

# Guide to Visual Flight Rules in the UK

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The information relates, in general to Lower Airspace. No detailed information is included in respect of Upper Airspace. Pilots intending to carry out VFR flights at or above FL 245 should consult the UK AIP.

Pilots of VFR flights within UK Airspace below FL 245 are invited to consult the guidance material so provided on the understanding that it does not represent a substitute for the more comprehensive information contained in the UK AIP. In the event of conflict between information in this guide and the UK AIP, information in the AIP is the authoritative source.

Certain sections of the airspace rules and regulations outlined in this Guide either do not apply to gliders or are applied differently. The main differences are outlined in paragraph 7. Glider pilots intending to operate in UK airspace should consult the UK Air Navigation Order, the UK Rules of the Air Regulations and/or UK AIP to ascertain how the rules and regulations apply to their flight.

VFR Flight is not permitted in any UK airspace at night. Night is defined as the time from half an hour after sunset until half an hour before sunrise, sunset and sunrise being determined at surface level.

VFR flight is permitted in Visual Meteorological Conditions (VMC) by day within UK Airspace except that which is notified as Class 'A' Airspace.

The VMC minima are determined by class of airspace, altitude and airspeed; however, the pilot licence privileges notified at Schedule 8 of the UK Air Navigation Order (ANO) may impose more stringent requirements on PPL/NPPL/BCPL holders.

Separation standards are not applied by ATC to or between VFR flights and separation from other aircraft remains the responsibility of the pilot in command of a VFR flight.

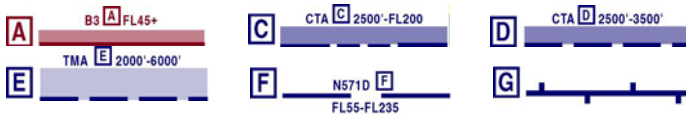
Any changes affecting the contents of the guide will be amended on the appropriate AIRAC date.

Users of the guide are invited to comment on the guidance material provided and to submit suggestions for possible future enhancement to:

Manager Aeronautical Charts & Data  
Directorate of Airspace Policy  
CAA House  
45-59 Kingsway  
London  
WC2B 6TE.

[vfrcharts@dap.caa.co.uk](mailto:vfrcharts@dap.caa.co.uk)

## Airspace Classification



The airspace over the UK and surrounding waters from the surface to FL 245 is divided into two Flight Information Regions (FIR); the London FIR and the Scottish FIR. The airspace above the FIR is known as the Upper Flight Information Region (UIR). The airspace within the FIR/UIR is divided into different types using the ICAO Airspace Classification System.

The ICAO Airspace Classification System consists of seven classes of airspace, each specifying minimum Air Traffic Service requirements and the services provided. Classes A to E are Controlled Airspace, Classes F and G are Uncontrolled Airspace. The UK has adopted the ICAO System but for the present only six classes have been implemented. In relation to Classes F and G Airspace the UK has registered Differences from the ICAO Standard so as to allow greater flexibility to VFR flights at and below 3000 ft amsl and to allow IFR flight in uncontrolled airspace without the requirement to carry a radio.

In the UK Class B Controlled Airspace is currently only designated above FL 245 - however, provision is made in legislation for future development of this Class of airspace.

Aerodrome Traffic Zones (see paragraph 3.4) adopt the classification of the airspace in which they are situated but additional Rules apply to flight within them.

## Visual Flight Rules

The Visual Flight Rules (Rules 24 to 27 of the UK Rules of the Air Regulations refer) require an aircraft to be flown in accordance with the VMC minima appropriate to the classification of the airspace. Additionally, when flying in controlled airspace (except Class E) unless otherwise authorised by the ATC Unit, the commander of the aircraft must file a flight plan (see paragraph 9), obtain an ATC clearance, maintain a listening watch on the appropriate frequency and comply with any instructions given by the ATC Unit.

VFR flight is not permitted in Class A Controlled Airspace.

### Requirements for VFR flights

#### Weather minima for VFR flight within Controlled Airspace (Class B Airspace)

- (a) At and above FL 100  
8 km flight visibility  
Clear of cloud
- (b) Below FL 100  
5 km flight visibility  
Clear of cloud

#### 3.3.2 Weather minima for VFR flight within Controlled Airspace (Classes C to E Airspace)

- (a) At and above FL 100  
8 km flight visibility#  
1500m horizontally from cloud\*  
1000 ft vertically from cloud\*.
- (b) Below FL 100  
5 km flight visibility#  
1500m horizontally from cloud\*  
1000 ft vertically from cloud\*.
- (c) At or below 3000 ft  
As in (b) above or (except Class B Airspace):  
  
for Fixed wing aircraft operating at 140 kt or less  
5 km flight visibility#  
Clear of cloud and in sight of the surface.  
  
for Helicopters:  
Clear of cloud and in sight of the surface.

# For the purpose of taking off or landing within a Control Zone, the actual meteorological visibility reported by ATC shall be taken as the flight visibility. (Rule 24(3) of the UK Air Navigation Order refers).

#### 3.3.3 Weather minima for VFR flight outside Controlled Airspace (Classes F and G Airspace)

- (a) At and above FL 100  
8km flight visibility  
1500 m horizontally from cloud

1000 ft vertically from cloud.

- (b) Below FL 100  
5km flight visibility  
1500 m horizontally from cloud  
1000 ft vertically from cloud.

- (c) At or below 3000 ft

As in (b) above or:

for Fixed wing aircraft  
5 km flight visibility  
Clear of cloud and in sight of the surface.

for Fixed wing aircraft operating at 140kt or less  
1500 m flight visibility  
Clear of cloud and in sight of the surface.

for Helicopters operating at a speed which, having regard to the visibility, is reasonable  
Clear of cloud and in sight of the surface.

#### 3.3.3.1 Limitation of Speed

3.3.3.2 Below FL100, an airspace speed limit of 250 kt applies. In addition, this limit may be lower when published in procedures or when required by ATC.

#### 3.3.4 Flight Plan Requirements

3.3.4.1 A Flight Plan is required for flights in all Controlled Airspace except Class E. In certain circumstances the Flight Plan requirement may be satisfied by passing flight details on RTF (refer to paragraph 9). A Flight Plan comprises sufficient information to enable an ATC Unit to issue a clearance and for search and rescue purposes (Rule 27 of UK Air Navigation Order refers).

#### 3.3.5 ATC Clearance and ATC Instructions

3.3.5.1 ATC Clearance is required for flight in all Controlled Airspace except Class E, and compliance with ATC instructions is mandatory.

3.3.5.2 In Class E Controlled Airspace pilots of VFR flights are strongly recommended to make their presence known to the appropriate ATC Unit and comply with ATC instructions.

3.3.5.3 Outside Controlled Airspace an aircraft receiving a service from an ATC Unit is expected to comply with ATC instructions unless the pilot advises otherwise.

#### 3.3.6 ATC Responsibility for VFR Flights

##### 3.3.6.1 Inside Controlled Airspace:

Class B: Separation provided between all flights.

Class C: Separation provided between IFR and VFR flights;  
Traffic Information and instructions in respect of other VFR flights to enable pilots to effect avoidance and integration.

Class D: Traffic Information and instructions to enable pilots to effect avoidance and integration.

Class E: As for Class D as far as is practicable for known flights.

##### 3.3.6.2 Outside Controlled Airspace (Airspace Classes F and G):

Traffic information as far as is practicable on other known flights;

Radar Advisory Service/Radar Information Service (see paragraph 6.6) may be available from suitably equipped ATC Units.

**See the next page for UK ATS Airspace Classifications Diagram**

# UK ATS AIRSPACE CLASSIFICATIONS

## CONTROLLED AIRSPACE

	A	B	C	D	E	F	G
I F R	<p>SEPARATION: All aircraft</p> <p>SERVICES: Air traffic control service</p> <p>SPEED LIMITATION: <i>Not applicable</i> (Unless notified for ATC Purposes)</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: All aircraft</p> <p>SERVICES: Air traffic control service</p> <p>SPEED LIMITATION: <i>Not applicable</i> (Unless notified for ATC Purposes)</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: IFR from IFR IFR from VFR</p> <p>SERVICES: Air traffic control service</p> <p>SPEED LIMITATION: <i>Not applicable</i> (Unless notified for ATC Purposes)</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: IFR from IFR</p> <p>SERVICES: Air traffic control service including traffic information about VFR flights (and traffic avoidance advice on request)</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: IFR from IFR</p> <p>SERVICES: Air traffic control service and traffic information about VFR flights as far as practical</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: IFR from IFR (participating IFR traffic)</p> <p>SERVICES: (See Note) Air traffic advisory service Flight information service</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: Not required</p> <p>ATC CLEARANCE: Not required</p>	<p>SEPARATION: (See Note) Not provided</p> <p>SERVICES: (See Note) Flight information service</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: Not required</p> <p>ATC CLEARANCE: Not required</p>
	V F R	<p></p> <p>VFR FLIGHT NOT PERMITTED</p>	<p>SEPARATION: All aircraft</p> <p>SERVICES: Air traffic control service</p> <p>VMC MINIMA</p> <p>SPEED LIMITATION: <i>Not applicable</i></p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: VFR from IFR</p> <p>SERVICES: Air traffic control service providing: i) Separation from IFR ii) VFR traffic information (and traffic avoidance advice on request)</p> <p>VMC MINIMA</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: Not provided</p> <p>SERVICES: Air traffic control service providing: traffic information on all other flights</p> <p>VMC MINIMA</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: </p> <p>ATC CLEARANCE: Required</p>	<p>SEPARATION: Not provided</p> <p>SERVICES: Air traffic control service providing: traffic information as far as practical</p> <p>VMC MINIMA</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: Not required</p> <p>ATC CLEARANCE: Not required</p>	<p>SEPARATION: (See Note) Not provided</p> <p>SERVICES: (See Note) Flight information service</p> <p>VMC MINIMA</p> <p>SPEED LIMITATION: 250kt IAS below FL100</p> <p>RADIO: Not required</p> <p>ATC CLEARANCE: Not required</p>

† Helicopters may fly at or below 3000ft AMSL clear of cloud and in sight of the surface.

Not applicable to Military aircraft

\*At speeds of 140kt IAS or less flight is permitted in flight visibilities to 1500m. Helicopters may operate in less than 1500m flight visibility at a speed which, having regard to the visibility, is reasonable.

**NOTE:** In Class F and Class G airspace a Radar Advisory Service (RAS), a Radar Information Service (RIS) and Approach Control Service may be available from Air Traffic Service Units. Pilots are urged to make use of these services, details of which are published in AICs and other documents.



## 3.4 Aerodrome Traffic Zones (ATZ)

3.4.1 An ATZ is established around each aerodrome notified for the purposes of Rule 39 of the UK Rules of the Air Regulations during the times notified (see paragraph 6.2.1). Pilots wishing to enter an ATZ must comply with the published requirements for that particular aerodrome and in the case of an aerodrome with an Air Traffic Control Unit, with any instructions issued by that unit. ATZs are not included in the Airspace Classification System. An ATZ conforms to the Class of Airspace in which it is situated thus, for example, in Class G Airspace Rule 39 will apply but in Class D Airspace the requirements of Class D will apply in addition (UK AIP section ENR 1.4 refers).

3.4.2 An ATZ is defined in relation to an aerodrome where:

- (a) The length of the longest runway is notified as 1850 metres or less, the airspace extending from the surface to a height of 2000 ft above the level of the aerodrome within the area bounded by a circle centred on the notified mid-point of the longest runway and having a radius of 2 nm. Where such an ATZ would extend less than 1.5 nm beyond the end of any usable runway at the aerodrome the radius of the circle may be extended to 2.5 nm;
- (b) the length of the runway is notified as greater than 1850 metres, the airspace extending from the surface to a height of 2000 ft above the level of the aerodrome within the area bounded by a circle centred on the notified mid-point of the longest runway and having a radius of 2.5 nm.

3.4.3 An ATZ at a civil aerodrome does not exist outside the notified hours of operation of the A/G, AFISO or ATC Unit. At a Government aerodrome, an ATZ will remain active during such times as are notified, regardless of the operational status of its ATS unit (UK AIP section ENR 2.2 and, where appropriate, certain section AD 2 items 2.17 refer). However, pilots are reminded that flying may take place outside of the published aerodrome operating hours and should therefore exercise caution when flying in the vicinity.

Reference to specific ATZ's can be found in the ENR section (2-2-2-1/5) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)



## 3.5 Airspace subject to Flight Restrictions or Hazards

### 3.5.1 Prohibited Area

3.5.1.1 A Prohibited Area is an airspace of defined dimensions within which the flight of aircraft is prohibited.

Reference to specific Prohibited Areas can be found in the ENR section (5-1-1-1/2) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.2 Restricted Area

3.5.2.1 A Restricted Area is an airspace of defined dimensions within which the flight of aircraft is restricted in accordance with certain specified conditions.

Reference to specific Restricted Areas can be found in the ENR section (5-1-2-1/8) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.3 Danger Area

3.5.3.1 A Danger Area is an airspace which has been notified as such within which activities dangerous to the flight of aircraft may take place or exist at such times as may be notified.

3.5.3.2 Unauthorised entry into many Danger Areas is prohibited within the period of activity of the Danger Area by reason of Bylaws made under the Military Lands Act 1892 and associated legislation. Danger Areas where Bylaws prohibit entry are annotated in the remarks column within UK AIP section ENR 5.1 and are highlighted with an asterisk on the UK CAA Aeronautical Charts.

3.5.3.3 A Danger Area Crossing Service (DACS) or a Danger Area Activity Information Service (DAAIS) is available for certain Danger Areas. DACS and DAAIS availability is detailed within UK AIP section ENR 5.1 and on the legend to UK AIP chart ENR 6-5-1-1 (United Kingdom Airspace Restrictions and Hazardous Areas). Details of DACS and DAAIS contact frequencies are also printed on UK CAA Aeronautical Charts.

Reference to specific Danger Areas can be found in the ENR section (5-1-3-1/22) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.4 Royal Flights

3.5.4.1 A Royal Flight over the United Kingdom is a flight of a civil or military aircraft carrying certain members of the Royal Family. Flights within the United Kingdom by other reigning Sovereigns, Prime Ministers and Heads of State of Commonwealth and foreign countries may also be afforded Royal Flight status.

3.5.4.2 Royal Flights in fixed-wing aircraft are, whenever possible, to take place within the national ATS route structure. Standard ATC procedures shall be applied to Royal Flights when operating in Class A/B airspace, with the exception that controllers may not authorise an aircraft to climb or descend in VMC in the vicinity of the Royal Flight aircraft. In all other instances, the airspace around the route will be designated CAS-T.

3.5.4.3 CAS-T of appropriate height/width bands and levels, will be established to encompass any portion of the track and flight level of the Royal aircraft which lies outside of permanent Class A/B airspace. Control Zones and Control Areas will be established around all airfields used for the departure or arrival of a Royal Flight.

3.5.4.4 Regardless of the prevailing meteorological conditions, aircraft may only fly within CAS-T when ATC clearance has been obtained from the controlling authorities specified in the following sub-paras:

(a) Temporary Control Zones. Temporary Control Zones will be established around airfields of departure and destination where no permanent control zone exist. Control Zones for Royal Flights will normally extend for 10 nm radius from the centre of the airfield from ground level to a flight level designated for each Royal Flight. The Control Zone will be established for a period (for outbound flights) of 15 minutes before, until 30 minutes after, the ETD of the Royal aircraft or (for inbound flights) for a period of 15 minutes before, until 30 minutes after, the ETA of the Royal aircraft at the airfield concerned, based on planned times. Overall control of these Control Zones is to be exercised, as appropriate, by the Commanding Officer of a military airfield or the ATS authority of a civil airfield.

(b) Temporary Control Areas. Temporary Control Areas will be established to meet the specific requirements of a Royal Flight. The lateral and vertical limits, the duration and the controlling authority of such areas will be promulgated via NOTAM. The controlling authority will be the appropriate civil ATCC.

(c) Permanent Control Zones and Areas. The controlling authority will be the designated controlling authority for the Permanent Zone or Area and the duration will be as laid down in sub paras 3.5.4.4 (a) and (b). Where an airfield has its own Control Zone, then the requirement to establish a Temporary Control Zone of the dimensions specified in para 3.5.4.4 (a) may be waived.

(d) Temporary Controlled Airways. Temporary Controlled Airways will be established to join temporary or permanent Control Zones or Control Areas, as appropriate, for 15 minutes before ETD at the departure airfield until 30 minutes after ETA at the destination. The lateral dimensions of such airways will be 5 nm each side of the intended track of the Royal Flight and vertical limits will be designated. The controlling authority will be the appropriate civil ATCC.

3.5.4.5 A Temporary Control Zone or Area may be cancelled at the discretion of the Military Commander or Civil ATC Supervisor, as appropriate, when the Royal aircraft has left the zone or area and is established en-route in a Temporary Controlled Airway, permanent Class A/B airspace, or has landed.

3.5.4.6 Training Flights, including parachute training flights, by any member of The Royal Family planned and carried out under VFR or IFR, and under the control of an ATCRU or aerodrome radar, will normally be classified as Royal Flights. CAS-T, if required, will be established as agreed by the aircraft operating organisation and the Directorate Airspace Policy, Airspace Utilisation Section.

3.5.4.7 Procedures Applicable to Royal Flight CAS-T

3.5.4.7.1 CAS-T will normally be notified as Class A airspace for the purpose of the Rules of the Air Regulations 1996.

3.5.4.7.2 CAS-T not already notified under Rule 21 of the Rules of the Air Regulations 1996, is hereby notified for the purpose of Rule 21 and IFR applies at all times.

3.5.4.7.3 CAS-T established outside of existing Class A/B airspace, is hereby notified respectively as either Control Zones or Control Areas (as appropriate) as defined in Article 129(1) of the Air Navigation Order 2000.

3.5.4.7.4 Clearances to climb or descend maintaining VMC will not be given to aircraft in CAS-T.

3.5.4.7.5 Gliders shall not fly in CAS-T.

3.5.4.8 Promulgation of Royal Flight Information

3.5.4.8.1 Dissemination of information concerning a Royal Flight is made via a Notification Message on a Royal Flight Collective, giving full flight details. Information on the establishment of CAS-T, including vertical limits, is promulgated by NOTAM, details of which can also be accessed via the AIS Web site (<http://www.ais.org.uk>) or freephone 0500 354802.

### 3.5.5 Areas of Intense Air Activity (AIAA)

3.5.5.1 An AIAA is an airspace within which the intensity of civil and/or military flying is exceptionally high or where aircraft, either singly or in combination with others, regularly participate in unusual manoeuvres.

3.5.5.2 Pilots of non-participating aircraft who are unable to avoid AIAA should keep a good look-out and are strongly advised to make use of a radar service; the areas are depicted on UK AIP chart ENR 6-5-1-2 and, together with their appropriate Radar unit contact frequencies, on UK CAA Aeronautical Charts.

Reference to specific AIAA's can be found in the ENR section (5-2-2/4) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.6 Aerial Tactics Areas (ATA)

3.5.6.1 An ATA is an airspace of defined dimensions designated for air combat training within which high energy manoeuvres are regularly practised by formations of aircraft. Pilots of aircraft unable to avoid these areas should comply with paragraph 3.5.5.2.

Reference to specific ATA's can be found in the ENR section (5-2-4/5) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.7 High Intensity Radio Transmission Areas (HIRTA)

- 3.5.7.1 HIRTA are areas of defined dimensions within which there is radio energy of an intensity that may cause interference or damage to communications or navigation equipment and may be injurious to health. Pilots should be aware that these transmissions can give false indications on navigation and systems monitoring equipment; GPS is particularly vulnerable. Details of the major sites are listed at UK AIP section ENR 5.3 and are depicted on UK CAA Aeronautical Charts.

Reference to specific HIRTA's can be found in the ENR section (5-3-2-1/2) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.8 Bird Sanctuaries



- 3.5.8.1 A number of areas in the United Kingdom have been designated sanctuaries to provide an undisturbed environment for birds to breed and roost.

Similarly, offshore islands, headlands, cliffs, inland waters and shallow estuaries attract flocks of birds for breeding, roosting and feeding at various times of the year. In order to lessen the risk of bird strikes pilots should avoid overflight of such locations below a height of 1500 ft. Where it is necessary to fly lower pilots should bear in mind that the risk of a bird strike increases with speed and that birds rarely hit an object moving slower than 80 kt.

- 3.5.8.2 Apart from endangering aircraft by flying close to bird colonies, the breeding of the birds may be upset and the practice should be avoided on conservation grounds. It should also be appreciated that, especially in the case of sea bird colonies, concentrations of birds may be soaring on lee waves downwind of the area where they breed.

Reference to bird Sanctuaries can be found in the ENR section (5-6-1/2 & 6-5-6-1/2) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.9 Free Fall Parachute Drop Zones



- 3.5.9.1 Regular free-fall parachuting from up to FL 150 takes place at a number of sites (marked on UK CAA Aeronautical Charts and listed at UK AIP section ENR 5.5) and within several Danger Areas. The sites include a number of licensed and government aerodromes but parachuting may also take place at any licensed or government aerodrome. Night parachuting may also take place and this activity will be promulgated by NOTAM.

3.5.9.2 Once parachutists have exited the drop aircraft their ability to manoeuvre is severely restricted. Visual sighting of free-falling bodies is virtually impossible and the presence of an aircraft within the drop Zone may be similarly difficult to detect from the parachutists' point of view. Pilots are strongly advised to avoid flight through airspace where parachuting activities are notified as taking place. Pilots are also advised to assume the Drop Zone is active if no information can be obtained from the NATSU.

Reference to specific FFDZ's can be found in the ENR section (5-5-3-1/4) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

### 3.5.10 Other Activities and Hazards

- 3.5.10.1 Within UK FIR there are numerous obstacles and various sites at which glider and hang-glider winch launching, parascending, and microlight flying takes place, many of which affect the airspace above 1000 ft agl. Most of these are shown on UK CAA Aeronautical Charts. Reference can also be found in the ENR section (5-4 & 5-5) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

## **Types of Air Traffic Services at Aerodromes**

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### 4.1 Air Traffic Control (ATC)

4.1.1 The person providing the service is licensed and may issue instructions and/or information to aircraft in the air or on the ground to establish separation between IFR flights or to deconflict VFR flights from IFR flights or other VFR flights.

4.1.2 Allocated RTF Callsigns: 'TOWER', 'APPROACH', 'GROUND', 'RADAR', 'CONTROL', 'DIRECTOR'.

### 4.2 Flight Information Service (AFIS)

4.2.1 The person providing the service is licensed and may only provide users with information. An Exemption is currently in force which allows a FISO at an aerodrome to pass instructions to aircraft on the ground only.

4.2.2 Allocated RTF Callsign: 'INFORMATION'.

### 4.3 Air-Ground (A/G)

4.3.1 The person providing the service is not licensed and may only give information to aircraft. No instructions of any kind may be issued.

4.3.2 Allocated RTF Callsign: 'RADIO'.

### 5.1 Radio Equipment

5.1.1 Except when flying for the purpose of public transport (Schedule 5 of the UK Air Navigation Order refers) there is no mandatory requirement for the carriage of radio equipment outside Controlled Airspace.

### 5.2 Transponders

5.2.1 Carriage of serviceable SSR transponders (with both Mode A and Mode C) is mandatory for VFR flights in the following circumstances:

- (a) The whole of the UK airspace at and above FL 100;
- (b) the Scottish TMA between 6000 ft amsl and FL 100.
- (c) Sumburgh CTR/CTA (Note: Requirement expected to continue until January 2005)

Note also the requirement for flight under SVFR within the Channel Islands CTR at paragraph 6.3.7.

#### Exceptions

The requirement will not apply to:

- (a) Gliders;
- (b) aircraft below FL 100 in Controlled Airspace receiving an approved crossing service.

### 5.2.2 Exemptions

5.2.2.1 Exemptions from the requirement will not normally be granted. However, if it is considered that exceptional circumstances exist an application must be made to the Airspace Utilisation Section (AUS), Directorate of Airspace Policy, K1, CAA House, 45 – 59 Kingsway, London WC2B 6TE (Tel: 020-7453 6599, Fax 020-7453 6593). Applications should state details of their inability to meet the requirement including aircraft type, registration and where applicable, the forecast date by which installation of equipment will be complete.

5.2.2.2 In specific cases where short notice exemption from the carriage and operation of SSR Transponder equipment is required by an operator, entry may be permitted on an individual flight basis provided that the approval of the ATC Unit responsible for the airspace has been obtained and that the pilot complies with the appropriate Rules of the Air and ATC which apply to the airspace concerned. Operators should note that this does not apply in respect of the London TMA where for safety and practical purposes short notice exemptions cannot be accommodated and the procedure detailed here must be followed. The controlling ATC Unit is to be contacted prior to departure or, in exceptional circumstances, on the appropriate ATC frequency prior to entry to the specified airspace. Entry under an exemption is not guaranteed in normal circumstances and will only be permitted at the discretion of ATC where it does not impinge on the safe operation within the airspace involved. Short notice exemptions will only be granted on a case by case basis and will not be given to operators who require regular access to airspace to which mandatory carriage and operation of SSR regulations apply. Such applications should be submitted to AUS in accordance with the above paragraph. Cases in respect of transponder failure are to be dealt with in accordance with the SSR Operating Procedures as promulgated in ENR 1.6.2, paragraph 3. An aircraft in an emergency situation will be afforded the appropriate level of priority which shall include implicit exemptions from the appropriate legislation for the purpose of saving life.

### 5.2.2.3 Channel Islands Control Zone

5.2.2.4 Requirements for the Channel Islands Control Zone are given at EGJJ AD 2.22, paragraph 1.

5.2.3 Some codes are reserved internationally for special purposes and should be selected as follows:

- (a) Code 7700. To indicate an emergency condition, except that if the aircraft is already transmitting a code and receiving an air traffic service that code will normally be retained;
- (b) Code 7600. To indicate a radio failure;
- (c) Code 7500. To indicate unlawful interference with the planned operation of a flight, unless circumstances warrant the use of Code 7700;
- (d) Code 2000. When entering United Kingdom airspace from an adjacent region where the operation of transponders has not been required;

### 5.2.4 Conspicuity Code

5.2.4.1 When operating at and above FL 100 pilots shall select Code 7000 and Mode C except:

- (a) When receiving a service from an ATS Unit or Air Defence Unit which requires a different setting;
- (b) When circumstances require the use of one of the Special Purpose Codes.

5.2.4.2 When operating below FL 100 pilots are recommended to select Code 7000 and Mode C except as stated at paragraph 5.2.3.1 (a) and (b).

5.2.4.3 Pilots are warned of the need for caution when selecting Code 7000 due to the proximity of the Special Purpose Codes.

5.2.5 Unless a discrete code has already been assigned, pilots of transponder equipped aircraft engaged in parachute dropping should select Code 0033, together with Mode C, five minutes before the drop commences until the parachutists are estimated to be on the ground.

## 6.1 General Rules for VFR Flights

### 6.1.1 Position Reporting

6.1.1.1 Pilots in command of VFR flights should make a position report in the following circumstances:

- (a) After transfer of communication;
- (b) On reaching the limit of ATS clearance;
- (c) When instructed by Air Traffic Control;
- (d) When operating flights across the English Channel (i.e when crossing the coast, both outbound and inbound, and when crossing the FIR boundary).

### 6.1.2 Arriving Aircraft

6.1.2.1 An aircraft approaching an aerodrome under VFR where an Approach Control Service is available should make initial RTF contact when 15 nm or five minutes flying time from the ATZ boundary, whichever is the greater. As well as landing information, ATC will pass information on pertinent known traffic to assist pilots of VFR flights to maintain separation from both IFR and other known VFR flights.

6.1.2.2 If radar sequencing of IFR flights is in progress, ATC will provide VFR flights with information to enable them to fit into the landing sequence.

Approach Control will instruct pilots when to change to Aerodrome Control.

6.1.2.4 When approaching an aerodrome without an Approach Control service but having an ATZ pilots must comply with the requirements of Rule 39 of the UK Rules of the Air Regulations described in paragraph 6.2. At an aerodrome without an ATZ pilots must comply with Rule 17(5) of the UK Rules of the Air Regulations (see paragraph 6.2.4.2).

### 6.1.3 Visual Circuit Reporting Procedures

6.1.3.1 In order that maximum use may be made of aerodromes for the purpose of landing and taking off, it is essential that pilots accurately report their position in the circuit (note paragraph 6.2.4.3).

Position reports are to be made as follows:

- (a) Downwind - aircraft are to report 'Downwind' when abeam the upwind end of the runway.
- (b) Base Leg - Aircraft are to report 'Base Leg', if requested by ATC, immediately on completion of the turn onto base leg.
- (c) Final - Aircraft are to report 'Final' after the completion of the turn onto final approach and when at a range of not more than 4 nm from the approach end of the runway.
- (d) Long Final - Aircraft flying a final approach of a greater length than 4 nm are to report 'Long Final' when beyond that range and 'Final' when a range of 4 nm is reached. Aircraft flying a straight-in approach are to report 'Long Final' at 8 nm from the approach end of the runway and 'Final' when a range of 4 nm is reached.

Note: At grass aerodromes, the area to be used for landing should be regarded as the runway for the purposes of reporting.

### 6.1.4 'Permit to Fly' Aircraft

6.1.4.1 Aircraft operating on a 'Permit to Fly' (eg 'home-built' aircraft not subject to a regular 'Certificate of Airworthiness') shall not be flown over any assembly of persons or over any congested area of a city, town or settlement

## 6.2 Flight within Aerodrome Traffic Zones

6.2.1 Paragraphs 6.2.2 and 6.2.3 apply to aerodromes described in column 1 of the following table and notified for the purposes of Rule 39 of the UK Rules of the Air Regulations and throughout the period specified in column 2.

Column 1	Column 2
A Government Aerodrome	at such times as are notified
An aerodrome having an air traffic control unit or an aerodrome flight information unit.	during the notified hours of watch of the air traffic control unit or the aerodrome flight information unit.
A licensed aerodrome having a means of two way radio communications with aircraft	during the notified hours of watch of the air/ground radio station

6.2.2 An aircraft shall not fly, take-off or land within the Aerodrome Traffic Zone to which this paragraph applies unless the commander of the aircraft has obtained the permission of the air traffic control unit at the aerodrome or, where there is no air traffic control unit, has obtained from the aerodrome flight information service unit at that aerodrome, information to enable the flight within the zone to be conducted with safety or, where there is no air traffic control unit nor aerodrome flight information service unit, has obtained information from the air/ground radio station at that aerodrome to enable the flight to be conducted with safety.

6.2.3 The commander of an aircraft flying within the Aerodrome Traffic Zone of an aerodrome to which this paragraph applies shall:

(a) Maintain a continuous watch on the appropriate radio frequency notified for communications at the aerodrome or, if this is not possible, cause a watch to be kept for such instructions as may be issued by visual means.

(b) where the aircraft is RTF equipped, communicate its position and height to the air traffic control unit, the aerodrome flight information service unit or the air/ground radio station at the aerodrome (as the case may be), on entering the zone and immediately prior to leaving it.

#### 6.2.4 Flight in the Vicinity of an Aerodrome

6.2.4.1 The purpose of these paragraphs is to give guidance to pilots and operators at aerodromes located outside Controlled Airspace and is concerned primarily with the application of Rule 17 and Rule 39 of the UK Rules of the Air Regulations.

6.2.4.2 The specific requirements for flight within an ATZ have already been detailed. Notwithstanding Rule 39, Rule 17 also applies at all aerodromes. Rule 17(5) requires that, unless otherwise authorised by an air traffic control unit at the aerodrome, the commander of a flying machine, glider or airship while flying in the vicinity of an aerodrome, or what he ought reasonably to know to be an aerodrome, shall conform to the traffic pattern formed by other aircraft intending to land at that aerodrome, or keep clear of the airspace in which the traffic pattern is formed. The rule also lays down the convention that circuit patterns will be left-hand unless otherwise indicated.

6.2.4.3 Pilots will be familiar with the theoretical standard aerodrome circuit pattern. However, because of the diverse nature of aircraft types, performance and the application of local requirements it is not possible to define an actual common pattern for use at all aerodromes.

6.2.4.4 Flying activities at aerodromes should, wherever possible, be contained within the hours published in the UK AIP, AIP Supplement or NOTAM. However, at some aerodromes flying takes place outside the normal published hours of operation and pilots should exercise caution when flying in the vicinity of an aerodrome that they believe to be closed.

#### 6.3 Special VFR Flight

6.3.1 A Special VFR flight is a flight made in a Control Zone under circumstances which would normally require the flight to be made under the Instrument Flight Rules (IFR) but is made under special conditions and with the permission of ATC instead of under the full IFR.

6.3.2 The circumstances referred to in paragraph 6.3.1 are:

At any time in a Class A Control Zone;

in IMC or at night in any other Control Zone.

6.3.3 The following conditions are applicable to all Special VFR flights:

The pilot must obtain an ATC clearance and comply with ATC instructions;

the pilot must at all times remain clear of cloud and in sight of the surface;

(iii) the pilot must at all times remain in flight conditions which enable him to determine his flight path and keep clear of obstacles;

6.3.4 The following general conditions are also applicable to Special VFR flights:

(i) It may be necessary for ATC purposes to impose a height limitation or routing instructions on a Special VFR clearance.

(ii) Special VFR clearance will not normally be granted for aircraft with an All Up Weight greater than 5700 kg and that are capable of flight under IFR.

(iii) Special VFR clearance will only be granted when traffic conditions will enable the flight to take place without hindrance to normal IFR flights.

(iv) Weather limitations for Special VFR flights arriving at or departing from certain aerodromes may be detailed in the UK AIP. Without prejudice to such limitations, ATC will not issue a Special VFR clearance to any fixed wing aircraft intending to depart from an aerodrome in a Control Zone when the official meteorological report indicates that the visibility is 1800 m or less and/or the cloud ceiling is less than 600 ft.

(v) A Special VFR clearance does not absolve the pilot from the responsibility of complying with the appropriate ATZ Rules.

(vi) A Special VFR clearance does not absolve the pilot from the relevant Low Flying Rules (Rule 5 of the UK Rules of the Air Regulations refers) other than the '1500 ft' element of Rule 5 where the clearance permits flight below that height. In particular it does not absolve the pilot from the requirement of that Rule when flying over a congested area (and elsewhere for a helicopter) to operate the aircraft at such a height as would enable it to alight without danger to persons and property on the ground in the event of an engine failure.

(vii) In certain Control Zones particular routes and/or the ATZ may be notified which permit the pilot to operate on a Special VFR Clearance in a flight visibility of less than 10 km without the requirement to hold a Instrument or IMC Rating (Schedule 8 of the UK Air Navigation Order refers).

(ix) A full flight plan is not required (unless the pilot requires the destination aerodrome to be advised), but details of the flight must be passed, either by RTF or, at busy aerodromes, through the Flight Briefing Unit, to enable ATC to issue a clearance.

(x) ATC will provide standard separation between all Special VFR flights and between IFR flights and Special VFR flights.

6.3.5 The following loss of communications procedures apply to Special VFR flights:

(i) If the aircraft is suitably equipped, Squawk 7600 with Mode C.

(ii) transmit blind position reports and intentions if it is believed that the aircraft transmitter may be functioning.

- (iii) if the aircraft is not yet within the Control Zone: Do not enter the Control Zone even if clearance has been obtained.
- (iv) if inbound to the aerodrome and within the Control Zone: Continue in accordance with the clearance to the aerodrome and land as soon as possible. Watch for visual signals when in the aerodrome traffic circuit.
- (v) if transiting the Control Zone: Continue flight not above the cleared level specified and leave the Control Zone by the most direct route taking into account the weather conditions, obstacles and known areas of dense traffic.
- (vi) in all cases notify the ATC Unit concerned as soon as practicable.

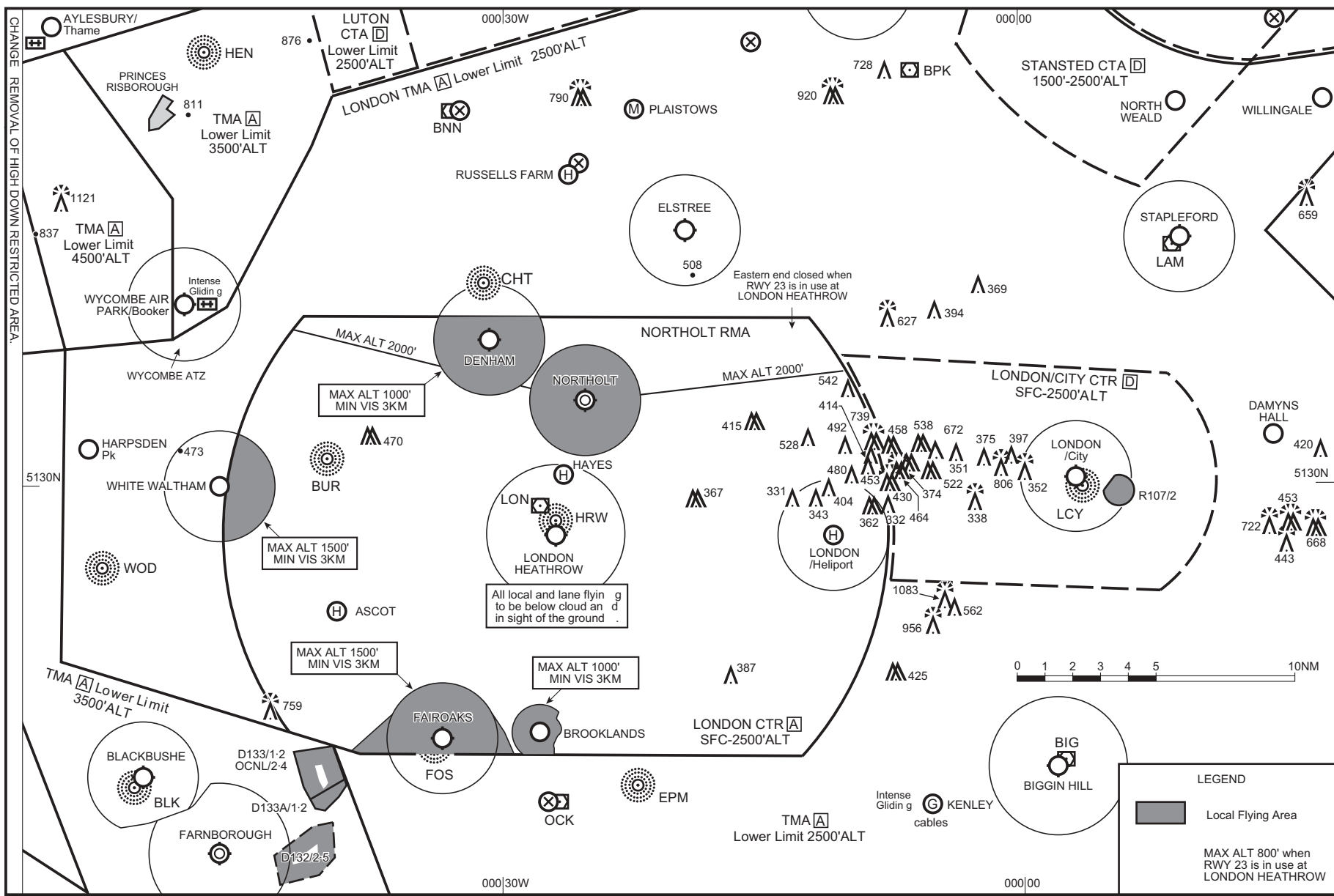
London Control Zone (Class A Airspace): For the smaller aerodromes at Brooklands, Denham, Fair Oaks and White Waltham, local flying areas, access lanes and associated special procedures and conditions are established. (Additional temporary access lanes may be established from time to time for special events). Flights operating in these areas and lanes (permanent areas/lanes are depicted on next page) will be considered as Special VFR flights and adherence to the special procedures will be considered as compliance with ATC clearance. However, separation between aircraft using these areas and procedures cannot be given and pilots are responsible for providing their own separation from other aircraft in the relevant airspace.

**See the next page for London CTR local flying and entry/exit procedures Diagram**

Channel Islands Control Zone (Class A Airspace): The carriage of transponders is mandatory for aircraft operating on Special VFR clearances within the Channel Islands Control Zone.

AERO INFO DATE 28 JUN 04

CHANGE REMOVAL OF HIGH DOWN RESTRICTED AREA



LONDON CTR LOCAL FLYING AND ENTRY/EXIT PROCEDURES

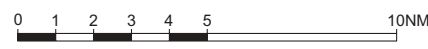
**LEGEND**

Local Flying Area

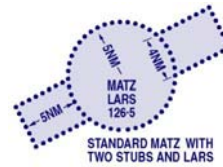
MAX ALT 800' when RWY 23 is in use at LONDON HEATHROW

All local and lane flying to be below cloud and in sight of the ground

Eastern end closed when RWY 23 is in use at LONDON HEATHROW



## 6.4 Military Aerodrome Traffic Zones



6.4.1 Military Aerodrome Traffic Zones (MATZ) are established at the locations listed below and shown on the chart page 8. The purpose of the MATZ is to provide a volume of airspace within which increased protection may be given to aircraft in the critical stages of circuit, approach and climb-out. Normally, these zones comprise:

- (a) The airspace within 5 nm of the mid-point of the longest Runway, from the surface to 3000 ft above aerodrome level;
- (b) the airspace within a 'stub' (or at some aerodromes 2 stubs) projected from the above airspace having a length of 5 nm along its centre-line, aligned with a selected final approach path, and a width of 4 nm (2nm either side of the centre-line), from 1000 ft above aerodrome level to 3000 ft above aerodrome level.

6.4.2 An Aerodrome Traffic Zones (ATZ) exists within most MATZ and is based upon the same reference points as listed in the table below. Although the recognition of a MATZ by civil pilots is not mandatory, they are encouraged to do so. Civil pilots, however, must comply with the provisions of the current UK Rules of the Air Regulations in respect of the ATZ. The notified hours of operation of an ATZ may vary from the notified hours of watch of a MATZ.

### 6.4.3 Procedures for Penetration of a MATZ by Civil Aircraft

6.4.3.1 A MATZ Penetration Service for the provision of increased protection of VHF RTF equipped civil aircraft is available from the controlling aerodromes listed on previous page. Pilots wishing to penetrate a MATZ are requested to observe the following procedures:

When 15 nm or 5 min flying time from the zone boundary, whichever is the greater, establish two-way RTF communication with the controlling aerodrome on the appropriate frequency using the following phraseology:

'.....(controlling aerodrome), this is.....(aircraft callsign), request MATZ penetration'.

- (b) when the call is acknowledged and the ATS Unit requests 'pass your message', pass the following information:
  - (i) Call Sign
  - (ii) Type of aircraft
  - (iii) Position
  - (iv) Heading
  - (v) Altitude
  - (vi) Intentions (eg destination)
- (c) comply with any instructions issued by the controller.
- (d) maintain a listening watch on the allocated RTF frequency until the aircraft is clear of the MATZ.
- (e) advise the controller when the aircraft is clear of the MATZ.

Flight conditions are not required unless requested by the controller.

6.4.3.2 The ATS Unit providing the MATZ Penetration Service will give traffic information and any instructions necessary to achieve safe separation from known or observed traffic in the zone. The service will, whenever possible, be based on radar observations and either a Radar Advisory or Radar Information Service given. When radar separation cannot be applied, vertical separation of at least 500 ft between known traffic will be applied. When safe lateral or vertical separation cannot be achieved, pilots will be advised to avoid the MATZ.

6.4.3.3 If appropriate, controllers will endeavour to co-ordinate flights with the controlling authority of an adjacent zone, but pilots should not assume clearance to penetrate another MATZ until it is explicitly given.

6.4.3.4 To ensure safe vertical separation is applied, all aircraft will be given an altimeter setting to use within the zone. Normally this will be the aerodrome QFE. However, at certain locations a QNH setting is used (eg Odiham use the Farnborough QNH, Warton use the Warton QNH and within the combined Lakenheath/Mildenhall MATZ the setting used is the Lakenheath QNH).

6.4.3.5 To ensure safe vertical separation is applied, all aircraft will be given an altimeter setting to use within the zone. Normally this will be the aerodrome QFE. Exceptionally, within the Odiham MATZ the transit pressure setting will be the Farnborough QNH, and within the Warton MATZ the setting will be the Warton QNH and within the Lakenheath/Mildenhall MATZ the setting will be the Lakenheath QNH.

6.4.3.6 Whilst every effort will be made to ensure the safe separation of aircraft complying with these procedures, since compliance is not compulsory, some civil aircraft within the MATZ may not be known to the controller. Pilots should therefore keep a good lookout at all times. Terrain clearance will be the responsibility of pilots.

### 6.4.4 Availability of the MATZ Penetration Service

6.4.4.1 A MATZ penetration service will be available during the published hours of watch of the respective units. However, as many units are often open for flying outside normal operating hours, pilots should call for the penetration service irrespective of the hours of watch

published. If, outside normal operating hours, no reply is received after two consecutive calls, pilots are advised to proceed with caution. Information on the operation of aerodromes outside their normal operating hours may be obtained by telephone from the appropriate Military Air Traffic Control Centre:

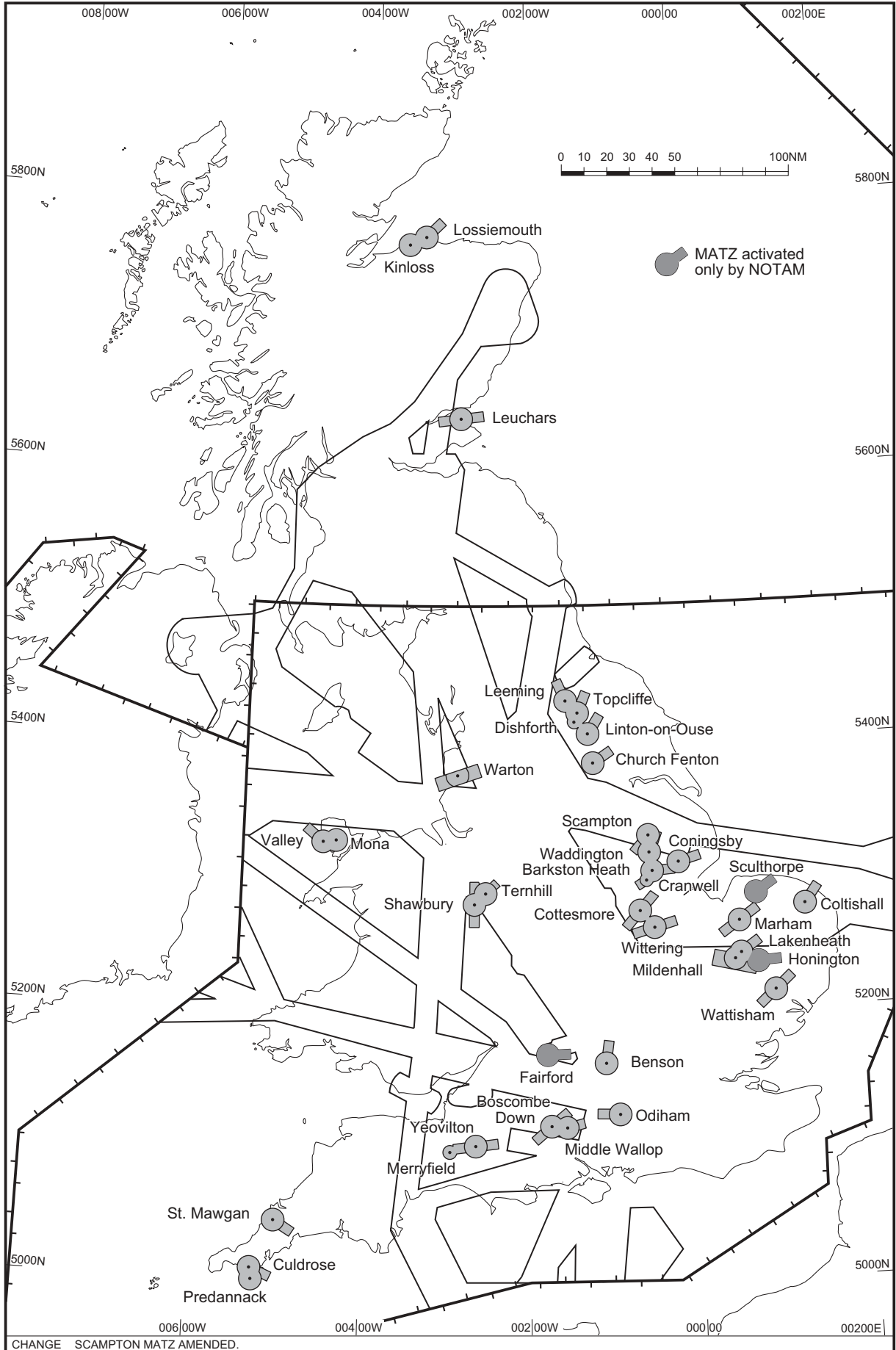
North of N5430 - Telephone: Scottish ACC (MIL) 01292-479800, Ext 6703/4

South of N5430 - Telephone: London ACC (MIL) 01895-426150.

**Reference to specific MATZ's can be found in the ENR section (6-2-2-3-1) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)**

**See the next page for MATZ coverage Diagram**

# MILITARY AERODROME TRAFFIC ZONES



CHANGE SCAMPTON MATZ AMENDED.

AERO INFO DATE 30 JUN 04

## 6.5 Air Traffic Services Outside Controlled Airspace



### 6.5.1 Radar Advisory Service (RAS)

6.5.1.1 RAS is an air traffic radar service in which the controller will provide advice necessary to maintain prescribed separation between aircraft participating in the advisory service. However, RAS will only be provided to flights under IFR, irrespective of meteorological conditions, and controllers will expect the pilot to accept vectors or level allocations which may require flight in IMC. Further details of this service are therefore considered inappropriate within this guidance material

### 6.5.2 Radar Information Service (RIS)

6.5.2.1 RIS is an air traffic radar service in which the controller will inform the pilot of the bearing, distance and, if known, the level of the conflicting traffic. No avoiding action will be offered. The pilot is wholly responsible for maintaining separation from other aircraft whether or not the controller has passed traffic information. Under a RIS the following conditions apply:

- (a) The service may be requested under any flight rules or meteorological conditions.
- (b) The controller will only update details of conflicting traffic, after the initial warning, at the pilot's request or if the controller considers that the conflicting traffic continues to constitute a definite hazard.
- (c) The controller may provide radar vectors for the purpose of tactical planning or at the request of the pilot. However, vectors will not be provided to maintain separation from other aircraft, which remains the responsibility of the pilot. There is no requirement for a pilot to accept vectors.
- (d) The pilot must advise the controller before changing level, level band or route.
- (e) RIS may be offered when the provision of RAS is impracticable.
- (f) Requests for a RIS to be changed to a RAS will be accepted subject to the controller's workload; prescribed separation will be applied as soon as practicable. If a RAS cannot be provided the controller will continue to offer a RIS.
- (g) For manoeuvring flights which involve frequent changes of heading or flight level, RIS may be requested by the pilot or offered by the controller. Information on conflicting traffic will be passed with reference to cardinal points. The pilot must indicate the level band within which he wishes to operate and is responsible for selecting the manoeuvring area, but may request the controller's assistance in finding a suitable location. Controllers may suggest re-positioning on their own initiative, but the pilot is not bound to comply.
- (h) The pilot remains responsible for terrain clearance. ATSU's providing a RIS will set a level or levels below which vectors will not be provided, except when specified otherwise by the regulating authority.

6.5.2.2 In order to establish a radar service the pilot and controller must reach an 'accord'. When requesting a radar service the pilot must state the flight rules under which he is operating and whether he requires a RAS or RIS. If the controller is able to offer a service he will attempt to identify the aircraft. When he is satisfied that he has positively identified the aircraft, the controller will confirm the type of service he is about to provide, and the pilot must give a read-back of the service. The identification procedure does not imply that a radar service is being provided and the pilot must not assume that he is in receipt of a RAS or a RIS until the controller makes a positive statement to that effect. If a controller is unable to provide a service he will inform the pilot.

6.5.2.3 Should the pilot fail to specify the type of service required, the controller will ask the pilot which service he requires before endeavouring to provide any service.

6.5.2.4 In order to avoid excessive RTF conversations on the frequencies used by 'London Control', pilots who intend to request such a service from 'London Control' are to make their initial request on the FIS frequency ('London Information') appropriate to their geographical position. The FIS controller will co-ordinate with the appropriate Radar Sector and subsequently inform the pilot whether or not a RAS or RIS can be provided and, if so, on what frequency.

6.5.2.5 Pilots should note that no RAS or RIS will be available on any London Control Frequency below FL 70. In any case a serviceable transponder will be a pre-requisite for either service.

**See the next page for ATC options Diagram**

# ATC OPTIONS

1

British weather!  
Working hard?  
ATC will tell you about other  
aircraft and offer advice on  
how to avoid (by 5nm or  
3000ft, where possible)

**Radar Advisory Service (RAS) - IFR only**



2

Nice day, working hard?  
Need some help?  
Let ATC tell you about other  
aircraft, but remember,  
it is **YOU** who must avoid

**Radar Information Service (RIS)**



3

Lovely day?  
Enjoying yourself?  
You're happy to see and  
avoid other aircraft.  
Other info on request

**Flight Information Service (FIS)**



**Which Option do YOU want?  
Let ATC know on the initial call**

### 6.5.3 Lower Airspace Radar Service (LARS)

#### 6.5.3.1 Availability of Service

- (a) A diagram showing the LARS coverage is on page 13 and a table listing participating ATSU is below;
- (b) The service is available to all aircraft flying outside Controlled Airspace up to and including FL 95, within the limits of radar/radio cover. The service will be provided within approximately 30 nm of each participating ATS Unit. Unless a participating ATS Unit is H24, the service will normally be available between Winter 0800 and 1700, Summer 0700 and 1600, Mondays to Fridays.  
However, as some participating Units may remain open to serve evening, night or weekend flying, pilots are recommended to call for the service irrespective of the published hours of ATS. If no reply is received after three consecutive calls, it should be assumed that the service is not available. Information on the operation of aerodromes outside their published hours may be obtained by telephone from the appropriate Military Air Traffic Control Centre:
  - (a) North of 5430N - ScATCC (Mil) Prestwick 01292 - 479800 Ext: 6704;
  - (b) South of 5430N - LATCC (Mil) West Drayton 01895 - 426150.
  - (c) LARS will not normally be available from non-H24 ATSUs at weekends and Public Holidays;
  - (d) pilots intending to operate above FL 95 may be advised to contact London Military or Scottish Military and request a RAS or RIS.

6.5.3.2 The service provided will be a Radar Advisory or Radar Information Service (RAS or RIS - see paragraphs 6.5.1 and 6.5.2).

#### Bristol Filton and Bristol LARS

Due to operational impracticalities caused by the position of the Bristol Controlled Airspace with regard to the LARS area served by Bristol Filton it has been agreed that during the hours of service published for Bristol Filton LARS the following procedures will apply.

- (a) Aircraft requiring a LARS north of the River Avon ie north of a line 512908N 0025305W and 512352N 0021211W will receive the service from Bristol Filton.
- (b) Aircraft requiring a LARS south of the River Avon will receive the service from Bristol.
- (c) Aircraft calling either one of these Units in the other's agreed area of responsibility will be instructed to contact the appropriate Unit.

6.5.3.3 The provision of LARS is at the discretion of the controllers concerned because they may be fully engaged in their primary tasks. Occasionally, therefore, the service may not be available.

6.5.3.4 Outside regulated airspace any radar service may be limited. If a radar controller considers that a full radar service cannot be maintained, pilots will be warned of the nature of the limitations which may affect the service being provided. Thereafter, pilots are expected to take the stated limitations into account in their general airmanship. In particular, warning of the limitations will be given to pilots in the following circumstances:

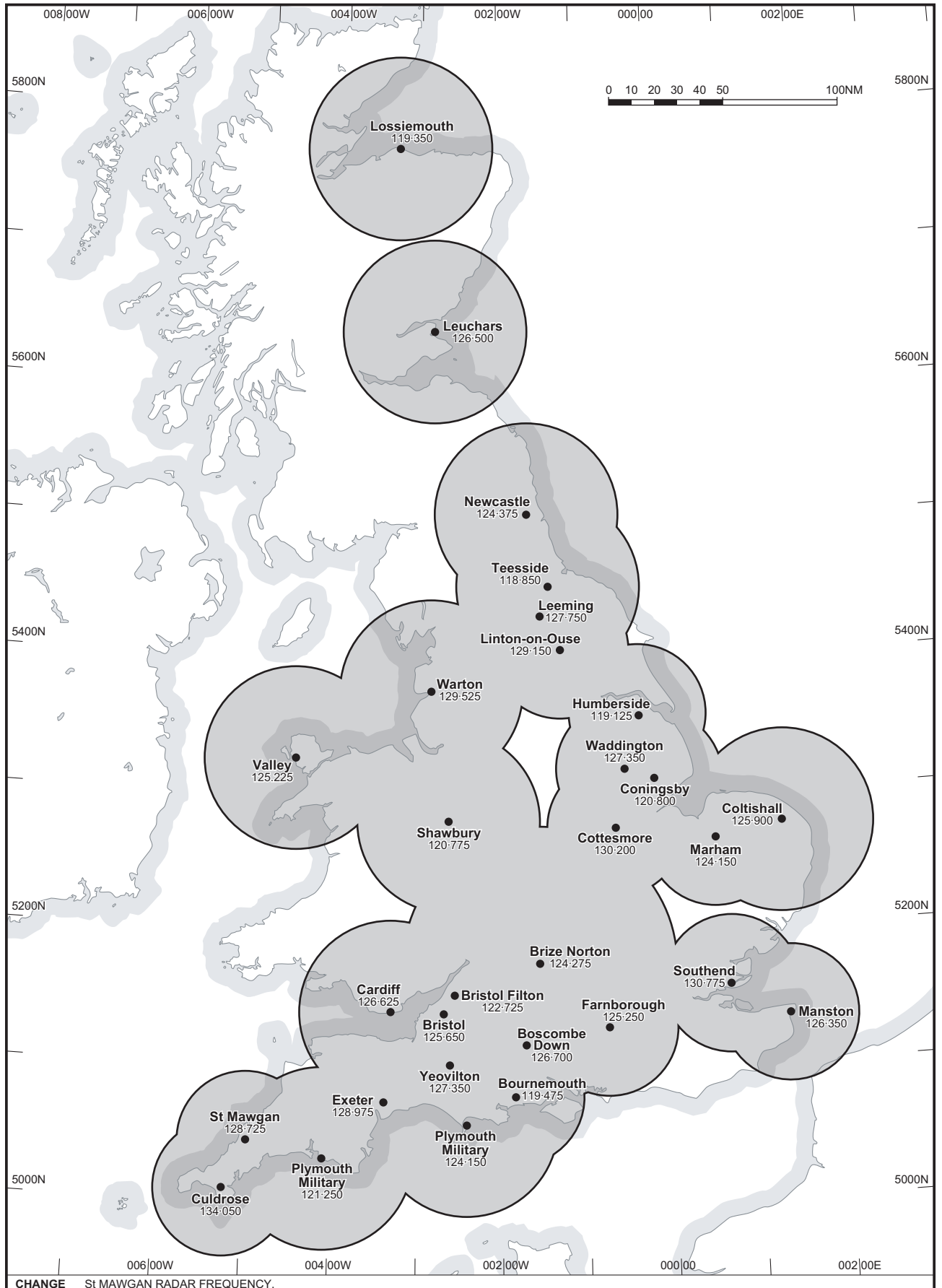
- (a) When an aircraft is close to the lateral or vertical limits of solid radar cover;
- (b) when an aircraft is close to areas of permanent radar echoes or weather returns;
- (c) when an aircraft is operating in areas of high traffic density;
- (d) when the controller considers the radar performance to be suspect;
- (e) when the controller is using SSR only.

6.5.3.5 In areas of high traffic density, controllers may have to limit RAS to the extent that standard separation from all traffic cannot be maintained and advisory avoiding action cannot be given. In these circumstances, pilots will be so advised. However, standard separation will be applied between participating traffic.

Reference to specific LAR's can be found in the ENR section (1-6-3-1/4) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)

**See the next page for LARS coverage diagram**

# LOWER AIRSPACE RADAR SERVICE



CHANGE St MAWGAN RADAR FREQUENCY.

AERO INFO DATE 17 JUN 04

6.6 **Flight Information Service (FIS)**

6.6.1 **Air Traffic Service Units (ATSUs)**

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6.6.1.1 FIS is a non-radar service provided by ATSUs, either separately or in conjunction with other services, for the purpose of supplying information useful for the safe and efficient conduct of flight. Under a FIS the following conditions apply:

- (a) Provision of the service includes information about weather, changes of serviceability of facilities, conditions at aerodromes and any other information pertinent to safety.
- (b) The controller may attempt to identify the flight for monitoring and co-ordination purposes only. Such identification, which may include the allocation of an SSR code, does not imply that a radar service is being provided or that the controller will continuously monitor the flight.
- (c) Controllers are not responsible for separating or sequencing aircraft.

6.6.1.2 FIS will be provided by any ATSU to the extent of the information available and is subject to controller work-load. Pilots should note that traffic information or warnings of proximity hazards, received while under FIS, may be inaccurate or incomplete because many aircraft fly on a multiplicity of tracks and levels without communicating with ATSUs; moreover, position reports may be unreliable in the absence of accurate navigational aids. In view of this, pilots are recommended to ask for a radar service, rather than FIS on its own, whenever such a service is available. ATSUs automatically provide FIS as an integral part of RAS or RIS.

6.6.2 **Air Traffic Control Centres (ACC)**

6.6.2.1 FIS is also provided by ACCs through an FIS officer operating on specially allocated RTF channels. In addition to the normal FIS, described in paragraph 6.6.1 the FIS officer will:

- (a) On receipt of a request for joining or crossing clearance of Controlled Airspace or Advisory Routes either:
  - (i) Inform the pilot that he should change frequency in time to make the request direct to the appropriate ATC Unit at least 10 minutes before ETA for the entry or crossing point or
  - (ii) Obtain the clearance from the appropriate ATC Unit himself and pass it to the pilot on the FIR frequency.
- (b) Pass ETA to destination aerodromes in special circumstances, such as diversions, or at particular locations when traffic conditions demand it. Normally, however, pilots who wish destination aerodromes outside Controlled Airspace to have prior warning of arrival should communicate direct with ATC at the aerodrome concerned, at least 10 minutes before ETA.
- (c) Accept airborne flight plans and pass the information to the appropriate authority.

6.6.2.2 FIS in London FIR. The service currently available on frequencies 124.600, 124.755 and 125.475 MHz (callsign London Information) will be provided by one controller only; pilots are therefore asked to keep their use of it to a minimum. Due to the possibility of simultaneous aircraft transmissions, the response to RTF calls may be affected. Requests for joining or crossing airways within the London FIR should continue to be made on the London FIS frequencies rather than direct on the Controlled Airspace sector frequencies.

**Reference to specific ATSU's can be found in the ENR section (6-1-10-1) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)**



## 7.1      Airspace and ATC Rules

7.1.1    Certain of the airspace rules and regulations outlined in this Guide either do not apply to gliders or are applied differently. In particular:

(a)      Airways (Class A).

Although VFR flight is not permitted in Class A Airways, gliders are exempt from this requirement if the airway is notified for the purpose of the UK Air Navigation Order Rule 21(2). Presently this arrangement is extant in Airways B2 and B226 for flights which comply with the conditions detailed in a Letter of Agreement between Scottish ACC and the BGA, and the glider pilot has received a briefing within the previous 12 months. In particular a glider may cross designated corridors within Airways B2 and B226 without complying with the normal requirements for operation in Class A airspace. In particular:

- (i)      An ATC clearance is required;
- (ii)     the crossing is carried out in VMC by day (for the purpose of this paragraph the VMC minimum is to be 8 km visibility, 1500 m horizontal and 1000 ft vertical from cloud);
- (iii)    the glider pilot is responsible for maintaining VFR separation from other gliders crossing the airways.

(b)      Class B Airspace.

Gliders are permitted access to notified areas of Class B Airspace under specified conditions. In particular:

- (i)      An ATC clearance is required;
- (ii)     the glider pilot is responsible for maintaining VFR separation from other gliders operating within the notified airspace.

(c)      Class D Control Zones/Areas. Gliders require an ATC clearance to cross Class D Airspace. Arrangements exist between some Class D airspace operating authorities and local gliding clubs whereby gliders are permitted access to specific portions of airspace under agreed procedures without having to communicate with ATC. Under these circumstances arrangements and procedures are published in the affected ATC unit and gliding club operating procedures.

## 7.2      Communications

7.2.1    Gliders are required to carry VHF RTF equipment to access Class A, Class B and most Class D Airspace, (under specific arrangements RTF equipment may not be required for access to Class D Airspace).

7.2.2    Glider pilots are required to hold a current Flight Radiotelephony Operators Restricted Licence to operate RTF equipment when communicating with an ATC unit

7.2.3    Winch Launch Activities.

7.2.4    Maximum Altitude of cables is represented in thousands and hundreds of feet above mean sea level calculated using a minimum cable height of 2000ft AGL plus site elevation. At some sites the cable may extend above 2000ft AGL. Due to the ground-based cable, aircraft should avoid over-flying these sites below the indicated altitude.

7.2.5    Symbols depicting Non Winch Launch Hang/Para Gliding sites have been removed from VFR charts as they were not an accurate representation of the activity on any given day. Airspace users should be aware that single or groups of soaring or motorised Hang/Para Gliders can be found flying anywhere in the open FIR up to 15,000ft.

## 8.1 General Procedures

- 8.1.1 The Transition Altitude within the United Kingdom is 3000 ft except in or beneath that airspace specified in paragraph 8.3.
- 8.1.2 Vertical positioning of aircraft when at, or below, any Transition Altitude will be expressed in terms of Altitude. Vertical positioning at, or above, the Transition Level will normally be expressed in terms of Flight Level; in these circumstances, when descending through the Transition Layer, vertical position will be expressed in terms of Altitude and when climbing, in terms of Flight Level. It should not be assumed that separation exists between the Transition Altitude and Transition Level.
- 8.1.3 Flight Levels are measured with reference to the Standard Pressure datum of 1013.2 millibars. In the UK consecutive Flight Levels above the Transition Level are separated by pressure intervals corresponding to 500 ft in the ISA and above FL 250 by pressure levels corresponding to 1000 ft. FL 250 is not normally used outside the ATS route structure.
- 8.1.4 Civil aircraft using military aerodromes must conform to military procedures.
- 8.1.5 QNH and temperature reports for certain aerodromes are given in MET broadcasts and can also be obtained from ATS Units. These QNH values are rounded down to the nearest whole millibar but are available at certain aerodromes in tenths of millibars for landing aircraft on request.

## 8.2 Altimeter Setting Regions



- 8.2.1 Altimeter Setting Regions (ASR). To make up for any lack of stations reporting actual QNH, the UK has been divided into a number of ASRs for each of which the National Meteorological Office calculates the lowest forecast QNH (Regional Pressure Setting) for each hour. These values are available hourly for the period H+1 to H+2 and may be obtained from all aerodromes having an Air Traffic Service, from the London, Manchester and Scottish ACCs, or by telephone.
- 8.2.2 The ASRs are listed below, together with the MET Office Codes in parenthesis. The areas covered by these regions are shown on the combined Flight Information Region (FIR) and ASR chart on next page.

Skerry (01)	Holyhead (07)	Chatham (12)	Orkney (17)
Portree (02)	Barnsley (08)	Portland (13)	Marlin (18)
Ratray (03)	Humber (09)	Yarmouth (14)	Petrel (19)
Tyne (04)	Scillies (10)	Cotswold (15)	Skua (20)
Belfast (05)	Wessex (11)	Shetland (16)	Puffin (21)

- 8.2.3 Airspace within all Control Zones (CTRs), and within and below all Terminal Control Areas (TMAs), Control Areas (CTAs) except Airways and the Daventry and Worthing Control Areas, during their notified hours of operation, do not form part of the ASR Regional Pressure Setting system.
- 8.2.4 Apart from the exceptions listed at paragraph 8.2.3 when flying at or below the Transition Altitude below TMAs and CTAs, pilots should use the QNH of an adjacent aerodrome. It may be assumed that for aerodromes located beneath such Areas, the differences in QNH values are insignificant. When flying beneath Airways whose base levels are expressed as Altitudes, pilots are recommended to use the QNH of an adjacent aerodrome in order to avoid penetrating the base of Controlled Airspace.
- 8.2.5 Within the Channel Islands Control Zone, the lowest forecast QNH value is available for terrain clearance purposes.
- 8.2.6 Pilots operating north of 6130N within the airspace detailed in UK AIP Section ENR 2.2, when not receiving a service from Sumburgh Radar are advised to use the Puffin RPS when flying at or below 3,000 ft.
- 8.2.7 The QNH settings to be used in the Northern North Sea Radar Service Areas are shown in UK AIP chart ENR 6-1-15-1.

### 8.3 Selected Transition Altitudes

- 8.3.1 The following Transition Altitudes apply to flights within or beneath the following airspace:

Aberdeen CTR/CTA 6,000 ft	Leeds Bradford CTR/CTA 5,000 ft*
Belfast CTR/TMA 6,000 ft	London TMA 6,000 ft
Birmingham CTR/CTA 4,000 ft	Manchester TMA 5,000 ft
Cardiff CTR/CTA 4,000 ft	Scottish TMA 6,000 ft
East Midlands CTR/CTA 4,000 ft	Solent CTA 4,000 ft*
Edinburgh CTR 6,000 ft	Sumburgh CTR/CTA 6,000 ft*
Glasgow CTR 6,000 ft	Teesside CTR/CTA 6,000 ft*

\* Note: Outside the notified hours of operation the Transition Altitude is 3000 ft.

**See the next page for Altimeter Setting Region diagram, and subsequent page for the clearance table.**



# TERRAIN CLEARANCE TABLE

AP7 06/017 06.03.02

ASRs	WESSEX	Scillies	Cotswold	Portland	Chatham	Yarmouth	TYNE	Belfast
Highest Obstacle	2907ft	1378ft	2660ft	1995ft	1310ft	1234ft	2930ft	2868ft
Minimum Altitude	4000ft	2400ft	3700ft	3000ft	2400ft	2300ft	4000ft	3900ft
<b>REGIONAL QNH</b>	<b>GREEN</b>						<b>BLUE</b>	
1032 or Above	FL35	FL20	FL35	FL25	FL20	FL20	FL35	FL35
1014 - 1031	FL40	FL25	FL40	FL30	FL25	FL25	FL40	FL40
995 - 1013	FL45	FL30	FL45	FL35	FL30	FL30	FL45	FL45
977 - 994	FL50	FL35	FL50	FL40	FL35	FL35	FL50	FL50
960 - 976	FL55	FL40	FL55	FL45	FL40	FL40	FL55	FL55
943 - 959	FL60	FL45	FL60	FL50	FL45	FL45	FL60	FL60
927 - 942	FL65	FL50	FL65	FL55	FL50	FL50	FL65	FL65

**IMPORTANT - SET 1013mb ON THE ALTIMETER SUB-SCALE TO FLY AT A FLIGHT LEVEL.**

ASRs	PORTTREE	Orkney	Skerry	Shetland	HOLYHEAD	Barnsley	Humber	
Highest Obstacle	4406ft	3791ft	1421ft	1477ft	3560ft	3116ft	473ft	
Minimum Altitude	5500ft	4800ft	2500ft	2500ft	4600ft	4200ft	1500ft	
<b>REGIONAL QNH</b>	<b>RED</b>				<b>YELLOW</b>			
1032 or Above	FL50	FL45	FL20	FL20	FL45	FL40	FL15	
1014 - 1031	FL55	FL50	FL25	FL25	FL50	FL45	FL20	
995 - 1013	FL60	FL55	FL30	FL30	FL55	FL50	FL25	
977 - 994	FL65	FL60	FL35	FL35	FL60	FL55	FL30	
960 - 976	FL70	FL65	FL40	FL40	FL65	FL60	FL35	
943 - 959	FL75	FL70	FL45	FL45	FL70	FL65	FL40	
927 - 942	FL80	FL75	FL50	FL50	FL75	FL70	FL45	

- REMEMBER:** Although you use the Regional QNH to obtain the Terrain Clearance Flight Level you must set 1013mb on the altimeter sub-scale to fly at that Flight Level.
- IMPORTANT:** When lost or uncertain of your position always call the Distress and Diversion cell on 121.5MHz at the earliest opportunity.
- For information on how to use this table refer to AICs.

- 1.2 Types and Categories of Flight Plan
  - 1.2.1 There are two types of flight plan:
    - (a) Visual Flight Rules (VFR) flight plan;
    - (b) Instrument Flight Rules (IFR) flight plan.
  - 1.2.2 Flight plans fall into three categories:
    - (a) Full flight plans: the information filed on Form CA48/RAF 2919;
    - (b) Repetitive Flight Plans
    - (c) Abbreviated Flight Plans: the limited information required to obtain a clearance for a portion of flight (eg: flying in a Control Zone, crossing an Airway) filed either by telephone prior to take-off or by RTF when airborne. The destination aerodrome will be advised of the flight only if the flight plan information covers the whole route of the flight.
  - 1.2.3 Full and Abbreviated flight plans may be filed by RTF with the appropriate controlling Air Traffic Service Unit (ATSU).
- 1.3 A guide to filing a flight plan is shown at page ENR 1-10-3.
- 1.4 When to file a Flight Plan
  - 1.4.1 A flight plan may be filed for any flight.
  - 1.4.2 A flight plan must be filed for the following:
    - (a) for all flights within Class A Airspace;
    - (b) for all flights within any Controlled Airspace in IMC or at night, except for those operating under SVFR;
    - (c) for all flights within any Controlled Airspace in VMC if the flight is to be conducted in accordance with IFR;
    - (d) for all flights within Class B - D Controlled Airspace irrespective of weather conditions;
    - (e) for any flight from an aerodrome in the United Kingdom, being a flight whose destination is more than 40 km from the aerodrome of departure and the aircraft Maximum Total Weight Authorised exceeds 5700kg;
    - (f) for all flights to or from the United Kingdom which will cross the United Kingdom FIR Boundary;
    - (g) for any flight in Class F Airspace wishing to participate in the Air Traffic Advisory Service.
  - 1.4.3 The occasions on which a VFR flight plan must be filed are specified at paragraph 1.4.2, sub-paras (d), (e), (f) and (g) (further details on VFR flight plans are at paragraph 3).
  - 1.4.4 It is advisable to file a flight plan if the flight involves flying over the sea, more than 10 nm from the UK coastline, or over sparsely populated areas where Search and Rescue operations would be difficult.
- 1.5 Booking Out
- 1.5.1 Rule 20 of the Rules of the Air Regulations 1996 requires that a pilot intending to make a flight shall inform the Air Traffic Service Unit (ATSU) at the aerodrome of departure; the filing of a flight plan constitutes compliance with this Rule. In the absence of an ATSU at the departure aerodrome, the pilot may submit his flight plan through the Parent Unit (see paragraph 2). However, the requirements of Rule 20 must be complied with irrespective of whether or not a flight plan has been filed. Therefore, on those occasions when there is no necessity to submit a flight plan, the pilot remains responsible for notifying the ATSU at the departure aerodrome of his intention to fly. This action is known as 'Booking Out' but unlike the normal flight plan procedure, the information will not be transmitted to any other ATSU.
- 1.6 Submission Time Parameters
  - 1.6.1 Normally, flight plans should be filed on the ground at least 60 minutes before clearance to start up or taxi is requested; however, for North Atlantic and flights subject to Air Traffic Flow Management (ATFM) measures a minimum of 3 hours is required. (When completing the flight plan the departure time entered in Field 13 must be the Estimated Off Block Time (EOBT) not the planned airborne time). Exceptionally, in cases where it is impossible to meet this requirement, operators should give as much notice as possible and never less than thirty minutes. Otherwise, if this is not possible, a flight plan can be filed when airborne with any ATSU, but normally with the FIR Controller responsible for the area in which the aircraft is flying. If the airborne flight plan contains an intention to enter Controlled Airspace or certain Control Zones/Control Areas, at least 10 minutes prior warning of entry must be given. In all cases, the message should start with the words 'I wish to file an airborne flight plan'. It should be noted that passing an airborne flight plan over the RT may, due to the controller's workload, result in a delay in the message being filed.
- 1.7 Submitting a Flight Plan Through the Departure Aerodrome ATSU
  - 1.7.1 A written flight plan, which is filed through the ATSU at the departure aerodrome, must be submitted on Form CA 48/RAF 2919. The local ATSU may assist in compiling the flight plan details and checking them; however, the ultimate responsibility for filing an accurate flight plan rests with the pilot or the operator. If the departure aerodrome is not connected to the AFTN, the pilot is responsible for arranging for the details of the flight plan to be passed to the appropriate Parent Unit.
- 1.8 Persons On Board
  - 1.8.1 The number of persons on board a flight for which a plan has been filed must be available to ATSUs for SAR purposes for the period up to the ETA at the destination plus one hour. If this information has been sent to the Operators handling agency at destination, no further action is required. Otherwise, this information is to be made available as follows:

(a) Where the operator or departure handling agency closes down before the ETA of a flight at destination plus one hour, the operator or departure handling agency will lodge the number of persons on board with the ATSU serving the aerodrome of departure;

(b) where the aerodrome ATSU closes down before the ETA plus one hour, the ATSU will lodge the number of persons on board directly with the appropriate ACC;

(c) at aerodromes without an ATSU, where the aerodrome closes down before ETA destination plus one hour, the aerodrome operator or departure handling agency will lodge the name and address of officials who have access to flight departure records with the appropriate ACC, so that they can be contacted as necessary, either direct, or through the local police.

1.9 Action in the Event of Diversion

1.9.1 If a pilot lands at an aerodrome other than the destination specified in the flight plan, he must ensure that the ATSU at the original destination is informed within 30 minutes of his flight planned ETA, to avoid unnecessary action being taken by the Alerting Services.

1.10 Cancelling an IFR Flight Plan in Flight

1.10.1 If a pilot has begun a flight in Controlled Airspace under an IFR flight plan, he may decide, on entering VMC, that he will cancel his IFR flight plan and VFR (Rule 31(3) of the Rules of the Air Regulations 1996). However, it must be stressed that a pilot cannot exercise this choice in Controlled Airspace which is notified as Class A Airspace and, therefore, in which all flights in all weather conditions are subject to IFR procedures. In Controlled Airspace where the exercise of the pilots choice is possible, pilots may request

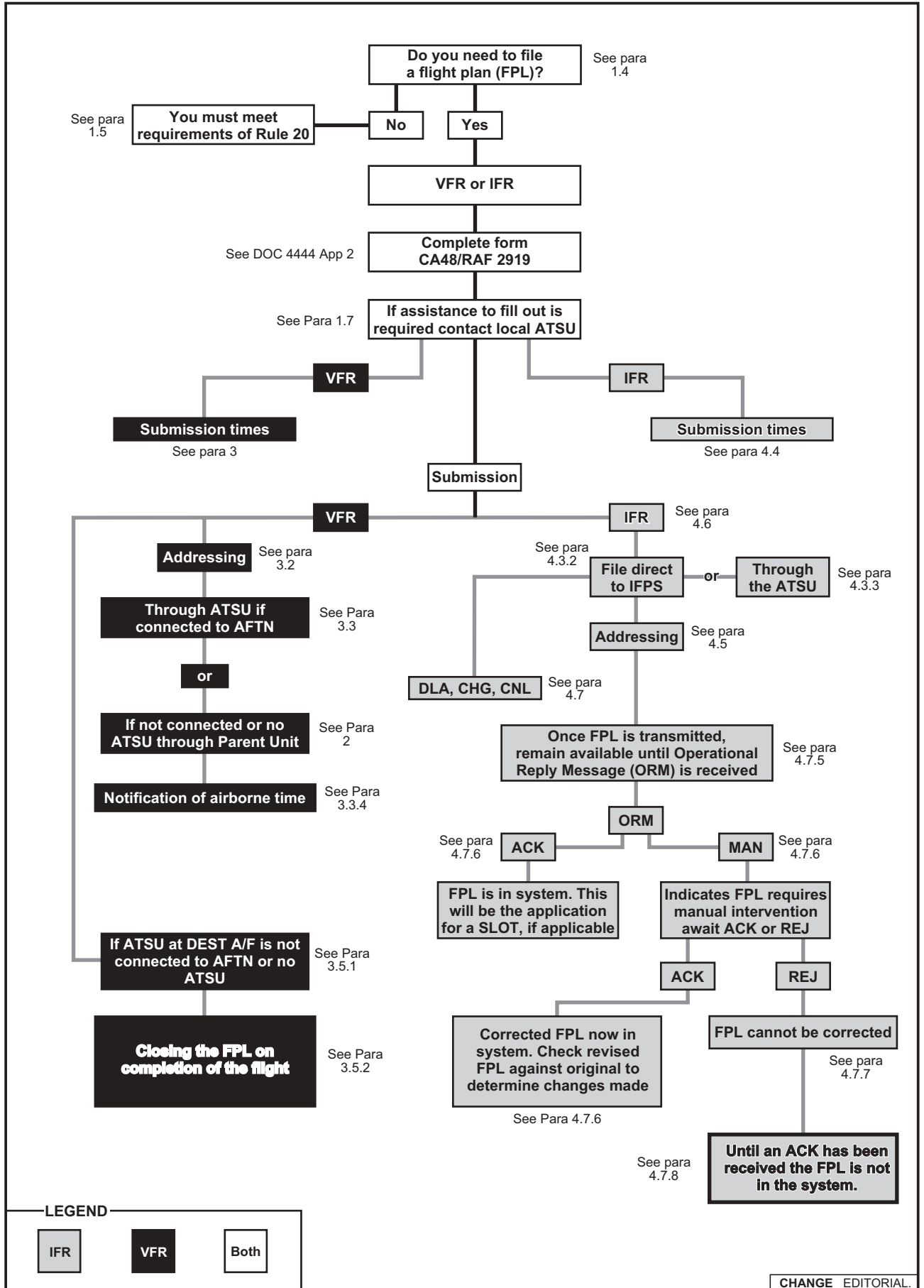
the cancellation of IFR flight plans by notifying the ACC, provided that they are operating in VMC. An IFR flight plan may be cancelled by transmitting the following message: '.....(identification) - Cancel IFR flight plan'. ATC cannot approve or disapprove cancellation of an IFR flight plan but, when in possession of information that IMC is likely to be encountered along the intended route of flight, will advise the pilot accordingly as follows:

'IMC reported (or forecast) in the vicinity of .....'

The fact that a pilot reports that he is flying in VMC does not in itself constitute cancellation of an IFR flight plan. Unless cancellation action is taken, the flight will continue to be regulated in relation to other IFR traffic.

**See next page for Guide to filing a flight plan Graphic**

# GUIDE TO FILING A FLIGHT PLAN



## UK Parent Unit System

- 2.1 Facilities exist within the UK for the interchange of messages for aerodromes not connected to the AFTN, and also for aerodromes without an ATSU, through the use of nominated ATSUs which have the capabilities to act as Parent ATSUs (Parent Units).
- 2.2 Areas of Responsibility
- 2.2.1 The map at ENR 6-1-10-1 shows the associated area of responsibility for each Parent Unit which provides the services specified in the above paragraphs. Any operator, at an aerodrome which does not have an ATSU, or is not on the AFTN, wishing to file a flight plan should pass details of the flight plan to the Parent Unit within whose area of responsibility the aerodrome lies. The staff at the Parent Unit will assist in the completion of the flight plan and will address it appropriately for processing through the AFTN. When specific addresses are required by the pilot or the operator, in addition to those normally inserted by the ATSU for the flight being planned, it should be ensured that such requirements are notified at the time of filing the flight plan. Operators and pilots are reminded that paragraph 1.6 (time requirement for filing a flight plan) is most important when filing with the Parent Unit.
- 2.3 Departure Time
- 2.3.1 The FIR Controller will accept departure times from pilots who have departed from aerodromes where there is no ATSU, or it is outside the ATSUs hours of operation. The pilot is to advise the FIR Controller to pass the departure time to the ATSU to which the flight plan was submitted.
- 2.3.2 When it is known by a pilot that the ATSU at the departure aerodrome is going to be closed at the time of departure, the flight plan is to be filed with the Parent Unit and the airborne time passed as described in paragraph 2.3.1.
- 2.4 Changes, Delays or Cancellation of a Flight Plan
- 2.4.1 It is essential that ATC is advised of cancellations, delays over 30 minutes and changes to flight plan details. A second flight plan cannot be used to amend the first. The original flight plan must first be cancelled and then a revised flight plan filed.
- 2.5 Contact Numbers for Parent Units

Parent Unit	Telephone Number	Fax Number
London Heathrow	020-8745 3111 / 3163	020-8745 3491 / 3492
Manchester	0161-499 5502 & 5500	0161-499 5504
Scottish ACC	01292-692679 & 692663	01292-671048

## VFR Flight Plans

- 3.1 When to File a VFR Flight Plan
- 3.1.1 A VFR flight plan may be filed for any flight.
- 3.1.2 A VFR flight plan must be filed for the following:
- (a) For all flights to or from the United Kingdom which will cross the United Kingdom FIR Boundary;
  - (b) for all flights within Class B - D Controlled Airspace (this requirement may be satisfied by passing flight details on RTF);
  - (c) for any flight in Class F Airspace wishing to participate in the Air Traffic Advisory Service;
  - (d) for any flight from an aerodrome in the United Kingdom, being a flight whose destination is more than 40 km from the aerodrome of departure and the aircraft Maximum Total Weight Authorised exceeds 5700 kg.
- 3.1.3 It is advisable to file a VFR flight plan if the flight involves flying over the sea, more than 10 nm from the UK coastline, or over sparsely populated areas where Search and Rescue operations would be difficult.
- 3.2 Addressing of VFR Flight Plans
- 3.2.1 In addition to addressing a VFR flight plan to the Destination Aerodrome, and when applicable the appropriate adjacent foreign FIR(s), it must also be addressed to the appropriate UK FIR(s) as listed below:
- |         |                            |
|---------|----------------------------|
| EGZVFRP | Scottish and Oceanic FIRs; |
| EGZVFRT | London FIR.                |
- 3.2.2 VFR Flight Plans with portion(s) of flight operated as IFR
- 3.2.2.1 IFPS is the only source for the distribution of IFR/General Air Traffic (GAT) flight plans and associated messages to ATSUs within the participating European States - the IFPS Zone. Although IFPS handles IFR flight plans, it will not process the VFR portions of any mixed VFR/IFR flight plan. Therefore, in order to ensure that all relevant ATSUs are included in the flight plan message distribution, pilots or Aircraft Operators should make certain that whenever a flight plan contains portions of the flight operated under VFR, in addition to IFR, the FPL must be addressed to:
- IFPS (EGZVIFPS)
  - Aerodrome of departure
  - Aerodrome of destination
  - all FIRs that the flight will route through as VFR (in UK address to EGZVFRP for Scottish/Oceanic FIRs and/or EGZVFRT for London FIR)
  - Any additional addressees specifically required by State or Aerodrome Authorities
- 3.3 Submission Time Parameters

- 3.3.1 VFR flight plans should be submitted to the ATSU at the departure aerodrome on Form CA 48/RAF 2919 at least 60 minutes before clearance to start up or taxi is requested. The local ATSU, if required, will assist in compiling the flight plan. If the departure aerodrome is not connected to the AFTN, the pilot is responsible for arranging for the ATSU to despatch the completed flight plan via the Parent Unit (see paragraph 2). If the departure aerodrome has no ATSU, the pilot will arrange for the flight plan to be passed to the aerodromes Parent Unit for onward transmission.
- 3.4 Airborne Time
- 3.4.1 The pilot is responsible for ensuring that the airborne time of the flight is passed to the ATSU with whom the flight plan has been filed. The ATSU will ensure that the departure message, if required, is sent to the appropriate addressees. The pilot should try to arrange for a 'responsible person' on the ground to telephone the airborne time to the ATSU, as passing it over the RTF may, due to controller workload, lead to a delay in sending a departure message. Failure to pass the airborne time will result in the flight plan remaining inactive; consequently, this could result in the destination aerodrome not being aware that alerting action should be taken.
- 3.5 Action When the Destination Aerodrome has no ATSU or AFTN Link
- 3.5.1 If a pilot has filed a VFR flight plan to a destination which does not have an active ATSU and is not connected to the AFTN, he is required to pass the ETA, prior to departure, to a 'responsible person' at the destination aerodrome. In the event of the aircraft failing to arrive at the destination aerodrome within 30 minutes of the notified ETA, the 'responsible person' must immediately advise the Parent Unit. This action is the trigger by which the Parent Unit will commence alerting action.
- 3.5.2 Exceptionally, where a pilot is unable to find someone to act as a 'responsible person' at the destination aerodrome, he must contact the appropriate Parent Unit prior to departure and request that it acts in this capacity. Should a pilot need to take this course of action, he will be required to contact the Parent Unit within 30 minutes of landing at the destination to confirm his arrival. Failure to complete this action will automatically result in the Parent Unit initiating alerting action.

## 4 LOW-LEVEL CIVIL AIRCRAFT NOTIFICATION PROCEDURES (CANP)

- 4.1 Introduction
- 4.1.1 Many military and civil aircraft operate in Class G Airspace below 2000 ft agl, where ground radio and radar coverage is not always available to assist pilots in avoiding collisions. Collision avoidance must necessarily, therefore, be based on the 'see and avoid' principle, assisted as far as possible by information on known activity. Whereas a variety of civil aviation activities take place within this airspace, military activity consists mainly of low flying training.
- 4.1.2 It is not practicable to obtain and disseminate traffic information on all civil flights below 2000 ft agl, nor is it possible to disseminate details of military low level flights within the UK Low Flying System (UKLFS) to civil operators. Nevertheless, the greatest conflict of interests occurs at or below 1000 ft agl where the majority of military low level operations take place and where civil aircraft may be engaged upon activities, as defined at paragraph 4.2.1, which might inhibit pilot look-out or reduce aircraft manoeuvrability. In addition, certain recreational and other civil flying activity, away from licensed aerodromes, needs to be considered.
- 4.1.3 A system exists to collect information on civil aerial activities for distribution to military operators to assist in flight planning. This system is known as the Low Level Civil Aircraft Notification Procedure (CANP).
- 4.1.4 Before commencing any low flying sortie, military pilots receive a comprehensive brief on all factors likely to affect their flight, including relevant CANP details. Hence, maximum participation in CANP by those planning to conduct the qualifying activities is essential if full benefit is to be obtained from the procedure.
- 4.1.5 Pilots/operators, or their representatives, intending to embark upon aerial activities described below should notify details of the flights to the Low Flying Booking Cell (LFBC) at the London Air Traffic Control Centre (Military), (LATCC(Mil)). For the purposes of CANP, direct-dial, Freephone and Freefax facilities are available as follows:  
Monday to Thursday 0700 – 2300 (Local);  
Friday to Sunday 0700 – 1700 (Local).
- 4.1.6 Fax notification is preferred for CANP requests as this allows the LFBC to 'faxback' or telephone confirmation of fax receipt and issue a reference number to the aircraft operating authority. Contact numbers are as follows:  
  
Fax: 0500-300120;  
Tel: 0800-515544.
- 4.2 Commercial Aerial Activity
- 4.2.1 The following civil aerial activities at and below 1000 ft agl with an expected duration in excess of 20 minutes at a specific location, should be notified to the LFBC:
- (a) Aerial crop spraying (this includes all agricultural tasks carried out by an aircraft);
  - (b) underslung aerial load lifting;
  - (c) aerial photography and filming;
  - (d) aerial survey/air surveillance.
- 4.2.1.1 Pipeline/powerline inspection activity is the subject of an AIC. However, aircraft carrying out powerline inspections and which are able to operate within a limited geographical area may apply for warning status under CANP. Any request for such protection should be made as far in advance as is possible through the Freefax or Freephone numbers shown at paragraph 4.1.6. The manager of the UKLFS at HQ Strike Command Detachment, LATCC (Mil) will consider requests of this nature on a case-by-case basis.
- 4.2.2 Procedure

4.2.2.1 CANP fax and telephone messages should provide details of the intended activity in the following format:

(a) Type of activity;

(b) location(s): Preferably as a 2-letter, 6-figure grid reference taken from an OS 1:50,000 map, although latitude and longitude will be accepted. The name of a nearby village or town is also required;

(c) area of operation(s): (See paragraph 4.2.4.1);

(d) date and time of intended operation(s): Start/finish in local time;

(e) maximum operating height(s) agl;

(f) number and type(s) of aircraft;

(g) contact fax and/or telephone number(s);

(h) operating company and fax/telephone number(s) (if applicable).

Example: CANP NOTIFICATION

A - UNDERSLUNG LOADS

B - SU 561310 - OVINGTON

C - 2 NM RADIUS

D - 12 SEPTEMBER - 1000 to 1300

E - 1000 FEET AGL

F - SINGLE MB105 HELICOPTER

G - Contact fax and telephone number for the site

H - ROTARY HELICOPTERS LTD - Fax and telephone number of operator.

4.2.2.2 Once a notification has been accepted, the LFBC will allocate a reference number which pilots/operators should retain. Operators are advised that, in the interests of safety and accuracy, all telephone calls to the LFBC are recorded.

4.2.2.3 Operators should, where possible, use the freefax facility as the primary method of filing a notification. Requests should be submitted using Form CA 2366 reproduced at ENR 1-10-16. Customised variations of this form are acceptable if they contain all the information required at paragraph 4.2.2.1. A contact fax and telephone number must be provided in order that notification can be confirmed and a reference number issued. (Additional copies of Form CA 2366 can be obtained from the Directorate of Airspace Policy (DAP) at the address shown at paragraph 4.4.1). Users will receive a CANP reference number from the LFBC by 'faxback' or return telephone call. This reference number should be retained until the termination of the activity with which it is associated.

4.2.3 Pre-notification Required

4.2.3.1 Pre-notification of intended operations should be communicated, by fax if possible, to the LFBC not less than 4 hours before commencement of the activity. Fax requests will receive a 'faxback' or telephone call from the LFBC with time authentication and reference number. Notifications by telephone will receive a time authentication followed by a return call from the LFBC with a reference number. Successful transmission of the CA 2366, or a time authenticator for notification by telephone, not less than 4 hours from the start of the CANP activity can be considered as confirmation that a CANP avoidance for the period requested will be issued.

4.2.3.2 Whenever possible, pre-notification of operations due to take place up to 1300 hours (local time) should be made the previous day and those due to take place after 1300 hours (local time) should be pre-notified on the morning of the same day. It is accepted that there will be occasions when the minimum pre-notification time cannot be met. Nevertheless, late notifications should still be made and every effort will be made to distribute the information as widely as possible. However, reports received less than 4 hours before operations are due to commence are, progressively as the time diminishes, less likely to reach all military pilots before they depart on their low level sorties and will, therefore, only be issued as a warning to military aircrew.

4.2.3.3 CANP operators who are aware of commercial activities well in advance are encouraged to contact the manager of the UKLFS, as far in advance as possible (Fax: 01895-426381 Tel: 01895-426686), with as many details of the activity as are available at the time.

4.2.4 Operating Area Boundaries

4.2.4.1 The airspace notified under CANP should not exceed an area bounded by a 2 nm radius circle. If more than one area is to be notified, these areas are not to be activated concurrently. In the case of under slung aerial load lifting operations the area should be defined as a corridor extending 2 nm either side of intended track from ground level to a maximum of 1000 ft agl. When the route of an under slung load exceeds 20 nm it should, wherever possible, be divided into sections not exceeding 20 nm in length; an overlap of 20 minutes is acceptable in such circumstances.

4.2.4.2 Pilots of military fixed-wing aircraft flying at an IAS greater than 140 kt will avoid areas reported under CANP either laterally or vertically. CANP users should note that military pilots may over fly the reported area by a minimum of 500 ft. Thus, for example, if the height of the CANP area is 1000 ft agl, military aircraft may over fly the area at a minimum height of 1500 ft agl. Therefore, the lateral and vertical boundaries that define the area of activity should equate only to the parameters within which the activity is planned to take place and should not build in an allowance as a safety factor.

4.2.4.3 Pilots/operators should note that, other than in exceptional circumstances, the dimensions of a CANP 'avoidance' as defined at paragraph 4.2.4.1 are generally not negotiable. Any request for a CANP of non-standard dimensions should be made, as far in advance as possible, to the manager of the UKLFS at the contact numbers shown at paragraph 4.2.3.3.

4.2.5 Cancellation and Re-submissions

4.2.5.1 Activities reported under CANP may considerably restrict the airspace available for military low flying training. Thus, in order to maintain the integrity of the CANP system, every reasonable attempt should be made to inform the LFBC as soon as it becomes obvious that an activity previously notified will no longer take place, or that the activity has been completed. Notification of a completed activity should be made irrespective of the time remaining on the CANP.

4.2.5.2 To eliminate the possibility of error, an application must be made in accordance with paragraph 4.2.2.1 on each occasion. Re-submission by reference to a previously issued CANP Reference Number will not be accepted by the LFBC.

- 4.2.6 Infringements of CANP Airspace
- 4.2.6.1 Infringements of CANP airspace will be fully investigated. If it is considered that CANP airspace has been infringed by military aircraft, and more than 4 hours pre-notification has been given in accordance with paragraph 4.2.3.1, then pilots/operators should contact the LFBC as soon as possible with the following information:
- (a) Reference Number (paragraph 4.2.2.2 refers);
  - (b) date and time of the incident;
  - (c) number and type of aircraft involved;
  - (d) position and estimated profile (heading/height) of aircraft involved.
- 4.2.6.2 Pilots/operators should note that military light aircraft flying at an IAS of 140 kt or less, helicopters and any aircraft flying within a MATZ, need not avoid CANP airspace. However, pilots of such military aircraft will be aware of the notified activity, subject to the minimum notifying period indicated at paragraph 4.2.3.2.
- 4.3 Recreational and Other Aerial Activities
- 4.3.1 Recreational Aerial Activities
- 4.3.1.1 The LFBC invite notifications concerning certain recreational aerial activities planned to occur at or below 1000 ft agl. Such notifications will be granted warning status under CANP and will be promulgated to military aircrew. Notifications are only required, however, when 5 or more gliders, hang-gliders and paragliders, free-flight balloons, microlight aircraft or model aircraft will be operating:
- (a) From a site not listed in the UK AIP for such activity; or
  - (b) from a site listed in the UK AIP but outside the published operating hours of the site, where these are detailed.
- 4.3.1.2 Notwithstanding the provisions of paragraph 4.3.1.1(b), operators will be aware that Permissions for cable launched gliding, hang-gliding and paragliding activities, to a height of more than 60 metres agl, are issued by DAP. Individual Permissions will stipulate that, if activity during a weekday, it is conditional on compliance with the CANP system.
- 4.3.2 Other Aerial Activities
- 4.3.2.1 The LFBC also invites notification of the following activities:
- (a) Tethered and captive balloons (to a height greater than 60 metres agl);
  - (b) kite flying, involving 5 or more kites from a specified site, (to a height greater than 60 metres);
  - (c) operations of aircraft from water;
  - (d) any other aerial activity likely to create an exceptional concentration of aircraft at a site not listed in the UK AIP.
- 4.3.3 Procedure
- 4.3.3.1 Fax or telephone notification should provide details of the intended activity as at paragraph 4.2.2.1.
- Example:
- RECREATIONAL ACTIVITY
- A - HANG-GLIDING  
 B - ST 187101 - UPOTTERY AERODROME, DEVON  
 C - 2 NM RADIUS  
 D - 19 NOVEMBER - 0900 to 1500 (local time)  
 E - N/A  
 F - EXPECTED NUMBER OF HANG-GLIDERS - 6  
 G - Telephone number of the site  
 H - DISCOVER AIR HANG-GLIDING GROUP (Telephone number if different to that at G).
- 4.3.3.2 Once a notification has been accepted, the LFBC will allocate a reference number which pilots/operators should retain.
- 4.3.3.3 The Freefax facility detailed in paragraph 4.1.6 should be used where possible for the notification of recreational activities.
- 4.3.4 Pre-notification is required as in paragraph 4.2.3.1
- 4.3.5 Operating Area Boundaries
- 4.3.5.1 The airspace notified should not exceed an area bounded by a 2 nm radius circle, from ground level to 1000 ft agl.
- 4.3.5.2 Recreational and other aerial activities will not normally attract CANP avoidance areas; however, warnings of such activities will be promulgated to military aircrew.
- 4.3.6 Cancellation
- 4.3.6.1 Every reasonable attempt should be made to inform the LFBC as soon as it becomes obvious that an activity previously notified will no longer take place, or that the activity has been completed. Notification of a completed activity should be made irrespective of the time remaining on the CANP.

**See next page for the Civil low flying/Aerial Activity form**



4.4 Comments / Recommendations

4.4.1 Users are invited to forward comments on CANP, or recommend improvements to the procedure, to the Directorate of Airspace Policy at the following address:

Directorate of Airspace Policy  
Off-Route Airspace, K6, Gate 3, CAA House, 45-59 Kingsway, London, WC2B 6TE  
Tel: 020-7453 6543  
Fax: 020-7453 6565.

## Aeroplane performance

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Below is a table of recommended safety factors to be applied to the take off/landing distances published in Flight Manuals when the surface is other than dry and paved. Although dry grass is now assessed as requiring a slightly lower increase in landing distance required, the increase is greater when landing on any form of wet surface, either grass or paved.

### Factors must be multiplied i.e. 1.2 x 1.3

Condition	TAKE-OFF		LANDING	
	Increase in take-off distance to height 50 feet	Factor	Increase in landing distance from height 50 feet	Factor
10% increase in aeroplane weight, e.g. another passenger	20%	1.20	10%	1.10
Increase of 1000 feet in aerodrome elevation	10%	1.10	5%	1.05
Increase of 10° C in ambient temperature	10%	1.10	5%	1.05
Dry grass* - up to 20cm (8 in) on firm soil	20%	1.20	15% <sup>+</sup>	1.15
Wet grass* - up to 20 cm (8in) on firm soil	30%	1.30	35% Very short grass may be slippery, and distances may increase by up to <b>60%</b>	1.35
Wet paved surface	-	-	15%	1.15
A 2% slope*	Uphill 10%	1.10	Downhill 10%	1.10
Tailwind component 10% of lift off or landing speed	20%	1.20	20%	1.20
Soft ground or snow*	25% or more	1.25 +	25% or more	1.25+
NOW USE ADDITIONAL SAFETY FACTORS (if data is unfactored)		<b>1.33</b>		<b>1.43</b>

#### Notes:

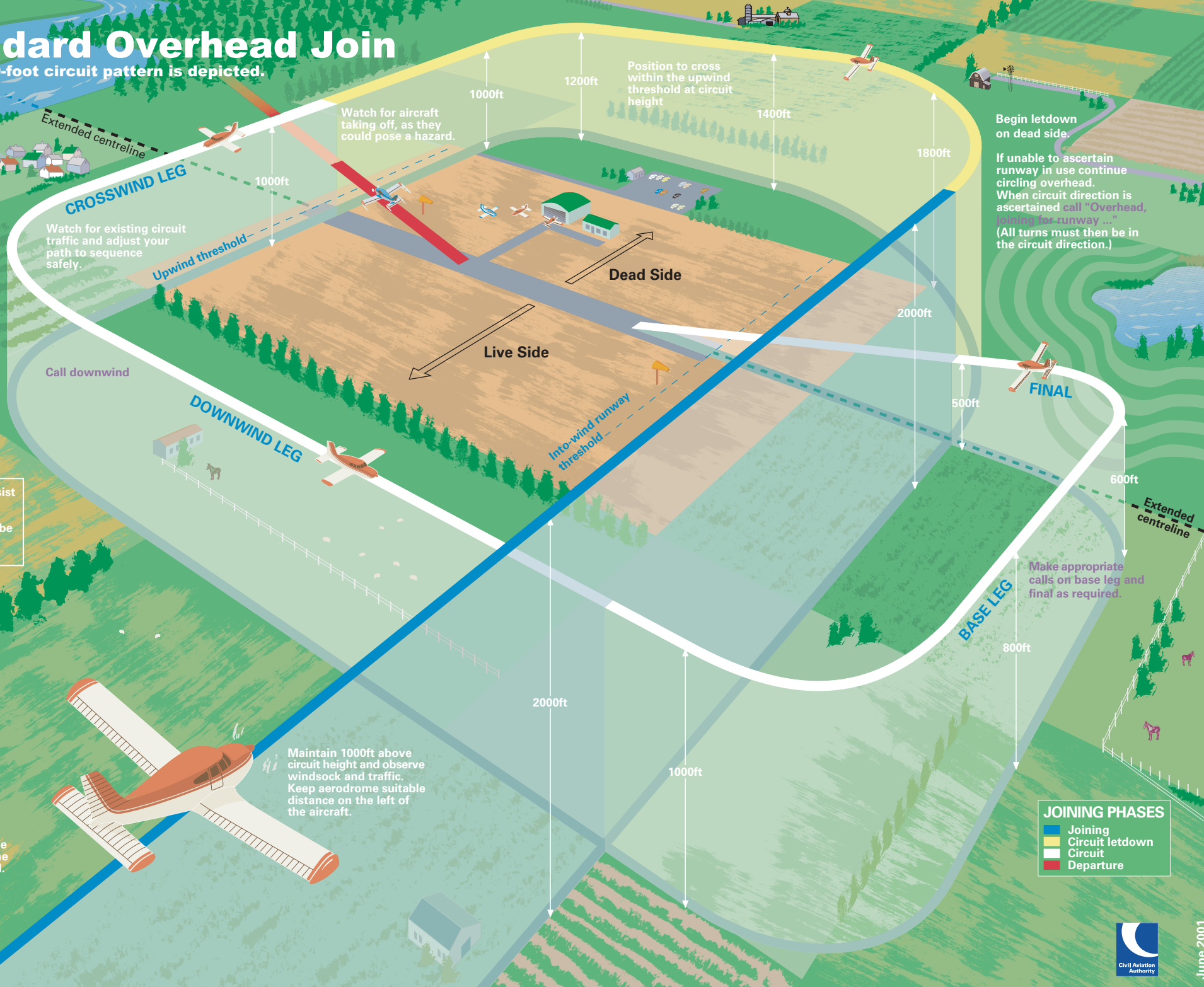
1.\* Effect on ground run/roll will be proportionately greater.

2.+ For a few types of aeroplane e.g. those without brakes, grass surfaces may decrease the landing roll. However, assume the INCREASE shown until you are thoroughly conversant with the aeroplane type.

3. Any deviation from normal operating techniques is likely to result in an increased distance.

# The Standard Overhead Join

Note: A lefthand 1000-foot circuit pattern is depicted.



Correct circuit procedures assist you to see and be seen, thus reducing the risk of collision. An overhead join will always be preferable, especially if the aerodrome is unfamiliar.

First radio call should be made 5-10 miles from the aerodrome and joining checks completed.

Watch for existing circuit traffic and adjust your path to sequence safely.

Watch for aircraft taking off, as they could pose a hazard.

Maintain 1000ft above circuit height and observe windsock and traffic. Keep aerodrome suitable distance on the left of the aircraft.

Begin letdown on dead side.  
If unable to ascertain runway in use continue circling overhead. When circuit direction is ascertained call "Overhead, joining for runway ..." (All turns must then be in the circuit direction.)

Make appropriate calls on base leg and final as required.

**JOINING PHASES**

- █ Joining
- █ Circuit letdown
- █ Circuit
- █ Departure

## **1 General**

1.1 In accordance with Article 46 of the Air Navigation Order 2000, the SSR transponder shall be operated within the airspace notified at paragraph GEN 1-5-3, paragraph 1.3.

1.2 In airspace where the operation of transponders is not mandatory pilots of suitably equipped aircraft should comply with paragraph 2.2 except when remaining within an aerodrome traffic pattern below 3000 ft agl.

1.3 With the exceptions detailed in paragraph 2 pilots shall:

- (a) If proceeding from an area where a specific code has been assigned to the aircraft by an ATS Unit, maintain that code setting unless otherwise instructed;
- (b) select or reselect codes, or switch off the equipment when airborne only when instructed by an ATS Unit;
- (c) acknowledge code setting instructions by reading back the code to be set;
- (d) select Mode C simultaneously with Mode A unless otherwise instructed by an ATS Unit;
- (e) when reporting levels under routine procedures or when requested by ATC, state the current altimeter reading to the nearest 100 ft. This is to assist in the verification of Mode C data transmitted by the aircraft.

**Note:** If, on verification there is a difference of more than 200 ft between the level readout and the reported level, the pilot will normally be instructed to switch off Mode C. If independent switching of Mode C is not possible the pilot will be instructed to select Code 0000 to indicate a transponder malfunction.

## **2 Special Purpose Codes**

2.1 Some codes are reserved internationally for special purposes and should be selected as follows:

- (a) Code 7700. To indicate an emergency condition, this code should be selected as soon as is practicable after declaring an emergency situation, and having due regard for the over-riding importance of controlling aircraft and containing the emergency. However, if the aircraft is already transmitting a discrete code and receiving an air traffic service, that code may be retained at the discretion of either the pilot or the controller;
- (b) Code 7600. To indicate a radio failure;
- (c) Code 7500. To indicate unlawful interference with the planned operation of a flight, unless circumstances warrant the use of Code 7700;
- (d) Code 2000. When entering United Kingdom airspace from an adjacent region where the operation of transponders has not been required;
- (e) Code 7007. This code is allocated to aircraft engaged on airborne observation flights under the terms of the Treaty on Open Skies. Flight Priority Category B status has been granted for such flights and details will be published by NOTAM. Mode C should be operated with all of the above codes.

### **2.2 Conspicuity Code**

2.2.1 When operating at and above FL 100 pilots **shall** select code 7000 and Mode C except:

- (a) When receiving a service from an ATS Unit or Air Defence Unit which requires a different setting;
- (b) when circumstances require the use of one of the Special Purpose Codes or one of the other specific conspicuity codes assigned in accordance with the UK SSR Code Assignment Plan as detailed in the table at ENR 1-6-2-4 to ENR 1-6-2-8.

2.2.2 When operating below FL 100 pilots **should** select Code 7000 and Mode C except as above.

2.2.3 Pilots are warned of the need for caution when selecting code 7000 due to the proximity of the Special Purposes Codes.

### **2.3 Parachute Dropping**

2.3.1 Unless a discrete code has already been assigned, pilots of transponder equipped aircraft should select Code 0033, together with Mode C, five minutes before the drop commences until the parachutists are estimated to be on the ground.

### **2.4 Aerobatic Manoeuvres**

2.4.1 The use of Special Purpose Code 7004 shall be for solo or formation aerobatics, whilst displaying, practising or training for a display or for aerobatics training or general aerobatic practice. Any civil or military pilot may use this code whilst conducting aerobatic manoeuvres.

2.4.2 Unless a discrete code has already been assigned, pilots of transponder equipped aircraft should select Code 7004, together with Mode C, five minutes before commencement of their aerobatic manoeuvres until they cease and resume normal operations.

2.4.3 Pilots are encouraged to contact ATCUs and advise them of the vertical, lateral and temporal limits within which they will be operating and using the SSR Code 7004.

2.4.4 Controllers are reminded that SSR Code 7004 must be considered as unvalidated and the associated Mode C unverified. Traffic information will be passed to aircraft receiving a service as follows:  
'Unknown aerobatic traffic, (number) o'clock (distance) miles opposite direction/crossing left/right indicating (altitude) unverified (if Mode C displayed)'.

## **3 Transponder Failure**

3.1 Failure before intended departure

3.1.1 If the transponder fails before intended departure and cannot be repaired pilots shall:

- (a) Plan to proceed as directly as possible to the nearest suitable aerodrome where repair can be made;
- (b) inform ATS as soon as possible preferably before the submission of a flight plan. When granting clearance to such aircraft, ATC will take into account the existing and anticipated traffic situation and may have to modify the time of departure, flight level or route of the intended flight;
- (c) insert in item 10 of the ICAO flight plan under SSR the letter N for complete unserviceability of the transponder or in the case of partial failure, the letter corresponding to the remaining transponder capability as specified in ICAO Doc 4444, Appendix 2.

3.2 Failure after departure

3.2.1 If the transponder fails after departure or en-route, ATS Units will endeavour to provide for continuation of the flight in accordance with the original flight plan. In certain traffic situations this may not be possible particularly when the failure is detected shortly after take-off. The aircraft may then be required to return to the departure aerodrome or to land at another aerodrome acceptable to the operator and to ATC. After landing, pilots shall make every effort to have the transponder restored to normal operation. If the transponder cannot be repaired then the provisions in paragraph 3.1.1 apply.

3.3 At present the temporary failure of SSR Code C alone would not restrict the normal operation of the flight.

**4 Radio Telephony Phraseology For Use With SSR.** This is in accordance with ICAO Doc 4444, Chapter 12 para 12.4.3.

**5 UK SSR Code Assignment Plan** (as detailed in the table at ENR 1-6-2-4 to ENR 1-6-2-8 (See also notes below)).

**Note 1:** Pilots **are not** to preselect code settings for discrete codes until instructed to do so by the appropriate controlling agency.

**Note 2:** The codes or series annotated \* are used for conspicuity, co-ordination or special purposes and, unless procedures have been agreed with UK Directorate of Airspace Policy, the Mode 3/A and associated Mode C data must be considered unvalidated and unverified.

**Note 3:** These codes are assigned by Aberdeen for helicopters operating in Northern North Sea Off-shore area and out to 5° West.

**Note 4:** Non-discrete assignment to military aircraft operating within the Vale of York AIAA. Leeming and Linton-on-Ouse are authorised by UK Directorate of Airspace Policy, to apply standard vertical separation between military aircraft under service and military aircraft assigned this code.

**Note 5:** Ground based transponder equipment.

**Note 6:** For use within a 25 nm radius of Colerne in the FIR, up to FL 100, outside of Controlled Airspace. Although both codes are for conspicuity purposes, the code 4577 will be validated and verified.

**Note 7:** For use by military fixed-wing aircraft on passing 2000 ft MSD in the descent to the UK Low Flying System (LFS) and retained whilst operating in the LFS. When a radar service is required on climb-out from the LFS, the code will be retained by the aircraft until alternative instructions are passed by an ATC unit.

**Note 8:** These codes will be assigned to aircraft on air policing missions within the UK FIR/UIR operating under Air Defence Priority Flight (ADPF) status. NATO Air Surveillance and Control System (ASACS) units, NATO Airborne Early Warning aircraft or military ATCCs will normally control the aircraft. The actual controlling unit for a particular flight will be notified by the relevant NATO ASACS unit to the military ATC supervisor whose area of responsibility contains the intended route of the ADPF aircraft. The military ATC supervisor will then inform the relevant civil ATCC. Where any doubt about the controlling agency exists, the relevant military ATC supervisor with the responsibility for the area within which the ADPF aircraft is operating should be contacted in the first instance.

**Note 9:** This code is assigned by the FISO to aircraft requesting entry into Controlled Airspace for the purpose of joining or crossing the ATS Route network. Pilots shall only select the code when they are within two-way communication with the London FIS. Where available, Mode C should also be selected. If communication is lost or the aircraft leaves the FIS frequency, pilots shall deselect this special purpose code. The assignment of this code does not imply the provision of a radar service and the code and any associated Mode C must be considered to be unvalidated and unverified.

**Note 10:** The first code in each octal block (i.e. 4610, 4620, 4630, 4640, 4650 and 4660) will be assigned to aircraft under control of the Scottish Military Allocator.

**Reference to specific SSR's can be found in the ENR section (1-6-2-1/8) of the AIP at [www.ais.org.uk](http://www.ais.org.uk)**

## **Frequency Reference Cards**

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As the CAA VFR charts are already quite detailed, the decision was made to provide additional information on a separate reference cards, with one covering the Northern and Scottish 1:500k Aeronautical Charts, and another for the Southern Chart.

They feature ICAO designators for use with GPS and selected ATC frequencies plus information regarding DACS (Danger Area Crossing Service), DAAIS (Danger Area Activity Information Service) and parachute drop zone information and comes free with each 1:500k CAA chart purchased.

The information has been kept generic in order that the card may also be used with the 1:250 000 series charts.

This reference card enables us to provide pilots with the extra information required without cluttering up the main charts, which could make them too difficult to read. The card has been produced in 'kneeboard size' and is therefore easy to use in the cockpit. We hope this will bring greater awareness to airspace users and will increase the safety of VFR navigation.

[View the Northern and Scottish Frequency reference card.](#)

[View the Southern Frequency reference card.](#)