DSAÉ

DIRCAM DIRNAV BFEA

Military Mission Effectiveness - Impact on flight planning

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French MIL ATM Directorate

1. New Military requirements
2. How to compose with both states missions and commercial needs
3. Implementation of FUA in France
4. Reduce Delay, a necessary global approach

1. New Military Requirements

New Weapons Training Areas (ZENA)

Why : - 5th generation fighters
- Next generation long-range and mid-range missiles
- New weapon systems
- Enhanced Tactical Data Links

What : - Extended training areas : 150 X 80 Nm x 20000 ft. minimum.

Where : - At least, one ZENA daily usable in each quarter of France

When : - December 2019 till 2022+

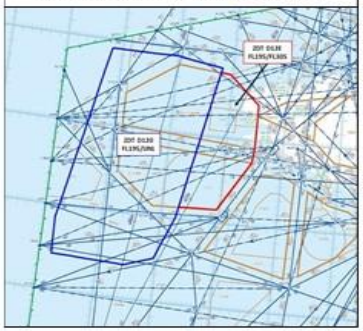
How : - Clustering of existing areas, with specific ASM

How many : 12 projects

ZENA 2019

3
+
7

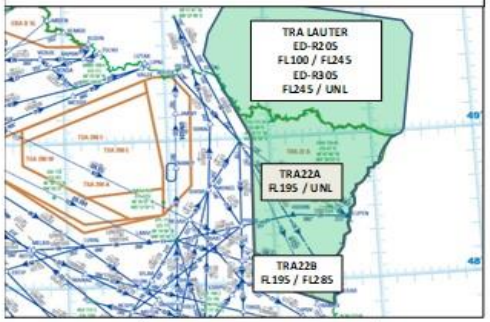
LF-D120 ZENA ATLANTIQUE



05.12.2019

ZENA NORD-EST (TRA 22/LAUTER)

4



XX.2019

LF-D300 ZENA GASCOGNE

LF-D300R ZENA GASCOGNE RESTREINTE

2

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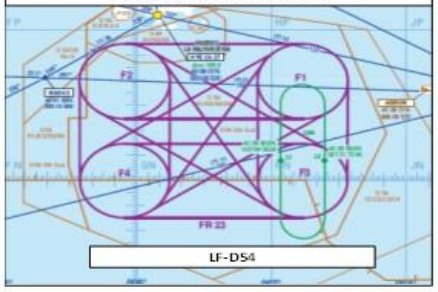
ZENA MEDITERRANEE



Active

1

2. How to compose with both states missions and commercial needs

Airspace is no longer designated as purely "civil" or "military" airspace,
but considered as one continuum and allocated according to user requirements
(Regulation (EC) N° 2150/2005 of 23 December 2005 laying down common rules for the FUA)

States are responsible for the security of their airspace and their territory
For that, Military have to train efficiently and as close as possible to the operational realities

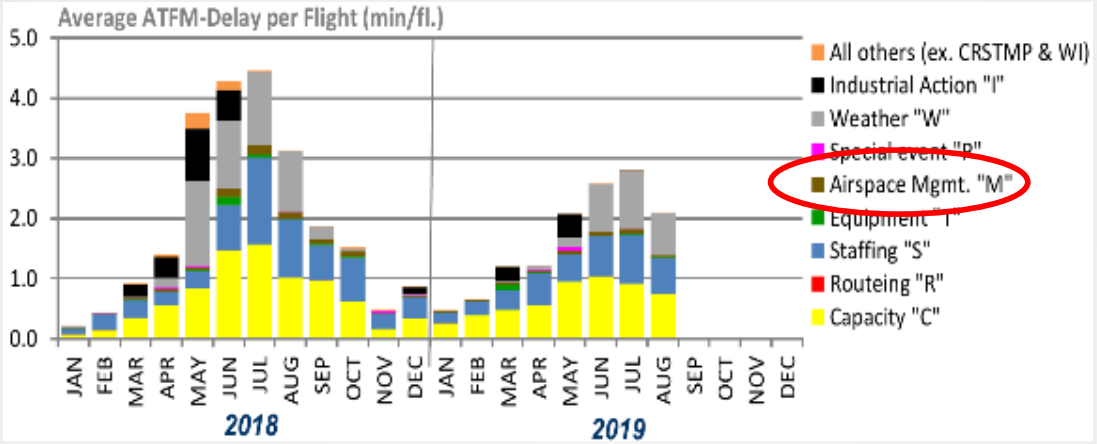
→ Civil and Military needs must be tackled, a sole business approach can not be the norm

→ The use of military training areas creates “justified delays”, it’s a normal mode of operation

→ FUA was created to mitigate the induced impacts (airspace segregation limited to needs)

The FUA concept allows the best use of airspace through enhanced civil/military co-ordination

But only if FUA is correctly implemented by all the stakeholders



Delay due to reason code:	2017	2018
Capacity "C"	2 918 135	4 535 241
Routeing "R"	19 106	5 437
Staffing "S"	1 082 447	3 482 131
Equipment "T"	128 995	165 283
Airspace Mgmt. "M"	134 540	405 358
Special event "P"	252 149	56 758
Weather "W"	1 575 169	3 035 568
Industrial Action "I"	691 985	1 106 565
All others (ex. CRSTMP & WI)	85 411	297 456
CRSTMP:	4 534 382	8 650 208
TOTAL:	6 886 947	13 089 797

At FABEC level

Airspace Management (MIL use) is only responsible for 3-4 % of the delays

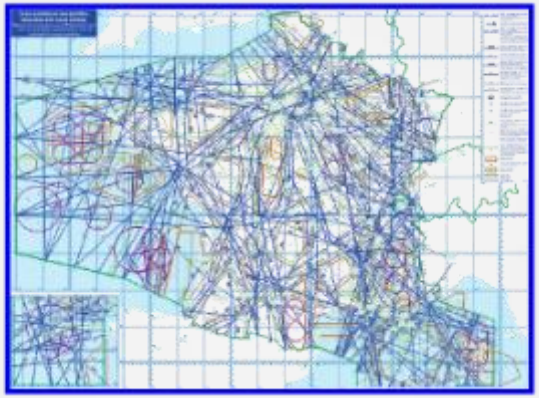
3. Implementation of FUA in France

Strong strategic Civil and Military Airspace co-management

MINISTRY OF TRANSPORTATION

dgac

Air Transport Director



High Level Airspace Policy Board HLAPB

MINISTRY OF ARMED FORCES

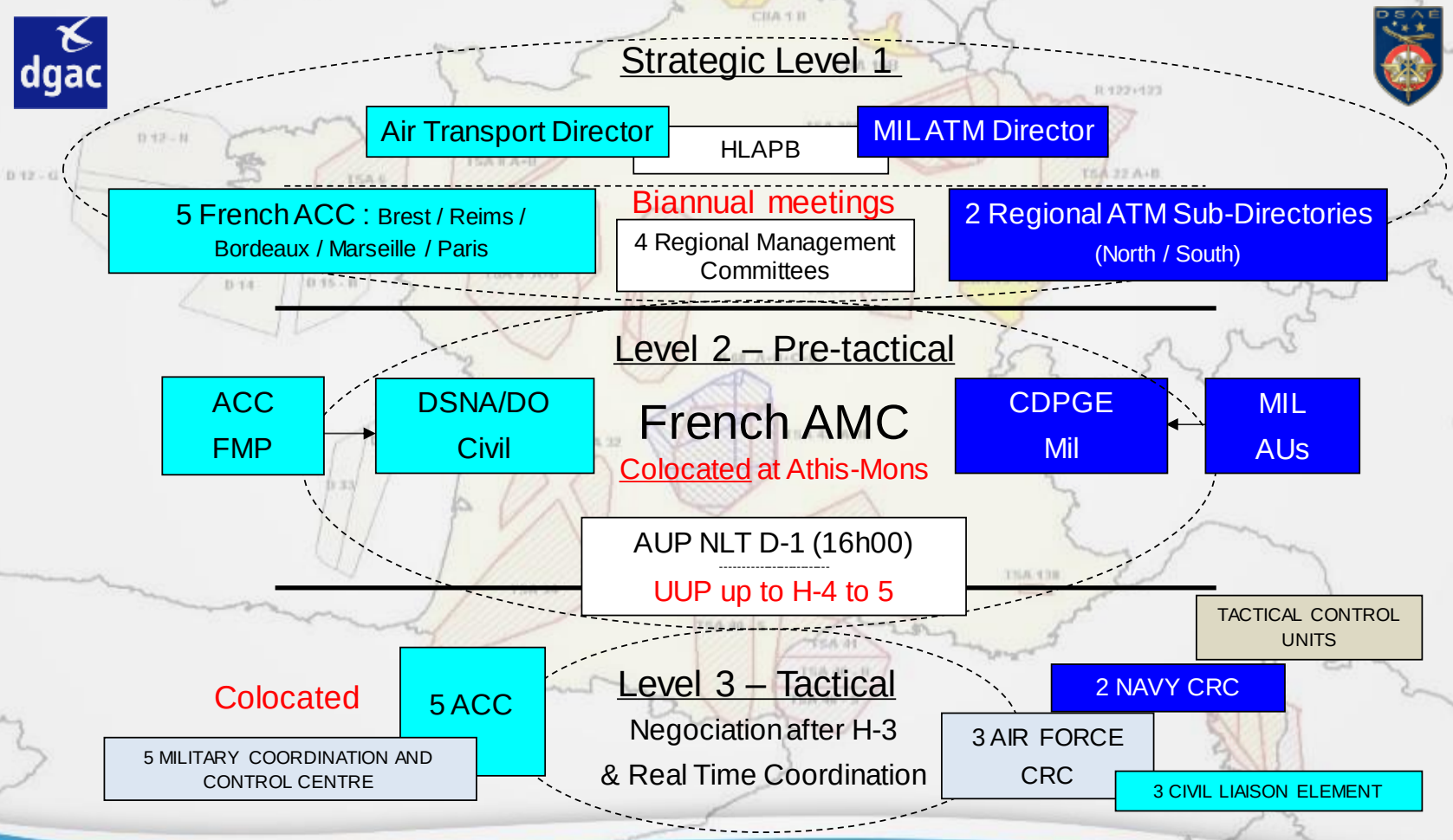
DSAE

Military ATM Director

Decisions are taken together

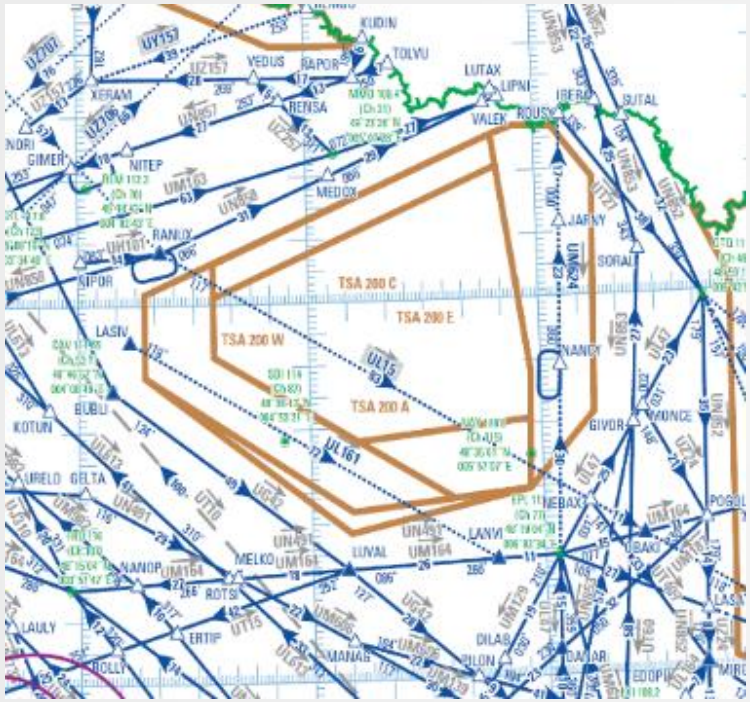
in regard to both MIL needs and CIV constraints

A close cooperation at International, National, Regional and Local level



"The right airspace at the right time for the right needs"

A couple becoming inseparable : Airspace Design and Airspace Management



Airspace structures tailored to needs and A-FUA compliant

Military Variable Profile Area Structure

TSA 200 – Associated TLS

1 *Caractéristiques*

Conformes à l'AIP France ENR 5.2.
Zones fréquemment utilisées.

2 *Secteurs interférents*

CRNA Nord : TM, TL, AP.
CRNA Est : UE, XE, KE, UF, KF, UR, XR, KR, HR.

3 *Flux concernés*

TRAFIC VOLUME 1 (trafics évolutifs au Sud de la TSA 200A)
⇨ Seuil de surcharge : 20 avions / heure
- Départs LFP, LFOB via BUBLI/LASIV.
- Destinations LSZH, LSZB, LFST, LFSB via GELTA.
- Départs LFSB via KOTUN.
- Départs LFST/EDDS via LUVAL.

TRAFIC VOLUME 2 (trafics évolutifs entre TSA 200A et TSA22)
⇨ Seuil de surcharge : 25 avions / heure
- Destinations EB, EL, EHEH, ETNG/AD/SB, EDDL/DK/DF/LV/LW/DG/LP/FH/LN, via DIK
- Départs LFST/SB, LSZB/ZH/GG via DIK.
- Destinations LFL, LSZH/GG, LFSB via GTQ.
- Départs EB, EL, EDDK/DF/FH/LN, ETAD/SB via GTQ.

4 *Règles de gestion*

Les différentes configurations des TSA 200 sont gérées par la CNGE en
déterminés à partir des dépassements des seuils de surcharge identifiés par
Défense exprimés par le CDPGE.

5 *Règles de priorité*

Avant 09h00 locales : priorité à la CAG.
Entre 09h00 et 18h00 locales, du lundi au vendredi : priorité à l
potentiellement fractionnables en plusieurs plages discontinues telles
allocation au profit de la défense de la TSA 200E ou de la TSA 200W ou de la TSA 200C et des TSA
22 et R 122 :

Defined application modalities with a clear Trigger Threshold

Threshold exceeded → CDM rules are automatically applied

Traffic Light Scheme → Enhanced ASM

A-FUA compliant → ASM/ATFCM convergence

↗ Flexibility = Win-Win approach

4. Reduce Delays, why is a global approach necessary ?

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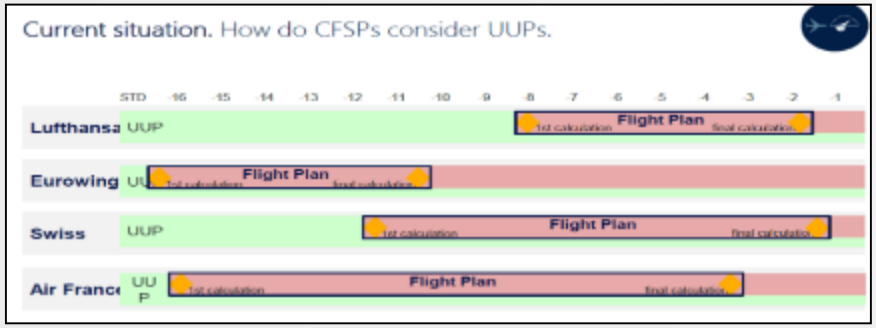
34 % of the delays are due to non-ATM related causes



At Pre-Tactical Level
The released airspace are not efficiently used by AOs and CFSPs

Mostly tactical directs in released airspaces.

The use of tactical direct routes cannot increase capacity in a significant way

Reduce Delays, a necessary global approach

What is important for MILs

- → Flexibility (wide panel of different types of zones)
- → Satisfaction of military needs in terms of training and force preparation

What is important for ANSPs/AOs

- → Increase Capacity
- → Reduce delays / costs

To tackle these issues, the involving of all the stakeholders
States, MIL, ANSPs, but also AOs and CFSPs
make short term solutions possible by IMPROVING PREDICTABILITY

How : for MIL AU / AMC

- → Requests tailored to the real needs at D-1 / Limit the use of UUP
- → **Stick to the AUP**

How : for ANSPs/Aos/CFSPs

- → Avoid practices leading to disruptive traffic volatility (Yoyo, Sharp turns)
- → Use efficiently the released airspaces at pre-tactical level
- → **Stick to the Plan**

The summer 2019 positive results demonstrate
the efficiency of a collective effort to reduce delays

KEEP CALM AND STICK TO THE PLAN

KEEP CALM AND STICK TO THE PLAN

Questions ?