the reviewed accidents and incidents. The crew member will be able to identify, any new procedures, and identify and describe the operations and procedures relating to the use of any new safety and emergency equipment installed in the operator's aircraft.

**Scope:** Accidents/Incidents  
New Safety/Emergency Equipment & Procedures

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**5.1A Accidents/Incidents**

- 5.1A.1 Describe the operator's accidents/incidents, accidents of other operator's.
- 5.1A.2 List the factors which had positive and negative effects on survivability.
- 5.1A.3 Describe how poor crew coordination has contributed to aircraft accidents and incidents and the strategies to improve crew coordination.
- 5.1A.4 Describe the potential hazards to flight safety if communication is not effective.
- 5.1A.5 Describe how poor communication has contributed to aviation accidents and incidents and discuss ways to minimize these communication deficiencies.
- 5.1A.6 Describe experience with fire incidents and identify the safety lessons learned as a result.
- 5.1A.7 Describe the operator's experience with accidents/incidents involving rapid deplanements and evacuations.

**5.1.B New Safety/Emergency Equipment & Procedures**

- 5.1B.1 Review any new procedures introduced into the flight attendant manual since last annual training.
- 5.1B.2 Review operation and location of any safety and emergency equipment installed in an aircraft since last annual training.

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**ANNUAL – PART SIX**

**AIRCRAFT SPECIFIC**

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**6.1 GALLEYS**

**Training Objective:** The crew member will be able to identify the components of the galley and describe the operations and procedures relating to their use.

**Scope:** General

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**6.1A General**

6.1A.1 Identify the potential hazards resulting from spills, leaks and unsafe work practices in galleys and describe the procedures for dealing with them.

6.1A.2 Describe what is meant by "galley water shut-off valves" and identify the associated crew member responsibility.

6.1A.3 Identify the crew procedures for dealing with any electrical malfunctions in the galley.

6.1A.4 Where lower deck galleys are located, include the following:

- a) Policies and procedures relating to lower deck galleys;
- b) Maximum number of persons allowed in the lower deck galley;
- c) Communication procedures with lower galley crew member; and
- d) Escape routes from the lower deck galley.

6.1A.5 Identify the procedures relating to the use of lifts (*e.g. cart-lifts, dumb-waiter*), how and when they are to be operated, safety features, and alternate procedures if lift becomes unserviceable.

**6.2 LIGHTING SYSTEMS**

**Training Objective:** The crew member will be able to identify the different components of the interior and exterior lighting systems.

**Scope:** General

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**6.2A General**

- 6.2A.1 Describe the components of the interior and exterior emergency lighting systems including portable components.
- 6.2A.2 Describe the duration of the components of the emergency lighting system.
- 6.2A.3 Identify the responsibilities for activating the components of the lighting system in normal and emergency situations.

**6.3 WATER AND WASTE SYSTEMS**

**Training Objective:** The crew member will be able to identify the correct procedures relating to these systems.

**Scope:** General

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**6.3A General**

6.3A.1 Identify the potential threat to flight safety in case of large leaks of either the water or the waste systems.

6.3A.2 Describe the crew responsibilities for the operation/malfunctions of the water and waste systems.

6.3A.3 Describe the shut-off valves, importance, location(s), operation(s) and identification.

**6.4 OXYGEN SYSTEMS AND SAFETY/EMERGENCY EQUIPMENT**

<b>Training Objective:</b>	The crew member will be able to recognize the components of the fixed oxygen systems, be able to describe effective use of the systems in any onboard situation and be able to identify the location(s) and pre-flight serviceability checks of each piece of safety and emergency equipment onboard the operator's aircraft.
<b>Scope:</b>	Oxygen Systems Safety/Emergency Equipment – General

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**6.4A Oxygen Systems**

- 6.4A.1 Describe the components of the oxygen systems onboard the aircraft, including flight deck and cabin sources.
- 6.4A.2 Describe when each of the oxygen system components is used. Include description of use for first aid, decompression and supplemental purposes.
- 6.4A.3 Identify the location of the components of the oxygen systems including the location of O<sub>2</sub> masks and spares.
- 6.4A.4 Identify alternate procedures to access oxygen masks when the system fails.
- 6.4A.5 Describe the crew communication procedures required to activate the oxygen systems.

**6.4B Safety/Emergency Equipment – General**

- 6.4B.1 Review the location of each piece of safety and emergency equipment the operator has available onboard each aircraft.
- 6.4B.2 Review the pre-flight serviceability checks associated with each piece of safety and emergency equipment.



**6.5 HEATING AND VENTILATION SYSTEMS**

**Training Objective:** The crew member will be able to identify the components of the heating and ventilation systems and be able to describe correct procedures relating to these systems.

**Scope:** General

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**6.5A General**

6.5A.1 Identify the location of the heating and exhaust vents of which crew members need to be aware.

6.5A.2 Describe any crew communication and crew coordination procedures when using the heating and ventilation system.

6.5A.3 Identify conditions that may occur in the cabin associated with the system (*e.g. condensation, glycol fumes and residual oil smoke*).

**6.6 EXITS**

**Training Objective:** The crew member will be able to identify the features of each type of exit and flight deck escape route and be able to describe how to use them in any onboard situation.

**Scope:** General  
Normal Operation  
Abnormal Operation  
Emergency Operation  
Airstairs

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**6.6A General**

6.6A.1 Identify safety precautions associated with exit operation. Include potential hazards (*e.g. inadvertent slide deployment, injury to crew and ground personnel, etc.*).

6.6A.2 Identify the MEL relief given to the operator when an aircraft door or slide is inoperative. Outline the conditions for this relief to be granted and the procedures which must be followed.

**6.6B Normal Operation**

6.6B.1 Describe the procedures for operating the exit in normal mode including arming/disarming and opening/closing.

6.6B.2 Identify the precautions associated with using the exit in normal mode situations.

6.6B.3 Describe the crew communication and coordination procedures, including any established signals associated with exit operation in normal situations. Identify who is responsible for ensuring that this communication occurs and the importance of this communication for flight safety.

**6.6C Abnormal Operation**

6.6C.1 Describe the procedures for abnormal operation of the exit, including who is responsible for the exit operation, crew communication and crew coordination procedures.

6.6C.2 Identify any precautions for abnormal operation of the exit.

**6.6D Emergency Operation**

6.6D.1 Describe the procedures for operating the exit in emergency mode.

6.6D.2 Identify the precautions for using the exit in emergency situations.

6.6D.3 Describe any alternate procedures for use of the exit in the event it becomes unserviceable.

6.6D.4 Identify the visual indicators that verify the off-wing slide, ramp is inflated.

**6.6E Airstairs**

6.6E.1 Describe the procedures for operating the airstairs in normal, abnormal and emergency situations. Identify the crew member responsibility for airstair operation.

- 6.6E.2 Identify the precautions relating to use of the airstairs.
- 6.6E.3 Describe the crew communication and the coordination procedures whenever the airstairs are being used.

**6.7 UNIQUE FEATURES**

**Training Objective:** The crew member will be able to recognize the unique features of each aircraft type or differences within the type as a result of interior configuration or manufacturer series differences.

**Scope:** General

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**6.7A General**

- 6.7A.1 Identify any features, procedures and/or equipment unique or different to each aircraft in the operator's fleet (*e.g. electrical outlets, main deck cargo compartment fire and/or smoke detection systems*).
- 6.7A.2 Describe each of the differences, their impact on the operator's standard operating procedures and the importance to flight safety of crew members being familiar with them.
- 6.7A.3 Identify the function of circuit breakers in electrical panels and describe the procedures for tripped circuit breakers including reset and crew communication procedures. Describe the potential hazards to flight safety if circuit breaker procedures are not followed.

**ANNUAL – PART SEVEN**

**DRILLS**

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**7.1 AIRCRAFT OPERATION DRILLS – Each Aircraft Type**

**7.1.1 Equipment Criteria**

- a) Each drill shall be performed using the appropriate aircraft or a training device approved in accordance with Section 705.126 of the *Canadian Aviation Regulations*.
- b) Individual aircraft exits may be substituted by the approved equivalent as provided for in Schedule A, and as authorized in the training program. Exits equipped with slides must include slide attached or slide drag simulation for emergency mode operations.
- c) Floor level exits for which operations are identical under both normal and emergency conditions and which are a routine flight attendant responsibility to open under normal conditions may be excluded from the drills specified under 7.1.2.

**7.1.2 Performance Criteria**

- a) Each crew member shall operate each floor level exit type, for each aircraft type in the emergency mode that was not operated in the conduct of the drills required in 7.2.3 and perform the following:
  - i. Recognize the signal for and/or the conditions under which the exit is to be opened in the emergency mode;
  - ii. Verify the exit is in the correct mode;
  - iii. Assess conditions outside the exit to determine exit usability (*e.g. clear of obstruction, fire, aircraft attitude*);
  - iv. Position escape device;
  - v. Open the exit in the emergency mode;
  - vi. Secure exit in the fully open position;
  - vii. Pull the manual inflation handle(s) and verify deployment inflation of ramp, slide;
  - viii. Assume and maintain appropriate protective body and hand positions; and
  - ix. Access release handle(s) (*e.g. slide disconnect, ventral stairs, etc.*).
- b) Each crew member shall operate each cabin window and cabin hatch exit type for each aircraft type that was not operated in the drills required in 7.2.3 and perform the following:
  - i. Recognize the signal for or the conditions under which the exit is to be opened;
  - ii. Assess conditions outside the exit to determine exit usability (*e.g. clear of obstruction, fire, aircraft attitude*);
  - iii. Open and correctly stow the exit;
  - iv. Verbally describe correct exit placement following removal, if the training procedure differs from the operational procedure;
  - v. Pull the manual inflation handle(s) and verify deployment, inflation of ramp, slide;
  - vi. Assume and maintain appropriate protective body and hand positions;
  - vii. Access escape tapes or escape ropes; and
  - viii. Access release handle(s) (*e.g. slide disconnect, tailcone jettison, etc.*).

**7.1.3 Evaluation Criteria**

- a) Crew member performance shall be observed, rated and debriefed according to the following:
  - i. Acknowledgment and timely responses to signals;
  - ii. Assesses conditions outside the exit to determine exit usability (*e.g. clear of obstruction, fire, aircraft attitude*);
  - iii. Correct usage of exit operating mechanisms including hand and body position;

- iv. Usage of proper terminologies and procedures;
- v. Correctly positions escape device;
- vi. Secures exit in the fully opened position or ensures correct stowage position of exit door, window or hatch;
- vii. Pulls manual inflation handle(s) and verifies deployment and inflation (*e.g. evacuation slide, ramp, etc.*);
- viii. Assumes and maintains appropriate protective hand and body positions;
- ix. Correctly accesses escape tapes or escape ropes
- x. Correctly accesses release handle(s) (*e.g. slide disconnect, tailcone jettison, ventral stairs*); and
- xi. Correctly applies procedures (*e.g. positioning of seatbacks, armrest, chair tables*).



## **7.2 EVECUTION DRILLS**

### **7.2.1 General**

- a) *Evacuations are emergency situations which crew members must effectively manage using their knowledge of procedures and the resources available to them. Skills are developed and maintained through practice*
- b) It is recognized that for aircraft with more than one crew member, an evacuation will likely involve multiple exits and crew members. Therefore, where a drill is performed on an aircraft with more than one crew member, the drill scenario shall involve a "typical" number of crew members. Where a cabin simulator is used to conduct the drills the number of crew members who could participate at any time shall be appropriate to the cabin simulator configuration.
- c) Each participant shall perform the designated evacuation responsibilities for the assigned position. Where a double flight attendant seat is available and would normally be occupied by two crew members, the drill shall be conducted to reflect this reality.

### **7.2.2 Simulation Scenarios**

- a) *An evacuation drill is a training and evaluation scenario which must portray an operational flight and include abnormal and emergency occurrences and interactions amongst flight attendants flight crew members and passengers.*
- b) A drill scenario must not incorporate excessive variables that would overload a trainee, but not be limited so that there is reduced value to the exercise. The variables should differ in sequence from one drill to the next and can include but are not limited to the following:
  - i. Unserviceable exits;
  - ii. Inflation devices that fail or only partially inflate;
  - iii. Aircraft attitude which necessitates a decision to use the exit or redirect passengers;
  - iv. Poor visibility (*e.g. darkness, smoke*);
  - v. Incapacitated crew members;
  - vi. Exits which become unusable during the evacuation;
  - vii. Passengers with a special need (*e.g. elderly, person with a disability, etc.*);
  - viii. Passengers in panic (*e.g. positive, negative, false leadership*);
  - ix. Failure of aircraft emergency systems (*e.g. lighting, evacuation signal, communication, etc*);
  - x. Decompression; and
  - xi. Exits which require the use of non-standard "commands" (*e.g. ramp with slide, tailcone, ventral stairs, etc.*).

### **7.2.3 Unprepared Land and Inadvertent Water Contact Evacuation Drill Performance Criteria**

- a) Each crew member shall perform at least one land and one inadvertent water contact evacuation drill that incorporates the procedures pertinent to a specific exit or, provided the air operator establishes and maintains a method to record the type of drill performed by each crew member and the drill types are alternated annually, each crew member shall perform at least one land OR one inadvertent water contact evacuation drill that incorporates the procedures pertinent to a specific exit; and
- b) Each crew member shall perform the following:
  - i. Secure themselves in a flight attendant seat;
  - ii. Recognize that an emergency situation is developing and react appropriately to the drill scenario;
  - iii. Apply all applicable commands;
  - iv. Recognize when and how to initiate the evacuation, (*e.g. commands, evacuation horn*);

- v. Activate emergency lights, evacuation horn;
- vi. Locate and don life preserver and command passengers as appropriate;
- vii. Assess conditions inside and outside the exit to determine exit usability throughout the evacuation;
- viii. Prepare and open the exit;
- ix. Secure exit in fully open position or ensure correct stowage;
- x. Pull inflation handle(s) and verify deployment, inflation of ramp, slide;
- xi. Access escape tapes or escape ropes;
- xii. Assume appropriate protective position;
- xiii. Initiate passenger evacuation;
- xiv. Final cabin, lavatory and flight deck checks, and remove required emergency equipment;
- xv. Evacuate aircraft/trainer correctly;
- xvi. Access release handle(s) (*e.g. slide disconnect, ventral stairs, tailcone jettison, etc.*); and
- xvii. Demonstrate post evacuation procedures.

#### **7.2.4 Evaluation Criteria**

- a) Crew member performance shall be observed, rated and debriefed according to the following:
  - i. Correct usage of the seat mechanism, restraint system, and brace position as appropriate for seat direction and location;
  - ii. Correct and timely reaction to emergency situations;
  - iii. Consistent usage of appropriate terminologies (*e.g. commands, ABP briefings*) with clear, positive, authoritative communication techniques, as appropriate for drill scenario;
  - iv. Activates emergency lights, evacuation horn;
  - v. Selects appropriate exit for the evacuation scenario and the aircraft type;
  - vi. Assesses conditions inside and outside the exit to determine exit usability throughout evacuation (*e.g. clear of obstruction, fire, aircraft attitude, flow rate, slide conditions, etc.*);
  - vii. Preparation and correct operation of exit;
  - viii. Secures exit in the fully open position or ensures correct stowage;
  - ix. Pulls inflation handle(s) and verifies deployment, inflation of slide,
  - x. Correctly accesses escape tapes or escape ropes;
  - xi. Assumes and maintains appropriate protective body and hand positions;
  - xii. Effective usage of able-bodied persons for special needs passengers (*e.g. assisting outside aircraft and directing people away from the aircraft or onto flotation devices, crowd control, etc.*);
  - xiii. Adequacy of cabin checks, removal of equipment and additional supplies as scenario and air operator procedures dictate;
  - xiv. Correctly accesses release handle(s) (*e.g. slide disconnect, tailcone jettison, ventral stairs*);
  - xv. Correct application of procedures as related to scenario;
  - xvi. Correctly applies post evacuation procedures; and
  - xvii. Consequences of error.

#### **7.2.5 Crew Prepared Evacuation Drill Performance Criteria**

- a) Each crew member shall participate as a crew member in at least one prepared land evacuation drill and perform the following; or
- b) Provided the air operator establishes and maintains a method to record the role performed (*e.g. crew member or passenger*), and roles are alternated annually, each crew member shall participate as a crew member or as a passenger in at least one prepared land evacuation drill and perform the following; and
- c) Each trainee shall participate in a prepared ditching evacuation drill once every third annual training year and perform the following:

- i. Recognize the in-flight emergency signal from the flight deck and react according to procedures;
- ii. Prepare passengers, cabin and self according to procedures and scenario;
- iii. Select and brief able-bodied passengers to assist as required (*e.g. opening non-crewed exits, crowd control, buddy-up with special needs passengers, assisting outside aircraft and directing people away from the aircraft or onto flotation devices, removal/launching rafts*);
- iv. Recognize the emergency brace and evacuation signals and react accordingly;
- v. Activate emergency lights, evacuation horn;
- vi. Prepare and operate exits;
- vii. Evacuate passengers;
- viii. Final cabin, lavatory and flight deck checks, remove required emergency equipment; and
- ix. Evacuate aircraft/trainer.

**Note:**

*One Crew Prepared Evacuation Land Drill may be completed so that it concludes with a rapid deplanement rather than an evacuation. This option can only be exercised when there is more than one Crew Prepared Land Drill being performed. The performance criteria for the cabin preparation component of the drill requirements must not be altered, and crew member(s) must deplane the aircraft/trainer and demonstrate post deplanement procedures, as applicable.*

*The Crew Prepared Ditching Evacuation Drill may be completed in conjunction with the Raft Drill as published in 7.3*

**7.2.6 Evaluation Criteria**

- a) Crew member performance shall be observed, rated and debriefed according to the contents of 7.2.4 and the following:
  - i. Correct application of emergency landing preparation procedures;
  - ii. Awareness of and appropriate response to passenger behaviour;
  - iii. Communication acknowledgement;
  - iv. Accuracy in briefing of ABPs; and
  - v. Debrief shall include a discussion with all participants describing, in general terms, procedures and responsibilities which shall be completed following and as appropriate to evacuation scenarios (*e.g. flotation devices, equipment, location, movement of passengers to a safe area, protection from the elements, first aid, etc.*).

**7.3 RAFT DRILL**

**7.3.1 Equipment Criteria (Wet or Dry)**

- a) The raft drill shall be conducted using life saving equipment that is identical to that which is installed on each aircraft type with respect to weight, dimensions, appearance, features and operation.
- b) Rafts may be substituted provided there are no substantive differences with respect to weight, dimensions, appearance, features, and operation and training for the differences has been provided.

**7.3.2 Performance Criteria**

- a) Each crew member shall participate in a raft drill once every third annual training year and perform the following:
  - i. Access the raft compartment and experience the difficulty associated with moving the weight of a packaged life raft within a space representative of the aircraft aisle;
  - ii. Examine all features of a fully inflated raft;
  - iii. Board raft(s), assist persons into raft;
  - iv. Access the inflation lanyard;
  - v. Access the raft release mechanism while verbally describing the procedure to release the raft from the aircraft; and
  - vi. Examine the raft survival kit and review the operation of all components.
- b) Participate as a crew member or a passenger in the following:
  - i. Launching, inflating, and disconnecting raft(s), either actual or by video;
  - ii. Righting overturned rafts, either actual or by video;
  - iii. Effective raft management (*e.g. distribution of passengers, deploying sea anchor, etc.*);
  - iv. Erecting the raft canopy;
  - v. Distribution of duties to passengers;
  - vi. Discuss the hazards associated with moving a packaged life raft through the cabin to an exit (*e.g. inadvertent inflation, passenger movement and panic*); and
  - vii. Water survival principles; a review of the operations of survival kit components including raft maintenance.

**7.4 LIFE PRESERVER DRILL**

**7.4.1 Equipment Criteria**

- a) Life preservers used for this drill shall be identical to those models most commonly carried on the air operator's aircraft.

**7.4.2 Performance Criteria**

- a) Each crew member shall perform the following:
  - i. Observe removal of life preserver from closed pouch;
  - ii. Don life preserver;
  - iii. Locate and review operation of inflation toggles;
  - iv. Practice deflation technique;
  - v. Locate and review light activation; and
  - vi. Locate whistle.
- b) Observe the fitting of a life preserver for a child.
- c) Review any design and/or operational differences for all other models of life preservers carried in the air operator's fleet.

**7.5 AIRCRAFT SLIDE DRILL**

**7.5.1 Equipment Criteria**

- a) The evacuation slide shall be of a type installed in the aircraft with respect to the following categories:
- i. Inflatable, double channel slides;
  - ii. Inflatable slides and ramp combination;
  - iii. B747 upper deck door(s) slide(s);
  - iv. Inflatable, single channel slides; and
  - v. Non-inflatable slides.

**7.5.2 Performance Criteria**

- a) Each crew member shall perform an aircraft inflatable slide drill according to the following:
- i. Inflatable Evacuation Slide:
    - 1. Slide down an inflatable slide from each of the categories;
    - 2. Slide down an inflatable slide from one of the categories, and for each other inflatable slide category, view an approved video which depicts: the slide, slide/raft, ramp/slide activation and inflation both internally and externally; the video sequence shall also include: inflation sound, disconnect, and "alternate use" (apron) procedures; or
    - 3. For each slide category view an approved video which depicts: the slide, slide/raft, ramp/slide activation and inflation both internally and externally; the video sequence shall also include: inflation sound, disconnect, and "alternate use" (apron) procedures.
  - ii. Non-Inflatable Evacuation Slide:
    - 1. Where the evacuation slide is not door mounted, each crew member shall retrieve the slide(s) from its' stowed location and attach the evacuation slide clips to the appropriate attachment points on the door frames.

## **7.6 FIRFIGHTING DRILLS**

### **7.6.1 General**

- a) *Drill scenarios will provide each crew member with the opportunity to merge procedural knowledge with practical skills. Their ability to successfully react to different fire situations will enhance their level of confidence and their ability to deal with fires in flight.*

### **7.6.2 Simulation Scenarios**

- a) Cabin fire fighting drills may include class A, B, C fires in the following locations:
  - i. Cabin area (*e.g. under seat, overhead bin, closet*);
  - ii. Galley area (*e.g. garbage bin, upper electrical panel, oven*);
  - iii. Confined area (*e.g. waste bin, lavatory*); and
  - iv. Hidden (*e.g. behind panels*).

### **7.6.3 Equipment Criteria**

- a) Fire fighting drills shall be conducted using aircraft furnishings as found on the operator's aircraft as appropriate to the drill scenario (*e.g. seats, galley units, panels, waste bins, etc.*).
- b) Fire fighting equipment and the brackets used for restraint shall be identical to those installed in the aircraft with respect to weight, dimensions, controls, types and operations. Fire extinguishers used for live fire fighting shall be charged with the appropriate agent or with an environmentally friendly agent. Protective Breathing Equipment (P.B.E.) consisting of a portable oxygen bottle and full-face mask shall be charged with oxygen. Self-contained P.B.E. may be substituted with a training smoke hood which is not operational.

### **7.6.4 Cabin Fire Fighting Drill Performance Criteria**

- a) Each crew member shall participate as a crew member or a passenger in a fire fighting drill in a cabin environment involving at least one crew member and a passenger(s) and perform the following:
  - i. Recognize that there is a potential fire situation (*e.g. smoke detector signal or unusual fumes, odours, etc.*);
  - ii. Locate the source of fire;
  - iii. Apply communication and co-ordination procedures;
  - iv. Select, remove and operate the nearest appropriate fire extinguisher and other fire fighting equipment;
  - v. Control of passengers; and
  - vi. Monitor for re-ignition, and apply post-fire follow-up procedures.

### **7.6.5 Evaluation Criteria**

- a) Crew member performance shall be observed, rated and debriefed according to the following:
  - i. Recognition or identification of the problem;
  - ii. Correctly locates the source of the fire (*e.g. tactile search, use of crash axe, etc*);
  - iii. Effective communication/coordination procedures throughout the drill (*e.g. notifying fellow crew members of the situation, providing clear, concise and consistent information to the pilot-in-command, advice and assistance to passengers*);
  - iv. Response in a timely manner;

- v. Correct use of fire fighting equipment consistent with the type of fire, location of the fire and maximum effective position of the fire extinguisher;
- vi. Undertake further action as required; and
- vii. Consequences of error.

**7.6.6 Equipment Practice**

- a) Each crew member shall demonstrate the ability to use fire fighting equipment not operated in 7.6.3 and perform the following:
  - i. Remove from stowage, don and activate P.B.E. and practice communication;
  - ii. Remove from stowage and operate each type of fire extinguisher (uncharged) and associated attachments (*e.g. extinguisher fitted with hose attachment, extension (wand), etc.*); and
  - iii. Initiate fire fighting procedures including intervention involving one or more crew members or a passenger(s).

**7.6.7 Fire/Class B Main Deck**

- a) Each crew member shall perform the drills identified in Initial, Part 4.5D.

**7.6.8 Live Fire Fighting**

- a) Once every third annual training year, each crew member shall demonstrate the effectiveness of a fire extinguisher correctly applied to extinguish an actual fire while wearing P.B.E.



**SCHEDULE A – AIRCRAFT EXIT COMPATIBILITY GROUPS**

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The following is a list of the commercial transport category aircraft, which have been profiled in order to analyze the commonality and compatibility of exit features as well as operations.

**Category: Jet**

B727-100/200	DC-10-30	A310	BAE-146	Falcon 900
B737-200/300/400/500	L1011-1/500	A320	F-28	Challenger 601
B737-COMBI		A340	DC-9	Canadair RJ (CL65)
B747-100/200/400				
B757-200				
B767-200/300				

**Category: Turbo Prop**

ATR-42	EMB-120	DHC-7/8-	SD-360/30
Gulfstream 159	CV-580 /440 /640	100/8-300	DC-3
F-27	SAAB 340B	HS-748	DC-4

The following aircraft are not currently operating in Canada and although not being profiled at this time, may be included in future revisions of the groupings as required.

F-100	A319/321/330	B777	MD11/12/80/83/88/90	ATR72
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The table on the following pages presents a grouping of exits based upon analysis and comparisons of:

- a) Exit Category;
- b) Opening/Closing Design and Characteristics (Normal/Emergency);
- c) Arming/Disarming Mechanisms & Processes;
- d) Door Control Handle Design & Operation;
- e) Special Options/Features; and
- f) Operational Forces (where available).

The table displays the aircraft type/series, the specific exit(s) and where applicable, equivalent alternatives which may be substituted in order to complete required Aircraft Exit Operations Drills on the aircraft or in an approved training device.

In certain cases, use of an actual aircraft exit in the **emergency mode** can cause automatic ramp/slide deployment and inflation; cause potential damage to the aircraft; or by design can only be used once and then require maintenance action. In these cases, approved video presentations, depicting the emergency mode operation may be indicated as acceptable alternatives under "Additional Requirements." Use of an approved video in these circumstances **does not preclude** the requirement for completion of an Aircraft Exit Operation Drill in the normal mode on the aircraft or in an approved training device.

Generally, matters listed under "Additional Requirements" apply when a listed Aircraft Type/Compatible Exit option is used for the completion of an Aircraft Exit Operation Drill or are required in addition to completion of drills as indicated.

"N/A" indicates that an equivalent grouping is not recognized. The Aircraft Exit Drill(s) must be conducted using an approved training device or the actual aircraft.

All door operational forces (Exit Profiles) are manufacturer based figures/estimates, and are based upon the aircraft being in a normal relative attitude.

References (REF) displayed in the table refer to the page number for the background justification data as shown in the Exit Profiles, which follow this table. The Exit Profiles are provided for information only and do not form a part of this standard.

<b>PAGE REF.</b>	<b>AIRCRAFT TYPE</b>	<b>EXITS</b>	<b>AIRCRAFT TYPE /EQUIVALENT</b>	<b>COMPATIBLE EXITS</b>	<b>PAGE REF.</b>	<b>ADDITIONAL REQUIREMENTS</b>
9	B-727-100/200	FWD Entry Door FWD Service Door	B-737-200/300/400/500  /COMBI	FWD/AFT Entry Door FWD/AFT Service Door FWD Entry Door FWD/AFT Service Door	10	Approved slide drag equivalent for EMERGENCY door operation.
		VENTRAL Stairs	B-727-200	VENTRAL Stairs		Approved video presentation depicting B727-100 Ventral Stairs Operation - EMERGENCY mode may replace the exit drill for Emergency operation ONLY.
		Overwing Exits	B-737-200/300/400/500 /COMBI B-727-200	Overwing Exit		Approved removable cover plate (if applicable) must be present and operable for -100 drills.
	B-727-200	AFT Service Doors	N/A	N/A		N/A
10	B-737-200/300/400/500  B-737-200/300/COMBI	FWD/AFT Entry Doors FWD/AFT Service Doors  Overwing Exits	B-727-100  B-727-200 B-727-100 /200 B-767-200 /300	FWD Entry Door MID Service Door FWD Entry/Svc Door Overwing Exits	9	Approved slide drag equivalent for EMERGENCY door operation.  B-727-100 / B767 cover plate removed.
10	B-737-COMBI	FWD Entry Door FWD / AFT Service Door	B-737-200/300/400/500  B-727-100  B-727-200	FWD/AFT Entry Doors FWD/AFT Service Doors FWD Entry Door MID Service Door FWD Entry/Svc Door	10	Approved slide drag equivalent for EMERGENCY door operation.
	B-737-COMBI	AFT Entry Door (AIRSTAIRS)	N/A	N/A		N/A
13	B-747-100/200/400	Main Deck Entry Doors	N/A	N/A		Approved video presentation depicting: Slide - Slide/Raft, Ramp manual inflation (if applicable) and for doors 3L/R "Off-Wing Escape Slide Manual Controls" (if applicable).

PAGE REF.	AIRCRAFT TYPE	EXITS	AIRCRAFT TYPE /EQUIVALENT	COMPATIBLE EXITS	PAGE REF.	ADDITIONAL REQUIREMENTS
	B-747-100/200	Upper Deck Crew Service Door(s)	Video	N/A		Approved video presentation depicting applicable Crew Service Door type(s) - operations - EMERGENCY mode.
13	B-747-400	Upper Deck Doors	B-767-200/300	Door Control Handle	12	Approved video presentation depicting operations of B747-400 Upper Deck Doors in Electrical and Emergency modes. Ensure force factors equal to 747 UD door handle on approved 767 training device. Qualification on B-767-200/300 is also required.
11	B-757-200 (6 door model)	Doors 1,2,4 L/R	B-747-100/200/400 * Emergency mode only	Main Deck Entry Door	13	Approved video presentation depicting NORMAL / EMERGENCY operations and exit drill on B757 door for NORMAL operation and ARM/DISARM functions.
		Doors 3L/R	Video (Conditions)	N/A		Approved video presentation depicting actual operation of exits.
12	B-767-200/300	Doors 1L/R FWD 2L/R AFT	N/A	N/A		N/A
		Overwing Exits	N/A	N/A		N/A
14	DC-10-30	Doors 1L/R	N/A	N/A		If model operated is not equipped with Door Directional Control Switches, Door Drill must be conducted using Door Control Handle method at Door 1L or R and a Door 2 or 3 or 4 L/R. In either case, Door Control Handle Re-Set Procedures must be included.
		Doors 2,3,4 L/R	N/A	N/A		See conditions door 1L/R. Approved video depicting door 3L/R Ramp/Slide/Raft operations - emergency mode.
15	L1011-1/500	Doors	N/A	N/A		Approved video presentation depicting Manual (Hand Crank) Procedure.
17	A310-300	Doors	A320-200 * Emergency mode only or A320 door modified to include A310/A340 slide	Doors Doors (Type A & Type I)	16	Verify if air operator's A310 doors equipped with aural warning system. Approved video presentation depicting actual door operations and exit drill on A310 door for NORMAL operation and

PAGE REF.	AIRCRAFT TYPE	EXITS	AIRCRAFT TYPE /EQUIVALENT	COMPATIBLE EXITS	PAGE REF.	ADDITIONAL REQUIREMENTS
			arming mechanism or A340			ARM/DISARM functions. A340 (Type I) - cover guard removed over door operating handle.
		Overwing Exits	Video	N/A		Approved video presentation depicting actual door/off-wing Ramp/Slide operational procedures. Exit drill on A310 for ARM/Disarm functions.
	A319	RESERVED FOR FUTURE DEVELOPMENT				
16	A320-200	Doors	A310 * Emergency mode only	Doors	17	Approved video presentation depicting NORMAL / EMERGENCY operations and A320-200 practical Door Drill.
		Overwing Exits	B-767-200/300	Overwing Exit		Approved video presentation depicting actual exit operations (Exit/Ramp/Slide).
	A321	RESERVED FOR FUTURE DEVELOPMENT				
	A340	Type A Doors	A310 A320	Type A Doors Type I Doors	17 16	A320 door must be modified to include A340 Arming mechanism and slide/raft disconnect assemble.
		Type I Doors	A310 / A320	Type 1 Doors		A310 A320 doors, if used, must be modified to include door control handle guard of A340 Type I door.
18	BAe-146	Doors	N/A	N/A		N/A
19	DC-9- 10/30/31/32/40/50	Doors	DC-8-43/52/53/61/62/63	Doors	20	N/A
		Overwing Exits	B-737- 200/300/400/500/COMBI B-727-100/200 DC-8-43/52/53/61/62/63	Overwing Exit	10 9	Approved video presentation depicting actual exit operation.
		AFT Fuselage Exit (Tailcone)	N/A	N/A		N/A
20	DC-8- 43/52/53/61/62/63	Doors	DC-9-10/30/31/32/40/50	Doors	19	N/A
		Overwing Exits	B-737-200/300/400/500 /COMBI B-727-100/200	Overwing Exit	10	Approved video presentation depicting actual exit operation.

PAGE REF.	AIRCRAFT TYPE	EXITS	AIRCRAFT TYPE /EQUIVALENT	COMPATIBLE EXITS	PAGE REF.	ADDITIONAL REQUIREMENTS
	/61/62/63	Jet Escapes	Video	N/A		Approved video presentation depicting actual exit operations.
21	F-28	Doors	N/A	N/A		N/A
		Service Door	N/A	N/A		Approved video presentation depicting actual EMERGENCY operations (jammed removal/ejection).
		Overwing Exits	B-737-200/300/400/500/COMIB B727-100/200 B767-200/300 A320	Overwing Exit	10 9 12 16	Cover plate over exit operating handle to be removed for: B727-100, B767, A320.
25	Canadair RJ (CL65)	Passenger Door	N/A	N/A		N/A
		Galley Service Door	N/A	N/A		N/A
		Overwing Exits	B-737-200/300/400/500/COMIB B727-100/200 B767-200/300 A320	Overwing Exit	10 9 12 16	Cover plate over exit operating handle to be removed for: B727-100, B767, A320.
	SAAB 340	Passenger Door	N/A	N/A		N/A
		Overwing Exits	N/A	N/A		N/A
23	Challenger 601	Door Exit	N/A	N/A		N/A
		Overwing Exit	Canadair RJ	Overwing Exit	25	Canadair RJ Overwing Exit (heavier than 601).
24	Falcon 900	Entry Door	N/A	N/A		N/A
		Overwing Exit	N/A	N/A		N/A
26	DHC-7	Door Exit	N/A	N/A		N/A
		Window Exits	DHC-8-100/300 B-727-200 B-737-200/300 /COMBI	Window Exits	27, 28 9 10	N/A
		AFT Strbd Emergency Exit	DHC-8-300 or Video	FWD Strbd Emergency Exit	28	Approved video may be used depicting actual exit emergency operations.



PAGE REF.	AIRCRAFT TYPE	EXITS	AIRCRAFT TYPE /EQUIVALENT	COMPATIBLE EXITS	PAGE REF.	ADDITIONAL REQUIREMENTS
27, 28	DHC-8-100/300	Passenger Door	N/A	N/A		N/A
		Window Exits	B-727-200 B-737-200/300/400/500 /COMBI A320-200 DHC-7	Window Exits	9 10 16 26	A320 Cover plate over operating handle must be removed.
		FWD Strbd Emergency Exit (-300 Series)	Video	N/A		Approved video may be used depicting actual exit emergency operation.
		FWD Strbd Emergency Exit (-100 Series)	N/A	N/A		
		Service Door (AFT) port (if installed) - 300 Series	N/A	N/A		N/A
30	F-27	Passenger Entry Door	N/A	N/A		N/A
		Escape Hatches	N/A	N/A		N/A
		Service Door	N/A	N/A		N/A
		Small Cargo Door (if installed)	N/A	N/A		N/A
31	ATR-42	Entry Door	N/A	N/A		N/A
		Service Door	N/A	N/A		N/A
		Window Exits	N/A	N/A		N/A
32	SD3-30/60	Main Cabin Door	N/A	N/A		All exits considered interchangeably compatible.
		Rear Emergency Exit Door	N/A	N/A		
		Window Exits	N/A	N/A		
33	CV-580 /440 /640	Main Entry Door	N/A	N/A		
		AFT Service Door	N/A			Approved slide drag equivalent for EMERGENCY door operation.
		Window Exits	N/A	N/A		N/A
34	HS-748	Crew/Freight Door	N/A	N/A		N/A
		Passenger Door (AFT - PORT) Baggage Door	N/A	N/A		Approved slide drag equivalent for EMERGENCY door operation (if

PAGE REF.	AIRCRAFT TYPE	EXITS	AIRCRAFT TYPE /EQUIVALENT	COMPATIBLE EXITS	PAGE REF.	ADDITIONAL REQUIREMENTS
		(AFT- Strbd)				applicable).
		Window Exits	N/A	N/A		N/A
35	EMB-120	Passenger Entry Door	N/A	N/A		N/A
		Emergency Window Exits	N/A	N/A		N/A
36	DC-3	Main Cabin Door	N/A	N/A		N/A
		Window Exits	N/A	N/A		N/A
37	DC-4	Main Cabin Door	N/A	N/A		N/A
		Window Exits	N/A	N/A		N/A
	DC-6	RESERVED FOR FUTURE DEVELOPMENT				
29	G-159	Entry Door	N/A	N/A		N/A
		Window Exit	N/A	N/A		N/A
		Baggage Compartment Exit	N/A	N/A		N/A

**B-727-100 /200 Doors (Type I)**

- 2 plug type doors, 1 FWD (L), 1 center (R).
- Both operate identically, inward then outward and forward.
- H-1.83m (6ft.0in.) 1L/1R W-0.86m (2ft.10in.) 1L/1R
- Approximate force required to move door control handle from closed/locked position to open position (Normal & Emergency): 21 kg. (46 lbs.).
- Approximate force required to open/close door (Normal): 23 kg (50 lbs.). To open (Emergency): 32 kg. (70 lbs.).
- Approximate force required to pull manual inflation handle for slide: 9 kg. (20 lbs.). Slide Disconnect Handle: 9 kg. (20 lbs.). Slide inflation time: 10 sec.
- Some models equipped with FWD airstairs 1L.
- Doors ARMED/DISARMED manually by engaging/disengaging girt bar into floor brackets.
- Doors held open by "Gust Lock Device."
- All doors equipped with inflatable slides (some models equipped with "auto-inflate" feature).

**Note:** Some models operated in COMBI configurations.

**Overwing Exits (Type III)**

- 4 overwing exits, 2 on each side.
- H-0.97m (3ft.2in.) W-0.51 (1ft.8in.)
- Approximate weight of exit: 21 kg. (45 lbs.).
- Equivalent force required to move window exit operating handle from stowed/locked position to open position: 7 kg. (15 lbs.).
- Some models have cover plates over control handles.
- Handles pulled inward and downward.
- Escape tapes fitted in sill area.
- AFT overwing exits equipped with "pop-down" step to assist to wing.

**Aft Airstairs (Ventral)**

- H-1.93 (6ft.4in.) W-0.81m (2ft.8in.)
- Approximate force required to move door control handle from closed/locked position to open position: 10 kg. (22 lbs.).
- Door and Control Handle - 100 Series Control Handle has button on top of handle used in conjunction with handle to electrically raise/lower stair assembly.
- Emergency Use (100 series) - inside stairway. Remove emergency access covers; pull sharply on release handle (inward). Action will cause uplocks to be sheared and forcibly extend stairs (extensive damage will be caused to system).

**/200**

- 4 plug type I exits (2 FWD-L/R, 2 AFT-L/R).
- H1.52m (5ft.0in.) W0.76 (2ft.6in.)
- Approximate force required move door control handle (Normal & Emergency) from closed/locked position to open position: 18kg. (40 lbs.). To open door in Emergency: 25 kg. (55 lbs.).
- AFT Service Doors - control handles mounted differently on door panel surface. Handles must be pulled out to engage prior to rotating in direction of arrow.
- Overwing Exits - same design and operation with no description of any cover plate over Control Handle mechanism.
- AFT Airstairs no alternate emergency handles NORMAL & EMERGENCY functions controlled by the single door control handle.

**References**

- Boeing 727 Operating Manual
- Boeing - Airworthiness Division
- Bradley Air Services F/A Manual

**B-737-200 /300 /400 /500 Doors (Type I)**

- H-1.83m (6ft.0in.) W-0.86m (2ft.0in.)
- Approximate force required to move door control handle from closed/locked position to open position (Normal & Emergency): 21 kg. (46 lbs.).
- Approximate force required to open a door from the closed to open position (Normal): 23 kg. (50 lbs.); (Emergency): 32 kg. (70 lbs.).
- Approximate force required to pull manual inflation handle/slide disconnect handle: 9 kg. (20 lbs.); Inflation time: 10 sec.
- 4 plug type I exits identical in design and operation as FWD type I exits on B727-100/200 with "auto-inflate" slides equipped with manual inflation handles (back-up). Some with slide "quick release".
- Overwing Exits identical in design and operation to 727-200.
- H-0.97m (3ft.2in.) W-0.51m (1ft.8in.)
- Approximate weight of overwing exits: 18kg. (39 lbs.).
- Approximate force required to move exit control handle from closed/locked position to open position: 7 kg. (15 lbs.).
- Some models equipped with FWD Airstairs.
- Doors Armed/Disarmed manually by engaging/disengaging girt bars into floor brackets.

**/COMBI**

- AFT Airstairs - completely different in design, control mechanisms and operating procedures from any other airstair design.
- Approximate force required to move door control handle from "Door Locked" to "Door Unlocked" position: 21 kg. (45 lbs.). To move from "Door Unlocked" to "Emergency" position: 30 kg. (65 lbs.).

**References**

- Boeing 737 Operations Manual
- Boeing - Airworthiness Division
- Canadian F/A Manual

**B-757-200 (6 Door Model) Doors (Type I)**

- (Doors 1L/R, 2L/R, 4L/R)
- H-1.83m (6ft.0in.) W-0.84m (2ft.9in.)
- Approximate force required to move door control handle from closed locked position to open position (Normal & Emergency): 18.2kg. (40 lbs.).
- Approximate force required to open door (Normal): 1L/R, 21.8 kg. (48 lbs.); 2L/R, 19 kg. (42 lbs.); 4L/R, 25 kg. (55 lbs.).
- Approximate force required to open a door (Emergency), if power/pneumatic assist failed: 1L/R, 41 kg. (90 lbs.); 2L/R, 29.2 kg. (65 lbs.); 4L/R, 41 kg. (90 lbs.).
- Plug Type exits.
- All exits open/close identically.
- Lift Gust Lock latch to release located in doorframe.
- Slide Light (Armed - "White"), above exit.
- Arming Lever + Slide Engaged Sign (pop-out) + Safety Pin/Streamer.
- Emergency Mode - Power Assist (Pneumatic).
- Double channel slides door 2L/R.
- Doors Armed/Disarmed by moving slide selector lever sideways to Armed or Disarmed.

**B-757-200 (6 Door Model)**

- (Doors 3L/3R) Type I
- H-1.32m (4ft.4in.) W-0.51m (2ft.6in.)
- Approximate force required to move door control handle from closed/locked position to open position (Emergency): 20.5 kg. (45 lbs.).
- Permanently armed.
- Hinged at bottom.
- Door Control Handle - lift upward fully.
- Door moves inward and upward, push outward.
- Single channel slide.

**B-757-200 (4 Door Model)**

- In this configuration, there are 4 Type III Overwing Exits.
- Approximate weight: 22.7 kg. (50 lbs.).
- Approximate force required to pull control handle from closed/locked position to open position: 14 kg. (30 lbs.).

**References**

- Boeing 757 Operations Manual
- Boeing - Airworthiness Division
- Canada 3000 F/A Manual

**B-767-200 /300ER (Doors 1L/R FWD, 2L/R AFT)**

**Note:** Some models equipped with 2 additional type 1 exits L/R just forward of wing.

- H-1.88m (6ft.2in.) W-1.07m (3ft.6in.); Type A
- Equivalent force required to move door control handle from closed/locked position to open position (Normal & Emergency): 12kg. (26 lbs).
- Approximate force required to open a door (lift upward) from unlocked to open: 18 kg. (40lbs.).
- "Counterbalance" opening design.
- Inward/upward opening doors.
- Manually operated except some models equipped with electrical (normal operation) opening/closing option (FWD Entry Door).
- Unique arming/disarming mechanism (lever, indicators).
  - Release button must be depressed and held to move arming lever to "Slide Armed" mode.
  - Yellow plastic "Emergency Use Only" (bendable) flag moves upward in front of Door Control Handle when slide is in armed mode.
  - Double channel slides.
- Upward rotating Door Control Handle.
- "Uplatch" mechanism holds door in open position. Button must be depressed while door is lowered initial few inches, to release.

**Overwing exits -200 (2), -300 (4)**

- H-0.97m (3ft.2in.) W-0.51m (1ft.8in.); Type III
- Cover plate over control handle must be removed to access control handle.
- Equivalent force required to move window exit control handle from stowed/locked position to open position: 14 kg. (30 lbs.).
- Weight: 27 kg (60 lbs.).
- Double Channel/Ramp/Slides.
- Manual Inflation Handles back-up "Auto Inflate" feature located in upper "sill" area (AFT) all accessible only after exit removed (beneath clothe cover). Distance (downward) of MIH movement: 2.5 cm (1.0 in.).
- Escape tape located in frame of each fwd (L/R) window exit.

**References**

- Boeing 767 Flight Attendant Manual
- Canadian F/A Manual
- Air Canada Manual 356
- Boeing - Airworthiness Division

**B-747-100 /200 Main Deck Doors (Type I)**

- H-1.93m (6ft.4in.) W-1.07m (3ft.6in.)
- All (plug type); open inward, outward and forward of opening.
- Approximate force required to move door control handle from closed/locked position to open position (Normal & Emergency): 10 kg. (22 lbs.).
- Approximate force required to pull manual inflation handle and slide, slide/raft disconnect handle: 14 kg. (30 lbs.).
- All operate identically in both NORMAL & EMERGENCY modes.
- Power Assist feature on all (Emergency/Armed mode).
- Doors 3 L/R additional feature "Off-Wing Escape Slide" Manual, Controls" - Manual Deployment Handle/Ditching Deactivation Handle.
- Doors Armed/Disarmed by moving slide selector lever Up/Down to Armed/Automatic or Disarmed/Manual (lift cover).
- Some models equipped with "Locking Pin/Streamer."
- Some models - slide or slide/raft Manual Inflation Handle located on side of door (only visible with door open).
- All main deck - Double Channel Slides or Slide/Rafts or Rafts.

**Note:** If the power assist system is failed, force is applied to the door assist handle after the door control handle is rotated. The peak force of 210 lbs. occurs at the point the slide is released, when the door angle with respect to the body is approximately 64 degrees. This calculated peak force does not consider the inertia of the door, which will lessen the load required to pass through this position, nor does it consider optimizing the force direction, which can lessen the force in actual operation.

**Upper Deck Doors (Crew Service Doors)**

- Some differences in method of operation for Crew Service Door escape slide between series (i.e. series 233B) (Auto/Manual slide deployment).

**B-747- 400 Main Deck Doors**

- Doors 3L/R DO NOT have Manual Controls.

**Upper Deck Doors (Type A)**

- Type A classification may be derated to Type 1 due to interior configuration.
- Electrically operated doors that move upward and outward when operated (Normal).
- Pneumatic operation (Emergency). Pressure gauge above door.
- Never used without slide inflation (Single Channel Slides).
- Manual Inflation Handle under clothes cover.
- Slight mechanical difference in operation of Slide Arming Lever from Main Deck doors (lever is moved Up/Down to Arm/Disarm) (lift cover).
- Cover will not close unless lever is properly in either mode.
- Opened in Emergency by rotating Door Control Handle upward fully.
- Approximate force required to move door control handle from closed/locked position to open position (Normal & Emergency): 18 kg. (40 lbs.).
- Door Ground mode Light.
- Battery OK Light.

**References**

- Boeing 747 Operations Manual
- Air Canada F/A Manual 356
- Canadian F/A Manual
- Boeing - Airworthiness Division

**DC-10-30 Doors (Type I)**

- Electrically operated doors that move inward and upward into ceiling stowage.
- Three possible drive modes:
  - a) Electrical;
  - b) Pneumatic; and
  - c) Manual.
- Differences in mechanical design and operation between Door Control Handles and Slide Arming Levers at doors 1 L/R and 2,3,4 L/R. Door Control Handles (1L/R remain in Emergency Open Position when moved. Door Control Handles at doors 2,3,4 L/R return to stowed position following selection of Emergency Open.
- Approximate force required to move door control handle (all doors) from stowed to full emergency open position: 15.86 kg. (35 lbs.).
- Slide Arming Lever pushed/pulled to Arm/Disarm (locked for Disarm) 2, 3, 4 L/R. Moved Up/Down to Arm/Disarm (locked for Disarm) 1L/R.
- Double Channel Slides - all doors.
- Override feature to pneumatically power doors open without deployment of slide raft.
- Directional Door Control Switches on F/A console to electrically drive doors open and closed.
- Some models - doors operated electrically using Door Control Handle (Trigger Mechanism) with Slide Selector Lever in "DISARMED" mode.
- Pressure Gauge Viewing Port located in ceiling area adjacent to applicable door (needle in green band area indicates sufficient PSI for pneumatic drive of door, if selected).
- Slide Mode Verification Indicators (floor area) adjacent to each exit. "ARMED" OR BLANK appears accordingly.
- Door RESET procedure must be enacted to re-lock door following inadvertent selection of EMERGENCY mode with Door Control Handle.
- Plastic Guard over Door Control Handle (models equipped with Door Directional Control Switches) automatically dislodges when Door Control Handle is moved in emergency mode.
- All doors equipped with Slide Inflation Cylinder Low Pressure Light directly over each slide/raft stowage container.
- Approximate force required to open a door manually with slide armed ("Lift Bar"): 1L/R; 84 kg. (185 lbs.) for initial 6 inches, then when slide drops off door the weight of the door reduces to 36.4 kg. (80 lbs.).
- Doors 2 & 4 - app. 124 kg. (273 lbs) for initial 6 in. then, 45.5kg. (100 lbs.).
- Door 3 - app. 164 kg. (361 lbs.) for initial 6 in. then, 45.5kg. (100 lbs.).

**References**

- DC-10 Flight Crew Operating Manual
- Canadian F/A Manual
- McDonnell Douglas - Interior Design
- Technical Specialist



**L1011-1 /500 Doors (Type A)**

- 6 FWD doors operate either electrically or manually (Normal Mode).
- H-1.93m (6ft.4in.) W-1.07m (3ft.6in.)
- All doors open inward and upward to ceiling stowage.
- H-1.52m (5ft.0in.) W-0.61m (2ft.0in.)
- AFT two doors are for Emergency use only (Type 1).
- Slide Selector Lever (Engage/Detach) Electrical Open/Close Switches and plastic covered Emergency (Pull Down) "T" handle all configured on door control handle forward of each exit.
- Slide Selector Lever moved sideways to Arm/Disarm.
- Approximate force required to move "T" handle from stowed position to first detent: 5.45 kg. (12 lbs.), to second detent: 6.4 kg. (14 lbs.).
- Pulling fully downward (2nd detent) of "T" handle drives all doors open by a preloaded counterbalance. "T" handle must be returned to fully stowed position following selection to lock door in position.
- Slide Selector Lever must be in the "Engage" position in order to electrically close doors.
- Slide Selector Lever placed in Engage with "T" handle positioned to first detent to Manually (Hand Crank) door closed.
- Slide mode verification indicators (floor area) adjacent to each exit "ENGAGED" or blank.
- Approximate force required to pull manual inflation handle: 6.4kg. (14lbs.).
- Average slide, slide/raft inflation time: 10 seconds (max.).
- Double Channel Slides - all except 4L/R.
- "T" Handle must be returned to fully stowed position following use of manual procedures.
- 2 unique versions of the L1011-1 currently not in service are equipped with a "Lower Lounge" with 2 additional exits on the lower deck. One is equipped with a Slide (R) and 1 is equipped with an Airstair (L).

**/500**

- All features same except - 500 does not have furthest AFT 2 doors.
- Equipped with 6 Type I doors.

**References**

- L1011 Operating Manual
- Air Transat F/A Manual
- Air Canada Manual 356
- Lockheed - Commercial Engineering Dept.

**A320 Doors (Type I)**

- 8 outward and forward sliding plug type doors.
- H-1.85m (6ft.1in.) W-0.81m (2ft.8in.)
- Each door equipped with single lane automatic inflate slides or slide /rafts.
- Approximate force required to pull manual inflation handle to activate slide or slide/raft: 14.2 kg. (31.4 lbs.). Inflation time: 3 sec. Approximate force required to pull slide, slide/raft disconnect handle: 15.2 kg. (33.7 lbs.).
- Normal operation is manual with hydraulic damping.
- Each door equipped with:
  - Mechanical Locking Indicator for visual check of lock (green) and /unlock (red) position;
  - ARMED (White) Warning Light; and
  - CABIN PRESSURE (Red) Warning Light.
- Slide arming lever pushed outboard (Armed) pulled inboard (Disarmed).
- Single Channel Slides all doors Double Channel (off-wing) overwing exits (some models may be equipped with slide/rafts).
- Pneumatic Assist triggered when opening the door in the ARMED mode.
- Should Pneumatic Assist feature fail, apply steady pressure to push door open manually. Approximate force required to open door with assist failure: Slide - 25.4 kg. (56.2 lbs.); Slide/Raft - 30.5 kg. (67.4 lbs.).
- Door Control Handle rotates inward and upward to OPEN position.
- Approximate force required to move (rotate) Door Control Handle from closed/locked position to open position (Normal & Emergency): 16 kg. (35 lbs.).
- Safety Pin/Streamer inserts to lock ARMING Lever in DISARMED mode.

**Overwing Exits (Type III)**

- Always in ARMED configuration.
- H-1.02m (3ft.4in.) W-1.02m (1ft.8in.)
- Approximate weight: 14.7 kg. (32.5 lbs.).
- 4 overwing exits, 2 on each side of cabin, each side equipped with dual lane inflatable ramp/slides.
- Covered Control Handle.
- When cover removed, Handle Light and Slide Armed Light illuminate.
- Handle pulled inward and downward fully. Approximate force required to move window exit control handle from closed/stowed to open position: 3.0 kg. (6.7 lbs.).
- Manual Ramp/Slide Inflation Handle is located behind a cloth cover in the top of each exit frame. Handle must be pulled "down" a min. of: 90 mm. (6") to activate. Approximate force required to activate manual inflation handle: 0.13kg. (.29 lbs.). Ramp/Slide inflation time: 5 sec.

**References**

- Airbus A320 Flight Crew Operating Manual
- Airbus Industry, Office of Airworthiness
- Canadian F/A Manual
- Air Canada F/A Manual 356

**A310-300 Doors (Type I)**

- 4 doors, 2 on each side of cabin similar.
- H-1.93m (6ft.4in.) W-1.07m (3ft.6in.)
- Arming Mechanism slightly different from A320 (Slide Selector Lever is moved sideways on door panel surface to Arm or Disarm. Safety Pin/Streamer used to lock lever in Disarm.
- All doors equipped with dual lane slide or slide/rafts.

**Overwing Exits**

- Have Arm/Disarm capability.
- H-1.39m (4ft.6.75in) W-0.67m (2ft.2.5in)
- Exits open outward and swing downward.
- Door Control Handles are rotated in an upward direction to unlock door.

**Reference**

- Airbus Flight Crew Operating Manual

**BAe-146 Doors (Type I)**

- 2 entry doors on left.
- H-1.83m (6ft.4in.) W-1.07 (3ft.6in.)
- 2 service doors on right (approx. 1' shorter).
- FWD doors open outward in FWD direction.
- Approximate force required to move door control handle from closed / locked position to open: L-1 7.5 kg. (16 lbs.); R-1, 8 kg. (18 lbs.); L-2 10.3 kg. (22.6 lbs.); R-2, 12.7 kg. (28 lbs.).

**Note:** Highest force factor is required to operate R-2 door control handle.

- AFT doors open outward in AFT direction.
- All doors equipped with:
  - Shoot Bolt Viewing Windows;
  - Door Release Handle;
  - Arm/Disarm Lever (Velcro Holding Strap) [Girt Bar/Floor Brackets];
  - Arm/Disarm Lever pushed (Arm) remove velcro strap pulled (Disarm) (install velcro strap);
  - Single lane slides - all doors;
  - Placards to align Door Control Handle to for open/closed positions; and
  - Internal "Damping" device to prevent door from slamming against fuselage.
- FWD Entry Door Equipped with manually extended and hydraulically retracted airstairs which slide along track to stowed position. A "foot latch release" mechanism is used to release the assembly from both the stowed and doorway (extended position).
- All doors connected by micro-switches to both the FWD F/A control Panel and the Flight Deck.
- In the case of a door not being closed, appropriate LEDs on both panels illuminate and a single audio chime is sounded.

**References**

- BAe-146 Operations Manual
- Air Nova F/A Manual
- Air Atlantic F/A Manual
- BAe - Safety & Certification Dept.

**DC-9-10 /30 /31 /32 /40 /50 Doors (Type 1)**

- 1 FWD entry door (L) + 1 FWD service door (R).
- L-1, H-1.83m (6ft.0in.) W-0.85 (2ft.9.5in.)
- Some models equipped with Airstairs door 1L (electrically extended/retracted) "Internal Latch Release Handle"(below F/A panel, must be closed to allow the entrance door to be closed and locked.
- Both doors inward/outward/forward opening.
- Both doors equipped with spring loaded "Bayonet Roller Assembly".
- Doors ARMED manually by engaging girt bar into floor brackets.
- Single channel slides - all doors.
- Some models slides are MANUAL inflate ONLY.
- Approximate force required to pull manual inflation handle: 6.80 kg. (15 lbs.), Inflation time: 3-5 sec.
- "Gust Lock" or "Hold Open" device is disengaged by pulling on the assist handle located on door face (inward).
- Approximate force required to move door control handle from closed / locked position to open position (Normal & Emergency): 18.14 kg. (40 lbs.).
- Approximate force required to open door with slide armed: 18.14 kg. (40 lbs.) max weight until slide deploys, then weight reduces to 4.54 kg. (10 lbs.) for Entry Door (Normal door opening figure), or 3.63 kg. (8 lbs.) for FWD Service Door (Normal door opening figure).

**DC-9 Overwing Exits**

- Variance in numbers depending on model/series type.
- H-0.91m (3ft.0in.) W-0.51 (1ft.8in.); Weight: 14.06 kg. (31 lbs.)
- Opened by pulling inward of upper release handle. Handle is hinged and moves sideways into cabin.
- Approximate force required to move exit-operating handle from closed to open position: 20.41 kg. (45 lbs.).

**AFT Fuselage Exit**

- Tailcone (Jettisonable) is accessed via door in the aft pressure bulkhead. Remove by lifting upward on the handle located on the top of the door. Pull door inward and stow Pull red release handle (lower left side).
- Approximate force required to move bulkhead handle from closed to open position: 6.80 kg. (15 lbs.).
- Approximate force required to pull tailcone jettison release handle: 13.61 kg. (30 lbs.).
- Escape Tape fitted to facilitate evacuation located at end of walkway (top).

**References**

- DC-9 Airplane Operating Manual
- Air Canada F/A Manual Pub. 356
- McDonnell Douglas - Interior Design Division

**DC-8-43 /52 /53 Doors (Type 1)**

- 4 plug type 1 exits, 2 on each side of cabin.
- H-1.83m (6ft.0in.) W-0.88 (2ft.0in.)
- All doors open initially inward then outward and forward.
- All equipped with inflatable slides (some with "quick release").
- All doors equipped with spring loaded "Bayonet Roller Assembly".
- Approximate force required to move door control handle from closed/locked position to open position (Normal & Emergency): 18.14 kg. (40 lbs.) .
- Approximate force required to open a door from the closed to open position: 4.54 kg. (10 lbs.); Emergency 18.14 kg. (40 lbs.).
- Approximate force required to pull manual inflation handle for slide: 6.80 kg. (15 lbs.); Slide Inflation Time: 4-6 sec.
- Doors ARMED/DISARMED manually by engaging disengaging girt bar into floor brackets.
- Single channel slides - all doors.
- "Gust Lock" or "Hold Open device is disengaged by pulling on the upper door hinge.

**Overwing Exits**

- 4 type III exits, 2 on each side of cabin.
- Handles pulled straight inboard to release locking mechanism.
- AFT overwing exits equipped with "pop down" step to assist to wing surface.
- Weight of overwing exits: 14.0 kg. (31 lbs.).
- Approximate force required to move window exit operation handle from stowed/locked position: 20.4 kg. (45 lbs.).

**DC-8-61 /62 /63**

- Additional feature to all the above, 2 "Jet Escapes" forward of wing.
- Hinged at bottom.
- Remove cover, pull control handle inward and downward, push top of exit outward.
- Approximate force required to move door control handle from closed/locked position to open position 18.14 kg. (40 lbs.). Slide Inflation Time: 4-6 sec.
- Single lane slide should auto inflate, manual inflation handle provided.
- 2 additional type 1 exits aft of wing center cabin area.

**References**

- DC-8 Operating Manual
- McDonnell Douglas - Interior Design Division

### **F-28 Doors (Type I)**

- Main entry door on left fitted with integral stairs.
- (1L) H-1.93m (6ft.4in.) W-0.86m (2ft.10in.):
  - Door Control Handle pulled out then rotated upwards and outwards to "Detent 1".  
Approximate force required: 15 kg. (33 lbs).
  - Control Button on end of handle used to electrically extend stairs,
  - Stairs pushed outward in emergency after Door Control Handle is set to "Detent 2".  
Approximate force required: 20 kg. (44 lbs).
- Service door opposite main equipped with escape slide.
- (1R) H-1.27m (4ft.2in.) W-0.61m (2ft.0in.):
  - Inward moving and upward sliding,
  - Door Control Handle turned upward 45 degrees to open.
  - Auto inflatable slide stowed in galley compartment either to left or right of door.
  - In case door does not slide upwards, press red button pull door into aircraft, turn on side, throw clear of aircraft.

### **Overwing Exits (Type III)**

- H-0.91m (3ft.0in.) W-0.51m (1ft.8in.)
- 2 overwing exits, one left and one right:
  - Control Handle movement is inward and downward.
  - Escape Rope located behind access cover.
- Approximate weight of exit: 15.5 kg. (34.1 lbs.).
- Approximate force required to move exit-operating handle from stowed/locked position, to open position: 14.9 kg. (32.78 lbs.).

**Note:** The following information is different from Fokker Manual (11/76) and is published in 2 (1 current and 1 former) air operator F/A Manuals. Aircraft Certification Dept. at Fokker confirms that there are indeed two different operational designs for the forward passenger entry door controls. Design two was the original design. It has been replaced by Design 1 on the production line from aircraft s/n 11111 onwards. Also, many earlier aircraft have since been modified by means of a Service Bulletin.

### **Main Cabin Door**

- To open (NORMAL): press lock release lever down, move handle to unlocked "OPEN" position, press door "OPEN" button and continue to depress until door actuator stops and door is in complete open position.
- To close (NORMAL): ensure handrails are connected, press door "CLOSE" button until door is fully closed, move handle down to LOCKED position. (Red lock rollers must be checked that they are in the full up position - safe position, this is to be done visually without pushing the thumb lever up and down). Both F/A's must verify that the door is properly closed and locked. Physically move the handle back and forth to ensure mechanical lock is in place, without pushing the thumb lever and always looking at the lock roller.
- To open (EMERGENCY): depress "LOCK LEVER" down, force handle upwards as far as movement will allow to "EMERGENCY OPEN", continue to hold the handle at "EMERGENCY OPEN", push outwards on upper portion of stairs.
- Slide Deployment: open slide pack storage box and put slide pack in "ready" position, lock box cover to floor fitting, open velcro cover, kick slide pack out of door, pull inflation handle.
- Single lane slide.

**Overwing Window Exits**

- 2 overwing window exits, L/R overwing area.
- To open: break cover, grasp handle, pull downward, pull exit inward, turn exit sideways and throw outside of aircraft, break cover and remove escape rope from overhead compartment and throw out over the leading edge of wing.

References

- Fokker F-28 Pilots Manual
- Fokker F-28 Operating Manual
- Fokker Aircraft Certification Dept.
- Canadian Regional F/A Manual



**Challenger 601 Door Exit (Type I)**

- Passenger/Crew Entrance door hinged at bottom. Opens outward and downward. Fitted with integral stairs.
- Single lever internal handle is pulled upward fully, unlatches door allowing it to be opened when pushed outward.
- Door is opened and closed manually.

**Overwing Exit (Type III)**

- 1 overwing exit, located on right hand side overwing.
- Remove cover, pull control handle, lift up exit, throw exit out.

**References**

- Canadair Challenger Operating Manual
- Exeaire Inc. F/A Manual

**Falcon 900 Door Exit (Type I)**

- H-1.72m (5ft.7.75in.) W-0.80m (2ft.7.5in.)
- 1 entry door hinged at bottom opens outward and downward and is fitted with integral stairs.
- To open: move door mounted handle upwards, move operating handle to "UNLOCK" position and push door outward.
- When door is closed and locked, check that arrows are aligned on the upper door corner to indicate correct locked position of the handle.

**Overwing Exit (Type I)**

- H-0.91m (2ft.11.75in.) W-0.53m (1ft.8.5in.),
- 1 overwing exit, located right hand side overwing.
- To open: remove ledge at bottom of window, remove cover, pull control handle, lift exit up, throw out.
- Lifeline stowed in pouch adjacent to exit.

**References**

- Mystere - Falcon 900 Operating Manual (Description)
- Excaire Inc. F/A Manual

### **Canadair RJ Passenger Door**

- FWD port side of fuselage.
- H-178cm (70in.) W-91cm (36in.) Type 1
- Incorporates integral stairs with a retractable top and bottom step and two folding handrails
- Opens outward and downward.
- Opened by lifting upwards on door operating handle.
- Approximate force required to move door-operating handle from closed to open position: 7.27 kg. (16 lbs.). Approximate outward force required to open door: 6.81 kg. (15 lbs.).
- Door is then pushed outwards and downwards (dampened by counterbalance gas springs).
- Handrails secured - both pins in place thru posts.
- Maximum number of persons permitted on stair - 4.
- Door closed by; unpin handrails and pull door upwards and inwards using levers and grips.
- Rotate handle downward to locked position.
- Visual indications of proper "door latched": Upper rotary latches (2) red stripes must be visible and aligned Latch pins (3 FWD, 3 AFT), red stripes must be visible.

### **Galley Service Door**

- FWD starboard side of fuselage.
- H-122cm (48in.) W-61cm (24in.) Type 1
- Plug type door, outward opening with an initial inward opening and upward movement.
- Door has an articulated hinge and upper stabilizer arm.
- Door operating handle rotates clockwise to unlock (OPEN) and counter clockwise to lock (CLOSE).
- Door operating handle is pushed and rotated clockwise away from the guard, disengaging two latch pins and raising the door to a position free from the door stops.
- Approximate force required to move handle away from guard and rotate from the closed to the open position: 13.63 kg. (30 lbs.). Approximate force required to push door outward and forward of exit opening: 4.54 kg. (10 lbs.).
- Push outward and forward and when stowed adjacent to the fuselage is locked in position.
- To close: pull the latch knob, door is then moved into the door opening and pulled in.
- Rotate door operating handle counter clockwise to overcome the uplock spring detent.
- Door slides downwards guided by rollers.
- Continued rotation of the handle, engages the latch pins and positions the handle behind the guard.
- Visual indication of door latched is indicated by a green mark alignment seen through the visual indication window located below the internal door handle.

### **Canadair RJ Overwing Exits**

- 1 overwing exit on either side.
- H-91cm (36in.) W-51cm (20in.) Type III
- Approximate weight: 16.8 kg. (35 lbs.). Approximate force required to pull exit operating handle from closed/locked position to open: 11.36 kg. (25 lbs.).
- Both open inward and can be opened from inside and outside.
- Pull inward on exit operating handle, lift exit inward using handle (assist) grip on lower portion of each unit.

### **References**

- Canadair Region Jet - Flight Crew Operating Manual CSP A-013
- Bombardier Inc./Canadair Group - Airworthiness Dept.

### **DHC-7 Door Exit**

- AFT Port H-1.75m (5ft.9in.) W-0.76m (2ft.6in.)
- 2 independently and manually operated sections, a small upper section hinged at its upper edge and opens outward and upward a main lower section, hinged at its lower edge to a torque shaft below the door sill and which opens outward and downward.
- Spring motor and damper assembly provides door restraint during opening (downward motion).
- Inflation and deflation of the door seal is automatic in operation, charging and discharging of air pressure occurring simultaneously with door lock operation.
- To open the lower door from inside, the internal handle (**located at floor level**) must be pulled upward to the limit of its travel to unlock and displace the door, it will then open under its own weight and the handrails unfold.
- In the opening process the door control handle should be raised initially a couple of inches to break the pressure seal.
- Once the lower portion of the door is open, the upper section must be opened by moving the handle in the direction of the arrow and pushing outward and upward.

**Note:** In EMERGENCY conditions the upper section remains closed.

- **FWD Emergency Exits**, Type III (one on either side) H-0.91m (3ft.0in.) W-0.51m (1ft.8in.).
- To open, the control handle above the window is pulled inward and downward. The exit is pulled upward and inward, tipped sideways and thrown out
- **Rear Starboard Emergency Exit**, H-1.35m (4ft.5in.) W-0.61m (2ft.0in.) full floor level exit, which drops out of the aircraft, once it is open. Two inspection windows are provided for verification of the door locked condition and a micro-switch.
- To open, one hand is placed in the assist handle located on the right side of the door and the other is placed under the operation handle located on the left side. Pull up on the door control handle and the assist handle at the same time, lift up the exit and push the door out.

**Note:** There appears to be some variance on location of exits depending upon the actual model being operated. Some models are operated in mixed (COMBI) configurations.

### **References**

- DeHavilland Canada Dash 7 Operating Data
- Voyageur Airways Cabin Attendant Manual

**DHC-8-100 Door Exit**

- **FWD left**, fitted with stair assembly H-1.68m (5ft.6in.) W-0.76m (2ft.6in.) Door is opened/closed manually. Door open motion is upward, outward and downward and extends under it's own weight.
- 2 positions Door Control Handle (Internal Operating Handle) OPEN/LOCKED located on upper third area of adjacent blkhd. Movement is Upward/Outboard.
- To open: move Operating Handle upwards from LOCKED to OPEN Initially handle is to be raised approximately 2-4 inches and held for 2-4 seconds (to allow door seal to depressurize). Handle is then moved to the end of it's travel (OPEN) so the door slowly "free falls" to the open position.
- After the stairs/door is fully extended they are locked into position by the operator stepping downward on the top step.
- EMERGENCY door operation - the main entry door is operated in the same manner as described above with the exception of the pause in handle movement to allow for seal deflation. The door operating handle should be immediately pushed upwards to the full open position and the door/stairs are pushed outward. Operator should again step downward on top step to lock door stairs into open position.

**FWD (Starboard) Emergency Exit**

- **Floor level exit** – H-(54in.) W-(20in.)
- To open: pull fully inward and downward on Door Control (Operating) Handle. One hand on control handles the other placed in/on lower assist handle.
- Exit is lifted into cabin (thrown out).

**Window Exits**

- 2 window exits, located mid-cabin 1 on either side (port/starboard).
- H-(36in.) W-(20in.) Operated in similar manner to FWD Emergency Exits. Door Control (Operating) Handle is pulled fully inward and downward. Exit is lifted into cabin (thrown out).

**Note:** Interesting to note that if upon first attempt the exit(s) do not move in NORMAL/EMERGENCY modes (all Dash models). It may be because the cabin is still pressurized. This would be confirmed by the noise of cabin air escaping through the venting dish(s). Air noise will subside as the cabin is depressurized.

**References**

- DeHavilland Inc. Dash 8-100 Operating Data
- Air Ontario F/A Manual
- Air Nova F/A Manual
- TimeAir F/A Manual
- Air Atlantic F/A Manual
- Air BC F/A Manual
- Canadian Regional F/A Manual

**DHC-8-300**

- Door Exit FWD left, same in design and operation NORMAL & EMERGENCY as DHC-8-100.
- Window Exits, same in design and operation as DHC-8-300.
- FWD (Starboard) Emergency Exit H-(54in.) W-(24in.). Pull "UP" fully on Door Control (Operating) Handle (left side of exit) Exit will lift slightly upward. Push out on exit. Exit will fall "OUT" of aircraft.

**Service Door (if installed)**

- AFT starboard location, floor level, designed to facilitate access to aft galley unit.
- "Door is not considered an emergency exit, however may be used as an alternate route of escape should no other means be available". Quoted from an air operator flight attendant manual, not from manufacturers' publication.
- Plug type and opens inward and upwards along tracks on ceiling.
- To open: operating handle is turned counter-clockwise in the direction of arrow. Exit will move inward and then is manually slid (lifted) upwards fully. Ensure "gust lock" device engages to lock door into the overhead position.
- After closing the door, ensure that the "Red Dot" on the operating handle is aligned with the "Red Dot" at the handle-closed position on the door.

**References**

- DeHavilland Inc Dash 8 Series 300 Operating Data
- Air Ontario F/A Manual
- Canadian Regional F/A Manual
- Air BC F/A Manual
- Air Atlantic F/A Manual

**Gulfstream 159 (G-159) Door Exit (Type I)**

- H-1.72m (5ft.2in.) W-0.91m (3ft.0in.)
- 1 located on FWD left hand side. Door is hinged at bottom and opens outward and downward and is fitted with integral stairs.
- To open: raise red latch, push door control handle upward and push door out.
- To close: push switch upward, once door is closed, raise red latch, pull door control handle down to lock door.

**Overwing Exit (Type IV)**

- 4 overwing exits, 2 on each side of cabin.
- To open: draw shade upward; push adjacent seat backs down FWD. Remove plastic cover over handle, pull red "T" handle downward grasp red handles on each side and pull window inward.

**Baggage Compartment Door Exit**

- Outward opening, plug type door.
- To open: pull striped handle up, pull red handle up, push door outward.

**References**

- Gulfstream 1 Airplane Operating Manual
- Execaire F/A Manual
- Ptarmigan Airways F/A Manual

**F-27 Passenger Entry Door**

- To open: press button in center of handle in clockwise direction (app. 45 degrees, pull top of door inwards, lift and pull bottom of door inwards, slide door to rear until spring-loaded retaining mechanism is engaged.
- To close: slide door forward to the stop, with the top resting inwards, lift and push bottom of door outwards into frame, press button in handle center and rotate handle counter-clockwise until button again protrudes check that handle is securely locked.
- Door can be opened from outside as well.
- Passenger Entry Door (Jammed Sliding Mechanism) - press center button and rotate handle fully clockwise to withdraw lock pins, break window and press Emergency Button (red) to disengage door from rail, pull inside and turn over to remove it from aircraft.
- Some models equipped with integral stairs, in this configuration door opening procedure is different from that previously described.
- If stairs equipped: depress button on end of door operating handle and rotate handle inward and fully upward, push outward on stair assembly.

**Window Exits**

- 2 window exits, one on either side port/starboard.
- To open: remove cover, pull inward on door operating handle, lift exit into aircraft, turn sideways and throw out.

**Service Door**

- May be same as operation as Small Cargo Door A.
- Remove cover, rotate door-operating handle inward and aft, lift door inward and throw out of aircraft.

**Small Cargo Door (if installed) Door A**

- FWD port side of fuselage.
- To open: push in red button in center of door operating handle and rotate handle (clockwise), pull door inward and slide upwards to fully open position.

**OR (Some Models) Door B**

- To open: rotate door operating handle inward and aft, swing door outward and forward.

**Reference**

- Fokker F-27 Operating Manual



**ATR-42**

- 5 emergency exits in the cabin: 1] Entry Door, 2] Service Door, 3] Cargo Compartment Door, and 2 Window Type Exits.
- Emergency situations, all exits are used as emergency exits.
- No difference in operations (Normal/Emergency) L/R aft cabin doors.

**Entry Door**

- AFT port side of aircraft.
- Outward opening, non-plug type door.
- Equipped with five integral steps and a sixth top-folding step.
- Handrail attached to the stair structure extends automatically when it is on the ground, a second handrail, stowed either in the aft cargo compartment or on the aft partition, is to be installed for boarding/deplaning.
- To open and unlock: lift door locking handle, door lock indicators turn red and indicate UNLOCKED, push door outward.
- To close: remove portable handrail and stow, grasp door control handle and push down, restow portable handrail strut, when door is in frame, grab door locking handle, lower it, door locking indicators turn green and indicate LOCKED.

**Service Door**

- Located AFT starboard side of fuselage.
- Used for galley servicing and as an emergency exit.
- To open: pull inner handle inwards and rotate 90 degrees counter-clockwise, (door lock indicators turn red), push door outwards, rotate door forward and against fuselage until locked (outer handle engages in the retaining hook).

**Emergency Window Exits**

- 2 emergency window exits, located FWD (left and right).
- To open: insert finger into hole of plastic cover and pull off, grasp handle, insert hand in assist hole, pull the control handle down, lift exit inward.

**References**

- ATR42 Flight Crew Operating Manual
- Canadian Partner F/A Manual

**SD3-60 Main Cabin Door**

- AFT cabin port side.
- To open (NORMAL): release stairs from cradle by pushing up the lever on the side of stairs, then pull stairs up, and lower down to release.
- Operation (EMERGENCY): leave stairs attached to the door (this will allow for a clear exit area when the door is opened), rotate door control handle upward, door swings outward and forward, ensure door is in full open and latched position.
- To close: release safety latch on door and pull closed, rotate door control handle downward to locked position.

**Rear Emergency Exit Door**

- AFT cabin starboard side of fuselage.
- To open: rotate handle upward and push door outward and forward until it is in the full open and latched position.
- Door remains attached to aircraft

**Window Exits**

- 2 window exits, located FWD 1 each port and starboard.
- To open: rotate handle upward and push exit out and forward to the full open and latched position.
- Windows remain attached to the aircraft.

**Reference**

- Canadian Regional F/A Manual

**CV-580 /440 /640 Main Entry Door**

- FWD port side fuselage, equipped with retractable hydraulically operated stair.
- This exit is not necessarily considered an EMERGENCY exit, as it may not open in an emergency situation due to electrical or hydraulic failure.
- To open (NORMAL): ensure "Cabin Pressure Warning Light (Red) is not illuminated, remove safety strap from stair (if app.), move interior locking handle outward (FWD) to OPEN position, open compartment and press stair selector button/valve down until the door is open and the stairs are at the end of their travel.
- To close: hold the valve selector up in the CLOSE position until stairs have fully retracted and door is fully closed, pull the interior locking handle inward to CLOSED position, attach safety strap to stairs (if app.). Visually check both doors "Hooks" are in place.
- Some models equipped with Emergency Stair Release Handle located in lavatory behind refuse container or in compartment just aft of door. Move interior locking handle outward to OPEN position, pull the red "T" handle fully inward maintain pull pressure and push stairs outward. As the stairs begin to move outward they will push the door open.

**Service Door**

- AFT port side of fuselage.
- Equipped with "auto" inflate slide which is armed/disarmed for departure/arrival. Slide is equipped with manual back-up inflation handle (some models equipped with non-inflatable slides).
- Slide girt bar is removed from container and secured into floor fittings.
- To open (EMERGENCY): rotate Door Control Handle clockwise (direction of arrow) (some models have plastic handle over DCH) to "OPEN" position, push door out and forward and ensure gust lock engages, pull manual inflation handle until it comes completely free.
- To close (NORMAL): pull gust lock release lever, pull door "in" to the cabin, rotate door handle counter-clockwise until the handle comes to the end of its travel and is pointing to the "LOCKED" placard, physically check all four door hooks are properly in place (on some models door hook covers must be opened at the bottom of the door and a flashlight is used to visually ensure that the hooks are in their proper position).
- Some operators specify procedures for use of slide as flotation device in ditching situation.

**Window Exits**

- 5 window exits, 4 located over wing and 1 AFT of starboard wing.
- Some models equipped with "access cover" over release handle.
- To open (EMERGENCY): remove access cover over handle, or insert fingers through access cover flap, pull operating handle inward and downward, pull window into aircraft, turn sideways and throw out.
- Some window exits equipped with escape ropes.

**References**

- Allison Division GMC Prop-Jet Convair Flight Manual
- Air Niagara Cabin Crew Manual
- Canadian Regional F/A Manual

**HS-748 Passenger Door / AFT Baggage Door**

- AFT port side of fuselage.
- H-1.57m (5ft.2in.) W-0.76m (2ft.4in.)
- To open: lift plastic cover, pull handle in and down, push door out and slide forward by using the assist handle and lock against the fuselage by turning the assist handle.
- There are two main locking systems on every door, however due to the location of the aft baggage door it is equipped with a tertiary locking method to ensure the door will not be tampered with in-flight (Pressure Locks & Speed Locks).
- Some models equipped with non-inflatable slides - under floor or in ceiling compartment.
- Some models equipped with auto inflate slide (manual back up handle). Slide is armed by lifting girt bar locking arms off slide pack hooks, swing girt bar down towards floor so that engagement spigots engage with spigot cups in floor, close locking arms to lock spigots onto spigot cups and to push locking slide fully towards door plunger, pull up on girt bar assembly to ensure it is secure, to disarm, unlock girt bar locking arms, gently lift up the girt bar, releasing the spigots from the spigot cups, replace the girt bar locking arms on the restraining hooks on the slide pack.
- Some models equipped with door mounted slides (Auto Inflate feature with back up Manual Inflation Handle).
- Some models equipped with stowable type of stairs assembly.

**Crew / Freight Door**

- Some models equipped with; FWD port side.
- Some models equipped with folding stairs.
- Located in forward cargo compartment.
- Used as a secondary exit.
- Door motion is outward and upward.
- To open: lift plastic cover, pull handle in and down, push lever down to raise door, lock door open, push stairs out.
- To close: raise stairs, push down on lever to release tension on the locking pin, pull up on the lever to close door, pull in and up on handle, to lock door closed (claws will extend over the plates of the door frame).

**Overwing Exits**

- 2 overwing exits, one on each side port/starboard over wing area.
- To open: lift flap, pull handle inward and downward, push window out.
- Variation in slides (door mount, floor mount, inflatable/non-inflatable).
- Some models operated in COMBI configurations.
- Some models equipped with sliding cargo door (AFT).

**References**

- Bradley Air Services /First Air Cabin Attendant Manual
- Hawker Siddeley 748 Maintenance Manual

**EMB-120 Passenger Entry Door**

- FWD port side of fuselage.
- Hinged at bottom and equipped with five folding steps, opens outward and downward.
- No difference in operation between NORMAL and EMERGENCY.
- To open: lift door-locking handles, push door outwards and let it fall down.
- To close: press door control button down until door rises up into frame, pull door in using assist handle, lock the door by pulling the door locking handle down, verify door is locked by checking the red bands on the door and door frame are aligned.

**Emergency Exits**

- 3 emergency exits, one on each side overwing, and one floor level exit starboard.
- To open: remove plastic cover, grasp handle, grasp assist handle with other hand, pull handle inward to unlock the latch, pull top of exit inward and then lift the exit out of the frame, rotate the exit and throw it outside of the aircraft.

**Cargo Door**

- AFT port side of fuselage.
- Can be opened only from exterior.

**DC-3 Main Cabin Door**

- Generally located aft port side of fuselage. Some may have MCD on starboard side.
- Equipped with integral stairs.
- Door is hinged at bottom and opens outward and downward.
- To open (NORMAL and EMERGENCY operation same): unlock latch (left side of door), safety chain will fall free, turn door handle clockwise and push door out.
- To close: pull door up using safety chain, turn door handle counter clockwise, attach chain to latch.
- Some models equipped with large freight door and portable stairs - door swings outward and forward.

**Note:** The safety chain is a short chain fastened, inside the cabin, to a metal latch as the final step in closing a door with integral stairs. It is released as the first step when opening the door. In a planned emergency situation, the chain is released as part of exit preparation. The other chain referred to is a long chain used as a handhold when using the stairs.

**Window Exits**

- 2 or more window exits located overwing, one on either side port and starboard, 1 located starboard side aft of wing.
- To open: remove plastic cover, turn handle clockwise (breaking the witness wire), push window upward and out (window is hinged at the top, but must be supported in the open position).

**References**

- DC-3 Maintenance Manual
- Sioux Narrows Airways F/A Manual

**DC-4 Main Cabin Door**

- Located AFT port side of fuselage.
- Door opens outward and forward of opening.
- Equipped with non-inflatable slide, which is armed by attaching the slide strap hooks to the corresponding attachment points located on the fuselage wall immediately FWD and AFT of the door and the two floor mounted attachment points.
- To open (EMERGENCY): rotate both door control handles upwards to the 90-degree position, push door out.
- Ditching Rope located behind a panel immediately above and slightly forward of the door (used to lower the first two evacuees) to assist in holding the non-inflatable slide (Apron) for evacuation.

**Forward Entry Door**

- Located directly behind the first officer's seat on the starboard side of the aircraft flight deck.
- To open: rotate the door control handle up to the open position and pull the door in and forward. Secure the door in the open position.

**Emergency Exit Windows**

- 4 emergency exit windows, 2 starboard and 2 port side of fuselage.
- To open: turn the handle clockwise (breaking the witness wire), swing the window inward and upward fully until the hinges disengage and the window falls free (windows can only be opened from inside the aircraft).
- 2 AFT window exits equipped with "Ditching Ropes."

**References**

- DC-4 Aircraft Operating Manual
- Air North Charter & Training Ltd F/A Manual

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