The ABC of the RTBA - The Defence Low-Altitude Flying Network

What is the RTBA? The Low-Altitude Flying Network

The acronyms used in this publication

AIB	Aeronautical Information Publication
AMSL	Above Mean Sea Level
APP	Approach Control
ASFC	Above Surface Level
AZBA	Low Altitude Manoeuvring Area
CAM	Military Aviation Traffic
DIA	Director of Aeronautical Information
DIRCAM	Director of Military Aeronautical Traffic
FIC (or CIV)	Flight Information Centre
IGN	National Geographic Institute
NOTAM	Notice To Airmen
OACI	International Civil Aviation Organisation
RTBA	Low-Altitude Flying Network
SDT	Automatic Terrain Following
SIA	Aeronautical Information Service
SIV/APP	Flight Information Sector managed by an approach
SUP AIP	Aeronautical Information Publication Supplement
VFR	Visual flight Rules

What is the Low-Altitude Flying Network?

In general, military aircraft may manoeuvre anywhere in the lower airspace, particularly between 500 ft and 1,500 ft above ground, while respecting the regulations of the respective class of airspace and published zones. However, training requirements mean that military pilots are not at all times able to avoid the possibility of a collision, and such training is undertaken within the defence RTBA Low Altitude Flying Network (LAFN).

The Low-Altitude Flying Network (LAFN) is formed by a number of linked zones and used for high-speed training.

The lateral and vertical limits of the respective zones and sections are defined in AIP Aeronautical Information Publication section ENR 5.1; information about prohibited zones, restricted zones and danger areas are provided by the SIA Aeronautical Information Service (http://www.sia.aviation-civile.gouv.fr/); also in the *Complément aux cartes aéronautiques* supplement supplied with the VFR map pouch edited by the SIA.

The Low-Altitude Flying Network may be activated under any or all meteorological conditions and must be avoided during their times of activation. In general, combat aircraft manoeuvring in the LAFN will be using automated terrain-following systems providing no protection against the possibility of collision. The speed of combat aircraft manoeuvring in the LAFN may exceed 500 Kt (~900 km/h). Combat aircraft in the LAFN may also fly in formation.

Geography of the LAFN

Lateral Limits
A paper chart showing the entire LAFN is included in the VFR Chart Pouch supplied by the SIA. An electronic version may be downloaded from the internet site operated by the Director of Military Aircraft Traffic Information (DIRCAM/DIA) at:
http://www.dircam.air.defense.gouv.fr/dia/ aeronautical chart section.
The network is also depicted on SIA charts SIA (1/1,000,000 and 1/250,000), and on the ICAO 1/500,000 chart.

Vertical Limits
The vertical limits of the LAFN may be defined with reference to:
- Height above surface (ASFC);
- Altitude, with reference to mean sea level (AMSL).

Certain sections extend down to surface level. These are represented on the LAFN chart by a different colour. When one section of the LAFN overlaps a lower LAFN section extending to surface level, if the latter is active, so is the overhanging section.
When: avoiding LAFN corridors; when crossing terrain where the chart indicates high ground; and when flying through areas where there is difficulty in respecting the minimum safe VFR altitude and base of the LAFN:

· The VFR pilot should cross the LAFN as high as possible under the prevailing meteorological conditions pertaining.

· When selecting the flight altitude and if the vertical height limits are tight, pay special attention to the vertical limits of the LAFN with respect to the terrain, and adhere to this during the flight.

To facilitate crossing the LAFN, each section on the chart bears an indication of the maximum corridor altitude with reference to the surface.

N.B.: On the 1:500,000 charts the vertical limits of the low flying sections extending to surface level are depicted as follows:

On this chart, section R45B extends from the surface to 800ft above surface; it is located under section R45S3, which extends from 800ft above surface to 3,200ft above surface. The maximum height of this section is 5,600ft.

When is the LAFN Active?

The times at which the LAFN may be active are set out in the French AIP and in the LAFN chart key. The actual times are issued from 17:00 onwards for the following day as follows:
- on the DIRCAM website under the heading *activité RTBA du jour*;
- on telephone green 0800.24.54.66;
- as a NOTAM on the SIA website and on the AZBA chart;

This latter chart gives a diagram of the active sections for the day with times and is found at the SIA website under pre-flight preparation (*préparation du vol*) *Cartes AZBA*.

During flight pilots may check whether or not adjacent sections of the LAFN are active by contacting nearby air traffic control centres, the Flight Information Centre, or an Approach Controller if there is an SIV/APP service.

The LFAN may be subjected to temporary extension outside the usual boundaries and these are notified by a supplement to the AIP or by NOTAM.

Pre-flight preparation must include study of the AZBA NOTAMs or the AZBA chart notes as published elsewhere.

Military Aircraft traffic in Class G Airspace

For training purposes military aircraft fly singly or in formation at very low altitude, in particular in **uncontrolled airspace.** These exercises are flown outside the Low Airspace Flying Network and represent the vast majority of military flights at low altitude.

For technical reasons or due to handling characteristics, jet aircraft are unable to limit their speeds to below 250 Kt VI (~460 km/h) when manoeuvring at less than 10,000 ft. They generally manoeuvre at much higher speeds. Most of the time they operate at between 500 and 1,500 ft ASFC while respecting the rules of the different classes of airspace and other published zones. This is the reason for the following advice issued by French civil and military authorities and published on SIA charts:


AVIS IMPORTANT

L'attention des pilotes est attirée sur le fait que, durant le jour et au-dessus du territoire français, la plupart des vols d'avions d'armes à basse altitude et grande vitesse sont effectués en dessous de 1500 ft ASFC durant les périodes suivantes : LUN -VEN sauf JF, SR - 30 à SS + 30.

En conséquence, il est recommandé aux pilotes VFR, pour autant que cela soit possible et permis, de conduire leur vol en croisière à partir de 1500 ft ASFC

WARNING

Most higt speed low altitude military flights are carried out on French territory below 1500 ft ASFC from MON to FRI (except on public holidays), from SD - 30 to SS + 30. Therefore, VFR pilots are advised to cruise above 1500 ft ASFC whenever possible and allowed.

The same advice is printed on Jeppesen VFR/GPS maps for all European countries.

When a section of the LAFN is inactive, the airspace is regarded as being Class G. Nevertheless, at such times fighter aircraft may be encountered in such uncontrolled airspace and the standard 'see and avoid' rules apply to all traffic.

The importance of setting Transponder Code 7000 with height altitude encoder C

In those areas of France where carriage of a transponder is not mandatory other than when instructed by Air Traffic Control, the pilot of an aircraft equipped with a transponder codes A + C, or Mode S with altitude encoding, should set Code 7000 from the beginning to the end of the flight and activate the altitude encoder when VFR manoeuvring in CAM (see RCA 3 § 10.4.2.1.3.2, accessible on the SIA internet website). Such action enables military air traffic controllers to alert aircraft using the LAFN of the presence of VFR traffic manoeuvring near the network.

In brief ...

When flying at low altitude, always bear the possibility of military aircraft in mind.

Such activity is found in segregated airspace such as the LAFN, which is to be avoided at all costs (*translator: when active*) but also outside segregated airspace.

- To ensure your own safety, consult the specialist charts*)*,
- Check the hours of activity,
- Keep a constant lookout *(see and avoid),*
- Set your transponder to 7000.