

# Civil/Military cooperation

## Best practices

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# FUA, to do what ?

**Key role of the State** (MoT & MoD)  
to define the **strategic view on Airspace usage**

Military airspace requests

AIRSPACE UTILISATION

Civil demands



# Basic principles of FUA

## ❑ Objectives of Flexible Use of Airspace (FUA)

- Ensure optimization of airspace usage (one step beyond Airspace management – ASM)
- Increase capacity and safety
- Improve flight efficiency

## ❑ In France, in Europe, FUA is based on regulations and documentation

- Basic regulation for Single European Sky implementation, REG (CE) n°549/2004
- Dedicated European regulation on FUA, REG (CE) n°2150/2005
- EUROCONTROL document, European Route Network Improvement Plan (ERNIP) - Part 3, also called « ASM Handbook »

## ❑ FUA concept is built on following principles

- Three levels of civil/military cooperation : Strategic, Pre-tactical and Tactical
- Consistency between Airspace management, Traffic flow management and ATS capacity
- ATS units as well as Airspace users make the best use of the airspace available as far as possible

# Organisation of the FUA in France

## □ Three levels of FUA

### ➤ Strategic level – Level 1

- Establishment of the “Airspace Directorate” co-chaired by representatives of Ministries of Defence and Transport (State level). 2 meetings a year
- Validation of general requirements, especially those requiring airspace reservation
- Validation of Airspace structures
- Definition of processes to be applied for FUA application at pre-tactical and tactical levels

### ➤ Pre-tactical level – Level 2

- A civil/military Airspace Management Cell (AMC) is implemented, in order to
- Ensure coordination between civil and military for airspace allocation of “Manageable areas”. Some other areas are not “Manageable”
- Application of the process define at Level 1

### ➤ Tactical level – Level 3

- Revision or adjustment between civil and military control units in regard of the Airspace allocation
- Application of processes define at Level 1 and implementation of technical tools ensuring safety during interaction between civil and military flights

# French FUA, Level 1

## Airspace Directorate



Ministry of Defence

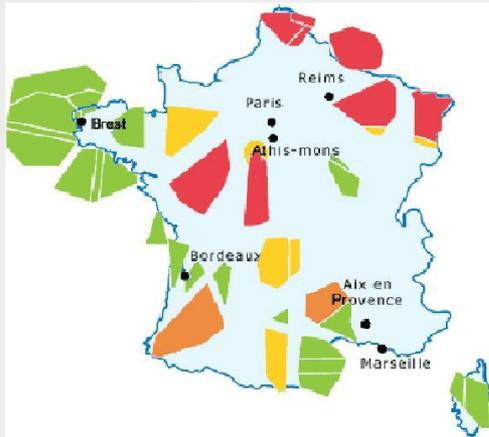


Ministry of Transport

## Outputs of the meeting are :

- **Application of the Defence/Transport Framework Agreement (ministerial level)** → Strategic objectives
- **Definition of airspace structures** → when a reserved area is not used, make it available
- **Definition of Collaborative Decision Making (CDM) process to be applied at Level 2** → role of all actors, timeframe of the collaboration...
- **Definition of priority rules** → provide Level 2 with priorities to be applied, for the benefit of civilian or military, when a compromise is not found

# French FUA, Level 2



Military booking process



**CIV/MIL AMC**



Civil ACCs capacity planning



## Outputs of the civil/military collaboration are :

- **D-1** : Definition of the Airspace Use Plan (AUP) → provide the Network Manager and airspace users with the availability of airspaces which determines the capacity to handle the GAT traffic flow
- **D-1 to H-3** : Revision of AUP through UUP (updated AUP) → optimisation of the airspace usage through a revision of the Airspace plan (new demands, bad weather conditions, availability of aircraft...)

# French FUA, Level 3



## From H-3 to time of operations :

- **Direct contact between military CRCs and civil ACCs** → optimise the airspace usage and ensure safety
- **Application of specific agreement in case of specific situation** → e.g. priority to GAT in case of Thunderstorm, priority to military in case of Air Policing ...

# Conclusions

## ❑ **The rules of the game are defined at State level**

- Airspace should be shared between civil and military
- Plan “airspace utilization” to the just need
- Define flexible airspace structures (e.g. vertical and horizontal subdivisions)
- Define Priority rules when the CDM fails

## ❑ **Ensure collaboration between civil and military**

- At Level 2 through a common planning of the airspace utilization
- At level 3 through a direct contact as soon as necessary for optimization of the airspace usage
- **Ensure safety at all time** through civil/military cooperation when specific situation occurs

# Thank you for attention

