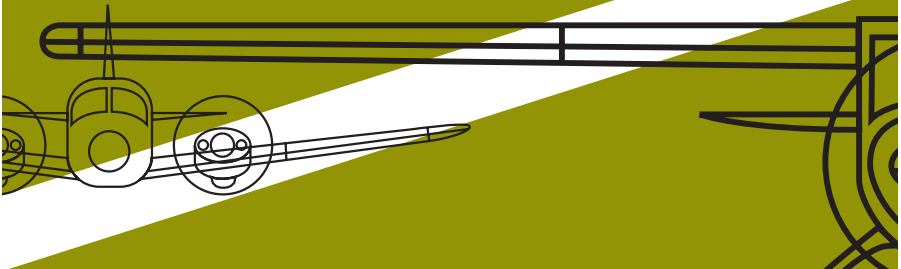
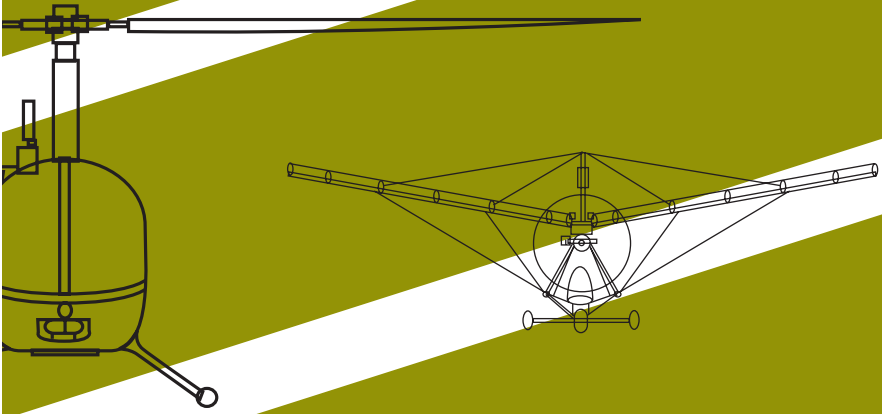




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MILITARY LOW FLYING



MILITARY LOW FLYING



Photo: RAF

1 INTRODUCTION

The purpose of this Leaflet, which is based on AIC 82/1996 (Yellow 227), is to inform civilian pilots, in the interests of mutual flight safety, about military low flying training operations in the UK. Low flying training is an essential element of an effective air force and regular training in a **realistic environment** is necessary to maintain operational capabilities. Over the UK, most low flying is carried out by the Royal Air Force, but training is also conducted by the Royal Navy, the Army Air Corps and, to a lesser extent, by other NATO air forces.

2 THE UNITED KINGDOM MILITARY LOW FLYING SYSTEM

a The United Kingdom Low Flying System (UK LFS) (see map) covers the whole of the UK and surrounding over-sea areas, **from the surface to**

2,000 ft. This permits wide distribution of the activity so as to reduce the environmental impact of low flying. Military pilots must avoid major built-up areas, Controlled Airspace, Aerodrome Traffic Zones (ATZ) and other sensitive locations. Inevitably, the protection given to these areas creates unavoidable concentrations of military low flying activity where corridors are formed between them. Where necessary, military pilots, except those of helicopters flying below 250 ft Minimum Separation Distance (MSD), (MSD is the authorised minimum separation, in all directions, between an aircraft and the ground, water or any obstacle) follow established uni-directional flows below 2,000 ft to reduce the risk of conflict. These flow arrangements, which apply in daylight hours only, over areas and through 'choke' points, are published on CAA chart UK AIP ENR 6-5-2-1

'Areas of Intense Aerial Activity, Aerial Tactical Areas and Military Low Flying System'. (Available free of charge from Westward documedia Limited – address on back of this leaflet, please send an A4 sized SAE.)

b For administrative purposes, the UK LFS is divided geographically into Low Flying Areas (LFA) – see map. Certain LFA, nominated Dedicated User Areas (DUA), are allocated for specific use, eg concentrated helicopter training, and are managed under local arrangements. For example, Salisbury Plain and the surrounding area, is a DUA. It is used mainly by Army Air Corps helicopters, but other military aircraft may be encountered. Civil pilots should be aware that night exercises are frequently conducted in this area without, or with limited, navigation lights. Details of the Salisbury Plain night training area are in the ENR 1-1-5 section of the UK AIP. Similar night exercises may be conducted in the airspace of Northern Ireland. **Details are promulgated by UK NOTAM when such exercises are conducted in other areas of the UK LFS.**

c In the North of Scotland, the Highlands Restricted Area (HRA) designated EGR 610A, B, C and D is used for special training, often in Instrument Meteorological Conditions (IMC). To ensure safety, entry by civil and non-participating military aircraft is prohibited during the promulgated operating hours – between 15.00 and 23.00 (local time) Monday to Thursday in winter, and 1600–2200 in summer. Details of the HRA are contained in AIC 75/1995 (Pink 125) and UK AIP ENR 5-12. During operating hours crossing permission for Areas 610C and D may be available from **Tain Range on 122.750 MHz**. If the HRA has not been booked for specific military flying, access to the whole of the HRA airspace can be obtained from the ALFENS Ops, on the Freephone

number given in para 4d. A civil pilot will be given clearance to operate in the HRA airspace for up to 3½ hours from the time of the telephone application. The airspace is available for normal use outside the above and during Scottish Public holidays.

d UK Danger Areas are regularly used for weapons training. This can lead to an increased amount of low flying in the surrounding airspace. Details of Danger Areas can be found in the UK AIP ENR 5-1.

3 MILITARY LOW FLYING ACTIVITY

a Military fixed-wing aircraft (except light aircraft and helicopters) are considered to be low flying when less than 2,000 ft MSD. The lowest height at which fixed wing military aircraft normally fly is 250 ft MSD. However, in three specially designated areas, known as Tactical Training Areas (TTA) located in Mid-Wales, in the Borders/SW Scotland and in the North of Scotland, a small number of flights may be authorised to fly down to 100 ft MSD. Military light propeller aircraft and helicopters are considered to be low flying below 500 ft MSD. In practice, most military low flying takes place between 250 ft and 600 MSD, decreasing in intensity up to 1,000 ft MSD and reducing further in the 1,000 ft to 2,000 ft height band. However, occasionally military aircraft perform high energy manoeuvres between 250 ft and 2,000 ft during which they rapidly change height, speed and direction.

b Most low flying training is during weekdays and daylight hours, although it is necessary to carry out some low flying at night and occasionally at weekends. Fast jet aircraft are normally limited to a speed of 450 kts (7½ miles per minute), although speeds of up to 550 kts can be authorised for short

periods during simulated attacks and practice interceptions.

c Low flying takes place in the UK Flight Information Regions (FIR), outside Controlled Airspace, where ground radio and radar coverage is not adequate to provide a radar service. It would be impractical for military jet aircraft to avoid each other by contacting ATC units. With the exception of the HRA, military low flying is only conducted in Visual Meteorological Conditions (VMC), where pilots not only fly with visual reference to the surface, but also apply the see and avoid principle regarding other aircraft.

4 CIVIL LOW LEVEL ACTIVITY

a LATCC (Mil) ALFENS Ops disseminates the information notified from the Civil Aircraft Notification Procedure (CANP), to all military flying units.

b Civil pilots engaged in low level aerial work may be subject to aircraft manoeuvring limitations and/or restricted lookout. CANP exists to provide military aircrew with information on aircraft below 1,000 ft agl engaged in crop spraying, photography, surveys or helicopter underslung load work close to a declared site. Military aircraft at speeds in excess of 140 kts will avoid laterally, or by overflying with a separation of **not less than 500 ft** the notified CANP area of operation. However, no provision is made for commercial (public transport) transit flights at low level.

c **Recreational activities notified under CANP will not normally be provided with CANP avoidance areas.** However, where five or more aircraft (gliders, hang and paragliders, free balloons or microlights) plan to operate at a site which is not normally used, or will be

outside the published hours, the ALFENS Ops will issue a warning to military pilots.

d The ALFENS Ops should be contacted **not less than 4 hours** beforehand, but preferably earlier, to discuss CANP. This minimum period of 4 hours for notification is required so that aircrew can be advised during their flight planning. Notifications with less than 4 hours notice will generally be accepted but as the notice period diminishes, so does the likelihood of the message getting through. A 24 hour Freephone facility is available on **0800 515544 or by Freefax on 0500 300120**. Full information on the use of CANP is published in AIC 107/1999 (Yellow 345) and UK AIP ENR 1-10-13.

e Pilots should note that information about the Temporary Restricted Airspace associated with Red Arrows displays, of **6 nm radius**, which may be at country fairs and seaside resorts, is available on **Freephone 0500 354802**. The information, which also includes Royal Flights, Pre-planned and Emergency Restrictions, is updated daily, at about 19.00 hours local. Remember, during summer weekends the Red Arrows may transit at low level between displays and on weekdays can fly contrary to the flow arrows during the run-in to a display.

The free sticker shown overleaf is available from Safety Promotion Section, please send a SAE (address at end).

f Commercial helicopter operators who conduct pipeline inspection flights should refer to AIC 10/1998 (Yellow 284). 'Helicopter Pipeline and Powerline Inspection Procedures'.

g To reduce the risk of conflict with low flying military aircraft, pilots of civil aircraft on Visual Flight Rules (VFR) flights during the working week are advised to:



- fly above 2,000 ft agl if possible
- avoid particularly, operating in the 250 to 1,000 ft agl height band
- climb above 1,000 ft as soon as possible when departing from aerodromes (or landing sites) in the open FIR, and to remain above 1,000 ft for as long as possible when approaching such aerodromes or sites
- where an ATZ is established, fly circuits and procedures within the ATZ (military pilots are directed to avoid ATZs)

NOTE: at aerodromes without an ATZ, military pilots will apply the see and avoid principles

- keep a good lookout at all times, military aircraft smoke trails can be visible before the camouflaged aircraft can be seen. (Safety Sense Leaflet 13A, 'Collision Avoidance' may be helpful.)

5 OTHER AREAS OF INTENSE ACTIVITY

In addition to the Military Low Level flying system the following areas should also be noted:

- AIAAs, (Areas of Intense Aerial Activity) airspace within which military or civil aircraft, singly or in combination with others, regularly participate in unusual manoeuvres.

- ATAs, (Aerial Tactics Areas) airspace of defined dimensions designated for air combat training within which high energy manoeuvres are regularly practiced by aircraft formations.

Pilots of non-participating aircraft who are unable to avoid these areas are strongly advised to make use of a radar service and maintain a particularly good lookout.

6 REPORTING

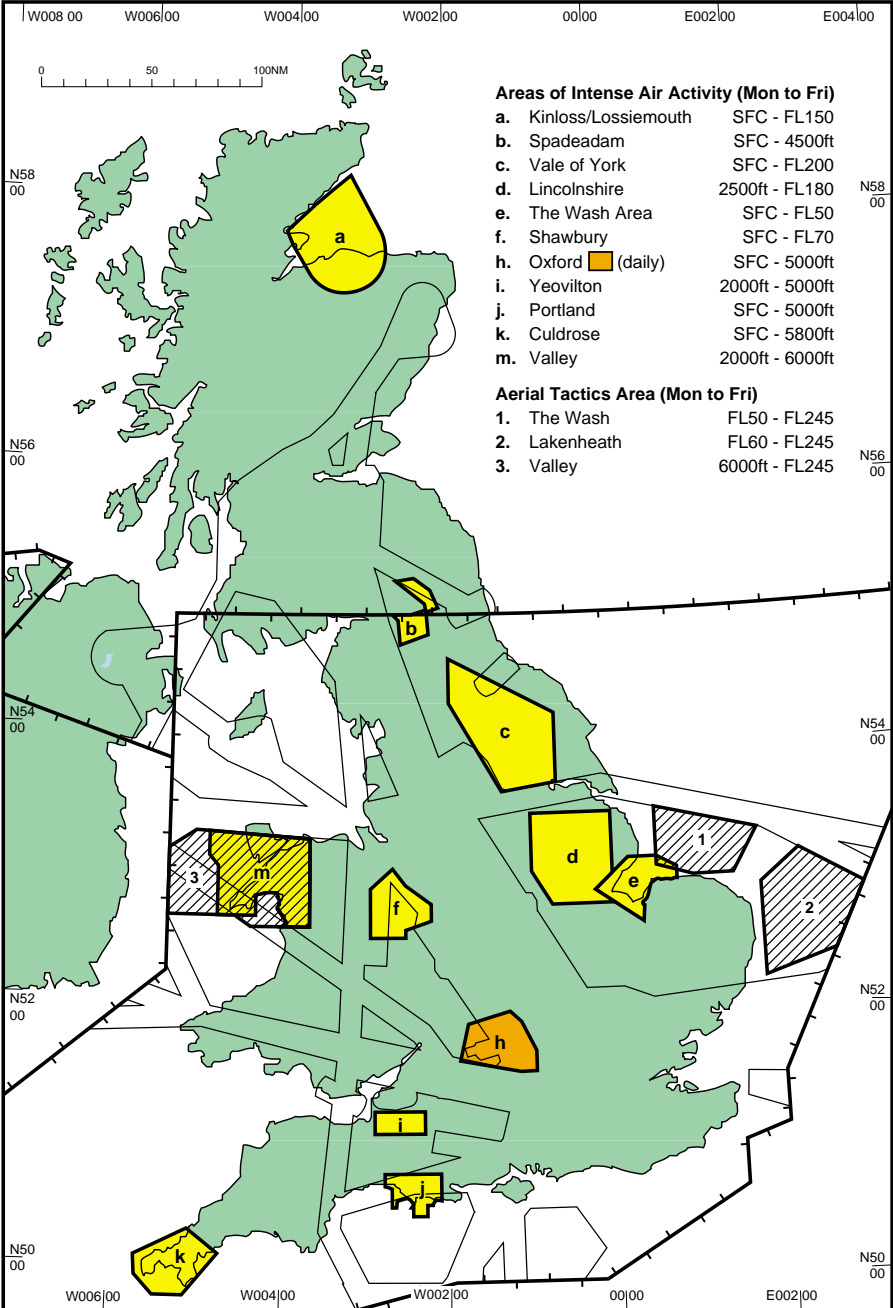
Whenever a pilot considers the aircraft may have been endangered during flight, by the proximity of another aircraft, to the extent that a risk of collision existed the pilot should:

- immediately report by radio to the ATS Unit with which the pilot is in communication, prefixing the message AIRPROX. If this is not possible, immediately after landing in the UK, report by telephone or other means to any UK ATS Unit but preferably to an Area Control Centre

Note: In order that radar tracing can be implemented, as soon as possible, use Freephone 0800 515544 or Freefax 0500 300120.

- although it is only mandatory for Public Transport flights, it is highly important that all AIRPROXES (formerly Airmisses) are reported to the Joint Airprox Section, when the incident occurred in UK airspace, with confirmation in writing, using Airprox Report Form CA1094 (available from address below) within 7 days to: Director, UK Airprox Board, Hillingdon House, Uxbridge, Middx, UB10 0RU, Tel: 01895 276121 or 276122 (normal hours), Fax: 01895 276124, Telex: 934725 AFTN: EGGFYTYA.

AREAS OF INTENSE AIR ACTIVITIES AND AERIAL TACTICS AREA



MAIN POINTS

In the airspace used by the military low flying system, as elsewhere in the open FIR, collision avoidance depends on pilots seeing and avoiding other aircraft. Civil pilots can minimise the risk by:

- being aware that military fast jet activity is of a lower intensity on Friday afternoons and, does not normally take place on Saturdays, Sundays and public holidays. However, there may be a few Hercules flights, some helicopter operations and transits by the Red Arrows
- using the **Freephone 0500 354802** to find out about Red Arrows Displays etc
- giving at least 4 hours notice to the Tactical Booking Cell of low level aerial work and other activities notifiable under CANP
- checking NOTAMs etc for details of military exercises, particularly those which include low flying
- flying **above 2000 ft agl** whenever possible
- where possible **avoiding flying below 1000 ft agl**
- climbing above 1000 ft as soon as possible when departing at aerodromes and landing site in the open FIR
- staying above 1000 ft as long as possible when arriving at such aerodromes,
- keeping the circuit inside an ATZ
- **keeping a good look-out at all times.**

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*
- 8D *Air Traffic Services Outside Controlled Airspace*
- 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*
- 19 *Aerobatics*
- 20A *VFR Flight Plans*
- 21A *Ditching*
- 22 *Radiotelephony*
- 23 *Pilots – it's your Decision*
- 24 *Pilot Health*

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If clubs, organisations or individuals wish to receive further copies, please write to Westward documedia Limited, 37 Windsor Street, Cheltenham, Glos GL52 2DG. Fax. No. 01242 584139. Telephone 01242 235151.

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

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