

MANUAL OF PROCEDURE

This manual is one in the set of manuals forming the Civil Aviation Safety Authority's internal documentation set. Staff produced these manuals to provide the information and procedures needed to perform their tasks.

I require all staff to use these manuals in the performance of their duties.

The manuals are living documents. As a result of experience, legislative change or new technology, they may need amending. I encourage the contribution of ideas for the improvement of the content of the work practice covered by the procedures in this manual. All manuals provide details for submitting ideas and suggestions for their improvement.

The General Manager, identified in the footer of the manual, is accountable for approving the content of the manual and amendments.



General Manager: Air Safety Infrastructure

3/1/07

Date:

Amendment Record Sheet

The General Manager Air Safety Infrastructure is the only person who can authorise amendments to the Fire Services Manual of Procedures. Staff and industry partner can initiate amendments using the *Feedback Sheet* contained in (insert section) at the back of this manual.

Amendments are by page replacement or addition, or by re-issue of the complete manual.

Inserting amendments in this manual must complete the table below, indicating the details of the amendments and the date, and signing the "updated by" column.

Amendment Number	Amendment Date	Subject	Updated by	Date
Pages 14-30	2005-01-04	Fire Mop.	H G van Seventer	2005-01-04
Pages 31-32	2005-01-18	Fire Mop.	H G van Seventer	2006-01-21
Pages 5 -29	2007-01-03	Fire Mop	H G van Seventer	2007-01-03

Feedback Sheet

Fire Services Manual of Procedures

If you find any incorrect information in this manual or think any part of it could be improved at the next revision, your input would be welcome. Please fill in this sheet and return it to the General Manager who approved the Manual. His or her title is at the foot of the page.

Amendment Delivery Advice
Fire Services Manual of Procedures - Version 7.

This amendment is issued to registered holders of the Fire Service Manual of Procedures. Its purpose is (insert reason for change) as described in (insert relevant pages).

Please replace Version 1 pages with the following Versions (insert new number) pages:

- Pages (4 to 31).

Please acknowledge receipt by entering the *Control Copy Number* shown on the face page of the manual in the space after "number" on the receipt below, signing the receipt and returning the entire sheet to:-

Any comments about the content, or requests for clarification should be directed to:

General Manager: Air Safety Infrastructure.

=====

I have received Amendment (insert number) of the Fire Service Manual of Procedures and have inserted it in copy number _____.

Signed : _____

Date : _____



Airport Rescue and Fire-fighting Manual of Procedure

SACAA R&FFS .Doc 1

Introduction: and basic guidelines for airport fire service inspectors.

AERODROME RESCUE AND FIRE FIGHTING SERVICES (AR&FFS)

The International Civil Aviation Organisation (ICAO) issues International Standards and recommended practices for Civil Aviation. As a member of the Chicago convention South Africa agreed to comply within its boundaries to the set out recommendations.

The following introductory chapters, serves to enlighten the aerodrome inspector and the aerodrome operator, with regards to the minimum requirements expected to be met by the aerodrome operators of South Africa. The legislative requirements are in accordance with the **Civil Aviation Regulations as contained in Part 139** as well as with the technical standards in **Part 139 of the SA-CATS-AH**. The aforementioned regulations and technical standards makes

the ICAO documents Annex 14, Doc 9137-AN/898 Parts 1 & 7, as well as ICAO document Doc 7192-An 857 Part E2 applicable.

As South Africa is regarded as the gateway to Africa, it is expected that the general initiative should come from us to implement the ICAO standards in establishing a safety culture within the Civil Aviation Industry.

It is therefore imperative that the South African Civil Aviation Authority (SACAA) applies standards, as set by ICAO to be the minimum standards and to regulate these standards within the boundaries of South Africa as far as practicable. These standards are applicable to all licensed aerodromes. This however does not imply that unlicensed aerodromes can operate commercially without complying with the prescribed standards. The level of service provided unlicensed aerodromes is not regulated. However, commercial activities can take place at an unlicensed aerodrome under AIC50.4, provided that an exemption is obtained from the Commissioner for South Africa's, Civil Aviation Authority. (SACAA)

CAA inspectors, appointed by the Commissioner as authorised officers in terms of section 5(4)(a) of the Aviation Act 1962 (ACT 74/62), will for the purpose of licensing and license renewal visit aerodromes to verify that the laid down standards are being met and maintained. Contravention of, or non-compliance with the laid down standards will have, as a result, that an aerodrome licence either not be issued, or suspended or revoked, until such time that an aerodrome can comply with the prescribed standards.

This document is compiled in order to guide the aerodrome inspector of the acceptable minimum requirements with regards to Airport Rescue and Fire-fighting Services as enacted in the Civil Aviation Regulations part 139.02.7(1) (2). The categories referred to are those contained in paragraph 9.2 of Annex 14, Volume 1. (Airports), as well as in chapter two (2) of the Airports Service Manual, Doc 9137-AN/898, Part 1 on Rescue and Fire Fighting Services.

1. The principal objective of an Aerodrome Rescue and Fire Fighting Service (AR&FFS) is to save lives. The secondary objective is to protect property from damage or total destruction caused by fire. For this reason, the primary task of an AR&FFS is creating a safe environment for rescue operations to commence. Provision for an AR&FFS, on the appropriate level, for dealing with the largest aircraft operating to and from an aerodrome that can be involved in an accident or incident occurring at, or in the immediate vicinity of an aerodrome assumes primary importance. It is within this area that there is the greatest opportunity of saving lives. The primary objective must never be subjected to, or be subservient to the secondary objective of an AR&FFS.
2. The most important factors contributing to effective rescue attempt in a survivable aircraft crash is as follows and will be verified in accordance

with the relevant chapters of the ICAO Document Doc 9137-AN/898 Part 1 & 7 as well as Doc 7192-AN/857. Pat E2.

Index: The chapters referred to for inspection purposes, are depicted below and are those contained in ICAO Doc 9137-AN/898 Parts 1 (enacted in CAR's 139.02.7) technical standards contained in SA-CATS-AH with the same reference numbers.

- Chapter 2. Level of Protection to be provided
- Chapter 3. Airport Facilities Affecting Rescue and Fire-fighting Services.
- Chapter 4. Communications and alarm requirements.
- Chapter 5. Factors in the specifications process for Rescue and Fire-fighting vehicles.
- Chapter 6. Protective Clothing and Respiratory Equipment.
- Chapter 7. Ambulance and Medical Services. CAR Part 139.02.21
- Chapter 8. Extinguishing agent characteristics.
- Chapter 9. Fire stations. Plus SABS 0400
- Chapter 10. Personnel.
- Chapter 11. Emergency organisations.
Doc 9137-AN/898 Part 7 and Doc 7192-AN/857 part E 2
CAR's 139.02.6 & 139.02.21, SA-CATS-AH 139.02.6
&139.02.22
- Chapter 12. Airport Fire-Fighting and Rescue Procedures.
- Chapter 13. Rescue in difficult environments. Part 139.02.7
- Chapter 14. Training. Including Doc 7192-AN/837 part E 2
- Chapter 15. Foaming of runways for emergency landings.
- Chapter 16. Aircraft Fuelling Practices.
- Chapter 17. Availability of Rescue and Fire-Fighting Information.
Appendix "A" SA-CATS-AH

Basic information:

3. To determine the level of protection that must be provided at an aerodrome, the aerodromes are categorised, this is done on a structured way by taking in consideration the dimensions (over all length and fuselage width) as well as, the total number of aircraft making use of such an aerodrome.
4. Level of extinguishing agent required is determined using the **Critical Area Concept** contained in Chapter 2 of ICAO Doc 9137-AN/898 Part 1. The number of passengers should also play a large part in finalising the decision. It is also pointed out, that at remote aerodromes, the risk of an aircraft accident is much greater than at some of the larger aerodromes. This is due to the fact that the level of sophisticated navigation equipment, radar and air traffic services does not exist or is not at the same level as that on larger aerodromes.
4. Whilst determining the category of an aerodrome, all aircraft movements must be taken in consideration, landing and take-off of all aircraft scheduled and non-scheduled constitutes a movement and should therefore be brought in contention.
5. It is appreciated that on some of the smaller aerodromes, financial constraints can be a factor. This however does not give any aerodrome operator the authority to lower the category of that aerodrome without proper consultation and/or obtaining an exemption under Part 11 of the Civil Aviation Regulations from CAA.
6. **AERODROME CATEGORISATION.**

6.1 The level of protection provided at an aerodrome for AR&FFS shall be appropriate to the aerodrome category determined using the principles in paragraph 6.2, except that, where the number of movements of the aeroplanes in the highest category normally using the aerodrome is less than 700 in the busiest consecutive three months, the level of protection shall be:

- a) From January 2005, the level of protection provided for rescue and fire fighting should be equal to the aerodrome category determined using these principles. (Annex 14, Chapter 9.2.3)

6.2 **Principles.**

- a) The aerodrome category shall be determined using the following table, (Table "A") and shall be based on the longest

aeroplanes normally using the aerodrome and their fuselage width.

Note: to categorise the aeroplanes using the aerodrome, first evaluate their overall length and then their fuselage width.

- b) If, after selecting the category appropriate to the longest aircraft over-all length, it is determined that the aircraft fuselage width is greater than the maximum width in the following table, column 3, for that category, then the category for that aeroplane shall actually be one category higher.

Note: Guidance on categorising aerodromes for AR&FFS is given in, Section 16 of Annex 14, and in the following table:

CATEGORISING TABLE: TABLE "A"

Aerodrome category for rescue and fire fighting

aerodrome category	aeroplane over-all width	Maximum fuselage width
1	2	3
1	0 m up to but not including 9 m	2 m
2	9 m up to but not including 12 m	2 m
3	12 m up to but not including 18 m	3 m
4	18 m up to but not including 24 m	4 m
5	24 m up to but not including 28 m	4 m
6	28 m up to but not including 39 m	5 m
7	39 m up to but not including 49 m	5 m
8	49 m up to but not including 61 m	7 m
9	61 m up to but not including 76 m	7 m
10	76 m up to but not including 90 m	8 m

Airports service manual part 1, Chapter 2 (ICAO) Doc 9137-AN/898. Part 1

7. EXTINGUISHING AGENTS

Both principal and complimentary extinguishing agents shall be provided at a licensed aerodrome.

Note: Description of the extinguishing agents can be found in the Airports Services Manual, Doc 9137-AN/898. Part 1. Chapter 2

The principal extinguishing agent should be:

- a) Foam meeting the minimum performance level A; or
- b) Foam meeting the minimum performance level B; or
- c) A combination of these extinguishing agents. If a combination is used, it should be of a compatible nature.

7.1 It is also recommended that aerodromes up to category 3 should preferably meet the minimum performance level B.

The complimentary extinguishing agent should be:

- a) Dry chemical powders; (compatibility must be determined and ensured)

7.2 The amounts of water for foam production and the complimentary agents to be provided on the rescue and fire fighting vehicles shall be in accordance with the determined aerodrome category; except that these amounts may be modified as follows:

- a) For aerodrome categories 1 and 2, up to 100% of the water requirement may be replaced by complimentary agent.
- b) For aerodrome categories 3 to 10 when a foam meeting performance level A is used, up to 30% of the water used, may be replaced by complimentary agent

Note:-for the purpose of agent substitution , the following equivalents shall/can be used:-

1 kg dry chemical powder or = 1.0 L water for production of foam meeting 1 kg halon or 2 kg of CO 2.....performance level A

1 kg dry chemical powder or = 0.66 L water for production of foam

1 kg halon or 2 kg of CO 2.....performance level B

The amounts of water specified for foam production are predicated on an application rate of 8.2 L/min/m for foam meeting level A, and 5.5 L/min/m for foam meeting performance level B.

Minimum amounts of useable extinguishing agents

Aerodrome category	<u>foam meeting performance level A</u>		<u>foam meeting performance level B</u>		<u>complimentary agents, dry chemical powders (kg)</u>
	water (litre)	discharge rate foam solution/minute (litre)	water (litre)	discharge rate foam solution/minute (litre)	
(1)	(2)	(3)	(4)	(5)	(6)
1	350	350	230	230	45
2	1000	800	670	550	90
3	1800	1300	1200	900	135
4	3600	2600	2400	1800	135
5	8100	4500	5400	3000	180
6	11800	6000	7900	4000	225
7	18200	7900	12100	5300	225
8	27300	10800	18200	7200	450
9	36400	13500	24300	9000	450
10	48200	16600	32300	11200	450

Note: Take into consideration the amount of water to fill the pump, pipes and hoses needed for fire extinguishing, this can diminish the available resources.

- c) Discharge rate of extinguishing media shall not be less than that specified in the table above, but may exceed the minimum requirements.

Note: The quantity of foam concentrates separately provided on vehicles shall be in proportion with the water provided and the foam concentrate selected must be sufficient to produce at least two loads of foam solution.

8. **RESPONSE TIME**

The operational objective of the AR&FFS should be to achieve response times of two minutes but not to exceed three minutes to the end of any runway on the aerodrome as well as any other part of the movement area, in optimum conditions of visibility and surface conditions.

Note: Response time is regarded as the time from initial call is received until the first responding vehicle arrives at the scene and is in position to discharge at least 50% of the required rate of foam production specified in the table above, onto the fire. Any other vehicles required to deliver the full compliment of required foam production must reach the scene within three minutes after the initial call was received.

8. **EMERGENCY ACCESS ROADS**

Emergency access roads should be provided on an aerodrome where terrain conditions permit their construction, so as to facilitate achieving minimum response times. Service roads may be used for this purpose. All emergency roads should be so surfaced as to prevent debris to be transferred onto runways and taxiways (Roads and emergency roads are being dealt within the aerodrome Construction-manual)

9. **PERSONNEL**

All AR&FFS personnel shall be properly trained to perform their duties in an efficient manner and shall participate in live fire drills commensurate with the types of rescue and fire fighting equipment in use at the aerodrome, including pressure fed fuel fires.

Requirement:

During flight operations sufficient trained personnel should be detailed and be readily available to man the rescue and fire fighting vehicles and to operate the equipment at maximum capacity. These trained personnel should be deployed in a way that ensures that minimum response times can be achieved and that continuous agent application, at the appropriate rate, can be fully maintained. Consideration should also be given for personnel to use hand-lines, ladders and other rescue and fire fighting equipment normally associated with aircraft rescue and fire fighting operations.

To determine the number of personnel required to provide rescue and fire fighting services, the types of aircraft, most likely to make use of the aerodrome, should be taken into consideration. All available personnel should also be equipped with proper protective clothing and respiratory equipment to enable them to perform their allocated duties in an effective way

The following checklists have been compiled in accordance with ICAO Doc 9137-AN/898, Part 1 and will be used during the airport inspection/ audit.

The applicable Civil Aviation Regulations are:

CARS 139.02.6, 139.02 7, 139.02.21, 139.02.22, 139.02.28 and the relevant corresponding technical specifications as contained in SA-CATS-AH, Part 139.

Chapter 2

Level of protection to be provided

CAR Part 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Is the aerodrome categorised correctly?				
2	Are the operations limited to the size of aircraft what the airport is licensed for?				
3	Is the Fire Service compliant with the aerodrome license category?				
4	Is the minimum useable amount of water for fire extinguishment available?				
5	Is the minimum foam compound available for the depletion of two loads of water carried on the vehicles?				
6	Is the minimum required complementary agent available on the vehicles?				
7	Is the total quantity foam compound of the same level, level "A" or "B" type?				
8	Is the storage facility of the supplementary 200% extinguishing agent adequate? (Both primary and supplementary.				
9	Can the end of the furthest runway be reached within 2 ½ minutes but not exceeding 3 minutes?				
10	Can the vehicle at the threshold of the furthest runway discharge half of its contents within the required times?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:

Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 3

Airport facilities affecting Rescue and Fire Fighting Services

CAR Part 139.02.7, 22 & 28

No	QUESTIONS	N/A	Yes	No	Note No.
1	Are there any Hydrants available on the Aerodrome?				
2	Is the pressure in the hydrants sufficient to enable rapid filling of vehicles?				
3	Are there adequate emergency access roads on the aerodrome?				
4	Are these roads maintained?				
5	Are there any emergency gates on the aerodrome?				
6	Are these gates accessible to the emergency vehicles?				
7	Does the fire services have keys for the emergency gates?				
8	Is there any additional water available for fire fighting on the airport?				
9	Does the aerodrome have an appointed fire prevention officer/s?				
10	Does the aerodrome have a fire prevention program?				
11	Are there any records as require to this effect?				
12	Are the escape routes in the terminal building clearly demarcated?				
13	Is the fire fighting extinguishers, first-aid hose reels and hydrants on the airport serviced as required?				
14	Are there any records to substantiate this?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 4

Communication and Alarm Requirements

CAR Part 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Are there any communication and alarm notification systems in place?				
2	Is the alarm system tested regularly?				
3	Are there any radios available for communication with ATC, Airport Management, Flight Information Centre or airline?				
4	Are these radios on the required frequency?				
5	Are these radios tested regularly?				
6	Is the result of these tests properly recorded?				
7	Is the quantity sufficient to enable communication between vehicle operators, Control personnel and rescue operators?				
8	Has all personnel utilizing these radios been properly trained in radiotelephony and licensed accordingly?				
9	Are there any telephone or other type of system available to summon assisting parties to the aerodrome emergency procedure/ plan?				
10	Are these equipment tested regularly?				
11	Is the result of these tests properly recorded?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
 Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 5 CAR Part 139.02.7 & 22

Factors in the Specification process for Rescue and Fire Fighting Vehicles

No	QUESTIONS	N/A	Yes	No	Note No.
1	Is the required number of serviceable vehicles available for the category of aerodrome?				
2	Does these vehicle's have off road capability?				
3	Are the vehicle's tyres of an off road type?				
4	Can the vehicles achieve the required speed within the specified timeframe?				
5	Does the foam induction systems work properly?				
6	Provide proof of regular testing of induction system. At least two monthly.				
7	Does all the fire appliance valves operate properly?				
8	Is the available equipment as per ICAO requirement?				
9	Are the rescue equipment maintained?				
10	Are there any records available to substantiate the serviceability of the required pieces of equipment?				
11	Are there electrical generators available for utilization with equipment and lighting?				
12	Does all emergency lighting operate properly?				
13	Does the electrical equipment operate effectively?				
14					
15	Equipment practical a) Fuel levels Sampling: b) Oil levels c) Utilization/ application d) Over all condition		----- ----- ----- --	---- ---- ---- --	

Note Number	Comments	Signature

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Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 5. ICAO Doc 9137-AN/898.

Equipment for rescue operations	Airport Category			
	1-2	3-5	6-7	8-9
Adjustable wrench	1	1	1	1
Axe, rescue, large non wedge type	1	1	1	1
Axe, small non-wedge type or aircraft type	1	2	4	4
Cutter bolt 61 cm	1	1	1	1
Crowbar, 95 cm	1	1	1	1
Crowbar 1.65 m	-	-	1	1
Chisel, cold 2.5 cm	-	1	1	1
Flashlight	2	3	4	8
Hammer 1.8 kg	-	1	1	1
Hook, grab or salving	1	1	1	1
Saw, metal cutting or hacksaw, heavy duty with spare blades	1	1	1	1
Blanket, fire resisting	1	1	1	1
Ladder, extending (of over-all length appropriate to aircraft in use	-	1	2	2 or 3
Rope line 15 m length	1	1	-	-
Rope line 30 m length	-	-	1	1
Pliers 17.8 cm (side cutting)	1	1	1	1
Pliers, slip joint 25 cm	1	1	1	1
Screwdrivers, assorted set	1	1	1	1
Snippers, tin	1	1	1	1
Chocks 15 cm high	-	-	1	1
Chocks 10 cm high	1	1	-	-
Powered rescue saw complete with two blades; or pneumatic chisel complete - plus spare cylinder, chisel, and retaining spring	1	1	1	2
Harness cutting tool	1	2	3	4
Gloves, flame resistant pairs, unless issued to individuals	2	3	4	8
Breathing apparatus and cylinders	-	2	3	4
Spare cylinders	-	2-	3-	4
Hydraulic or pneumatic forcing tool		1	1	1
Medical-First aid kit	1	1	1	1

Chapter 5, Doc 9137-AN/898, fourth edition 1995

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 6

Protective Clothing and Respiratory Equipment

CAR Part 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Is every individual fire fighter equipped with protective clothing?				
2	Does every fire fighter have protective gloves?				
3	Does every fire fighter have fire resistant boots?				
4	Does every fire fighter have fire hoods?				
5	Does the aerodrome have proximity suits?				
6	Are there sufficient Breathing apparatus sets?				
7	Are these sets tested regularly?				
8	Are all the cylinders filled to the required pressure?				
9	Have these Breathing apparatus sets been subjected to pressure tests as required?				
10	Are there any records to substantiate the above?				
11	Are all users of breathing apparatus sets certified?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
 Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 7

Ambulance and Medical Service

CAR Part 139.02.7 & 22 as well as CAR 139.02.6 & 21

No	QUESTIONS	N/A	Yes	No	Note No.
1	Does the airport have a clinic or a first aid room as required?				
2	Does the aerodrome have a medical clinic?				
3	Is the clinic or first aid room suitably equipped?				
4	Are the sufficient medical supplies available on the aerodrome?				
5	Are there any medical supplies or first aid kits available on the fire engines?				
6	Is there an ambulance available on the airport?				
7	If not, is there any agreement in place to have an ambulance be made available within reasonable time, if needed, but not exceeding 20 minutes?				
8	Are these agreement/s current?				
9	Are these ambulances suitable type and equipped to deal with aircraft disasters?				
10	If yes, is it regularly serviced and are there any records available?				
11	Are the medical supplies on the airport regularly checked for expiry dates?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
 Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 8

Extinguishing Agent Characteristics

CAR Part 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Is the complimentary agent compatible with the primary extinguishing agent?				
2	What percentage foam concentrate is used? 3%, 6% or 9%		%		
3	Was the viscosity of the foam tested?				
4	Are there any records to this effect available?				
5	Was there any change in supplier or product?				
6	Is the 200% backup supplies housed at the fire station?				
7	If no, what arrangements are in place to have it made available when needed?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 9

Fire Stations

CAR Part 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Does the airport have a fire station?				
2	Can the fire station house all the vehicles?				
3	If not, how and where are the vehicles housed?				
4	Is unrestricted accessibility to the runways possible?				
5	Is sufficient accommodation available for the required level of personnel?				
6	Are there any training facilities available at the fire station?				
7	Are there any ablution facilities available?				
8	Is there any area defined for decontamination of protected clothing and or equipment used In a radio active, or poisonous environment?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 10

Personnel

CAR Part 139.02.5 & 7

No	QUESTIONS	N/A	Yes	No	Note No.
1	Are sufficient fire personnel available to utilise the fire vehicles effectively? Including the hand-lines.				
2	Are there personnel available to utilise the rescue equipment simultaneously with the fire fighting process?				
3	Are the handlines of the vehicles manned? Either two-foam or one foam and one DCP handline?				
4	Does the driver of the vehicle from the cab operate the monitor/turret?				
5	Total number of fire fighting personnel?				Total No
6	Number of fire fighting personnel per shift?				Total No
7	Are these numbers published in the AIP?				
8	Has the personnel numbers been adjusted during the past 12 months? CAR 139.02.9 & 139 02.5 (c)				
9	Was this done after consultation with the Commissioner for Civil Aviation?				
10	Was this adjustment done in accordance with re-categorisation of the aerodrome? Up or down?				
11	Does the aerodrome AR&FFS make provision for rescue work in the event of an accident?				
12	Does the fire fighting personnel perform other duties besides fire fighting?				
13	Does this duties affect response times?				
14	Is this duties performed relevant to fire services?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 11

Emergency Organisations

CAR Part 139.02.6 & 21

No	QUESTIONS	N/A	Yes	No	Note No.
1	Does the airport have an emergency manual?				
2	Was this Manual submitted to and approved by the CAA? In accordance with CAR 139.02.6				
	Is a copy of this manual available to all firemen?				
3	Does this manual contain a grid reference charts, which includes a ten-kilometre radius from the aerodrome?				
4	Is a grid reference chart available on each fire-fighting vehicle?				
5	Did the prescribed annual emergency exercise take place?				
6	Can rescue & fire fighting operations be performed up to the 10 kilometre radius from the airport				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
 Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 12

Aircraft Fire Fighting and Rescue Procedures

CAR Part 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Does the fire fighting personnel know the appropriate techniques to enter or break into an aircraft structure?				
2	Did all fire personnel receive aircraft construction for fire fighters?				
3	Is all the fire fighters certified in aircraft construction for fire fighters?				
4	Does all personnel know how to initiate the appropriate fire fighting techniques for an aircraft wheel fire?				
5	Does all firemen know how to position the fire appliances to achieve the best possible fire fighting capability at a potential aircraft accident?				
6	Are clearly defined instructions available for immediate reaction to an aircraft accident?				
7	Are individuals briefed on their role and responsibility each day, in the event of an accident?				
8	Are these instructions clearly depicted on the daily duty roster?				
9	Is there any documentation to substantiate the above?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
 Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 13

Rescue Operations in Difficult Environment

CAR Part139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No
1	Is a process defined to address possible unforeseen scenarios such as swampy areas, large masses of water or a possible accident at sea?				
2	If not self-provided for, does the airport have agreements with the other bodies such as the NSRI?				
3	Is a copy of such agreement available?				
4	Is a process defined to address possible unforeseen scenarios such as deserts or mountainous areas? or any other type of areas unique to your specific aerodrome?				
5	Is there any proof of agreements available?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 14

Training

CAR Part139.02.5

No	QUESTIONS	N/A	Yes	No	Note No.
1	Did all fire-fighting personnel receive fire-fighting training?				
2	Did all the fire personnel receive aircraft construction related training?				
3	Is the theoretical training received applied in practice?				
4	At what is the frequency of practical application of theoretical knowledge performed?				Period
5	Is individual records kept of all fire related training?				
6	Does the personnel periodically have live/ hot fire drills? At what frequency?				Period
7	Is this training done individually or in-group context?				
8	Are these training records available?				
9	Does all personnel sign against training received? Both theoretical and practical.				
10	Is all fire fighting vehicle drivers certified as competent on the vehicle entrusted to them?				
11	How frequently are these personnel subjected to re-testing?				Period

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Chapter 15

Foaming of Runways for Emergency Landings CAR 139.02.7 & 22

No	QUESTIONS	N/A	Yes	No	Note No.
1	Is the aerodrome capable of providing runway foaming?				
2	If yes, can the vehicles be replenished before the aircraft is allowed to land?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Note: This aspect is not required but a bonus if it can be done.

Chapter 16

Aircraft Fuelling Practices CAR 139.01.9 & CAR 139.01.25

No	QUESTIONS	N/A	Yes	No	Note No.
1	Does Airport Management approve the refuelling process?				
2	Does the fire-crew do periodic inspection on the aircraft fuelling processes?				
3	Is the bonding of aircraft and vehicles monitored?				
4	Does the refuelling personnel offload the fire extinguishers during refuelling and placing them strategically?				
5	Are all refuelling personnel adequately trained? Including basic fire fighting.				
6	Does the Airport Management have copies of the refuelling personnel's competency certificates?				
7	Are all the refuelling vehicles inspected periodically and certified as safe? Either by refuelling agencies, or airport management.				
8	Does Airport Management monitor the above?				
9	Is record thereof available?				
10	Is all fuel on the aerodrome stored in appropriate containers or storage facilities as required?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided.

Name in print _____ Signature _____ Date _____

Chapter 17

Availability of Rescue and Fire Fighting Information

No	QUESTIONS	N/A	Yes	No	Note No.
1	Is all the relevant information pertaining to the fire services as required in paragraph 2.6, published in the Aeronautical Information Publication (AIP)?				
2	Does this information contain the number of personnel per shift during hours of operation?				
3	Is the ATC and airlines notified of deviations from the published personnel strength? CAR 139.02.9 (c).				
4	Is there any objection to the CAA publishing this information?				

Note Number	Comments	Signature

The information supplied is certified as correct and a true reflection of the level of Aerodrome Rescue and Fire Fighting Service provided:
Aerodrome representative:

Name in print _____ Signature _____ Date _____

Aerodrome Management.

Name: **Signature:**

Date: **Time:**

CAA Inspector's name in Print _____ Signature _____



**PRELIMINARY NOTIFICATION OF NON-COMPLIANCES FOR IMMEDIATE
RECTIFICATION.
APENDIX "A"**

**CLIENT NAME:
ADDRESS:
TELEPHONE NO:
COMPLETED BY:
PURPOSE:**

**CLIENT CONTACT NAME:
CAA REF. NO:
FAX NO:
DATED:
DISTRIBUTION:**

<u>Chapter 1</u>
<u>Chapter 2</u>
<u>Chapter 3</u>
<u>Chapter 4</u>
<u>Chapter 5</u>
<u>Chapter 6</u>
<u>Chapter 7</u>
<u>Chapter 8</u>

<u>Chapter 9</u>
<u>Chapter 10</u>
<u>Chapter 11</u>
<u>Chapter 12</u>
<u>Chapter 13</u>
<u>Chapter 14</u>
<u>Chapter 15</u>
<u>Chapter 16</u>
<u>Chapter 17</u>
<u>Supplementary Items:</u>
Use additional paper if required:

Inspector Signature

Client Name in Print. Client Signature:

Date received: