

AIR NAVIGATION ACT 1966

AIR NAVIGATION ORDER (CAP 6, O 2) PARAGRAPH 72B(3)

MANUAL OF STANDARDS – AERODROME RESCUE AND FIRE FIGHTING TRAINING 2025

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In exercise of the powers conferred by paragraph 72B(3) of the Air Navigation Order (Cap. 6, O 2) the Civil Aviation Authority of Singapore (“the Authority”) issues the following Manual of Standards.

PART 1

PRELIMINARY

Citation and commencement

1. This Manual is the Manual of Standards – Aerodrome Rescue and Fire Fighting Training 2025 and comes into operation on 1 April 2025.

Definitions

2. In this Manual, unless the context otherwise requires, any term defined in the First Schedule has the meaning given to that term in that Schedule.

Purpose of this Manual

3. This Manual contains the standards and requirements pertaining to the training of aerodrome rescue and fire fighting (“ARFFT”) personnel conducted by an ARFFT organisation.

PART 2

Division 1 – General

Training and procedures manual

4.-(1) An ARFFT organisation must have a training and procedures manual for the ARFFT that it provides.

(2) The training and procedures manual must include the following information:

- (a) an organisation chart showing the posts within the ARFFT organisation and the associated chains of responsibility between the posts;
- (b) the name, title, duties and qualifications of the person designated as responsible for ensuring compliance with all relevant requirements in this Manual;
- (c) a general description of the scope and training objectives of ARFFT provided;
- (d) a description of the content of each training course offered including the course material, training simulators, equipment and facilities to be used to comply with the requirements in the Second, Third and Fourth Schedules;

- (e) a description of any additional training when needed to meet the requirements of a certified operator of an aerodrome;
- (f) a description of the standard operating procedures to ensure the safety of instructors, assessors and trainees when training is conducted;
- (g) the procedures established under paragraph 5;
- (h) a description of the ARFFT organisation's quality assurance system in accordance with paragraph 6;
- (i) a description of the assessment procedures and standards required by paragraph 11;
- (j) a description of the ARFFT organisation's training simulators, equipment and facilities, in particular training simulators for compliance with the requirements in paragraphs 12 and 13;
- (k) a description of the duties and qualifications of the personnel designated as responsible for the planning, performing and supervising of the training in paragraph 15;
- (l) a description of the procedures used to establish and maintain the competence of instructors as required by paragraph 16;
- (m) a description of the selection process, qualifications, role and duties of the assessors designated to perform assessments as required by paragraph 17;
- (n) a description of the method used for the completion and retention of the training records required by paragraphs 18 and 19;
- (o) the procedures necessary to ensure compliance with this Manual;
- (p) the procedure for notifying the ARFFT Regulator of changes to any training course established pursuant to paragraph 7, at least 2 weeks prior to the start of the course.

(3) The training and procedures manual established under sub-paragraph (2) and any amendments thereto must be submitted to the ARFFT Regulator for approval.

Control of training and procedures manual

5. The procedures for the control, amendment and distribution of the training and procedures manual must ensure that –

- (a) necessary amendments are made to the training and procedures manual to keep the information contained therein up to date;
- (b) any amendments are reviewed and authorised by the appropriate personnel;

- (c) any amendment to the training and procedures manual are recorded, including the reasons for the amendment;
- (d) the current version of the training and procedure manual is identifiable such that the use of superseded material is precluded;
- (e) the current version of the training and procedures manual is made available to relevant personnel at all locations where the personnel require access to the manual; and
- (f) all obsolete documentation is promptly removed from all points of issue or use.

Quality assurance system

6.-(1) The ARFFT organisation must establish a quality assurance system, acceptable to the ARFFT Regulator, which ensures that training and instructional practices comply with all relevant requirements.

(2) The quality assurance system must include an internal audit programme to ensure compliance with the Manual.

Division 2 – Training and Assessments

General

7.-(1) The ARFFT organisation must establish courses for training in the following categories:

- (a) basic firemanship;
- (b) intermediate firemanship; and
- (c) advanced firemanship.

(2) The ARFFT organisation must have access to information to ensure that course materials are updated.

Basic firemanship training

8.-(1) The ARFFT organisation must design and provide a basic firemanship training and conduct assessments in accordance with the course syllabus in the Second Schedule.

(2) The ARFFT organisation must ensure that the basic firemanship training includes practical exercises involving pressure-fed fuel fires to give entry level rescue and fire fighting personnel adequate exposure related to aircraft fire fighting.

Intermediate firemanship training

9.–(1) The ARFFT organisation must design and provide an intermediate firemanship training course for fire officers and conduct assessments –

(a) in accordance with the course syllabus in the Third Schedule; and

(b) that will equip such personnel with the theory, principles and practices of fire station management, tactical fire fighting involving various emergencies and fireground command to prepare them for their roles as airport fire officers.

(2) The ARFFT organisation must ensure that an intermediate firemanship training includes practical exercises.

(3) The ARFFT organisation must establish the qualifying criteria for entry into the intermediate firemanship training course and incorporate such criteria into its training and procedures manual.

Advanced firemanship training

10.–(1) The ARFFT organisation must design and provide an advanced firemanship training course for senior fire officers and conduct assessments –

(a) in accordance with the course syllabus in the Fourth Schedule; and

(b) that will equip such fire officers with the theory, principles and practices of fire station management, facilities and fire safety planning, as well as command and control at aircraft crash sites to prepare them for their roles as senior fire officers.

(2) The ARFFT organisation must establish the qualifying criteria for entry into the advanced firemanship training course and incorporate such criteria into its training and procedures manual.

Assessments

11.–(1) The ARFFT organisation must establish procedures and standards on the conduct of assessments and examinations connected with the courses specified in the Second, Third and Fourth Schedules.

(2) The procedures and standards mentioned in sub-paragraph (1) must be submitted to the ARFFT Regulator for approval.

Division 3 – Facilities

Facilities

12.–(1) The ARFFT organisation must have or provide the necessary facilities to ensure that ARFFT and the conduct of assessments connected with ARFFT can be provided in accordance with the training and procedures manual and in a safe manner.

(2) The facilities must include training simulators (including the essential simulators in paragraph 13), a training ground, equipment for practical training, aircraft mock-up and lecture rooms suitable for classroom teaching.

(3) The ARFFT organisation must provide office accommodation for instructors and assessors of a standard that will ensure that an instructor or assessor can prepare for his or her duty without undue distraction.

Essential training simulators

13.–(1) The ARFFT organisation must have access to the following essential simulators:

- (a) breathing apparatus simulator;
- (b) military aircraft fire simulator;
- (c) civil aircraft fire simulator;
- (d) pressured-fed fuel fire simulator;
- (e) flashover simulator;
- (f) confined space simulator;
- (g) airport foam tender simulator;
- (h) helicopter fire simulator; and
- (i) industrial fire simulator.

(2) A simulated fire using the simulators mentioned in sub-paragraph (1)(b), (c), (d), (e), (f), (h) and (i) must include a pit fire or a fire with an aircraft mock-up or similar device using enough fuel to provide a fire or smoke intensity which simulates realistic fire fighting conditions.

(3) Any training simulator, equipment or facility that is unserviceable must be repaired or rectified as soon as reasonably possible, and an alternative or replacement be made available to ensure that training and standards provided by the ARFFT organisation will not be compromised.

Division 4 – Personnel

Responsible person

14.–(1) The ARFFT organisation must designate a person responsible for ensuring that the ARFFT organisation complies with the requirements in this Manual.

(2) A person designated under sub-paragraph (1) must have the corporate authority to ensure that resources are adequate and appropriate for the operation of the ARFFT organisation.

Personnel requirements

15.–(1) The ARFFT organisation must directly employ or have on secondment such number of fully qualified individuals as ARFFT instructors and assessors to deliver the ARFFT and perform the assessments of ARFFT, or both, in accordance with the training and procedures manual.

(1) The ARFFT organisation must not appoint an individual as an instructor or assessor unless the individual meets the selection criteria mentioned in sub-paragraph (4) and paragraph 16.

(2) An individual may carry out any combination of the roles of an instructor and assessor in relation to any ARFFT, only in accordance with the selection criteria and duty statements referred to in sub-paragraph (4).

(3) The ARFFT organisation must state in its training and procedures manual, selection criteria and duty statements for its instructors or assessors, which specify standards (including, but not limited to, the qualifications and experience in paragraph 16 for the initial appointment of and maintaining the competency of its instructors or assessors.

Qualifications of instructors

16.–(1) Instructors who are appointed to provide basic firemanship training and intermediate firemanship training must meet the following requirements:

- (a) have a minimum of 5 years' experience with a rescue and fire fighting service provider;
- (b) have leadership exposure in operations with a rescue and fire fighting service provider;
- (c) pass the intermediate firemanship training course;
- (d) pass the Breathing Apparatus Operations Training Course or equivalent;
- (e) possess relevant instructional techniques;
- (f) possess effective communication skills;

- (g) be able to conduct theoretical and practical assessments;
- (h) possess a valid Medical First Aid certification;
- (i) have knowledge of the Standards and Recommended Practices in Annex 14 to the Chicago Convention, Procedures for Air Navigation Services Aerodromes Doc 9981, Airport Services Manual Doc 9137 and other applicable documents issued by ICAO, where relevant;
- (j) are trained in knowledge and skills related to human performance including team coordination which can be found in the Human Factors Training Manual under ICAO Doc 9683; and
- (k) are assessed as competent to conduct classroom lessons, practical simulator training and assessment of student competence.

(2) Instructors who are appointed to provide the advanced firemanship training course must, in addition to the requirements in sub-paragraph (1), have undergone and passed the advanced firemanship training course conducted by the ARFFT organisation.

(3) Every instructor must complete the initial and recurrent training appropriate to their assigned tasks and responsibilities.

(4) The ARFFT organisation must ensure that all personnel engaged by it to augment the training conducted by instructors are assessed to be competent and qualified.

Qualifications of assessors

17.-(1) The ARFFT organisation must designate such number of assessors to perform assessments or examinations of ARFFT in accordance with the ARFFT organisation's training and procedures manual.

(2) Every assessor conducting the assessment for basic firemanship training, intermediate firemanship training or advanced firemanship training courses must meet the same set of criteria as applicable to an instructor providing the corresponding training.

Division 5 – Records

Records of training

18.-(1) The ARFFT organisation must, for each trainee undergoing ARFFT —

- (a) keep a written record of all ARFFT and any assessment undertaken by the trainee on or after the date of commencement of this Manual; and
- (a) ensure that every record required by this paragraph is legible and in a permanent form, is clear and accurate, and is in a readily accessible format.

(2) The ARFFT organisation must keep, and have ready access for the ARFFT Regulator to, a copy of every record required by sub-paragraph (1) for 5 years from the date of completion of the ARFFT or assessment to which the record relates.

(3) This paragraph applies to every ARFFT or assessment that commences on or after 1 April 2025.

Control of training courses records

19.—(1) The ARFFT organisation must keep records of all training courses conducted on or after the date of commencement of this Manual, including the training plan, the instructors who conducted the courses and course materials used.

(2) The ARFFT organisation must keep records of any course variation made as a result of course reviews, together with the reasons for the course variation and when the ARFFT Regulator was notified of the variation.

(3) A record mentioned in sub-paragraph (1) or (2) must be kept by the ARFFT organisation for at least 5 years from the date of completion of each course to which the record relates.

Revocation and transitional provisions

20.—(1) The Manual of Standards – Aerodrome Rescue and Fire Fighting Training, issued by the Authority on 1 February 2017, is revoked (called in this Manual the revoked Manual).

(2) A training and procedures manual established by the ARFFT organisation under Chapter 3 of the revoked Manual that is in effect immediately before 1 April 2025 remains in effect as if established and approved by the Authority under paragraph 4 of this Manual.

(3) A quality system established by the ARFFT organisation under paragraph 3.4 of the revoked Manual that is in effect immediately before 1 April 2025 remains in effect as if established and accepted by the ARFFT Regulator under paragraph 6 of this Manual.

FIRST SCHEDULE - DEFINITIONS

Paragraph 2

“ARFFT Regulator” means the Aerodrome and Air Navigation Services Regulation Division in the Civil Aviation Authority of Singapore.

“Airport fire officer” means an officer who has a supervisory role in leading a team of emergency responders and is responsible for operational leadership in fire fighting and rescue operations, including managing crash site responses, overseeing various types of fire incidents, and conducting training sessions and proficiency evaluations.

“Certified operator of an aerodrome” means a certified operator as defined in the Air Navigation (139 – Aerodromes) Regulations 2023.

“Equipment” means rescue and fire fighting equipment used for aircraft rescue and fire fighting.

“Facilities” means the tools used to facilitate the conduct of theory and practical training.

“Senior airport fire officer” means an officer who has a senior supervisory role and is responsible for strategic management of airport emergency operations, including overseeing safety systems, planning and budgeting, managing fire fighting equipment and facilities, and developing long-term plans for the fire service.

“Simulator” means any simulator referred to in paragraph 13.

SECOND SCHEDULE – BASIC FIREMANSHIP TRAINING

Paragraphs 4(2), 8(1) and 11(1)

Rescue and Fire Fighting Personnel Safety

1. Basic knowledge of protective clothing, fire chemistry, smoke hazards and various safety precautions and hazards of aircraft and helicopters.

Emergency Communications Systems

2. Knowledge of the operation and maintenance of radio communication equipment, proper procedures of radiotelephony communications and basic hand signals.

Maintenance, Handling and Stowage of Equipment

3. Use of fire hoses, nozzles, turrets and other appliances required for compliance with Annex 14, Volume I, Chapter 9, 9.2.
4. Operation and maintenance of the range of basic rescue and fire fighting equipment:
 - (a) lighting equipment;
 - (b) power operated tools;
 - (c) hand tools;
 - (d) forcing equipment;
 - (e) respiratory protection;
 - (f) communications equipment;
 - (g) equipment capable of delivering fire fighting agents;
 - (h) equipment capable of delivering a fresh air supply, probably by means of a powered-fan unit and including trunking to suit aircraft delivery purposes;
 - (i) medical first aid equipment.
5. Proficient handling of all types of equipment under both drill ground conditions and rapidly changing circumstances so that rescue and fire fighting personnel can perform automatically under emergency conditions.
6. Knowledge of correct stowage of equipment.

Application of Extinguishing Agents

7. Fire chemistry and types of extinguishing agents employed in aircraft fire fighting and its application required for compliance with Annex 14, Volume I, Chapter 9, 9.2.

Emergency Aircraft Evacuation

8. Knowledge of aircraft evacuation procedures for different situations and roles and responsibilities of rescue and fire fighting personnel such that they can assist to evacuate occupants in the shortest time possible in the event of an aircraft accident or incident.

Fire Fighting Operations

9. Knowledge of the causes of fire, factors contributing to its spread and the principles of fire extinction, and fire prevention.

10. Combating various types of fires and hazards, including:

- (a) aircraft (including Military aircraft) fires;
 - (i) engine fire;
 - (ii) internal fire;
 - (iii) pressure fed hydraulic oil / fuel line fire;
- (b) building fire;
- (c) liquefied petroleum gas fire;
- (d) bulk fuel fire;
- (e) helicopter fire; and
- (f) industrial fire.

Tactical Application of Rescue and Fire Fighting Equipment for Structural and Aircraft Rescue and Fire Fighting

11. Tactical application of various types of specialized rescue tools and fire fighting equipment for structural and aircraft rescue and fire fighting purposes.

Dangerous Goods

12. Response to an incident or accident involving dangerous goods including knowledge on detection methods and containment measures.

Familiarisation with Rescue and Fire Fighting Personnel's Duties Under the Aerodrome Emergency Plan

13. Knowledge on rescue and fire fighting personnel's roles and responsibilities under the Aerodrome Emergency Plan such as rescue operation, fire fighting, emergency medical care, casualty evacuation, ambulance service and logistics support in an aircraft accident or incident.

Protective Clothing, Respiratory Protection and Breathing Apparatus Application

14. Self-contained breathing apparatus such that rescue and fire fighting personnel can effect a rescue from an aircraft cabin heavily laden with smoke and fumes. Simulators must be used to train rescue fire fighting personnel in such environment.

Medical First Aid and Casualty Handling

15. Medical first aid so as to provide medical assistance when necessary and handle casualties appropriately to avoid the infliction of additional suffering and/or injury in the removal of occupants in an aircraft accident or incident.

Search and Rescue

16. Instruction in search procedures, not only in the enclosed spaces of an aircraft but also for procedures for systematic searching of the area in the immediate vicinity of an aircraft accident and also in the path of the aircraft.

17. Forcible entry procedures with the necessary tools where rescue operations could not be accomplished through regular doors and hatches.

Maintenance and Stowage of Equipment

18. Correct handling and proper maintenance of all equipment, and the correct stowage position of ancillary equipment.

Airport Familiarisation

19. Airport familiarisation training of the airport and its immediate vicinity. The training must encompass those areas of operation dealing with:

- (a) thorough familiarisation of the movement area so that rescue and fire fighting personnel can demonstrate their ability to:
 - (i) select the best routes to any point on the airport; know the existence of impassable route in any part of the area to be covered by the rescue and fire fighting service provider;
 - (ii) select alternative routes to any point on the movement area when normal routes are blocked;
 - (iii) recognise landmarks which may be indistinctly seen;
 - (iv) recognise airport signs, markings and lightings; and
 - (v) use detailed grid maps as an aid to respond to an aircraft accident or incident.
- (b) the use of guidance equipment when it is available. Air traffic control may be of assistance in providing information on the location of the accident site and position of other aircraft or vehicles in the airport which may obstruct or impair vehicular movement.

Aircraft Familiarisation

20. Aircraft familiarisation training of all types of aircraft using the airport and information about the following design features to ensure effective use of equipment:

- (a) location and operation of normal and emergency exits;
- (b) seating configuration;
- (c) type of fuel and location(s) of fuel tank(s);
- (d) location of batteries and isolation switches;
- (e) position of break-in points on the aircraft;
- (f) numbering and naming protocols for all aircraft doors and emergency exits on the aircraft; and
- (g) method of operation of the doors and emergency exits on different aircrafts operating in the aerodrome.

THIRD SCHEDULE – INTERMEDIATE FIREMANSHIP TRAINING

Paragraphs 4(2), 9(1) and 11(1)

Proficiency Test and Rating System

1. Organising and standardising of the proficiency test, operational rating and revalidation system. This includes general guidelines on the subjects to be covered in the proficiency test and operational rating system, and records keeping for audit checks.

Aircraft Internal Fire (Passenger and Freighter Aircraft)

2. Thorough knowledge on aircraft internal fire and differences between post-crash fires and inflight fires, the types of cabin furnishings and toxic gases produced, causes of internal fires, flashover and backdraft. This includes rescue and fire fighting procedures during an aircraft internal fire.

Protective Clothing, Respiratory Protection and Breathing Apparatus Application

3. Self-contained breathing apparatus such that rescue and fire fighting personnel can effect a rescue from an aircraft cabin heavily laden with smoke and fumes. Simulators must be used to train rescue fire fighting personnel in such environment.

Smoke Hazards

4. Hazards of gases and smoke, the 3 phases of fire, procedures when working in smoke-filled atmosphere and case studies of aircraft incidents with smoke impact.

Fireground Control at Crash Site

5. Equip participants with the necessary skills to undertake the position of Office-in-Charge during an emergency. They must be taught on the various types of stand-by positions taken by the rescue and fire fighting personnel for various declared aircraft emergencies and be able to explain the overall strategy of fireground leadership during aircraft fire fighting and rescue operations. They must be taught to manage the fireground by using all the resources of men, equipment, water supply and associated agencies. The course must also include Airport Emergency Planning.

Rescue and Fire Fighting Equipment & Personal Protective Equipment

6. Determine the quantity and types of equipment to be carried on fire vehicle(s) and recommend suitable personal protective equipment for rescue and fire fighting operations.

Airport Water Supply

7. Basic guidance in master planning and overall water supply system for airport fire protection, taking into consideration domestic water usage where a combined fire protection and domestic water system is utilised.
8. Basic selection criteria for water supply source and standards for a water distribution system designed to support aircraft and fire fighting operations in airports.

Fireground Hydraulics

9. Principles, variables and calculations concerned with the practical application of water as utilised in the fire service. An overview of fire characteristics, properties of water, apparatus and appliances, fire streams and hydraulic calculations must be addressed to establish a functional understanding of fireground hydraulics.

Aerodrome Categorisation and Levels of Protection

10. Determine the aerodrome category and understand the level of protection to be provided, state the minimum quantities of water, level A, B or C foams and other complementary extinguishing agents required for protection. Determine basic needs and number of vehicles required at an aerodrome to effectively deliver and deploy the agents specified for the aerodrome category.

Critical Area Concept and Response Time

11. Determine the theoretical and practical critical area for a given aircraft type and calculate the quantity of water to be provided at an aerodrome and calculate response time based on certain assumptions and recognise factors affecting response time.

Leadership in the Fire Service

12. The three theories of leadership and the relationship between leadership style and the decision-making process. Knowledge of the general traits of a leader and the importance of fireground leadership.

Principles of Supervision

13. Knowledge of the principles and methods of effective supervision.

Building Fire Fighting and Rescue

14. Significance and importance of the various basic divisions of fire fighting strategy. The participants must be able to demonstrate effective execution on fire fighting tactics and techniques in combating building fires.

Fire Pumps and Primers

15. Understand and effectively operate the water-based fire suppression system, including ensuring adequate water supply and using fire pumps to increase water pressure.

Handling of Uncommon Emergencies

16. Operational procedures and tactical concepts of water rescue operations for aircraft accidents in the water, types of radio-active materials, radio-active hazards and the strategic procedures of combating an aircraft fire involving radio-active materials.

Aircraft Involved in Unlawful Act

17. Examine the risks involved and the ways to deal with a situation where an aircraft is subjected to unlawful interference namely hijack bomb threat and chemical/biological sabotage.

Foaming Agents

18. The type of foams used in relation to aircraft fire fighting.

Communication Procedures and System

19. Knowledge of operating radio communication equipment, proper procedures of radiotelephony communications and basic hand signals

Fire in Aircraft Hangars

20. The various hazards, restriction of movement, needs for evacuation, structural vulnerability and other factors to be considered when dealing with fires at aircraft hangars, and their ancillary facilities.

Post-crash Incident Report

21. Report writing based on the National Fire Protection Association accident/incident format to give relevant information for improving methods of saving lives.

Techniques of Instruction

22. Necessary skills to conduct lessons or training to rescue and fire fighting personnel.

Fire Prevention

23. Objectives of fire prevention and the fire protection system to prevent fire from spreading and further endangering life and property.

FOURTH SCHEDULE – ADVANCED FIREMANSHIP TRAINING

Paragraphs 4(2), 10(1) and 11(1)

Aerodrome Safety Management System

1. The four components of Aerodrome Safety Management System: Safety policy and objective, safety risk management, safety assurance and safety promotion.

Airport Fire Safety

2. Fire safety measures in accordance with the Fire Safety Act 1993 (for Singapore) for airport terminal buildings and hangars, fire prevention and fire safety practices in airports, and knowledge to advise on the formation of emergency control organisations.

Fire Precaution in Buildings

3. Objective for taking fire precautions in building, concepts in building construction relevant to fire precaution, fire protection provided in a building and measures taken to reduce fire risk.

Hangar Fire Protection

4. Fire protection for aircraft hangars.

Aerodrome Rescue and Fire Fighting (“ARFF”) Vehicles’ Standards

5. Rescue and fire fighting personnel must be able to:
 - (a) state ICAO requirements on ARFF vehicles;
 - (b) stipulate requirements of ARFF vehicles for an airport;
 - (c) select from options available for ARFF vehicles; and
 - (d) specify the performance of ARFF vehicles for the purpose of procurement.
6. Latest technology and advanced rescue and fire fighting vehicles that are used in major airports around the world.

Budgeting in the Fire Service

7. Understand the need for budgeting and the differences between various budgeting methods.
8. Understand capital expenditure and operating expenditure under budgetary allocations of the fire service.

Design and Siting of Airport Fire Station

9. Standards and guidance for planning, sitting, designing and construction of airport fire stations, including incorporating maximum views of the airfield and direct access from the apparatus bays to the road and runway system, to enable rapid response to an accident or incident.

Emergency On-line Communication System

10. Communication requirements of airport, fire station, ARFF vehicle, communication by Fire Ground Commander during ARFF operations and communication network with off-airport agencies responding to an emergency.

Fire Service Administration

11. Managerial role of a senior fire officer and the functions of management in the fire service. They must be able to distinguish between management and leadership.

Fire Vehicle Performance Test

12. Standard for aircraft fire vehicle six-monthly performance test in accordance to FAA 150/5220-10B, Guide specification for water/foam aircraft rescue and fire fighting vehicles, 10/20/97.

Hazards of Aircraft Fuelling Operations

13. Training must cover responsibilities in respect of the safety measures to be taken during fuelling operations by the airport authority, the aircraft operator and the fuel supplier.

Airport Services Manual

14. The course must cover the Airport Services Manual that is related to aerodrome emergency planning and aerodrome rescue and fire fighting.

Mass Casualty Evacuation

15. The course must equip participants with the skills and knowledge to manage mass casualty incidents.

Planning and Development of the Fire Service

16. The course must cover master planning for the Fire Service.

Training and Proficiency Test

17. The course must ensure that Senior Fire Officers are conversant with the basic and specialist training, including the proficiency test involved, required for rescue and fire fighting personnel to deal with aircraft emergencies.

Water Rescue Plan

18. The course must include basic planning procedures, facilities and equipment to effectively perform rescue operations when an aircraft crashes into a body of water, swamp, or tidal area where normal ARFF vehicles are unable to reach the accident scene.

Equipment Specification and Evaluation

19. The course must impart adequate information and guidance materials to the participants on equipment specification and evaluation.