

AERONAUTICAL CIRCULAR CIVIL AVIATION AUTHORITY – MACAO, CHINA

SUBJECT: QUALIFICATIONS AND TRAINING PROGRAMMES FOR
CABIN CREW

EFFECTIVE DATE:

01 April 2023

CANCELLATION:

AC/OPS/016R02

GENERAL:

The President of Civil Aviation Authority – Macao, China, in exercise of his power under Paragraph 89 of the Air Navigation Regulation of Macao (ANRM) and Article 35 of the Statutes of Civil Aviation Authority, approved by the Decree-Law 10/91/M, established this AC.

1 Introduction

- (a) Paragraph 18 of Part IV of the Air Navigation Regulation of Macao (ANRM) regulates the applicability, number and composition of cabin crew on board a Macao registered aircraft for the purpose of commercial air transport.
- (b) In accordance with paragraphs 25 and 26 of Part V of ANRM, every crew member operating for aircraft registered in Macao for the purpose of commercial air transport shall have had the training, experience, practice and periodical tests, and the training manual, in conjunction with the corresponding training, shall contain all such information and instructions as may be necessary to enable a person appointed by the operator to give or to supervise the relevant training, experience, practice and periodical tests.
- (c) The purpose of this AC is to establish the requirements for the qualifications and training of cabin crew.

2 Cabin crew

- (a) A cabin crew member is a person who is assigned by the operator to undertake tasks in the cabin and shall be identifiable by virtue of an operator's cabin crew uniform to passengers as a cabin crew member.
- (b) An operator shall ensure that other personnel, such as security staff and technical staff who undertake tasks in the cabin, shall not wear a cabin crew uniform which might identify them to passengers as a cabin crew member unless they comply with the requirements of this AC.

3 Minimum requirements

- (a) An operator shall ensure that each cabin crew member:
 - (1) is at least not be less than 18 years of age;
 - (2) has passed an initial medical examination or assessment and is found medically fit to discharge the duties specified in the Operations Manual (see Annex 1);
 - (3) remains medically fit to discharge the duties specified in the Operations Manual; and
 - (4) was given the necessary training and practice and was checked according to this AC.
- (b) An operator shall ensure that each cabin crew member has fulfilled all the relevant requirements established in this AC and is competent to perform his/her duties in accordance with procedures specified in the Operations Manual.
- (c) An operator shall ensure that each cabin crew member is able to read, write and converse in English.

4 Single cabin crew operations

- (a) An operator shall ensure that each cabin crew member who does not have previous comparable experience must complete the following before operating as a single cabin crew member:
 - (1) Training in addition to that required by *initial training* and *conversion and differences training* shall include particular emphasis on the following to reflect single cabin crew operations:
 - (i) responsibility to the commander for the conduct of cabin safety and emergency procedure(s) specified in the Operations Manual;
 - (ii) importance of co-ordination and communication with the flight crew, management of unruly or disruptive passengers;
 - (iii) review of operator's requirements and legal requirements;

- (iv) documentation;
 - (v) accident and incident reporting; and
 - (vi) flight and duty time limitations.
- (2) Familiarisation flying of at least 20 hours and 15 sectors. Familiarisation flights shall be conducted under the supervision of a suitably experienced cabin crew member on the aeroplane type to be operated.
- (b) An operator shall ensure, before a cabin crew member is assigned to operate as a single cabin crew member, that this cabin crew member is competent to perform his/her duties in accordance with the procedures specified in the Operations Manual. Suitability for single cabin crew operations shall be addressed in the criteria for cabin crew selection, recruitment, training and assessment of competence.

5 Senior cabin crew members

- (a) An operator shall nominate a senior cabin crew member whenever more than one cabin crew member is assigned.
- (b) The senior cabin crew member shall have responsibility to the commander for the conduct and co-ordination of cabin safety and emergency procedure(s) specified in the Operations Manual.
- (c) Where required by regulations to carry more than one cabin crew member, an operator shall not appoint a person to the post of senior cabin crew member unless that person has at least one year's experience as an operating cabin crew member and has completed an appropriate course (see Annex 6).
- (d) An operator shall establish procedures to select the next most suitably qualified cabin crew member to operate as senior cabin crew member in the event of the nominated senior cabin crew member becoming unable to operate. Such procedures must be acceptable to the AACM and take account of a cabin crew member's operational experience.

6 Training manual, facilities and use of representative training devices

- (a) It is statutory requirement in the ANRM that a training manual shall contain all such information and instructions as may be necessary to enable persons appointed by the operator to give or supervise the training, practice and periodical tests to perform their duties.
- (b) The training manual is regarded by AACM as the primary indication of the standards of training and testing likely to be achieved by the operator. It should give formal expression to the operator's training policy and requirements, together with adequate guidance to instructors and examiners. One copy must be submitted to

AACM, together with any later amendments or additions. The training manual and program shall be established in the flight safety documents system principle.

Note: Guidance on the development and organization of a flight safety documents system is contained in Macao Aeronautical Circular – AC/OPS/003 – “Flight Safety Document System”.

- (c) In addition to the more general matters of policy, the following in particular must be included in the manual:
- (1) Operator’s requirements in respect of qualifications, training and experience of training staff and a list of designated instructors and examiners;
 - (2) The name and title of the person ultimately responsible for cabin crew member training and checking and lines of reporting to and from that person’s post;
 - (3) A comprehensive statement of the duties and responsibilities of all training staff, which should include their names, the type of training and/or checking which they may conduct and the types of aircraft on which they are authorized;
 - (4) Minimum standards of experience and qualification, and of initial and periodic training to be met by all cabin crew for each type of aircraft used by the operator;
 - (5) Detailed syllabi and specimen record forms for the training and checking;
 - (6) Training course information including delivery method, syllabus, duration, pre-requisites, instructor qualification and, where appropriate, the use of specific training facilities for each course;
 - (7) Arrangements for administering and recording the training and checking of all cabin crew member; and
 - (8) A list of approved representative training devices.
- (d) An operator shall ensure training facilities used for the training and checking are able to support the purpose of the training and checking. In particular, simulated firefighting exercise for fire and smoke training and checking shall be conducted in a confined area to simulate cabin fire. Wet drills for water survival training and checking shall be carried out in a body of water or pool of sufficient depth to realistically perform the simulated exercise.
- (e) A representative training device may be used for the training and checking of cabin crew as an alternative to the use of the actual aeroplane or required equipment.

Note: Requirements and guidance with regard to the use of representative training devices are contained in the Macao Aeronautical Circular AC/OPS/037 – “Use of Representative Training Devices”.

7 Initial training

An operator shall ensure that each cabin crew member successfully completes initial training, approved by the AACM, in accordance with Annex 2 of this AC, and the checking prescribed in paragraph 12 of this AC before undertaking conversion training.

8 Conversion and differences training

- (a) An operator shall ensure that each cabin crew member has completed appropriate training, as specified in the Operations Manual, before undertaking assigned duties as follows:
- (1) *Conversion training.* A conversion course must be completed before being:
 - (i) First assigned by the operator to operate as a cabin crew member; or
 - (ii) Assigned to operate another aeroplane type; and
 - (2) *Differences training.* Differences training must be completed before operating:
 - (i) On a variant of an aeroplane type currently operated; or
 - (ii) With different safety equipment, safety equipment location, or normal and emergency procedures on currently operated aeroplane types or variants.
- (b) An operator shall determine the content of the conversion or differences training account of the cabin crew member's previous training as recorded in the cabin crew member's training records required by paragraph 15 of this AC.
- (c) An operator shall ensure that:
- (1) conversion training is conducted in a structured and realistic manner, in accordance with Annex 3;
 - (2) differences training is conducted in a structured manner; and
 - (3) conversion training, and if necessary differences training, includes the use of all safety equipment and all normal and emergency procedures applicable to the type or variant of aeroplane and involves training and practice on either a representative training device or on the actual aeroplane.
- (d) Conversion and differences training programmes, in accordance with Annex 3, must be approved by AACM.

9 Familiarization flights

An operator shall ensure that, following completion of conversion training, each cabin crew member undertakes familiarization flights prior to operating as one of the minimum number of cabin crew required by regulations.

10 Recurrent training

- (a) An operator shall ensure that each cabin crew member undergoes recurrent training, covering the actions assigned to each crew member in normal and emergency procedures and drills relevant to the type(s) and/or variant(s) of aeroplane on which they operate in accordance with Annex 4 of this AC.
- (b) An operator shall ensure that the recurrent training and checking programme, approved by AACM, includes theoretical and practical instruction, together with individual practice, as prescribed in Annex 4 of this AC.
- (c) The period of validity of recurrent training and the associated checking required by paragraph 12 of this AC shall be 12 calendar months in addition to the remainder of the month of issue. If issued within the final 3 calendar months of validity of a previous check, the period of validity shall extend from the date of issue until 12 calendar months from the expiry date of that previous check.

11 Refresher training

- (a) An operator shall ensure that each cabin crew member who has been absent from all flying duties for more than 6 months and still remains within the period of validity of the previous check required by paragraph 12 (b)(3) of this AC completes refresher training specified in the Operations Manual as prescribed in Annex 5 of this AC.
- (b) An operator shall ensure that when a cabin crew member has not been absent from all flying duties, but has not, during the preceding 6 months, undertaken duties on a type of aeroplane as a cabin crew member required by regulations, before undertaking such duties on that type, the cabin crew member either:
 - (1) completes refresher training on the type; or
 - (2) operates two re-familiarization sectors during commercial operations on the type.

12 Checking

- (a) An operator shall ensure that during or following completion of the training required by this AC, each cabin crew member undergoes a check in order to verify his/her proficiency in carrying out normal and emergency safety duties. These checks must be performed by cabin crew examiners authorized by AACM.
- (b) An operator shall ensure that each cabin crew member undergoes check as follows:
 - (1) Initial training. The items listed in Annex 2;

- (2) Conversion and Differences training. The items listed in Annex 3;
- (3) Recurrent training. The items listed in Annex 4;
- (4) Senior cabin crew training. The items listed in Annex 6.

13 Operation on more than one type or variant

- (a) An operator shall ensure that each cabin crew member does not operate on more than three aeroplane types except that, with the approval of AACM, the cabin crew member may operate on four aeroplane types, provided that for at least two of the types:
 - (1) non-type specific normal and emergency procedures are identical; and
 - (2) safety equipment and type specific normal and emergency procedures are similar.
- (b) For the purposes of sub-paragraph (a), variants of an aeroplane type are considered to be different types if they are not similar in all the following aspects:
 - (1) emergency exit operation;
 - (2) location and type of safety equipment; and
 - (3) type specific emergency procedures.

14 Training records

- (a) An operator shall:
 - (1) maintain records of all training and checking required by this AC;
 - (2) maintain a document for each cabin crew attesting a summary of training to show a trainee's completion of every stage of training and checking; and
 - (3) make the records of all initial, conversion and recurrent training and checking available, on request, to the cabin crew member concerned.

15 Cabin crew instructors and examiners

- (a) All training required by this AC shall be conducted by cabin crew instructor while checking required shall be conducted by cabin crew examiner. Both must be qualified by reasons of their knowledge, competence and skills, and shall be authorized by AACM.

Note: Operators may either designate its personnel to be cabin crew instructors/examiners, or outsource the cabin crew training and checking. The outsourced cabin crew training programme shall be documented in the operator's training manual approved by the AACM .

- (b) Operator shall qualify and assign different individuals to fulfill the distinct roles of cabin crew instructors and cabin crew examiners. Both the roles of instructor and examiner may be assigned to the same individual. However, the instructor who is also an examiner, or vice versa, shall not exercise the privileges of both roles in the same training. If he/she assumed one of the capacities during the training, he/she shall remain impartial and shall not be assuming the other capacity during the same training.
- (c) Cabin crew instructor and cabin crew examiner shall:
- (1) have at least 3 years of cabin crew relevant experience, in which at least 1 year of experience as senior cabin crew member, or equivalent;
 - (2) in the case of an examiner, have at least 1 year of experience as cabin crew instructor;
 - (3) be familiar with the operator's operational procedures;
 - (4) be adequately trained in teaching and instructional techniques and have successfully completed an instructor/examiner training programme approved by the AACM; or possess of previous cabin crew instructor/examiner qualifications;
 - (5) be knowledgeable and qualified on the aircraft type in operation and able to present the training material in an effective manner;
 - (6) have passed a competency assessment in their role during the conduct of practical training.
- (d) Operator shall specify the qualification, training and experience requirements for cabin crew instructors and examiners in the operator's training manual, and ensure that cabin crew instructors and examiners have met all qualification requirements necessary for the training and checking to be conducted. A comprehensive statement of the duties and responsibilities of all cabin crew instructors and examiners, the type of training and checking which they may conduct and the types of aircraft on which they are authorized must also be documented in the operator's manual.
- (e) Cabin crew instructors and examiners who will be assigned cabin crew duties shall maintain cabin crew qualification by fulfilling all the relevant requirements established in this AC.

- (f) An authorized cabin crew instructor/examiner is required to conduct at least 3 training/checking during each and every 12-month period to maintain the delegation. When the cabin crew instructor/examiner authorization that has lapsed for more than 1 year, may be renewed if the applicant has received the applicable cabin crew instructor/examiner recurrent training approved by the AACM.
- (g) Prior to the initial issue or the renewal of an authorization, a cabin crew instructor/examiner must also have satisfactorily conducted a training and/or checking whilst observed by the AACM.
- (h) Cabin crew instructor and examiner authorization in general remains valid for 24 months from the date of issue including the remainder of the month, subject to compliance with the requirement specified in paragraphs 16(e) and 16(f). Renewal application shall be submitted to the AACM at least 1 month before its expiry date, and in general the renewal is granted with validity of 24 months from the last expiry date, provided that the requirements in this paragraph are met.

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Annex 1

Medical requirements

- (a) Each cabin crew member shall undergo a medical examination or assessment which should be conducted by, or under the supervision of, a medical practitioner acceptable to the AACM. A medical doctor specialist in aeronautical medicine is recommended.
- (b) The following medical requirements are applicable for each cabin crew member:
- (1) Good general health;
 - (2) free from any contagious disease, which can lead the transmission of pathogenic organism to other people;
 - (3) free from any physical or mental illness which might lead to incapacitation or inability to perform cabin crew duties;
 - (4) normal cardiorespiratory function. There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleura;
 - (5) normal central nervous system;
 - (6) adequate visual acuity - 6/9 with or without glasses;
 - (7) adequate hearing;
 - (8) normal function of ear, nose and throat;
 - (9) micro or radiography shall form a part of the medical examination;
 - (10) *Tuberculin test* is also recommended
- Note: Specific findings on the history or physical examination may require further investigations.*
- (c) An operator should maintain a medical record for each cabin crew member.

Annex 2

Initial training

- (a) *Fire and Smoke Training.* An operator shall ensure that fire and smoke training includes:
- (1) Emphasis on the responsibility of cabin crew to deal promptly with emergencies involving fire and smoke and, in particular, emphasis on the importance of identifying the actual source of the fire;
 - (2) The importance of informing the flight crew immediately, as well as the specific actions necessary for the co-ordination and assistance, when fire or smoke is discovered;
 - (3) The necessity for frequent checking of potential fire-risk areas including toilets, and the associated smoke detectors;
 - (4) The classification of fires and the appropriate type of extinguishing agents and procedures for particular fire situations, the techniques of application of extinguishing agents, the consequences of misapplication, and of use in confined space; and
 - (5) The general procedures of ground-based emergency services at aerodromes.
- (b) *Water Survival Training.* An operator shall ensure that water survival training includes the actual donning of use of personal floatation equipment in water by each cabin crew member. Before first operating on an aeroplane fitted with life-rafts or other similar equipment, training must be given on the use of this equipment, as well as actual practice in water.
- (c) *Survival Training.* An operator shall ensure that survival training is appropriate to the areas of operation, (e.g. polar, desert, jungle or sea).
- (d) *Medical aspects and First Aid.* An operator shall ensure that medical and first aid training includes (see Appendix 1):
- (1) Instruction on medical aspects and first aid, first-aid-kits, emergency medical kits, their contents and emergency medical equipment;
 - (2) First aid associated with survival training and appropriate hygiene; and
 - (3) The physiological effects of flying and with particular emphasis on hypoxia.
- (e) *Passenger handling.* An operator shall ensure that training for passenger handling includes the following:
- (1) Advice on the recognition and management of passengers who are, or become intoxicated with alcohol or are under the influence of drugs are aggressive;
 - (2) Methods used to motivate passengers and the crowd control necessary to expedite an aeroplane evacuation (see Appendix 2);

- (3) Regulations covering the safe stowage of cabin baggage (including cabin service items) and the risk of it becoming a hazard to occupants of the cabin or otherwise obstructing or damaging emergency equipment or aeroplane exits;
 - (4) The importance of correct seat allocation with reference to aeroplane mass and balance. Particular emphasis shall also be given on the seating of disabled passengers, and the necessity of seating able-bodied passengers adjacent to unsupervised exits;
 - (5) Duties to be undertaken in the event of encountering turbulence including securing the cabin;
 - (6) Precautions to be taken when live animals are carried in the cabin;
 - (7) Dangerous Goods training as prescribed in the Operations Manual;
 - (8) Security procedures.
- (f) *Communication.* An operator shall ensure that, during training, emphasis is placed on the importance of effective communication between cabin crew and flight crew including technique, common language and terminology.
- (g) *Discipline and responsibilities.* An operator shall ensure that each cabin crew member receives training on:
- (1) The importance of cabin crew performing their duties in accordance with the Operations Manual;
 - (2) Continuing competence and fitness to operate as a cabin crew member with special regard to flight and duty time limitations and rest requirements;
 - (3) An awareness of the aviation regulations relating to the cabin crew and the role of AACM;
 - (4) General knowledge of relevant aviation terminology, theory of flight, passenger distribution, meteorology and areas of operation;
 - (5) Pre-flight briefing of the cabin crew and the provision of necessary safety information with regard to their specific duties;
 - (6) The importance of ensuring that relevant documents and manuals are kept up-to-date with amendments provided by the operator;
 - (7) The importance of identifying when cabin crew members have the authority and responsibility to initiate an evacuation and other emergency procedures; and
 - (8) The importance of safety duties and responsibilities and the need to respond promptly and effectively to emergency situations.
- (h) *Safety training.* An operator shall ensure that each cabin crew member is trained in accordance with the operator SMS training programme and competent to perform his/her SMS duties.

- (i) *Crew Resource Management*. An operator shall ensure that CRM training satisfies the following:
- (1) Introductory CRM course:
- (i) An operator shall ensure that a cabin crew member has completed an introductory CRM course before being first assigned to operate as a cabin crew member.
 - (ii) The training elements of CRM course are listed in the table of Appendix 3 of this AC, column (A) shall be covered to the level required in column (B), Introductory CRM training.
 - (iii) The introductory CRM course shall be conducted by a qualified CRM instructor acceptable to AACM.

Annex 3

Conversion and Differences training

(a) *General.* An operator shall ensure that:

- (1) During conversion and differences training, training is given on the location, removal and use of all safety and survival equipment carried on the aeroplane, as well as all normal and emergency procedures related to the aeroplane type, variant and configuration to be operated.

(b) *Fire and smoke training.* An operator shall ensure that:

- (1) Each cabin crew member is given realistic and practical training in the use of all firefighting equipment including protective clothing representative of that carried in the aeroplane. This training must include:
 - (i) Each cabin crew member extinguishing a fire characteristic of an aeroplane interior fire except that, in the case of Halon extinguishers, an alternative extinguishing agent may be used; and
 - (ii) The donning and use of protective breathing equipment by each cabin crew member in an enclosed, simulated smoke-filled environment.

(c) *Operation of doors and exits.* An operator shall ensure that:

- (1) Each cabin crew member operates and actually opens each type or variant of normal and emergency exits in the normal and emergency modes, including failure of power assist systems where fitted. This is to include the action and forces required to operate and deploy evacuation slides. This training shall be conducted in an aeroplane or representative training device; and
- (2) The operation of all other exits is demonstrated.

(d) *Evacuation slide training.* An operator shall ensure that:

- (1) Each cabin crew member descends an evacuation slide from a height representative of the aeroplane main deck sill height;
- (2) The slide is fitted to an aeroplane or a representative training device.

(e) *Evacuation procedures and other emergency situations.* An operator shall ensure that:

- (1) Emergency evacuation training includes the recognition of planned or unplanned evacuations on land or water. This training must include recognition of when exits are unusable or when evacuation equipment is unserviceable; and
- (2) Each cabin crew member is trained to deal with the following:

- (i) An in-flight fire, with particular emphasis on identifying the actual source of the fire;
 - (ii) Severe air turbulence;
 - (iii) Sudden decompression, including the donning of portable oxygen equipment by each cabin crew member; and
 - (iv) Other in-flight emergencies.
- (f) *Crowd control.* An operator shall ensure that training is provided on the practical aspects of crowd control in various emergency situations, as applicable to the aeroplane type (see Appendix 2 of this AC).
- (g) *Pilot incapacitation.* An operator shall ensure that, unless the minimum flight crew is more than two, each cabin crew member is trained in the procedure for flight crew member incapacitation and shall operate the seat and harness mechanisms. Training in the use of the flight crew members' oxygen system and use of the flight crew members' checklists, where required by the operator's SOP's, shall be conducted by a practical demonstration.
- (h) *Safety equipment.* An operator shall ensure that each cabin crew member is given realistic training on, and demonstration of, the location and use of safety equipment including the following:
- (1) Slides, and where non self-supporting slides are carried, the use of any associated ropes;
 - (2) Life-rafts and slide-rafts, including the equipment attached to, and/or carried in, the raft;
 - (3) Lifejackets, infant lifejackets and flotation cots;
 - (4) Dropout oxygen system;
 - (5) First-aid oxygen;
 - (6) Fire extinguishers;
 - (7) Fire axe or crow-bar;
 - (8) Emergency lights including torches;
 - (9) Communications equipment, including megaphones;
 - (10) Survival packs, including their contents;
 - (11) Pyrotechnics (Actual or representative devices);
 - (12) First-aid kits, emergency medical kits, their contents and emergency medical equipment; and
 - (13) Other cabin safety equipment or systems where applicable.
- (i) *Passenger Briefing/Safety Demonstrations.* An operator shall ensure that training is given in the preparation of passengers for normal and emergency situations.

- (j) An operator shall ensure that all appropriate regulations are included in the training of cabin crew members.
- (k) When initial medical aspects and first aid training has not included the avoidance of infectious diseases, especially in tropical and sub-tropical climates, such training shall be provided if an operator's route network is extended or changed to include such areas.
- (l) *Crew Resource Management*. An operator shall ensure that:
 - (1) Each cabin crew member completes the Operator's CRM training covering the training elements listed in the table of Appendix 3 of this AC, column (A) to the level required in column (C) before undertaking subsequent aeroplane type specific CRM and/or recurrent CRM training.
 - (2) When a cabin crew member undertakes a conversion course on another aeroplane type, the training elements listed in the table of Appendix 3 of this AC, column (A) shall be covered to the level required in column (D), aeroplane type specific CRM.
 - (3) The operator's CRM training and aeroplane type specific CRM shall be conducted by a qualified CRM instructor acceptable by AACM.

Annex 4**Recurrent training**

- (a) An operator shall ensure that every 12 calendar months the programme of practical training includes the following:
- (1) Emergency procedures including pilot incapacitation;
 - (2) Evacuation procedures including crowd control techniques;
 - (3) Touch-drills by each cabin crew member for opening normal and emergency exits for passenger evacuation;
 - (4) The location and handling of emergency equipment, including oxygen systems, and the donning by each cabin crew member of lifejackets, portable oxygen and protective breathing equipment (PBE);
 - (5) Medical aspects and first aid, first aid kits, emergency medical kits, their contents and emergency medical equipment (see Appendix 1);
 - (6) Stowage of articles in the cabin;
 - (7) Dangerous goods procedures as prescribed in the Operations Manual
 - (8) Security procedures;
 - (9) Incident and accident review; and
 - (10) Crew Resource Management. An operator shall ensure that CRM training satisfies the following:
 - (i) The training elements in the table of Appendix 3, column (A) shall be covered within a three year cycle to the level required by column (E), annual recurrent CRM training.
 - (ii) The definition and implementation of this syllabus shall be managed by a cabin crew CRM instructor.
 - (iii) When CRM training is provided by stand-alone modules, it shall be conducted by a qualified CRM instructor acceptable by AACM.
- (b) An operator shall ensure that, every 2 years, recurrent training also includes:
- (1) Each cabin crew member operating and actually opening each type or variant of normal and emergency exit in the normal and emergency modes, including failure of power assist systems where fitted. This is to include the action and forces required to operate and deploy evacuation slides. This training shall be conducted in an aeroplane or representative training device;
 - (2) Demonstration of the operation of all other exits;

- (3) Each cabin crew member being given realistic and practical training in the use of all fire-fighting equipment, including protective clothing, representative of that carried in the aeroplane. This training must include:
 - (i) Each cabin crew member extinguishing a fire characteristic of an aeroplane interior fire except that, in the case of Halon extinguishers, an alternative extinguishing agent may be used; and
 - (ii) The donning and use of protective breathing equipment by each cabin crew member in an enclosed, simulated smoke-filled environment.
 - (4) Use of pyrotechnics (Actual or representative devices); and
 - (5) Demonstration of the use of life-jackets, life-raft, or slide-raft, where fitted.
 - (6) An operator shall ensure that, unless the minimum flight crew is more than two, each cabin crew member is trained in the procedure for flight crew member incapacitation and shall operate the flight crew members' seat and harness mechanisms. Training in the use of the flight crew members' oxygen system and use of flight crew member's check lists, where required by the operator's SOP's, shall be conducted by a practical demonstration.
- (c) An operator shall ensure that each cabin crew member is given recurrent safety training as required by the operator's SMS training programme.
- (d) An operator shall ensure that all appropriate regulations are included in the training of cabin crew members.

Annex 5**Refresher training**

- (a) An operator shall ensure that refresher training is conducted by suitable instructors and, for each cabin crew member, includes at least the following:
- (1) Emergency procedures including pilot incapacitation;
 - (2) Evacuation procedures including crowd control techniques;
 - (3) The operation and actual opening of each type or variant of normal and emergency exit in the normal and emergency modes, including failure of power assist systems where fitted. This is to include the action and forces required to operate and deploy evacuation slides. This training shall be conducted in an aeroplane or representative training device;
 - (4) Demonstration of the operation of all other exits; and
 - (5) The location and handling of emergency equipment, including oxygen systems, and the donning of lifejackets, portable oxygen and protective breathing equipment.

Annex 6

Senior Cabin Crew Training

Training for senior cabin crew members should include:

- (a) Pre-flight Briefing:
 - (1) Operating as a crew;
 - (2) Allocation of cabin crew stations and responsibilities; and
 - (3) Consideration of the particular flight including:
 - (i) Aeroplane type;
 - (ii) Equipment;
 - (iii) Area and type of the operation including ETOPS (when applicable), and
 - (iv) Categories of passengers, including the disabled, infants and stretcher cases;
- (b) Co-operation within the crew:
 - (1) Discipline, responsibilities and chain of command;
 - (2) Importance of co-ordination and communication; and
 - (3) Pilot incapacitation;
- (c) Review of operator's requirements and legal requirements:
 - (1) Passengers safety briefing, safety cards;
 - (2) Security of galleys;
 - (3) Stowage of cabin baggage;
 - (4) Electronic equipment;
 - (5) Procedures when fuelling with passengers on board;
 - (6) Turbulence; and
 - (7) Documentation;
 - (8) SMS duties in accordance with the operator's SMS;
- (d) CRM training with all relevant elements listed in the table of Appendix 3 of this AC, column (A) are integrated into the training and covered to the level required by column (F), senior cabin crew training;
- (e) Accident and incident reporting; and
- (f) Flight and duty time limitations and rest requirements.

Appendix 1

Medical Aspects and First Aid Training

- (a) Medical aspects and first aid training shall include the following subjects:
- (1) Physiology of flight including oxygen requirements, and hypoxia;
 - (2) Medical emergencies in aviation including:
 - (i) Choking;
 - (ii) Stress reactions and allergic reactions;
 - (iii) Hyperventilation;
 - (iv) Gastro-intestinal disturbance;
 - (v) Air sickness;
 - (vi) Epilepsy;
 - (vii) Heart attacks;
 - (viii) Stroke;
 - (ix) Shock;
 - (x) Diabetes;
 - (xi) Emergency childbirth; and
 - (xii) Asthma.
 - (3) Practical cardio-pulmonary resuscitation by each cabin crew member having regard to the aeroplane environment and using a specifically designed dummy;
 - (4) Basic first aid and survival training including care of:
 - (i) The unconscious;
 - (ii) Burns;
 - (iii) Wounds; and
 - (iv) Fractures and soft tissue injuries;
 - (5) Travel health and hygiene including:
 - (i) The risk of contact with infectious diseases especially when operating into tropical and sub-tropical areas. Reporting of infectious diseases, protection from infection and avoidance of water-borne and food-borne illness. Training shall include the means to reduce such risks;
 - (ii) Hygiene on board;

- (iii) Death on board;
 - (iv) Handling of clinical waste;
 - (v) Aircraft disinsection; and
 - (vi) Alertness management, physiological effects of fatigue, sleep physiology, circadian rhythm and time zone changes;
- (6) The use of appropriate aeroplane equipment including first-aid kits, emergency medical kits, first-aid oxygen and emergency medical equipment.

Appendix 2

Crowd Control

- (a) Operators should provide training in the application of crowd control in various emergency situations. This training should include:
- (1) Communications between flight crew and cabin crew and use of all communications equipment, including the difficulties of co-ordination in a smoke-filled environment;
 - (2) Verbal commands;
 - (3) The physical contact that may be needed to encourage people out of an exit and onto a slide;
 - (4) The re-direction of passengers away from unusable exits;
 - (5) The marshalling of passengers away from the aeroplane;
 - (6) The evacuation of disabled passengers; and
 - (7) Authority and leadership.

Appendix 3

Crew Resource Management (CRM) Training

- (a) CRM training should utilize all available resources (e.g. crew members, aeroplane systems and supporting facilities) to achieve safe and efficient operations.
- (b) Emphasis should be placed on the importance of effective co-ordination and two-way communication between flight crew and cabin crew in various abnormal and emergency situations.
- (c) Emphasis should be placed on co-ordination and communication within the crew in normal operational situations including the use of correct terminology, common language, and effective use of communications equipment.
- (d) CRM training should, wherever practicable, include combined flight crew and cabin crew in practice in aeroplane evacuations.
- (e) Combined flight crew and cabin crew training should, wherever practicable, include joint discussion of emergency scenarios.
- (f) Cabin crew should be trained to identify usual situations that might occur inside the passenger compartment, as well as an activity outside the aeroplane that could affect the safety of the aeroplane or passengers.
- (g) There should be an effective liaison between flight crew and cabin crew training departments. Provision should be made for flight and cabin crew instructors to observe and comment on each other's training.
- (h) The following table indicates which elements of CRM shall be included in each type of training:

Training Elements (A)	Introductory CRM Course (B)	Operator's CRM Training (C)	Aeroplane Type Specific CRM (D)	Annual Recurrent CRM Training (E)	Senior Cabin Crew Training (F)
General Principles					
Human factors in aviation General instructions on CRM principles and objectives	In depth	Not required	Not required	Not required	Overview
Human performance and limitations					
From the perspective of the individual cabin crew member					
Personality awareness, human error and reliability, attitudes and behaviors, self-assessment	In depth	Not required	Not required	Overview (3 year cycle)	Not required
Stress and stress management					
Fatigue and vigilance					
Assertiveness					
Situation awareness, information acquisition & processing					
From the perspective of the whole aeroplane crew					
Error Prevention and detection	Not required	In depth	Relevant to the type(s)	Overview (3 year cycle)	Reinforcement (relevant to the senior cabin crew duties)
Shared situation awareness, information acquisition & processing					
Working management					
Effective communication and coordination between all crew members including the flight crew as members, cultural differences					
Leadership, co-operation, synergy, decision making, delegation					
Individual and team responsibilities, decision making and actions					
Identification and management of the passenger human factors; crowd control, passenger stress, conflict management, medical factors					
Specifics related to aeroplane types (narrow / wide bodies, single / multi deck), flight crew and cabin crew composition and number of passengers	Not required	In depth			
From the perspective of the operator and the organizations					
Company safety culture, SOPs organizational factors, factors linked to the type of operations	Not required	In depth	Relevant to the type(s)	Overview (3 year cycle)	Reinforcement (relevant to the Senior cabin crew duties)
Effective communication and coordination with other operational personnel and ground services					
Participation in cabin safety incident and accident reporting					
Cabin based studies (see note)		Required		Required	