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CHARGÉ  
DES TRANSPORTS

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Égalité  
Fraternité*



# RTBA basics

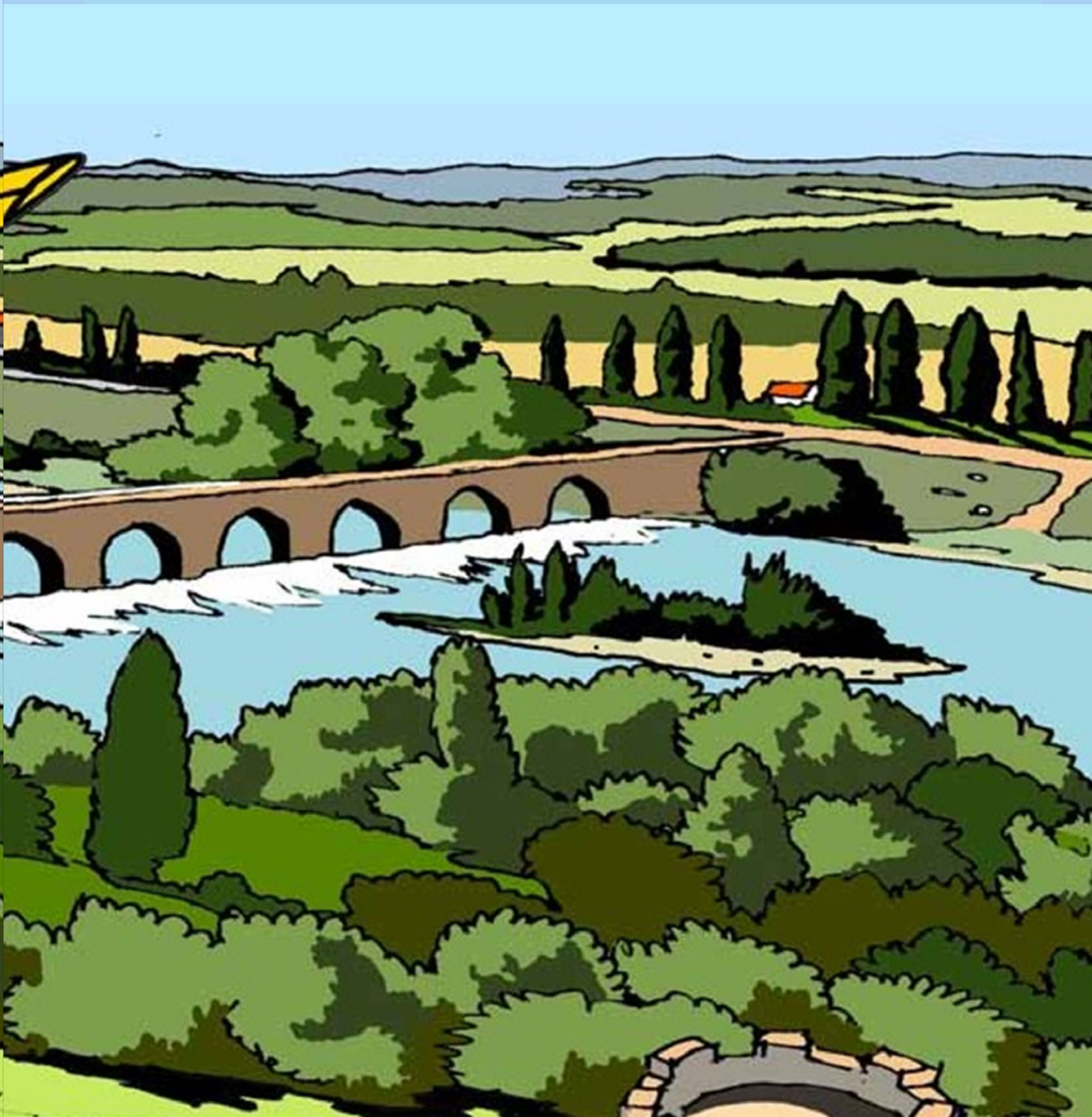








# Very Low Altitude Defence Network (RTBA)



## Acronyms used in this document

<b>AIP</b>	Aeronautical information publication aeronautics
<b>AMSL</b>	Above mean sea level
<b>APP</b>	Approach control centre
<b>CBSA</b>	Above surface
<b>AZBA</b>	Activity in low-lying areas
<b>CAM</b>	Military air traffic
<b>DIA</b>	Aeronautical Information Division
<b>DIRCAM</b>	Directorate of Military Air Traffic
<b>FIC</b>	Flight Information Centre
<b>ICAO</b>	International Civil Aviation Organization
<b>IGN</b>	National Geographic Institute
<b>NOTAM</b>	Notice to airmen
<b>RTBA</b>	Very low altitude defence network
<b>SDT</b>	Automatic field monitoring
<b>SIA</b>	Aeronautical Information Service
<b>SIV/APP</b>	Flight information sector managed by an approach
<b>SUP AIP</b>	AIP supplement
<b>VFR</b>	Visual flight rules



RTBA :  
what is it ?

Page 7



Geography of the RTBA

Page 9



RTBA :  
when is it active ?

Page 10



Military air traffic (CAM) in  
Class G

Page 12



Importance of displaying  
transponder code «7000» +C

Page 14





The Defence Very Low Altitude Network (RTBA)

*As a general rule, defence aircraft can operate in Military Air Traffic (MAC) under visual flight rules throughout the lower airspace, particularly in the range between 500 and 1500 feet/area, in compliance with the status of the various classes of airspace and published zones.*

*But specific training, which does not allow pilots to ensure anti-collision in all circumstances, is carried out in a very low altitude defence network: the «RTBA».*

## RTBA, what is it ?

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**The RTBA is a set of interconnected restricted areas designed for training flights at very low altitude and very high speed.**

The lateral and vertical limits of the various RTBA regulated zones, also known as «sections», are defined in the Aeronautical Information Publication (AIP), part ENR 5.1 Prohibited, Restricted and Dangerous Areas, which can be accessed on the Service de l'Information Aéronautique (SIA) website at <http://www.sia.aviation-civile.gouv.fr/>, as well as in the «Complément aux cartes aéronautiques» distributed in the VFR folder published by the SIA.

RTBA zones can be activated in all weather conditions and must be bypassed during activation periods.

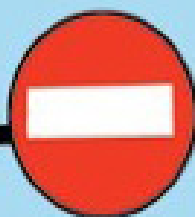
Generally, fighter aircraft operate in the RTBA in automatic terrain following mode, known as «SDT Auto». Pilots are not responsible for collision avoidance.

Fighter aircraft speeds in the RTBA can exceed 500 knots (~900 km/h).

Fighter aircraft sometimes use the RTBA for patrol flights.



**ACTIVE AREA.  
DO NOT ENTER.**



**4200** \*

\* I.E. FROM GROUND LEVEL  
TO 4200FT AMSL.

SCALE MAP.  $\frac{1}{500000}$





# Geography of the RTBA

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An overall chart known as the «defence very low altitude network chart» is available in the VFR folder published by the SIA. An electronic version can be downloaded from the website of the Direction de la Circulation Aérienne Militaire/Direction de l'Information Aéronautique (DIRCAM/DIA), at the following address: [http://www.dircam.air.defense.gouv.fr/dia/section cartes aéronautiques](http://www.dircam.air.defense.gouv.fr/dia/section_cartes_aeronautiques)

Finally, this network is represented on the charts published by the SIA (1:1,000,000 and 1:250,000) and on the ICAO chart 1:500,000.

## Vertical limits

The vertical limits of the various regulated zones of the RTBA can be defined as follows :

- height above surface (ASFC);
- altitude, with reference to mean sea level (AMSL).

Some sections are lowered to the ground. These appear in a different colour on the RTBA chart. When an RTBA restricted zone overlies a lowered section, if the lowered section is activated, the restricted zone is also activated.

When crossing RTBA corridors in areas of marked relief, given the difficulty of simultaneously complying with the minimum VFR flight height and the RTBA floor, it is recommended to :

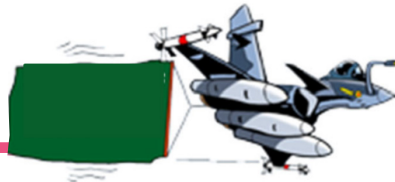
- **give priority to crossing sections from above**, weather conditions permitting,
- when the vertical limits are expressed in height, pay particular attention to the vertical limits of the RTBA zones in relation to the terrain, when determining flight altitude, and respect this altitude during the flight.

However, it should be noted that, to make it easier to cross, a maximum altitude is now indicated on the charts for each section of the RTBA, the upper limit of which is defined by a height above ground level: this corresponds to the maximum altitude of the upper vertical limit over the entire section.

# RTBA

## When is it active ?

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The possible activation times are defined in the AIP France and on the RTBA chart insert. The times of actual activity are broadcasted each day from 5pm as follows:

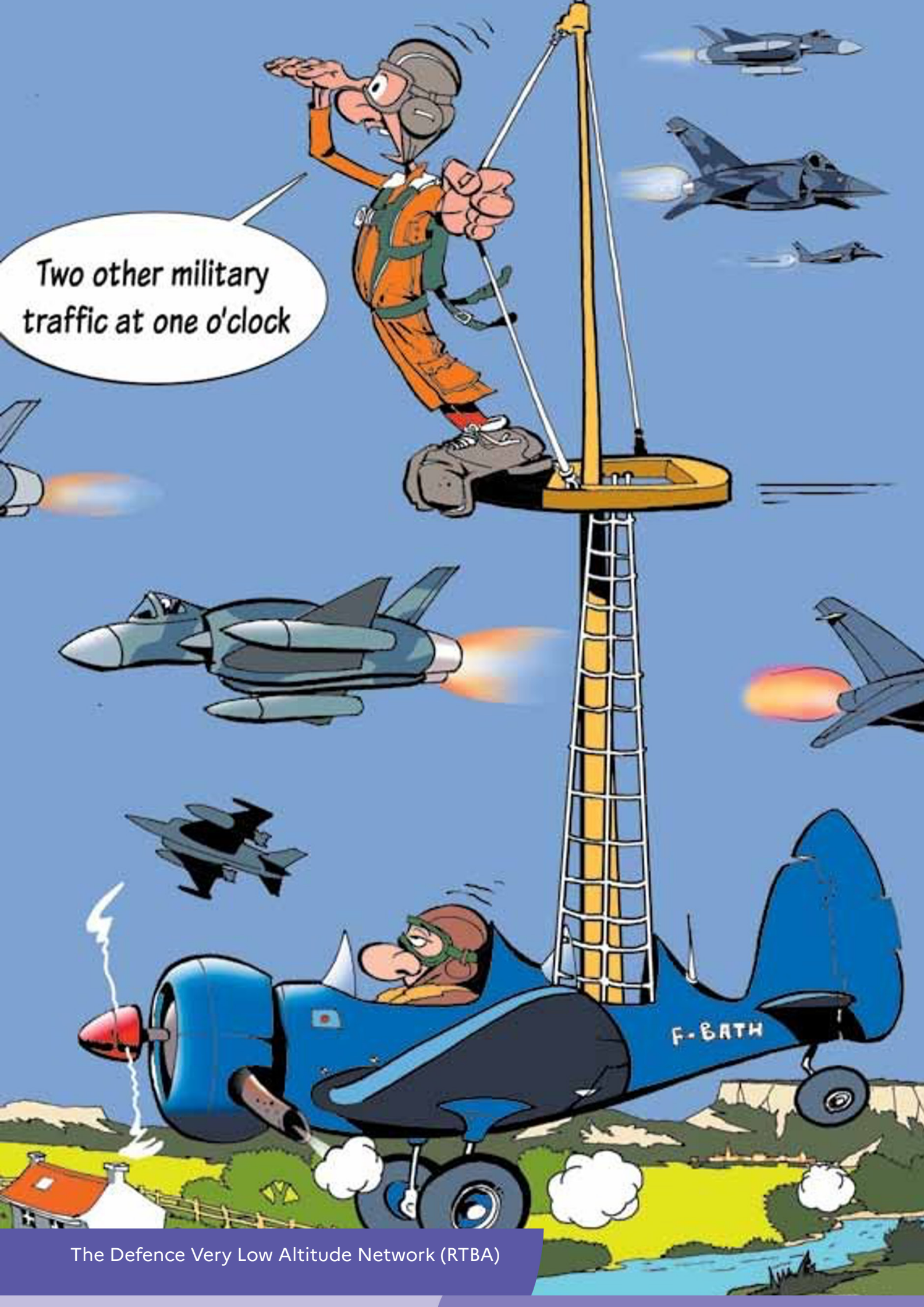
- On the SOFIA-Briefing/Preparation/NOTAM website
- On the SIA website under flight preparation/Defence activities/ AZBA charts

In flight, it is possible to find out activation status of a section on request from adjacent air traffic control units, a flight information centre (FIC) or from an approach (APP) when a flight information sector (FIS/APP) exists.

Please note that temporary restricted areas based on the geographical limits of the RTBA sections may be created specific exercises covered by SUPAIPs or NOTAMs.

Reading the AZBA NOTAM or the AZBA charts section does not therefore exempt you from consulting the SUP AIP and NOTAM published elsewhere, all of which are an integral part of flight preparation.





Two other military traffic at one o'clock

# Military air traffic in Class G (CAM)

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For training purposes, defence aircraft are required to carry out missions at low and very low altitudes, either alone or in patrols, particularly **in uncontrolled airspace**. These missions, carried out outside the RTBA, make up the vast majority of low-level visual defence flights.

For technical or flight quality reasons, jet fighters cannot apply the speed limit of 250 Kt VI (~460 km/h) below 10,000 ft. They therefore have to operate at much higher speeds.

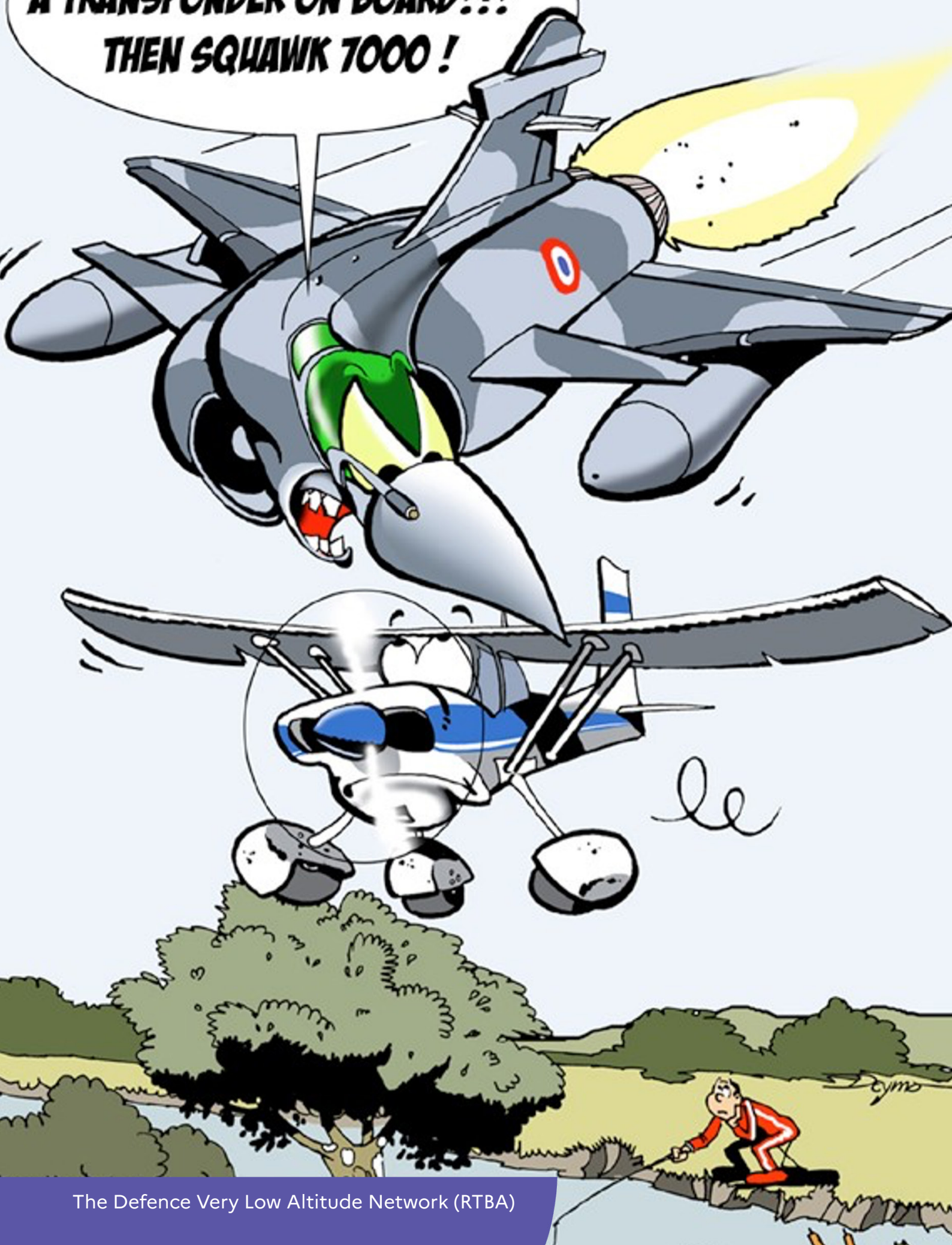
Aircraft operate mainly between 500 and 1,500 ft ASFC, in accordance with the status of the various classes airspace and published zones. Hence the following recommendation from the French civil and military authorities appearing on the AIS charts:

Note a similar recommendation appears on Jeppesen VFR/GPS charts for all European countries.

When a section of the RTBA is not active, the corresponding airspace is Class G. Fighters can also operate in this airspace under visual CAM, as in the rest of the uncontrolled airspace. The «see and avoid» rule applies to all.



**YOU HAVE  
A TRANSPONDER ON BOARD?!?  
THEN SQUAWK 7000 !**



# Importance of displaying transponder «7000» +C



In the airspace of metropolitan France where the transponder is not prescribed, unless otherwise instructed by the air traffic control organisation, the pilot of an aircraft equipped with a mode A+ C transponder with alticoder or mode S transponder with alticoder must display code 7000 from the beginning to the end of his flight and activate altitude report function when operating in GAT/VFR (see RCA 3 § 10.4.2.1.3.2, available on the SIA website).

Among other things, the application of this rule enables defensive controllers to provide RTBA users with traffic information on VFR flights operating in the vicinity of the network.

## In a nutshell ...

When you fly at low altitude, always bear in mind that military flights may be carried out there. This activity takes place in segregated areas such as the RTBA, which should be avoided at all costs, but outside these areas.

To ensure your safety, make sure you :

- consult the specialised charts,
- find out about activity times,
- maintain constant vigilance,
- if necessary, display code 7000 on your transponder.



# RTBA video

Access the video: [https://www.youtube.com/watch?v=cpO\\_ev8CDEY](https://www.youtube.com/watch?v=cpO_ev8CDEY)



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