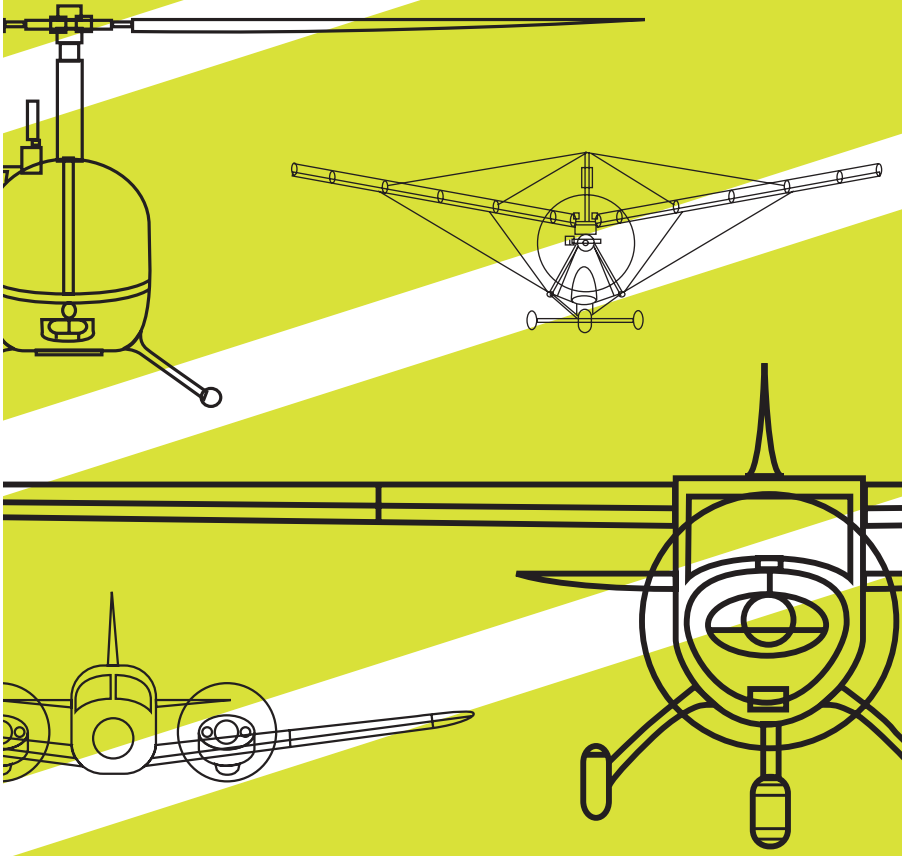




# 8D

## AIR TRAFFIC SERVICES OUTSIDE CONTROLLED AIRSPACE



# AIR TRAFFIC SERVICES OUTSIDE CONTROLLED AIRSPACE



*Two radar services are available in the FIR*

## 1 INTRODUCTION

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**a** In this leaflet, 'controlled airspace' means airspace of Classes A, B, C, D and E (the UK does not use C at present, although it may be introduced at some future date). The leaflet describes only the types of air traffic service available **outside** controlled airspace; ie. airspace Classes F and G – commonly known as the 'open' FIR. These types of service are as follows:

- Flight Information Service (FIS).
- Radar Information Service (RIS).
- Radar Advisory Service (RAS).

- Procedural Service.
- Alerting (i.e. Emergency) Service.

These services apply to the departure, en-route and arrival stages of your flight.

**b** If you require FIS, RIS or RAS you must ask an appropriate air traffic service unit (ATSU) to provide the particular service you wish to receive. However, some ATSUs are only staffed by Flight Information Service Officers (FISO) or Air/Ground Operators. Such ATSUs will **ONLY** be able to provide an information service for their local area.

c If the service you requested cannot be provided, for instance due to workload or equipment problems, another service may be offered.

d Procedural Service and Alerting Service (known as Emergency Service) are provided automatically by ATSU's, (see also paras 2b and 2c). It is not necessary for you to request these services.

e It is important that you understand the benefits and limitations of these air traffic services so that you can ask the controller for the best one to suit your needs. (Further details are given in the yellow AIC entitled 'Services to Aircraft Outside Controlled Airspace'.) (Currently 20/98, Yellow 287.)

f You do not have to hold an instrument rating to fly in accordance with the Instrument Flight Rules (IFR) **outside controlled airspace**. There is nothing mysterious about IFR within UK airspace, they are there to ensure that you have adequate clearance from ground obstacles and that you are safely separated in the vertical plane, according to your magnetic track,

from other aircraft in flight. The UK regulations for IFR flights outside controlled airspace are as follows:

- Except when necessary for take off and landing, or when authorised by the appropriate authority, you must be flying at least 1000 ft above the highest obstacle within 5 nm of your aircraft. However, you may disregard this if you are flying IFR below 3000 ft and you are **clear of cloud and in sight of the surface**.\*
- If you are in level flight above 3000 ft amsl you **MUST** fly at a level appropriate to your magnetic track in accordance with the Quadrantal System.

g There is often confusion about the IFR in relation to VMC and IMC. VMC and IMC refer to the weather conditions encountered during flight are terms that are used to denote actual weather conditions, in relation to the VFR minima.

h The weather conditions for flying **outside controlled airspace** in accordance with Visual Flight Rules are:

	Distance from cloud		Flight Visibility
	Horizontal	Vertical	
at and above FL 100	1500 nm	1000 ft	8 km
below FL 100	1500 nm	1000 ft	5 km
at or below 3000 ft amsl	clear of cloud and in sight of the surface		5 km
ditto, all aircraft flying at 140 kts IAS or less, other than helicopters	ditto		1500 m
helicopters	ditto		compatible with speed <sup>+</sup>

\*Under review to introduce a minimum visibility of 1500 m by day and 5 km by night.

<sup>+</sup>Under review, may become 1500 metres by day.

**PILOTS MUST BE AWARE OF THE MINIMUM SAFE HEIGHT AND MUST COMPLY WITH RULE 5 THE LOW FLYING RULES.**

## 2 NON-RADAR SERVICES

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### a Flight Information Service (FIS):

This non-radar service provides information to assist with the safe and efficient conduct of your flight. The information available may include:

- Weather.
- Serviceability of navigation and approach aids.
- Conditions at aerodromes.
- Other aircraft reported in your area, which are in contact with or known to the FIS.
- Other information pertinent to flight safety.

Remember that use of FIS is not intended to replace pre-flight planning, nor is it intended to be a comprehensive source of information on the presence of other aircraft. The controller may be able to provide information on aircraft in your vicinity that have contacted him, but it is **most unlikely** that he will be aware of **all** aircraft that may affect your flight, ie: warnings of conflicting traffic are far less likely to be given under a FIS than under RAS or RIS. Most ATSUs can provide a FIS within their local areas. Those ATSUs which provide RAS and RIS can normally offer a FIS when conditions prevent them from providing a radar service.

**b Procedural Service:** This non-radar service provides separation between **participating** traffic and is only based on position reports. For example, it is used for IFR traffic which is carrying out pilot-interpreted approaches when radar is not available, or for aircraft flying along Advisory Routes. It may also be used when radar contact is temporarily lost with an aircraft receiving RAS in the vicinity of other participating traffic. However, on the RT, civil ATSUs do not use the term 'Procedural Service'.

### c Alerting (Emergency) Service:

When the controller becomes aware, or suspects, that you need Search and Rescue assistance, he will notify the appropriate organisations; this is known as an Alerting Service. It is not a service which you request – it is provided automatically. Remember, the best way of making sure that the controller realises that you have an emergency situation is to make a clear MAYDAY or PAN call, whichever is appropriate (see Pink AIC entitled 'Use of the VHF International Aeronautical Emergency Service').

## 3 RADAR SERVICES

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### a Radar Information Service (RIS):

RIS is a radar service which aims to provide you with information on conflicting traffic, but **no** avoiding action will be offered. Hence you are responsible for maintaining separation from other aircraft. This service is tailor-made for letting you get on with your flying in VMC while the controller provides you with an extra pair of eyes. This is a very useful facility when carrying out general handling, or when flying through busy airspace where repeated avoiding action under RAS may be unnecessary and timewasting. The controller may provide radar headings for his planning purpose or at the pilot's request. The pilot still remains responsible for separation from other aircraft and may decide not to accept the heading. However, you **must** tell the controller **before** you change level, level-band, or route. RIS may be requested under any flight rules or meteorological conditions, but in IMC it is better to obtain and use RAS (if available).

**b Radar Advisory Service (RAS):** This service is only available to flights operating under IFR irrespective of meteorological conditions and aims

to provide you with the information **and** the advisory avoiding action necessary to maintain separation from other aircraft. It is the radar service used by many pilots, particularly when flying in IMC. But remember, if you are:

- **not qualified to fly in IMC, or**
- **qualified but out-of-practice, you must NOT accept an advisory turn or level change which will put you into IMC.**

However, if you do not take the controller's advice, or if for any other reason you cannot accept heading or level changes, **you must tell the controller**, who may be able to offer alternative avoiding action. You **must** also inform the controller before making any other changes in heading or level, because it may affect your separation from other aircraft. If you request RAS, but the controller is unable to provide that service, you may be offered RIS instead.

#### 4 HOW TO OBTAIN A SERVICE

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a You should contact the appropriate ATSU and ask for the service you require. The controller will tell you whether your request can be met. If you don't specify the type of service, the controller may apply the best available. You can request a change in the type of service at any time. The ATSU should be given the following information:

- callsign and type of aircraft
- estimated position
- heading
- level (or level-band for traffic carrying out general handling)
- intention (next reporting/turning point, destination or general handling area)

- Flight rules (IFR/VFR)
- type of service requested (RAS/RIS).

b Services are available from civil and military ATSUs, subject to their operating hours and controller workload. But remember that, at weekends, many military ATSUs are closed and so you may not be able to obtain a RAS or RIS for some part of your route. In this case you should consider contacting the FIR controller for a FIS, or aerodromes along your route who may be able to provide a more comprehensive FIS for their local area.

NB Remember, even when only providing a FIS, a controller may wish to identify your aircraft on radar to confirm your position – but that does **not** mean that a radar service will subsequently be provided. Furthermore, just because you have been allocated a transponder code, AND IDENTIFIED. **It does not mean that you are receiving any service.**

#### 5 LIMITATIONS OF RADAR SERVICE

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Gliders, microlights, balloons and very slow moving aircraft do not always show on radar. When they do, they are often indistinguishable from the radar returns of birds, road vehicles etc; this is an inherent limitation in radar services. It is important that you are aware of this and **maintain the best possible look-out for other aircraft even though you are receiving RIS or RAS**. When a radar service is adversely affected by other factors, eg weather returns on the radar, poor radar performance, high traffic density, controller workload etc it is described as 'limited'. The controller will then give you a specific warning of the situation eg 'You are near the base of radar cover'. You should note the warning and conduct

your flight accordingly, such as by adjusting your look-out scan.

## 6 TERRAIN AND OBSTACLE CLEARANCE

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Pilots are **always** responsible for providing their own **terrain and obstacle** clearance whilst flying under VFR. However, ATSUs will only provide RAS above levels/altitudes which they consider safe.

## 7 CHANGING FREQUENCY

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When you are in sight of your destination or wish to change to another frequency, always tell the FIR/Radar Controller that you are leaving their frequency and your subsequent intentions.

## 8 AVAILABILITY OF SERVICES

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**a** Any ATSU may provide the services described in this Leaflet but you should particularly note the following:

**b Lower Airspace Radar Service:** Although many ATSUs can provide RAS/RIS, those whose location makes them particularly suitable for providing radar service to transit traffic, at and below FL 95, participate in a system called the Lower Airspace Radar Service (LARS). Details are in the Yellow AIC Services to Aircraft Outside Controlled Airspace and in the UK AIP ENR 1-6-4-1, latest chart of coverage shown in 6-1-6-3. The service is mostly available weekdays 0800 to 1700 local.

**c ATCC FIR Service:** The London and Scottish ATCCs try to provide FIS in their FIRs. Details are in the UK AIP ENR 1-1-2-1-2. You should consider a call if you have not obtained any service elsewhere. (Note that all London Flight Information Regions may be operated by one person).

**d Military Aerodrome Traffic Zone (MATZ) Penetration Service:** This is available for aerodromes which have MATZs. The Penetration Service will

often include provision of RAS. Details are in the Yellow AIC listed in para 1e, in the Yellow AIC entitled 'Military Aerodrome Traffic Zones' and in the UK AIP ENR 2-2-4-1/2.

**e Danger Area Services:** Nominated Service Units (see UK AIP ENR 5-1-3-1 to -24 and the legend on the CAA 1:500,000 charts) provide Danger Area Crossing Service (DACs) or Danger Area Activity Information Service (DAAIS). **MERELY OBTAINING INFORMATION UNDER DAAIS DOES NOT GIVE YOU A CLEARANCE TO CROSS AN ACTIVE DANGER AREA. YOU MUST HAVE A SPECIFIC CLEARANCE.**

**f Areas of Intense Aerial Activity and Aerial Tactics Areas:** Intense civil and/or military activity takes place within these areas which are listed in ENR 5-2. Pilots of non-participating aircraft who are unable to avoid AIAAs/ATAs, must keep a good look out and call the appropriate frequency which is also shown on the 1:500,000 chart.

**g Free-fall Parachute Drop Zones:** Intense free-fall is conducted up to FL 150 at permanent drop zones (see UK AIP ENR 1-1-5-7). Activity information may be available from certain ATSUs but pilots are advised to assume a drop zone (DZ) is active if no information can be obtained. Parachute dropping aircraft and, on occasions, parachutists may be encountered outside the DZ circle shown on the chart and pilots are strongly advised to give a wide berth to all active DZs.

## KNOWLEDGE, PREPARATION, PRACTICE

Other leaflets in this series:

- 1C *Good Airmanship Guide*
- 2B *Care of Passengers*
- 3C *Winter Flying*
- 5D *VFR Navigation*
- 6C *Aerodrome Sense*
- 7B *Aeroplane Performance*
- 9A *Weight and Balance*
- 10A *Bird Avoidance*
- 11 *Interception Procedures*
- 12C *Strip Sense*
- 13A *Collision Avoidance*
- 14A *Piston Engine Icing*
- 15B *Wake Vortex*
- 16A *Balloon Airmanship Guide*
- 17B *Helicopter Airmanship*
- 18A *Military Low Flying*
- 19 *Aerobatics*
- 20A *VFR Flight Plans*
- 21A *Ditching*
- 22 *Radiotelephony*
- 23 *Pilots – it's your Decision*
- 24 *Pilot Health*

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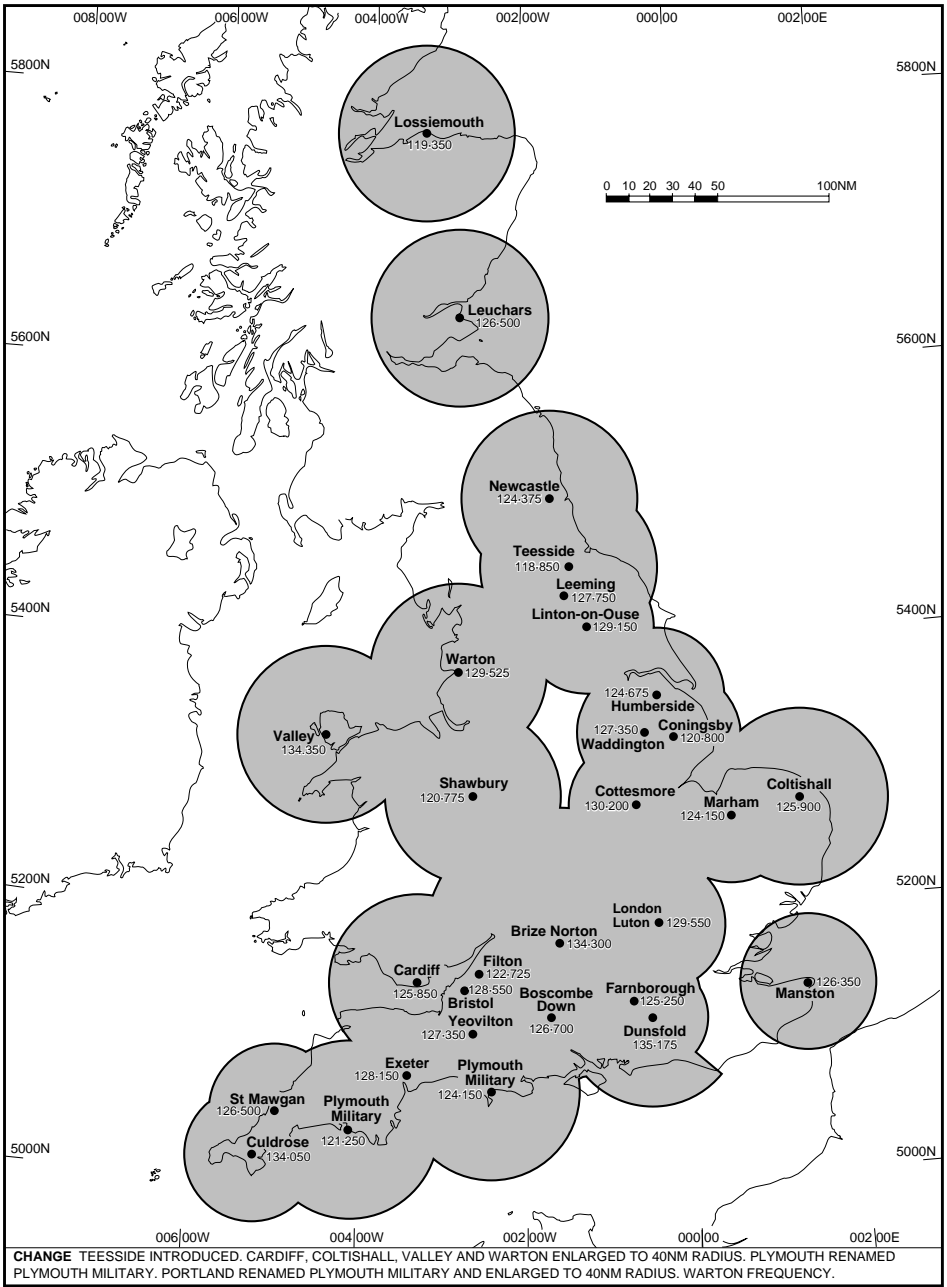
Suggestions and technical queries to SRG Safety Promotion Section, Aviation House, Gatwick Airport, West Sussex RH6 0YR. Telephone 01293 573225/7.

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# LOWER AIRSPACE RADAR SERVICE



AERO INFO DATE 17 MAR 99

EFFECTIVE DATE 20 MAY 99

**CHECK UK AIP ENR 1-6-4-1 FOR UP TO DATE SITUATION**

# ATC Services ...



## Flight Information ---

No – not a **control** service, just an open channel for you to request flight safety information such as, weather, aerodrome states. However, you will only receive warnings of other traffic IF its presence in your vicinity has been reported to the controller



## Procedural Service ---

'No radar, right?'

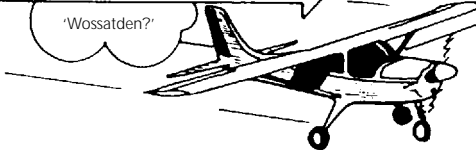


'Right – we're separated from other participating traffic based on position reports'



## Radar Information ---

'Wossatden?'

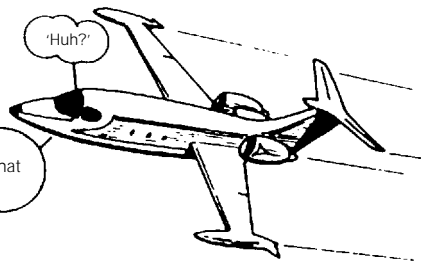


'The Controller gives you details of conflicts – **you** decide if any action is necessary.'



## Radar Advisory ---

You must be flying under IFR, irrespective of weather conditions, to receive this service. 'The Controller will tell you about conflicts and offer advisory avoiding action! If you choose **not** to take the advice you must tell the Controller, but REMEMBER that you now become responsible for avoiding that traffic'



## ...Know them!

*Pilots are always responsible for their own terrain and obstacle clearance*