UK Civil Aviation Authority

Helicopter Pleasure Flying and Feeder Sites: Requirements and Guidance Material for Operators

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Introduction

1. A pleasure-flying event is defined as an operation at which it is anticipated that ten or more Commercial Air Transport movements will be undertaken in any one day (a movement is defined as one take-off or one landing).This may take the form of an event where helicopter flights form part of the attraction and members of the public can turn up and book a trip on the day. Alternatively, it may be an operation specifically organised to provide pre-booked flights.

2. A feeder site is a location from where passengers are flown to a final destination and possibly returned. An example would be for flights into Silverstone for the F1 Grand Prix.

3. Although references in this document are generally to pleasure-flying, nevertheless the majority of the requirements will be applicable to feeder sites as well, in particular the site criteria. Operators should risk assess their feeder site activity to identify the specific requirements that would be appropriate.

4. If the flights are not taking place at an established airfield, the helicopter operator must be satisfied that the site chosen is suitable on the day for the helicopter type(s) to be operated and that the site is organised and staffed in such a way as to ensure the safety of the helicopter, its passengers and persons and property on the ground. Responsibility for assessing the suitability of the site on the day(s) when the flights are taking place rests entirely with the helicopter operator, who shall base the assessment on the minimum requirements set out in their Operations Manual. If the event constitutes ‘an open-air assembly of more than 1,000 persons’, the requirement of Rules of the Air Regulations 2015, Rule 5(2)(b) for conformance with notified procedures applies. NATS UK AIP GEN 1-6, paragraph 1 is the means of notifying these procedures and it places certain responsibilities on the person in charge of the event. Therefore the operator needs to liaise closely with the event organiser to confirm that all requirements have been met.

Notification

5. Prior notification of an operator’s intention to conduct pleasure-flying should be forwarded to the operators’ assigned FOI(H) at least seven days in advance of a pleasure-flying event (28 days in the case of a feeder site) using the pro forma contained at Appendix A.

6. There may be occasions when operators will be asked to attend events at short notice. In these instances, operators must inform their FOI(H) immediately by telephone and follow up with the Appendix A pro forma stating the reason(s) for late notification. In all circumstances the required notification must be forwarded to

the CAA by 1300 hrs on the weekday preceding the event. The same procedure should be followed in the event of one operator being substituted by another at a site that has already been pre- notified to the CAA. If an event is cancelled for any reason, the operator shall notify the CAA.

7. Where a site is deemed to be in a congested area, the operator should forward the pleasure-flying notification to the CAA in the normal way. Additionally, a request for a Rules of the Air Regulations 2015 Rule 5(1)(b) Permission should be made to apply@caa.co.uk, copied to the operators' Assigned Inspector.

Assessing the Suitability of the Site

8. Prior to an event taking place, a suitably trained company representative should visit the proposed site to assess its suitability using the requirements contained in the company Operations Manual relating to pleasure-flying or feeder site requirements.

9. On the day of operations, the pilot in charge will ensure that he has received a thorough briefing from the operations department. On arriving at the site and prior to commencing operations, he will ensure that his selected approach and take-off paths remain unobstructed. He must satisfy himself that in the event of a failure of a power unit the helicopter can be landed safely in a clear area, without endangering persons or property on the ground and without causing injury to occupants in the helicopter. It is possible on the day of the event that the previously agreed site layout may, in some way, have been compromised. Should operational changes be necessary, the pilot in charge is responsible for ensuring that Operations Manual criteria are upheld. He may consider alternative means of complying with the Operations Manual and if necessary postpone the start of operations. In the event that criteria cannot be met he should inform the organisers that the operation will have to be cancelled.

10. Due consideration must always be given to environmental sensitivities, and routes should be varied to minimise noise and nuisance to local residents. Complaints from members of the public regarding noise and nuisance made to the CAA will be forwarded to the helicopter operator for reply and follow-up action.

Photographs at the Site

11. The Site Manager should ensure that a photographic record of the event is made whilst pleasure-flying is in progress. As a minimum, photographs should indicate the location and general layout of the site and shall include aerial views. Arrows indicating approach and departure routes and wind direction should be marked on the photographs and the site of the actual Touchdown and Lift-Off area (TLOF) marked with an 'H'. These photographs are to be kept on file for a minimum period

of 18 months and will be inspected by an authorised person in the course of routine inspection activities.

Rules of the Air Regulations

12. By the nature of these operations, flights close to persons, vessels, vehicles and structures are often unavoidable. Pilots and site managers must be fully aware of all facets of Rule 5 of the Rules of the Air Regulations 2015 and must be scrupulous and exact in their observation of any conditions attached to any relevant Permissions granted. It is essential that no part of the flight takes place within the avoid part of the Height/Velocity curve and that in the event of failure of a power unit the pilot is able to land the helicopter safely without endangering either the aircraft and its occupants or persons and property on the ground.

Air Traffic Control Consideration

13. Helicopters engaged in pleasure-flying activities from temporary sites should not interfere with other air traffic. Flights within aerodrome traffic zones, both Air Traffic Zones and Control Zones, will clearly require co-ordination with local ATC. For sites outside of CAS, consideration should be given to requesting issue of a NOTAM, in accordance with NATS UK AIP ENR 1-1-4, paragraph 3. Additionally and when appropriate, the Civil Aviation Notification Procedure should be followed to advise military pilots of the activity.

Ground Personnel

14. A minimum of three ground personnel are required at a pleasure-flying site, of whom not less than two persons shall be available for RFF duties. One of the ground crew is to be nominated as ‘Site Manager’ and given a written brief of duties and responsibilities. It is accepted that personnel assigned to RFF duties may conduct other duties such as marshalling and briefing, providing this does not prevent them from responding immediately in the event of an incident or accident.

15. If the operation is taking place at an established airfield with an RFFS capability the operator should coordinate with the airfield to establish satisfactory protocols.

Site Operations and Crowd Control

16. Having determined the extent of the heliport area, there will be a requirement to protect this area of operation from unauthorised or inadvertent entry by members of the public. To achieve this, it may be necessary to rope or fence off certain parts of the heliport area. A control point should be established adjacent to the TLOF; from where ground staff will be able to give passengers a final briefing and

marshal them to and from the helicopter. The RFF vehicle and the registration desk should normally be located adjacent to the control point.

Passenger Briefing

17. Each passenger will receive a thorough verbal briefing prior to emplaning. This briefing will include 'no go' areas (the dangers of rotors), the emplaning procedure including operation of seatbelts and doors, prohibition of the use of electronic devices such as mobile telephones, exiting the helicopter in an emergency, smoking restrictions and deplaning procedures. Briefings should be conducted in a quiet area away from aircraft noise. In addition to a verbal briefing, the company should make available appropriate briefing cards and/or a briefing board showing all the above. Whenever possible, pilots should position the helicopter facing towards the passenger departure gate so that they can observe the entire deplaning and emplaning process. Where this is not practical, a marshaller should be positioned in full view of pilot and passengers in order to co-ordinate passenger movement with the pilot.

Passenger Handling and Marshalling

18. A record of the name and addresses of passengers on each flight should be kept (addresses may be in the form of a postcode). This is best achieved by issuing tickets or by the use of a passenger manifest.

19. Passenger weights must be calculated according to Operations Manual requirements. A set of scales should always be available.

20. Passenger handlers/marshallers are not to undertake pleasure-flying duties unless they have received training on their duties according to the appropriate section(s) of the company Operations Manual and have received a briefing from the pilot in charge at the specific event. They should be aware of the dangers associated with rotors- running helicopters on the ground and are to be particularly vigilant for potentially hazardous movements within the area of the main and tail rotor disc sweep areas. Marshallers are to be familiar with the seatbelt and door mechanisms for the particular helicopter operating at the pleasure-flying site.

21. Passengers should be positively marshalled and must never be allowed to approach the helicopter unless accompanied by authorised marshallers. Dogs must be kept well clear of the helicopter at all times. Children undertaking pleasure flights must be accompanied by an adult to ensure that inadvertent or deliberate tampering with door mechanisms is avoided.

22. Procedures should be in place to ensure that passengers are deplaned and escorted away from the helicopter before emplaning passengers are permitted to

enter the rotor disc area accompanied by authorised marshallers. Marshallers should ensure that any loose items such as hats and umbrellas are secure about the person or removed and that portable electronic items are switched off prior to emplaning. (Portable telephones should remain switched off or be in flight mode throughout the flight.)

Minimum Site Criteria

23. The suitability of the site must be assessed with due regard to the specific helicopter performance. The pilot in charge at the site must assure himself that the operation can be conducted, and continue to be conducted, so that in the event of a failure of a power unit the helicopter can be landed safely in a clear area without endangering persons or property on the ground and without causing injury to occupants of the helicopter.

Final Approach and Take-Off Areas and Safety Area – Performance Class 3

(See Appendices B and C)

24. Pleasure Flying may be conducted under performance Classes 1 and 2 using multi-engine helicopters which must operate in accordance with the procedures and requirements specified in the aircraft flight manual. However, the majority will be carried out using single- engine helicopters in Performance Class 3. The primary concern in such operations is that the helicopter must, at all times, be able to carry out a safe forced landing in the event of an engine failure. This means in practice that there must be a continuous (significant) obstacle free corridor available from the commencement of take-off to the completion of the landing. The suitability of the obstacle environment surrounding the operating site to meet this requirement must be considered. This should be done during the site survey and may vary from day to day, being dependent on wind strength and direction and pilot assessment.

25. As a minimum requirement therefore, a FATO should be established which will allow for initial acceleration and climb. Such data is no longer required to be included in the Helicopter Flight Manual and so the distance required to take off and climb to a height of 100 ft is provided in Appendix B. Also included is the landing distance required from a height of 100 ft. Whilst it can be seen that the take-off distance is generally more demanding, the FATO should also be long enough to accommodate both, i.e. based on the longer distance of the two. The first third of the FATO length, in the direction of take-off, is to be obstacle free, whereas the remaining two thirds may contain insignificant and frangible objects. Beyond this point it is necessary to ensure that there is sufficient open space such

that a safe forced landing can be made. As an example, the B206 may require a FATO length of 263 m.

26. The width of the FATO is to be a minimum of 1.5D or 24 m, whichever is the greater. The FATO is to be surrounded by a Safety Area (SA) extending from the FATO periphery out to 3 m or 0.25D, whichever is the greater. For example, the B206 will require a FATO minimum width of 24 m surrounded by an SA of 3 m width, requiring a total width of 30 m. Maximum surface slope should not exceed the limitations of the helicopter flight manual.

27. Side slope protection is required. This area rises upwards and outwards from the sides of the SA to a height of 100 ft agl at a gradient of 1:1. The slope should not be penetrated by any fixed or temporary obstacle.

Touchdown and Lift-Off Areas

28. A TLOF should be established. This may or may not be contained within the FATO. The TLOF should be of sufficient size to contain a circle of diameter of at least 0.83D and be large enough to provide for safe access and exit of passengers and adequate space for marshallers. The TLOF should be essentially flat but under no circumstances should the slope on the TLOF exceed the limitations of the helicopter flight manual in any direction

Note: D refers to the largest overall dimension of the helicopter when the rotors are turning, measured from the most forward position of the main rotor tip path plane to the most rearward position of the tail rotor tip path plane or helicopter structure.

Taxi-Route

29. The TLOF, if separated from the FATO, should be joined to the FATO by an appropriate taxi-route. This should be twice the rotor diameter minimum width and must be suitable for emergency landings. For example, a B206 requires a minimum width of 20.3 m. In any event the slope should not exceed the slope landing limitations of the helicopter flight manual.

Take-Off and Approach Over Water

30. Where take-off and/or approach with the possibility of forced landing on water is planned, special operational provisions should be incorporated. These may include the use of floats, the carriage and wearing of life jackets, the provision of a radio- equipped safety boat and enhanced briefing of passengers.

Operating Adjacent to Major Roads

31. Low flying helicopters have the potential to cause distraction to motorists travelling along busy roads adjacent to pleasure-flying sites. Operators should avoid approach and departure routes that involve over-flying busy roads at low altitude. Where a site has potential to create a problem of this nature, it may be advisable to contact the local police for advice regarding, for example, provision of warning signs and their opinion of the suitability of the site in terms of all traffic issues.

Refuelling

32. At a pleasure-flying or feeder site , refuelling is to be conducted in accordance with procedures laid down in the Operations Manual. Rotors-running refuelling operations with Jet A1 fuel are permitted but no passengers are allowed to remain on board during the refuelling operation. Rotors-running refuelling operations with Avgas are prohibited.

33. Personnel allocated to RFF duties may conduct refuelling duties provided they are suitably protected from fuel contamination as regards the contamination of Personal Protective Equipment (PPE) for fire and rescue.

Provision of Rescue and Fire-Fighting Services (RFFS) and Medical Standards

34. Guidance on the appropriate levels of RFFS are contained in Annex 3. This provides guidance on all types of CAT operations including pleasure-flying. Operators should note the guidance pertaining to selection of primary and complementary media; personnel levels and PPE; RFF equipment; medical and first aid equipment; personnel training; selection of an appropriate vehicle; response time and response area and record-keeping.

APPENDIX A

Pleasure/Feeder Site Notification Form

Pleasure/Feeder Site* Notification (*Delete as applicable)

Notifications should be submitted:

a) For all intended pleasure-flying – to be sent to CAA at least seven days prior to the event.
b) For 'feeder sites' - to be sent to CAA at least 28 days prior to the special event.
c) In the event of cancellation, CAA should be advised as soon as practicable and, where possible, no later than 1300 hrs on the weekday preceding the event.

OS SHEET NO./GRID REF.	NAME OF EVENT	DATE(S) and START/END TIME	AIRCRAFTTYPE

I confirm the above sites have been inspected and conform in all respects to the Operations Manual Criteria.

Signed:

Date:

When completed this form should be emailed to: operationalsupportofficers@caa.co.uk and copied to the Assigned Inspector.

Note: The receipt of this notification form by the CAA does not imply approval of the site. It is the helicopter operator's responsibility to ensure that the site is suitable for the purpose and conforms in every way with their operations manual requirements.

APPENDIX B

Take-Off and Landing Distances Required by Helicopters Operating to Performance Class 3

Sea Level – Nil Wind – Maximum Mass – International Standard Atmosphere (ISA) Temperature

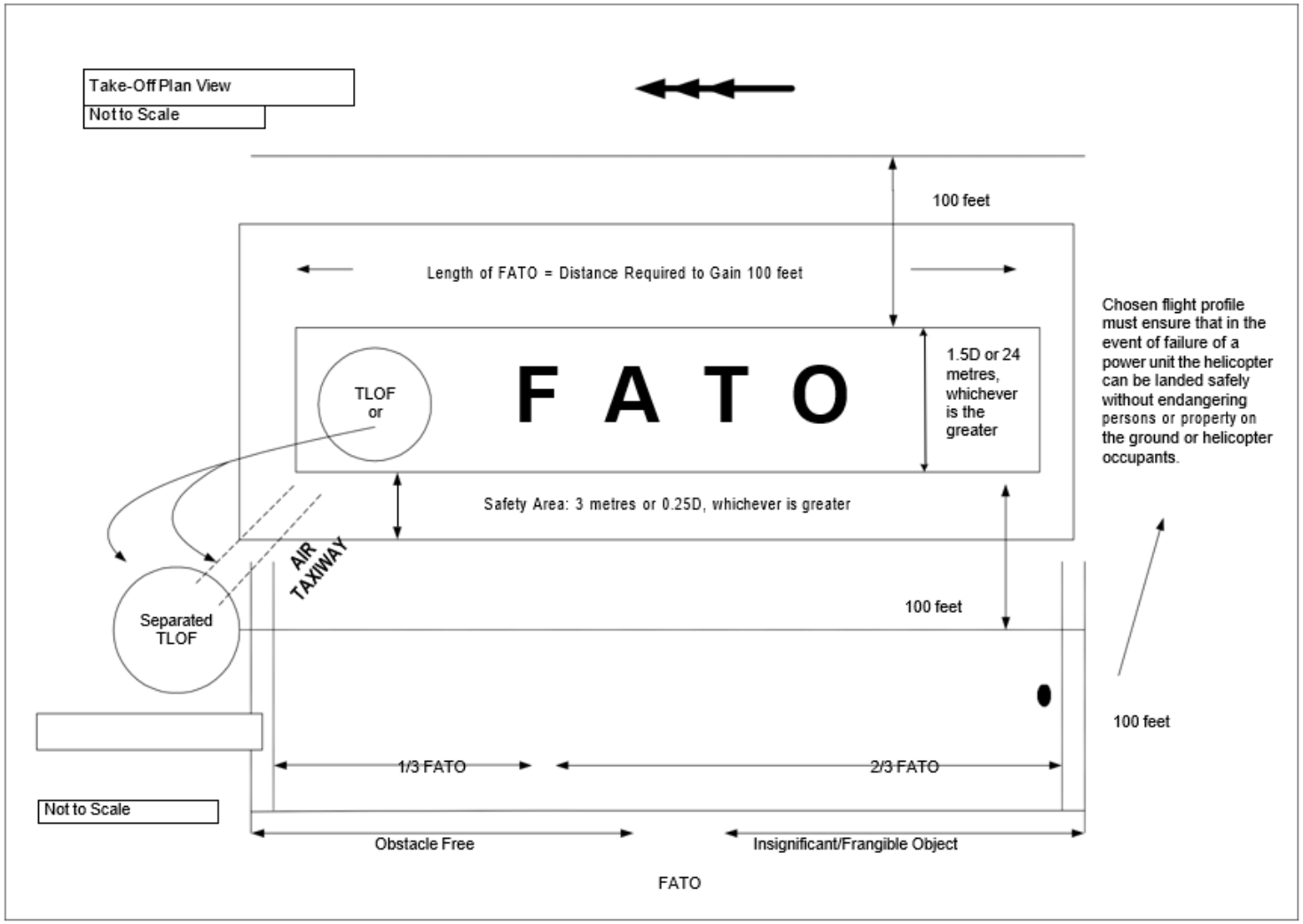
Type	Mass (kg)	Take-Off Distanceto 100 ft (TD)	Emergency Landing Distancefrom 100 ft (LD)	Rotor Diameter (RD)	Overall Length of Helicopter IncludingRotors (D Value)
AS350 Squirrel B2	2,250	*388 m	460 m	10.69 m	12.94 m
EC120B	1,680	500 m	460 m	10.20 m	11.52 m
EC130 B4	2,427	350 m	460 m	10.69 m	12.64 m
Bell 206 Longranger III	1,882	285 m	232 m	11.28 m	12.96 m
Bell 206 Jetranger	1,452	263 m	229 m	10.15 m	11.92 m
Hughes 369	1,361	230 m	189 m	8.05 m	9.39 m
Robinson R22	622	366 m	110 m	7.67 m	8.76 m
Robinson R44	1,089	427 m	305 m	10.06 m	11.76 m
Robinson R66	1,225	420 m	305 m	10.06 m	11.66 m

Note: Dimensions/Masses are representative figures for the types listed. Operators must use the precise dimensions contained in thespecific aircraft manufacturer’s Type Data or Flight Manual.

*500 m required by AS350B

APPENDIX C

Take-Off Plan View and Profile Schematic



APPENDIX D

Provision of Rescue and Fire-Fighting Services (RFFS) for Helicopters at Unlicensed Onshore Operating Sites

Introduction

1. This Annex details the requirements for the provision of RFFS at onshore unlicensed operating sites used for the purpose of commercial air transport of passengers.

2. Helicopter operators, in considering the level of risk for specific operations, should carefully examine the precise nature of each operational activity. The operator should determine the specific level of risk according to the planned level of activity and the nature of the operation as suggested in sub-paragraphs (a) to (g). The following criteria should be accounted for in the risk analysis for the determination of the appropriate level of RFFS in any safety case such that the risk remains as low as is reasonably practicable. Having determined appropriate response levels, operators are required to include in their Operations Manuals the chosen levels of response appropriate to the various types of operation carried out at unlicensed sites.

    a) The number of planned movements and the frequency of movements.
    b) The total number of helicopters in use at the site during any peak periods (including other operators' participation).
    c) The number of passengers.
    d) The type of helicopter(s) and specific hazards, e.g. construction materials used for airframes.
    e) The nature of the terrain.
    f) Availability of local Fire and Ambulance services.
    g) The establishment of an emergency plan.

3. The guidance given in this Annex is split into H1 Standard, H0 Standard and Initial Emergency Response (IER) levels of extinguishing agent coverage. This is to make use of the levels currently in use and understood by industry. Operators can select alternative levels as appropriate to specific risk assessment and in accordance with safety case principles. Operators should not feel constrained by the quoted levels if they wish to modify them, provided this decision is supported by an appropriate risk assessment. The quoted levels can be regarded as minimal baseline requirements for the various categories.

Definitions

4. The definitions are taken from CAA publication CAP 168, Edition 12 and refer to the maximum fuselage length, the corresponding levels of RFFS should be used for the H1 RFFS Standard (see paragraph 3 below) or H0 RFFS Standard (see paragraph 4 below) as appropriate and these correspond to the standards which meet the CAA's requirements for the levels of RFFS. Operators are encouraged to adopt these H0 or H1 standard levels whenever a safety case cannot be made for employing the lower level described in paragraphs 5 below.

   a) Helicopter Category H0: A helicopter with an overall length up to but not including 8 m.
   b) Helicopter Category H1: A helicopter with an overall length from 8 m up to but not including 12 m.

H1 RFFS Standard

Extinguishing Agent Requirements

Table 8 Quantities of Extinguishing Agent Required for H1 Helicopter Operations

Foam Meeting Performance Level B		**Complementary Agent**				
Water (litres)	Discharge Rate offoam solution (l/min)	Dry Chemical Powder (kg)	or	CO_2 (kg)	or	Other Gaseous Agents (kg)
800	400	45		18		18

NOTES:

I. The discharge rate of complementary agents should be selected for optimum effectiveness of the agent used. Halon extinguishing agents are no longer specified for new installations. Gaseous agents, including CO2, have replaced them.
II. Dry chemical powder must be of the foam compatible type which is capable of dealing with Class B fire (or liquid hydrocarbons). If a high performance dry powder is used, the amount required may be reduced. CAP 168, Ch 8 refers.
III. Where the main complementary agent is a dry chemical powder, an quantity of gaseous agent or CO2 shall be provided for use on small or hidden fires. A minimum extinguisher size is 5kg for major vehicles or 2kg for smaller vehicles.
IV. Where the main complementary agent is gaseous agent or CO2, an additional quantity of dry powder (9 kg) is required to assist in dealing with a running fuel fire.
V. For foam meeting performance level B, it is permitted to substitute up to 50% of the gaseous complementary media requirement specified in the table for water for foam production, assuming the following media substitution rates:
VI. 1 kg of gaseous agent = 0.66 litres of water; or 1 kg of CO2 = 0.33 litres of water.

H0 RFFS Standard

Extinguishing Agent Requirements

Table 9 Quantities of Extinguishing Agent Required for H0 Helicopter Operations

Foam Meeting Performance Level B		**Complementary Agent**				
Water (litres)	Discharge Rate offoam solution (l/min)	Dry Chemical Powder (kg)	or	CO_2 (kg)	or	Other Gaseous Agents (kg)
500	250	23		9		9

NOTES:

I. The discharge rate of complementary agents should be selected for optimum effectiveness of the agent used. Gaseous agents, including CO2, have replaced them.

II. Dry chemical powder must be of the foam compatible type which is capable of dealing with Class B fire (or liquid hydrocarbons). If a high performance dry powder is used, the amount required may be reduced. CAP 168, Ch 8 refers.

III. Where the main complementary agent is a dry chemical powder, an quantity of gaseous agent or CO2 shall be provided for use on small or hidden fires. A minimum extinguisher size is 5kg for major vehicles or 2kg for smaller vehicles.

IV. Where the main complementary agent is gaseous agent or CO2, an additional quantity of dry powder (9 kg) is required to assist in dealing with a running fuel fire.

V. For foam meeting performance level B, it is permitted to substitute up to 50% of the gaseous complementary media requirement specified in the table for water for foam production, assuming the following media substitution rates:

VI. 1 kg of gaseous agent = 0.66 litres of water; or 1 kg of CO2 = 0.33 litres of water.

Initial emergency response (IER) requirements for RFFS category special aerodromes – helicopters

CAP 168, Appendix 8C

Fire fighting agents

5. The table below identifies the quantities of fire fighting agent that are recommended. The agent should be available for immediate discharge from the vehicle/pressure unit.

Minimum usable amounts of extinguishing agents				
Foam meeting performance level B			**Complementary agent**	
Water (litres)	Foam concentrate (litres/min)	Discharge rate of foam solution (litres/min)	Dry powder or gaseous agents (kg)	or CO_2 (kg)
90	6 @ 6% 3 @ 3%	60	18	36
Foam meeting performance level C			**Complementary Agent**	
Water (litres)	Foam concentrate (litres/min)	Discharge rate of foam solution (litres/min)	Dry powder or gaseous agents (kg)	or CO_2 (kg)
60	4 @ 6% 2 @ 3%	40	18	36

NOTES:

I. Dry powders and gaseous agents are normally considered more efficient than CO2 for aircraft rescue and fire fighting operations. When selecting dry powder for use with foam, care must be exercised to ensure compatibility.

II. It is acceptable to replace all or part of the amount of water for foam production by complementary agents. For the purpose of agent substitution the following equivalents should be used: 1 kg of complementary agent = 0.66 L water for production of a foam meeting performance level B.

Rescue Equipment

6. The table of equipment below is the generic minimum requirement for all categories described regardless of the level of extinguishing agent selected.

Table 13 Quantities of Rescue Equipment Required

Heliport RFF Category:	**All**
Adjustable Wrench	1
Axe, rescue, large (non wedging or aircraft type)	1
Cutters, bolt 600 mm	1
Crowbar, 1.05 m	1
Hook, grab or salving	1
Hacksaw, heavy duty and spare blades	1
Blanket, fire resistant (nominally 1.2 m x 1.2 m)	1
Ladder, length appropriate to helicopter in use	1
Life line (50 mm circumference x 15 m length)	1
Pliers, side cutting	1
Set of assorted screwdrivers (as appropriate)	1
Harness knife and sheath (per crew member)	1
Gloves, fire resistant (pairs per crew member)	1
General purpose saw (eclipse type)	1
Ladder, length appropriate to helicopter in use	1
Life line (50 mm circumference x 15 m length)	1
Pliers, side cutting	1

NOTES:

I. The rescue equipment lists are helicopter RFF category dependent and not related to the type of operation.

Medical and First Aid Standards

7. The table of equipment below is the generic minimum requirement for the categories described regardless of the level of extinguishing agent selected.

Table 14 Quantities of Medical and First-Aid Equipment Required

Heliport RFF Category:	H0	H1
Medical Packs	1	2
Foil blankets	6	12
Stretchers	1-2	1-2
Resuscitation Pocket Mask	1*	1*
Disposable latex gloves	1 box	1 box
Large Emergency Wound Dressings	6	6
Extra-Large Emergency Wound Dressings	6	6
Triangular bandages	6	6
Scissors - suitable for cutting clothing	1	1
Eye Dressings	2	2
Sterile Eyewash (bottle 500 ml)	2	2

*The pocket mask is the only device offering protection against the unpleasantness of mouth-to-mouth resuscitation (especially where blood is involved) and all fire and rescue personnel should be trained in its use.

8. The above table should be modified appropriately to cater for the anticipated maximum number of occupants of the largest type of helicopter in use.

Training

9. All personnel shall receive training prior to initial participation and periodically thereafter. Personnel should be trained to perform their duties and assessed as competent in role and task. Refer to Appendix D for detailed guidance on a typical syllabus.

10. Assessment of the competency of the person(s) determining, evaluating and conducting the training shall be the responsibility of the operator. The CAA may ask for details of that assessment.

11. All personnel must receive appropriate regular training in the use of the specific RFF equipment provided. This should include a full operational exercise.

12. All personnel must receive appropriate regular training in first aid to enable them to provide immediate assistance in the event of an accident. In some instances, training may need to be specific and more advanced than basic first aid.

13. Aircraft familiarisation on the aircraft types normally planned to use the site must form an integral part of local training. Methods of door operation, emergency exit and seat harness release are important aspects of such training. Records, on a personal basis, of all practical and technical instruction are to be maintained and retained for a minimum of two years.

Personnel Levels

14. Not less than two trained persons for Category H0, and three for Category H1, shall be available for RFF duties. Regard must be given to the arduous nature of RFF activities. Helicopter operators are advised to determine an appropriate medical standard to be met by personnel employed as heliport fire-fighters and should ensure that appointed medical practitioners are adequately qualified to conduct such medical examinations and are conversant with medical standards to be applied.

15. The actual number of trained personnel may need to be increased following a risk assessment of the requirement for the specific operation.

16. At surface level sites the minimum number of trained personnel as quoted in paragraph 9.1 above must be supplemented by at least one person with the responsibility for passenger/crowd control in normal operational and emergency situations. This person will also be responsible for alerting, and liaison with, local emergency services.

Response Time and Response Area

17. Response time is considered as the time between the receipt of the initial call to the RFFS and the first effective intervention at the accident by the RFF personnel.

18. At surface level heliports the operational objective of the RFFS should be to achieve a response time not exceeding two minutes in optimum conditions of visibility and surface conditions. This response must be achievable by personnel appropriately dressed (see paragraph 14 below).

19. The response area is considered as all areas used for the manoeuvring, landing, take- off, rejected take-off, taxiing, air taxiing and parking of helicopters.

Vehicle

20. Unless special circumstances dictate (see paragraphs 13.2 and 16.2 below), a fit for purpose vehicle shall be provided and be readily available for immediate use to carry personnel and RFF equipment to the scene of an incident. Non self-propelled appliances (trailers) are permissible but they must be connected to a suitable towing vehicle whilst aircraft movements are taking place. A vehicle carrying bulk flammable material is not suitable for either purpose.

21. Where soft or other difficult terrain is immediately adjacent or comprises part of the response area a suitable all-wheel drive vehicle will be required in order to ensure an effective response. In other situations the vehicle must be suitable for the terrain at the specific site. At confined area heliports alternatives to the provision of a vehicle may be required. These may be on the lines of fixed systems such as those used for elevated heliports.

22. For night operations sufficient lighting equipment for adequate illumination of an incident must be provided. This equipment may be carried on the vehicle or by any other suitable means.

23. The capability of the available vehicle must be taken into account when surveying any site. If the vehicle in use cannot meet the requirements contained here and in paragraph 12 the site is unacceptable.

24. Where a considerable proportion of helicopter movements take place over water areas the provision of a rescue craft should be considered. The objective should be to recover the maximum anticipated number of occupants of the largest helicopter in use in the most expeditious manner.

Personal Protective Equipment

25. All RFF personnel must be provided with PPE, i.e. helmet (complete with full-face visor), fire-resistant tunic, trousers, gloves and boots or stout shoes. The PPE must be suitable for the hazards likely to be encountered. Guidance on the selection of appropriate PPE is available from the Health and Safety Executive.

26. Respiratory Protective Equipment (RPE) must be provided on a scale commensurate with the nature of the hazard. For example the provision of appropriate RPE should be considered where helicopters are partially or substantially constructed of composite material (MMMF). Guidance on the selection of appropriate equipment is available from the Health and Safety Executive.

Records

27. Records of personnel competency and training in rescue, fire-fighting and first aid as well as for equipment and vehicle checks and maintenance logs shall be made and preserved for two years.

28. The person in charge at the site should have available, on site, documentation of the records of training and the maintenance status of all equipment in use at the site to indicate the appropriateness of the RFF cover.

General

29. For a helicopter take-off and landing area located on an aerodrome licensed for use by fixed wing aircraft, the RFFS at the aerodrome will be acceptable for helicopter operations provided that the amounts are at least equal to those required for H0 or H1 operations, as appropriate and as shown in paragraphs 3 and 4 above, and that the response time in paragraph 12.2 can be achieved.

30. In certain circumstances alternative fire-fighting equipment, such as fixed monitors, may be appropriate.

31. Further general information is available from the CAA Aerodrome Standards Department (Fire Policy section).

APPENDIX D

Fire-Fighting and Rescue Syllabus for Heliport RFF Personnel

A typical syllabus would comprise:

- chemistry of combustion;
- extinguishing agents - methods of application and use;
- first aid fire extinguishers;
- fire hose;
- fire appliances and equipment - selection, storage, handling, use, inspection and test, maintenance, record keeping;
- personal protective equipment;
- helicopter construction;
- helicopter familiarisation;
- response area topography;
- tactics and techniques - appliance positioning, external/internal fires, access, forcible entry, assistance with evacuation;
- first aid;
- casualty handling;
- emergency planning; and
- theoretical and practical, written and oral assessment.

NOTES:

I. Instructors will need to vary the syllabus to suit local requirements and specific equipment provided.

II. The end result must be an organised trained unit to provide the necessary cover, with emphasis on practical use of equipment available at the particular aerodrome. The training sessions must include actual fuel fire situations.

III. It is recommended that the above programme is modified for recurrent training. The first bullet point can be omitted and personnel should participate as a team comprising the individual members forming the crew.