



AVIATION LÉGÈRE DE L'ARMÉE DE TERRE

GLOBAL DEFENSE HELICOPTER
GBR Hubert DOUTAUD



Unclassified



FRENCH ARMY AVIATION in figures



1954
CREATION



280
HELICOPTERS

14 AIRPLANES

72 500
FLIGHT HOURS
per year

5000
MEN AND WOMEN



Unclassified



French Army Aviation commitment framework



- **Nation's resilience :**

- ✓ First helicopter fleet of the Nation, H24 readiness (Homeland and Overseas),

- **Airmobile operations :**

- ✓ First helicopter fleet of the Forces, dedicated to combined arms engagement,

- **Special Operations :**

- ✓ Dedicated Regiment to the Joint SOF Command (Homeland and Abroad).

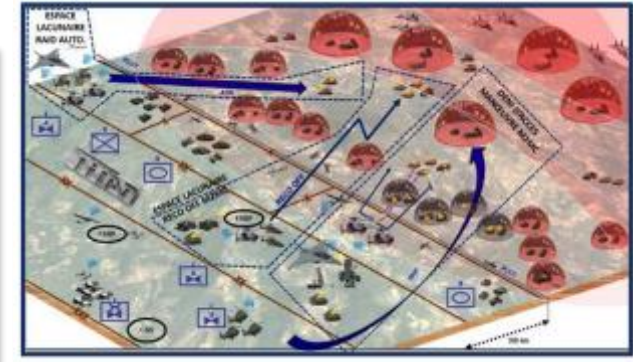
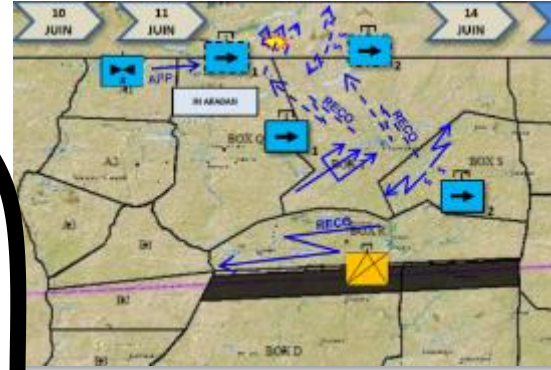
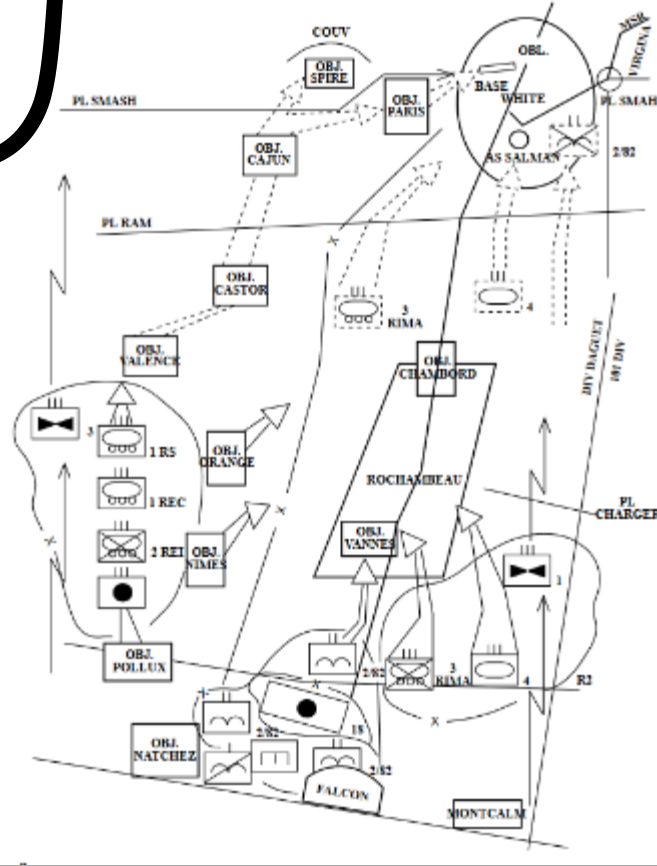


HISTORY SWINGS LIKE A PENDULUM



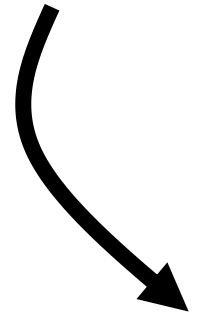
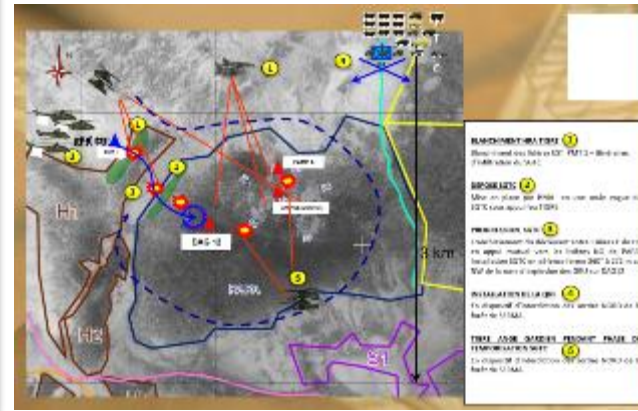
**Cold war training
DAGUET 1991**

MANOEUVRE DIVISION DAGUET
DAGUET DIVISION MANEUVER



AEROCOMBAT 2040 LCSO

**Peacekeeping Ops 90s :
Bosnia – Kosovo
COIN : Ivory Coast, Libya
Central Africa, AFG - Sahel**



???

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**Indochina 1946-1954
Algeria 1954-1962**





How we've been fighting for the last two decades



2009 – 2012 : PAMIR

Capacity to support (fire & movement) Infantry platoon on very short NTM



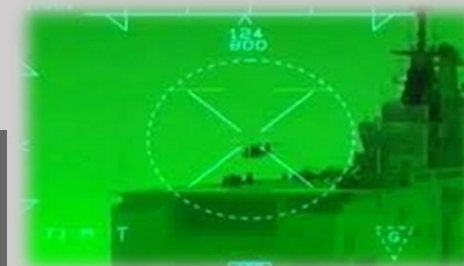
2002 – 2012 : LICORNE 2013 – 2016 : SANGARIS

Capacity to combine AAvn with combined arms BG in an urban environment



2011 : HARMATTAN

Capacity to engage an AAvn BG from a Navy Helicopter Carrier



2013 – 2014 : SERVAL 2014 – 2023 : BARKHANE

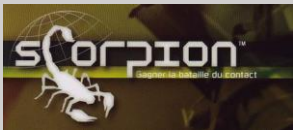
Capacity to operate as AAvn BG integrated in a Brigade for desert OPS



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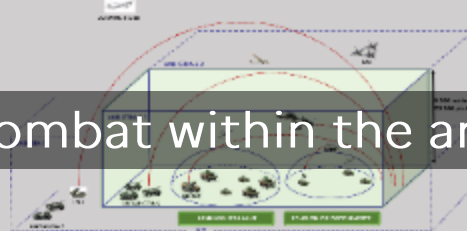


How we transition from COIN to LSCO



Since 2016 : SCORPION

Yearly exercise to test collaborative combat within the army SCORPION program



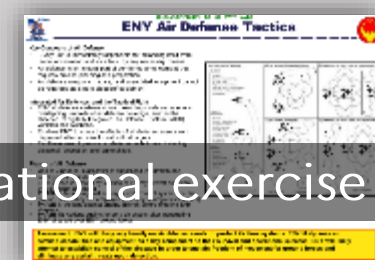
Since 2017 : BACCARAT

Yearly combat aviation brigade level exercise in a multinational environment



2021 : WARFIGHTER 21

Re-integration of the CAB level in a Warfighting Corps OPS multinational exercise



2023 : ORION

Warfighting Corps exercise (RRC-FR) with actual DIV deployment



Unclassified



How we prepare for (near ?) future OPS



COUNTER INSURGENCY OPERATIONS



1500 ft

Close OPS / Platoon Level

Low ADA Threat

Uncontested Airspace

Low 3D Coordination

De-centralised/Specialised C2

FOB-Fixed Maintenance / LOG

MOMENTUM FOR TRANSFORMATION

Doctrine

Organization

Human Resources

Equipment

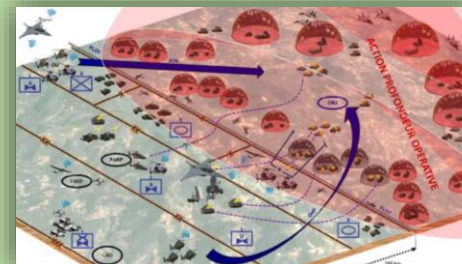
Specific Sustainment

Adapted Training

ADJUSTMENTS FOR ARMY 2030-2035

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LARGE SCALE COMBAT OPERATIONS



Below 100 ft

Deep OPS / BG Level

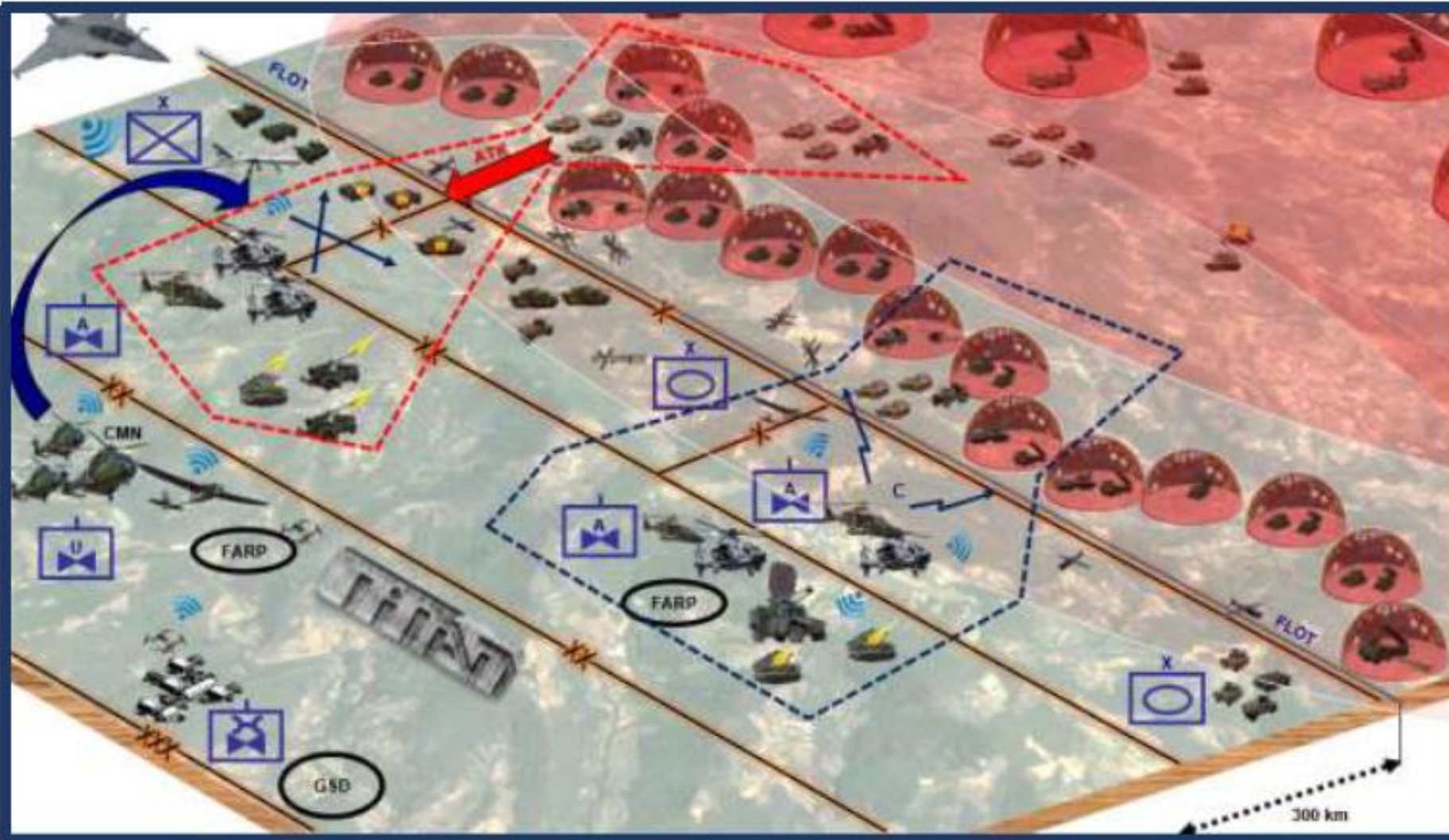
High ADA Threat

Relative Sanctuary

High 3D DIV Level Synch

C2 fit for MDO

Dispersed Maintenance / LOG

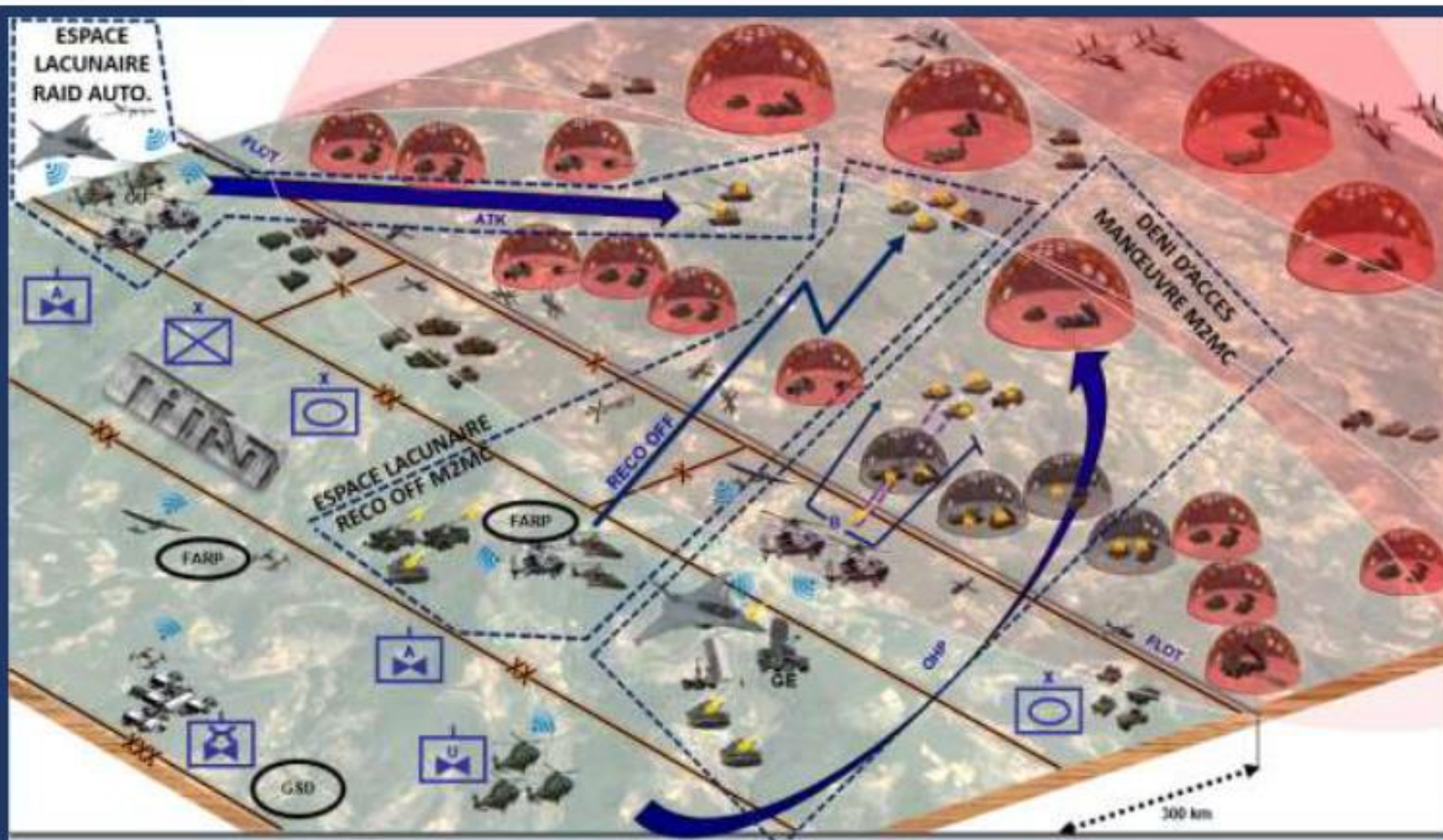


OFF – DEF IN DIV AREA

- Quickly support friendly breaches with fire and maneuver;
- Helicopters partially compensate for the lack of mass.

3 OPS REQUIREMENTS : Range and endurance / In terrain flight (NOE) / air launched effects

CATEGORIES OF AEROCOMBAT MANEUVER



OPERATIVE DEEP OPERATIONS



- Helicopters are able to exploit gaps to reach critical enemy capabilities ;
- Aerocombat leverages multi domain maneuver to bypass the first line of defense in order to penetrate and amplify the effects of friendly maneuvers.

3 OPS REQUIREMENTS : Range and endurance / In terrain flight (NOE) / air launched effects

A phased approach to drone integration : maximize efficiency, minimizing costs

Core Objectives

1- Rapid integration of existing drones in airmobile operations

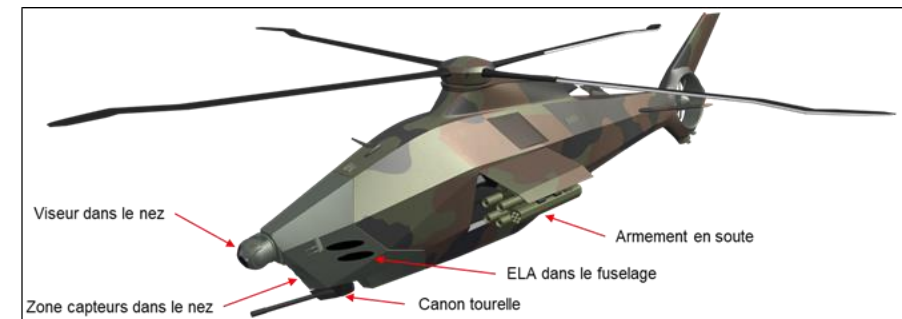
- Enhance firepower capabilities (10-20km) 
- Strengthen ISR and deception capabilities (30-50km) 

2- Preparing for the future of airmobile combat system

- Harnessing the power of AI and Automation
- Cost control : ensuring a balance between operational efficiency & critical mass



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QUESTIONS ?

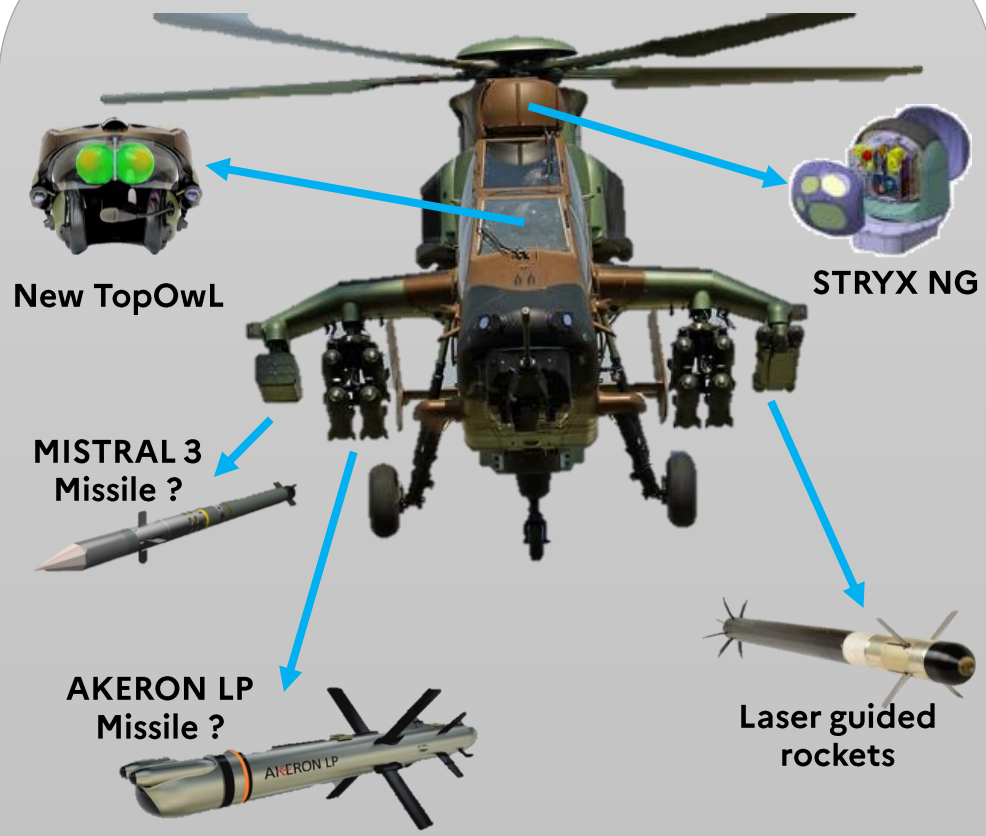




Keep the advantage on any adversary



EC665 « TIGRE MLU » - 2031



- Multimode seeker: SAL/TV/uncooled IR
- Range: +8 km up to 20km
- Weight: 30-40kg class
- Length: 1.8m in tactical canister

HIL – H160M « GUÉPARD » - 2028



3h30 / 145 kt / 6 PAX

Unclassified

NH 90 SOF « CAÏMAN SOF » - 2025



AEROCOMBAT FACING THE CHALLENGES OF LSCO



- Density of ADA
- 3D contested and cluttered
- Equal enemy



TACTIQUE

OPERATIF

150 à 500 km

- 4 CHALLENGES**
1. Rear area under ENY art
 2. Battelfield transparency
 3. Enemy defense density
 4. Enemy barrier



SA13
STRELA 10
DETECTION : 7 km
TIR HORIZONTAL : 5 km
TIR VERTICAL : 3,5 km



ZSU 23/4
SHILKA
DETECTION : 20 km
TIR HORIZONTAL : 7 km
TIR VERTICAL : 5,1 km



TUNGUSKA
DETECTION : 20 km
TIR HORIZONTAL : 8 km
TIR VERTICAL : 3,5 km



SA8
GECKO
DETECTION : 45 km
TIR HORIZONTAL : 10 km
TIR VERTICAL : 5 km



SA13
TOR M1
DETECTION : 38 km
TIR HORIZONTAL : 12 km
TIR VERTICAL : 10 km



SA22
PANTZIR
DETECTION : 38 km
TIR HORIZONTAL : 4 - 20 km
TIR VERTICAL : 3 - 15 km



SBORKA
DOG EAR
DETECTION : 80 km
TIR HORIZONTAL : 35 km
TIR VERTICAL : 25 km

- Complexity of 3D coord
- Dispersed maintenance and LOG M2MC
- Joint and coalition operations

Unclassified