DSAÉ
DIRCAM DIRNAV BFEA

DSAÉ (FR MAA)

Airworthiness in State's aviation

10 years of experience

Lessons learned and feedback

Brigadier General Guy-Daniel MARY French Airworthiness Directorate

Colonel Stéphane COPERET Head of the rulemaking department

MAWA
Conference

LISBON
October 2016

ARMÉE DE TERRE · MARINE NATIONALE · ARMÉE DE L'AIR · Gendarmerie nationale · DGA · DOUANES & DROITS INDIRECTS

Overview

1. **STRATEGIC APPROACH**
   - Why a regulation ?
   - Creation of DSAE (French NMAA): ➔ **a political decision**
     - New established principles in the airworthiness domain
     - Interdepartmental scope of action
     - A new and key actor of French MOD

2. **MISSION & ORGANISATION:** ➔ **a sensitive choice**
   - Range of responsibilities
   - Shareholders and Governance

3. **REGULATION & IMPLEMENTATION:** ➔ **a strong process**
   - Writing a French new airworthiness regulation
   - The choice of an ambitious implementation schedule
   - Challenges and solutions to face

4. **EUROPEAN STATE AVIATION PLAYERS:** ➔ **desire of a global vision**
   - Increasing pressure due to the SES
   - MAWA Forum and European harmonization challenge

5. **CURRENT SITUATION :** ➔ **activity, means & figures**

6. **LEARNINGS & ACHIEVEMENTS:** ➔ **to sum up**

1. STRATEGIC APPROACH

- Why a regulation ?
- Creation of DSAE (French NMAA): ➔ **a political decision**
  - New established principles in the airworthiness domain
  - Interdepartmental scope of action
  - A new and key actor of French MOD

2. MISSION & ORGANISATION: ➔ a sensitive choice

- Range of responsibilities
- Shareholders and Governance

3. REGULATION & IMPLEMENTATION: ➔ a strong process

- Writing a French new airworthiness regulation
- The choice of an ambitious implementation schedule
- Challenges and solutions to face

4. EUROPEAN STATE AVIATION PLAYERS: ➔ desire of a global vision

- Increasing pressure due to the SES
- MAWA Forum and European harmonization challenge

5. CURRENT SITUATION : ➔ activity, means & figures

6. LEARNINGS & ACHIEVEMENTS: ➔ to sum up

Why a regulation ?

- **Three accidents occurred in 2000/2001:**
  - US C130 firefighter leased by Civil Safety service
    - ↳ Not considered as a State owned aircraft
  - Mirage F1 after engine stopped
    - ↳ Modification declared mandatory to restore airworthiness 15 years before but never procured
  - CAP232 during an acceptance test flight by CEV
    - ↳ Civil registered but with invalid Permit to Fly
- **French Government Initiative:**
  - **2002 :** At the same time as Regulation n° 1592/2002 of the European Parliament and of the Council on common rules in the field of civil aviation was establishing a European Aviation Safety Agency (EASA) on 15 July 2002, a **French Miltary-civil WG** was set up and address the airworthiness of French military and State owned aircraft
  - **2006 :** Publication of a regulation on the airworthiness of **military and State owned aircraft**

A fundamental consideration

- **CIVIL AGENCIES CANNOT REGULATE STATE AVIATION**
- **STATE AVIATION DOES NOT HAVE TO COMPLY WITH CIVIL REGULATIONS**
- **STATES UNDERTAKE TO HAVE DUE REGARD FOR CIVIL AIRCRAFT SAFETY**

ICAO* **Chicago Convention (1944)**	❑ **ART 3 (civil aircraft and state aircraft)** •« This convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft » •« The contracting States undertake, when issuing regulations for their state aircraft, that they will have **due regard for the safety of navigation of civil aircraft** »
EASA* **EC 216/2008**	❑ **Article 1 – Scope of application** •« This Regulation shall not apply to….while carrying out military, customs, police, search and rescue, firefighting, coastguards or similar activities or services » •« The Member states shall undertake to ensure that such activities or services have due regard as far as practicable to the objectives of this Regulation »

ICAO : International Civil Aviation Organisation *EASA : European Aviation Safety Agency*

Airworthiness regulation and organisation initially implemented

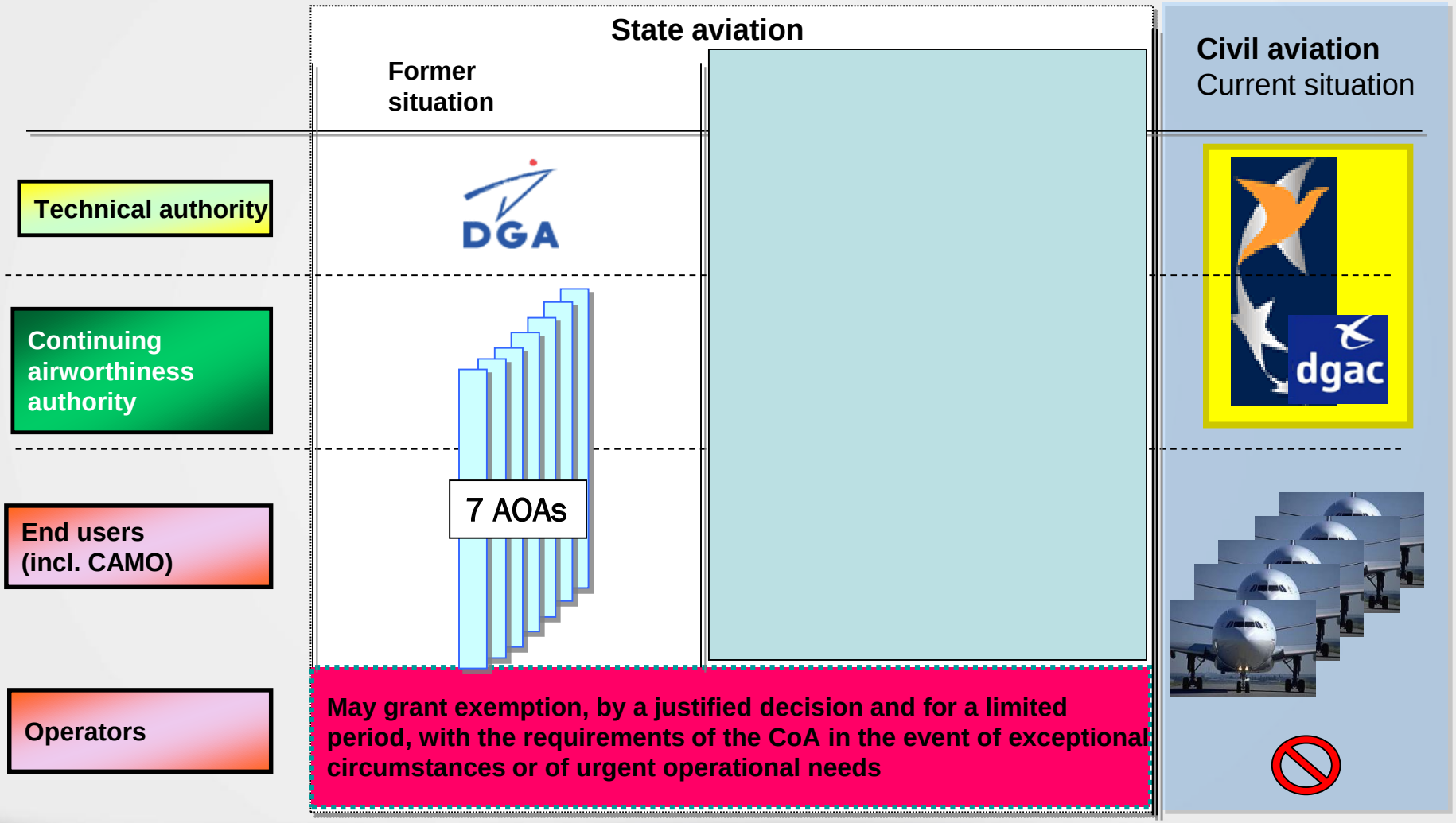
Interdepartmental level

Decree 2006-1551

Order « Duties »	Order « Conditions »	Order « Registration »

- The first regulation was mainly focused on aircraft
  - TC, PTF, CoA, CoR…
- The stakeholders were :
  - One Technical Authority (DGA = Defence Procurement Agency)
  - 7 Aviation Operating Authorities (armed forces, civil safety, customs)

Airworthiness organisation initially implemented



DSAÉ : a political decision

Report of MMAé (Jan 2009)

MMAé: Mission for Aviation In-Service Support Modernisation

- **Scattering of responsibilities** in terms of aviation safety
- **Duplication of responsibilities** between « users » and « regulators »
- **Need for coherence** with respect to EASA and FR Civil Aviation Authority principles

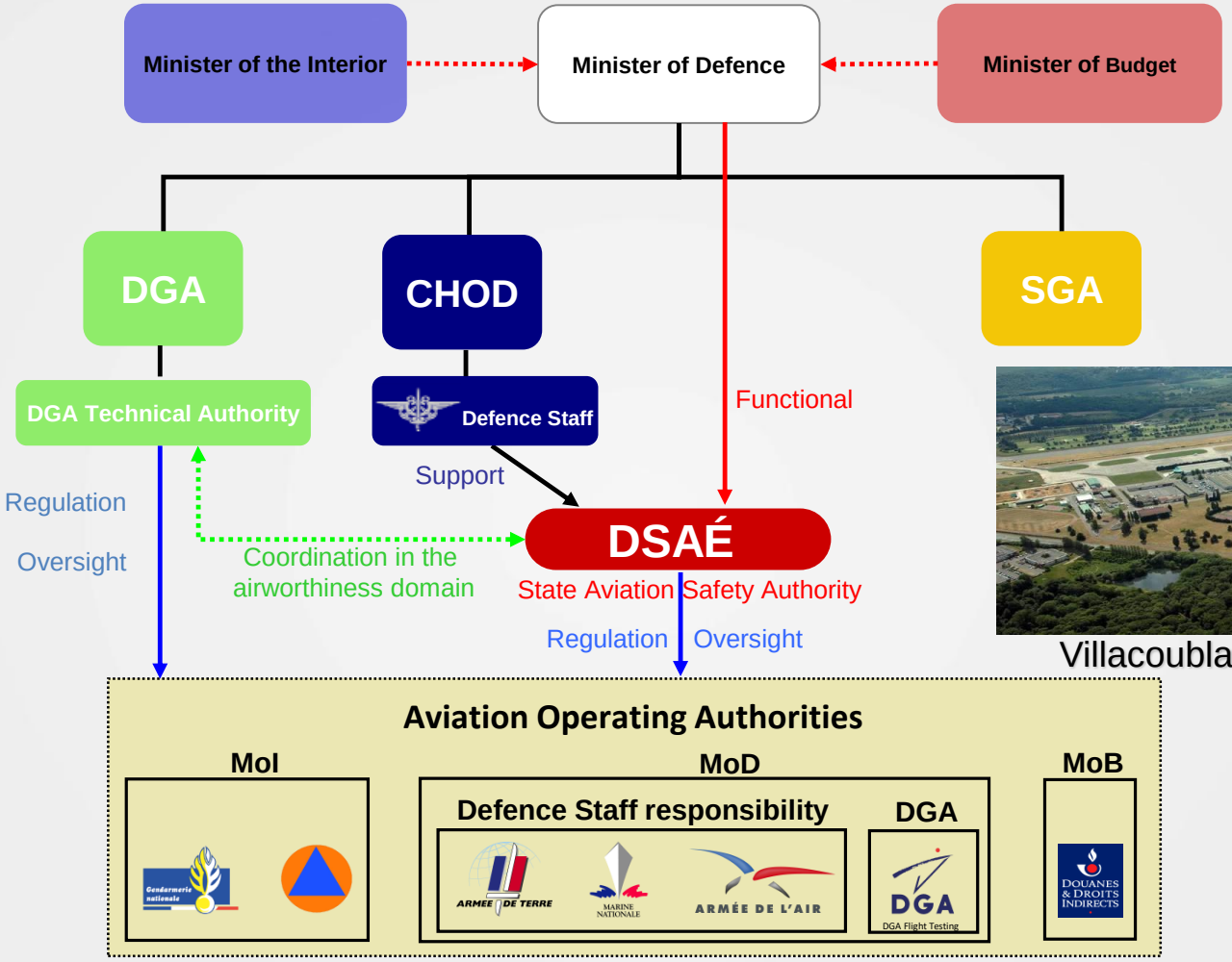
Note from the minister's cabinet dated 02 April 2009
determining the creation and objectives of DSAÉ

- Three fields of competence :
  - ✓ ***Aircraft airworthiness***
  - ✓ ***Air traffic, airspace and airport management***
  - ✓ ***Aircrew training and aircraft operating rules***
- Newly established principles:
  - ✓ ***Separation of responsibilities between "authorities" and "end users"***
  - ✓ *Preserved responsibilities for* ***« Aviation Operating Authorities »***
  - ✓ ***Interdepartmental scope of action***
    - ✓ ***Ministries of Defence, Interior, Budget***

DSAÉ : a political decision

	State aviation		Civil aviation
	Former situation	Present situation	Current situation
Technical authority	DGA	DGA	dgac
Continuing airworthiness authority		DSAÉ DIRCAM DIRNAV BFEA State Aviation Safety Authority	
End users (incl. CAMO)			
Operators	May grant exemption, by a justified decision and for a limited period, with the requirements of the CoA in the event of exceptional circumstances or of urgent operational needs		

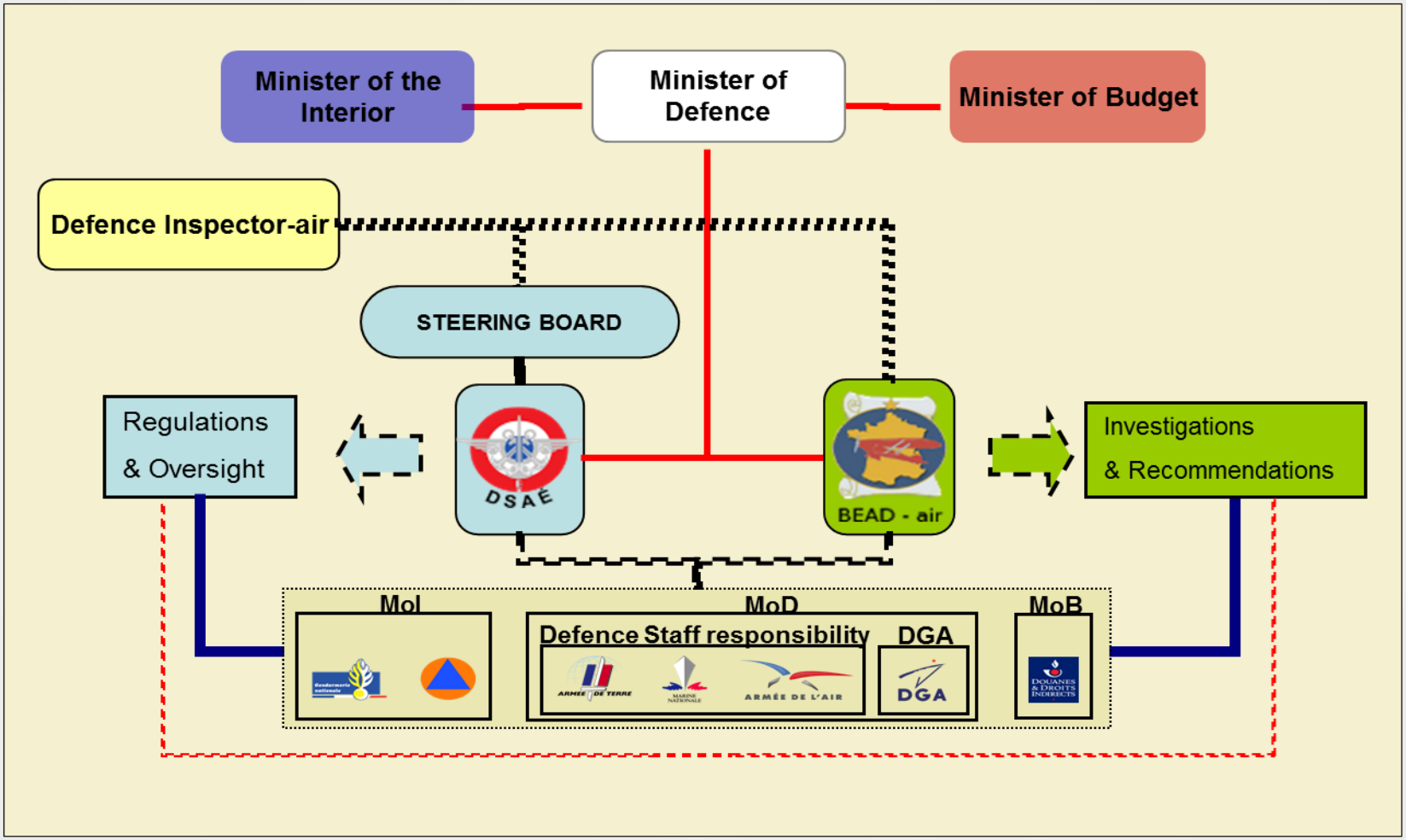
DSAÉ position in the French MoD



Villacoublay Air Base 107

DSAÉ is a National-Competence Service of the Central Administration of the Ministry of Defence

DSAÉ and BEAD-air
(FR Defence Air Accidents Investigation Board)



Two separate organisations both contributing to the reinforcement of State aviation safety

1. **STRATEGIC APPROACH**
   - Why a regulation ?
   - Creation of DSAE (French NMAA): ➔ **a political decision**
     - New established principles in the airworthiness domain
     - Interdepartmental scope of action
     - A new and key actor of French MOD

2. **MISSION & ORGANISATION:** ➔ **a sensitive choice**
   - Range of responsibilities
   - Shareholders and Governance

3. **REGULATION & IMPLEMENTATION:** ➔ **a strong process**
   - Writing a French new airworthiness regulation
   - The choice of an ambitious implementation schedule
   - Challenges and solutions to face

4. **EUROPEAN STATE AVIATION PLAYERS:** ➔ **desire of a global vision**
   - Increasing pressure due to the SES
   - MAWA Forum and European harmonization challenge

5. **CURRENT SITUATION :** ➔ **activity, means & figures**

6. **LEARNINGS & ACHIEVEMENTS:** ➔ **to sum up**

Mission of DSAÉ

1. Regulations and oversight in its fields of competence
   - **airworthiness and registration of State aircraft**
   - military ATM, airspace organisation and management

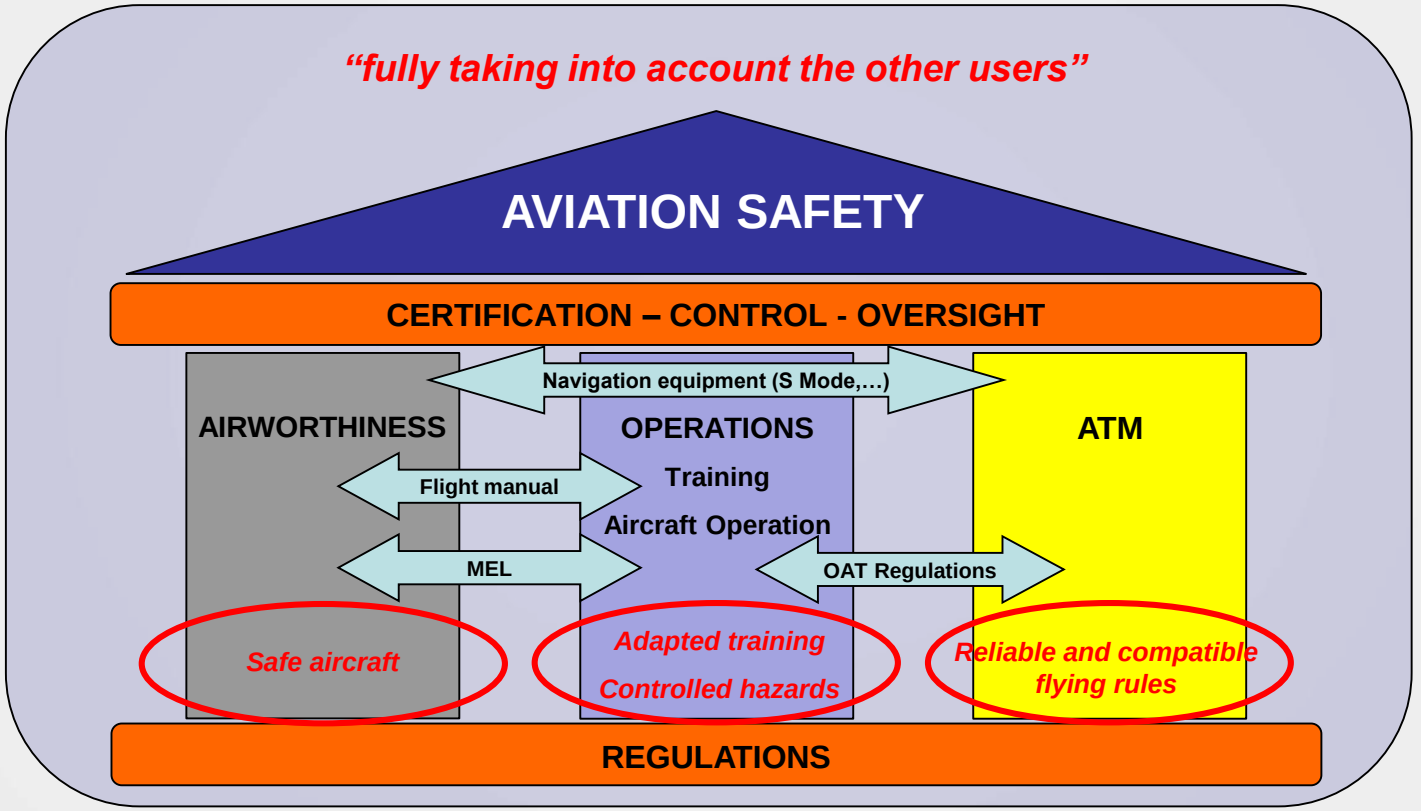
DSAÉ regulations are developed through constant dialogue with DGA Technical Authority and the 7 Aviation Operating Authorities

2. Regulatory watch and consultancy
3. Representation of the French State for aviation safety with European and international bodies
4. Promotion of a global safety approach, having due regard for the safety challenges of State aviation

The DSAÉ's responsibility is to allow the performance of all State aviation missions in accordance with a global safety approach (founded on three pillars) having due regard to the safety of navigation of civil aircraft

State aviation safety: an holistic approach

MISSION STATEMENT:	A PRIORITY:	A PRINCIPLE:
TO BE ABLE TO TRAIN AND OPERATE IN PEACE TIME, WARTIME OR TIMES OF CRISIS	PRESERVE HUMAN LIFE AND SAFEGUARD EQUIPMENT	OPERATIONAL RISK MANAGEMENT



DSAÉ is in charge of the State aviation safety programme issued late 2014 after approval by the steering committee and DSAÉ is coordinating and overseeing its implementation

DSAÉ pillars & missions

DGA
Technical Authority

DSAÉ
DIRCAM DIRNAV BFEA

INITIAL CERTIFICATION & CONTINUED AIRWORTHINESS

MISSIONS:

- REGULATION
- OVERSIGHT

CONTINUING AIRWORTHINESS

MISSIONS:

- REGULATION
- OVERSIGHT

ATM/ASM AIRPORTS CNS

MISSIONS:

- REGULATION
- AIRSPACE MANAGEMENT
- OVERSIGHT

AIRCREW TRAINING & OPERATIONS

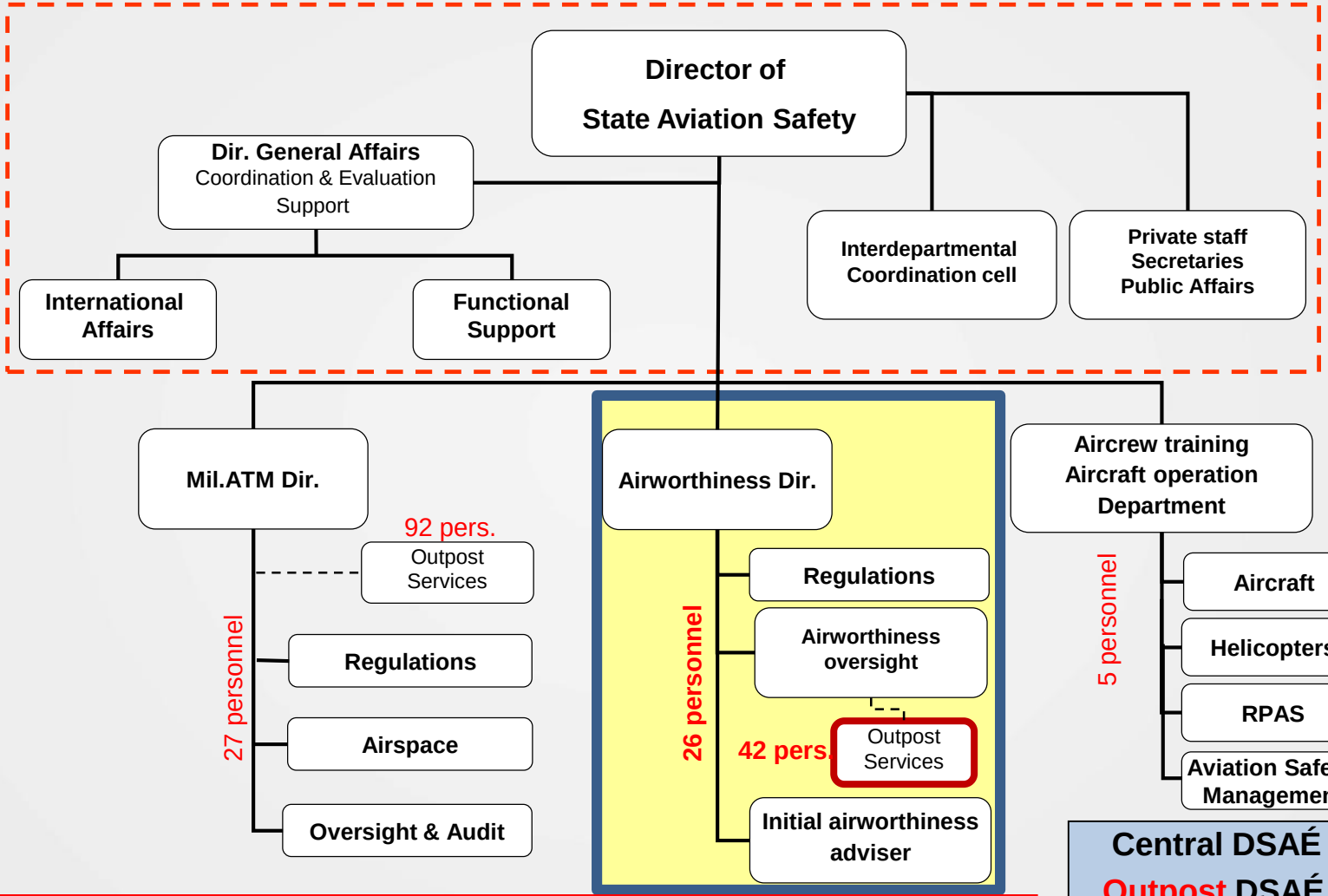
MISSIONS:

- REGULATION WATCH & HARMONIZATION

Gendarmerie nationale
DOUANES & DROITS INDIRECTS
ARMÉE DE L'AIR
ARMEE DE TERRE
MARINE NATIONALE
DGA Flight Testing

SEVEN AVIATION OPERATING AUTHORITIES (AOA)

A joint and polyvalent directorate



Central DSAÉ	: 89
Outpost DSAÉ	: 134
Total DSAÉ	: 233

Different shareholders…

		Personnel	
		TOTAL	« Aviation »
Air Force	CFAS CSFA	59 000	+/- 59 000
Army	ALAT	130 000	+/- 5 000
Navy	ALAVIA	45 000	+/- 6 800
DGA	DGA Flight Testing	10 000	+/- 1 000
Gendarmerie	CFAG	110 000	+/- 400
Civil security	BMA	250 000	+/- 200
Customs	BMO	19 000	+/- 150

Different aviation cultures

Different organisations

Different volumes

⇔

Similar regulation challenges

Similar safety requirements

Something in common: DSAÉ

Preserved responsibilities for ***« Aviation Operating Authorities »***

Governance : **2 decision-making levels**

STEERING COMMITTEE

President : Defence Inspector Air

Members : 7 AOA + DSAÉ Dir

Invited Members : Air Ops Cdr + Def Staff + DGA Technical Authority

Directives

Reports

Airworthiness Permanent Consultative Group (2 yearly)

Chairman: DSAÉ Dir or Airworthiness Dir

Members : 7 AOA, DGA Technical Authority, SIMMAD

Guests : Defence Staff and Technical users

Secretary : DSAÉ / Airworthiness Dir.

Directives

Reports

Air traffic Permanent Consultative Group (2 yearly)

Chairman: DSAÉ Dir or Mil. ATM Dir

Members : 7 AOA, DGA

Guests : Defence Staff and service providers

Secretary : DSAÉ / Mil.ATM Dir.

1. **STRATEGIC APPROACH**
   - Why a regulation ?
   - Creation of DSAE (French NMAA): ➔ **a political decision**
     - New established principles in the airworthiness domain
     - Interdepartmental scope of action
     - A new and key actor of French MOD

2. **MISSION & ORGANISATION:** ➔ **a sensitive choice**
   - Range of responsibilities
   - Shareholders and Governance

3. **REGULATION & IMPLEMENTATION:** ➔ **a strong process**
   - Writing a French new airworthiness regulation
   - The choice of an ambitious implementation schedule
   - Challenges and solutions to face

4. **EUROPEAN STATE AVIATION PLAYERS:** ➔ **desire of a global vision**
   - Increasing pressure due to the SES
   - MAWA Forum and European harmonization challenge

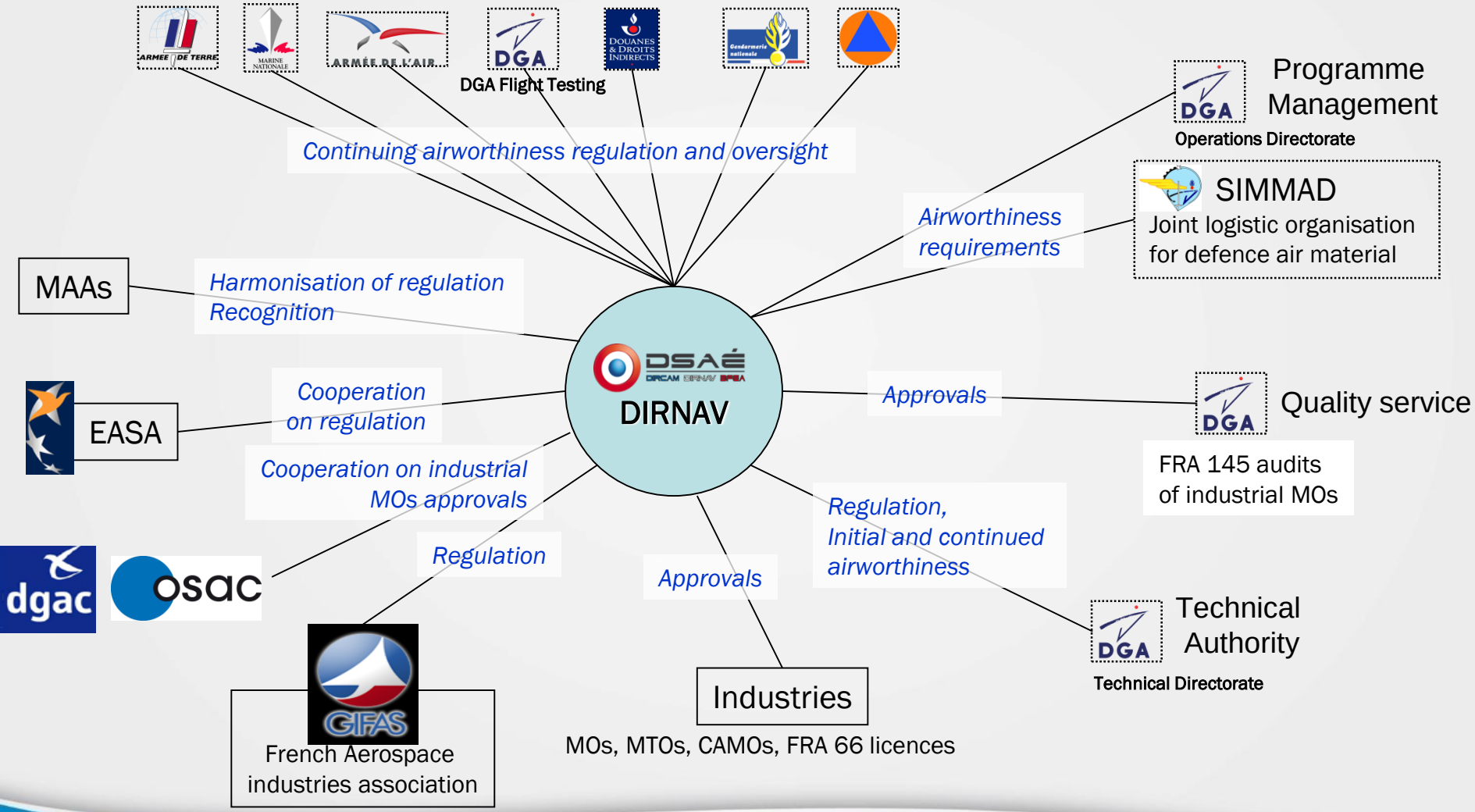
5. **CURRENT SITUATION :** ➔ **activity, means & figures**

6. **LEARNINGS & ACHIEVEMENTS:** ➔ **to sum up**

Civil vs military : who does what in the airworthiness domain?

Civil stakeholders	Rulemaking and executive functions	Military stakeholders
European Commission	• Establishes the essential requirements	
EASA	• Conduct Type certification • Approve flight test conditions • Ensure Continued airworthiness • Approves Design organisations	**Technical Authority** — DGA
	• Establish the rules for continuing airworthiness	**Aviation Safety Authority** — DSAÉ DIRCAM BIRNAV BFEA
National authorities **CAA :** dgac	• Issues permit to fly (flight tests) • Registration of flight test aircraft • Approves Production organisations • Appreciates the compliance of new products to the type design	**Technical Authority** — DGA
OSAC: Qualified entity acting on behalf of the CAA — osac	• Approves organisations (maintenance, continuing airworthiness management, training) • Issues maintenance personnel licences • Issues Individual CoAs • Registration of aircraft in service	**Aviation Safety Authority** — DSAÉ DIRCAM BIRNAV BFEA
Operators / CAMOs	• Apply the rules • Manages Continuing airworthiness	**Operators / CAMOs**
	• Can grant exemptions for urgent operational needs • Issue permit to fly	ARMÉE DE L'AIR · MARINE NATIONALE · DOUANES & DROITS INDIRECTS · ARMÉE DE TERRE · Gendarmerie nationale · DGA Flight Testing

Airworthiness Directorate's Relationships



French airworthiness regulation structure

Interdepartmental level

Decree 2006-1551 superseded by decree 2013-367

Order « Duties »	Order « Conditions »	Order « Registration »	Order « Continuing airworthiness »	Order « UAS »

Authorities level

documents : - applicable to State organisations and personnel
- applicable to industry through contracts

Initial certification/Continued airworthiness

Instruction « *Initial airworthiness* »

- Essential airworthiness requirements
- Regulations considered as acceptable means of compliance
- **FRA 21**
- **FRA Forms**

Instruction « Report of technical occurrences »

Instruction « Civil ADs and TCH technical directives »

Instruction « Stores and equipment excluded from continuing airworthiness »

DGA **DGA Technical Authority**

Continuing airworthiness

Instruction « *Continuing airworthiness* »

- **FRA M**	- **EMAR(FR) M**
- **FRA 145**	- **EMAR(FR) 145**
- **FRA 147**	- **EMAR(FR) 147**
- **FRA 66**	- **EMAR(FR) 66**
- **FRA Forms**	- **EMAR Forms**

DSAÉ State Aviation Safety Authority

Acceptable Means of Compliance & Guidance Material for all FRA

Internal documents

Mementos and procedures

Pursuit of consistency and shared values

EU Regulation ⟷ FR Regulation ⟷ EU Requirements

≈ law ≈ law ≈ standard

Civil aircraft State aircraft Military aircraft

Ambitious implementation schedule with transitional provisions

66 aircraft TCs, 51 engine TCs, 22 propeller TCs, 4 UAS TCs
1345 CoAs
~ 200 maintenance organisations to approve
~ 70 design or production organisations to approve
~ 5000 licensed maintenance personnel

(*) FRA 21 J Design : no real timeframe constraint as, in the absence of DOA, any airworthiness approval is done by DGA Technical Authority

Challenge to implement a regulation

- EASA : Basic regulation EC 216/2008 (replacing original EC 1592/2002)
  - ✓ *Article 70 : Entry into force*
    - Articles 5, 6, 7, 8, 9 and 10 shall apply as from the dates specified in their respective implementing rules, but not later than 8 April 2012.
  - ✓ *EASA established a **10-year** transitional period to implement its regulation*

- FR :
  - ✓ *FR launched a WG to develop an airworthiness regulation for military and State aircraft in early 2002*
  - ✓ *FR issued the airworthiness decree for military and State aircraft on **7 Dec 2006***
    - **5 years to develop the regulation**
  - ✓ *The regulation had initially a **5-year** transitional period to implement the regulation*
    - **Not later than 31 Dec 2011**
  - ✓ *This period was extended to **10 years** in Aug 2011 further to the difficulties encountered in its implementation (for a fleet of about 1500 aircraft)*
    - **Not later than 31 Dec 2016**
  - ✓ *This period was extended to **11 years** in Dec 2014 (for a fleet of 1367 aircraft)*
    - **Not later than 31 Dec 2017**

Cooperation with FR CAA and qualified entity OSAC

- DGAC, the French CAA, outsourced the airworthiness reviews and the audits to OSAC (Organisme pour la Sécurité de l'Aviation Civile)

- DSAÉ signed with DGAC and OSAC a protocol for mutual support to exchange information on maintenance organisations audited both against EASA Part 145 and FRA 145 on a common perimeter
  - DSAÉ to have access to OSAC audit reports
  - For Part 145 approved MOs, level 1 findings during the FRA 145 initial or renewal audit which may impact the Part 145 approval to be transmitted by DSAÉ to OSAC

- DSAÉ has a contract with OSAC to provide auditors for FRA 145 audits of organic MOs to compensate for the lack of auditors or airworthiness review personnel promised by some Operating Authorities

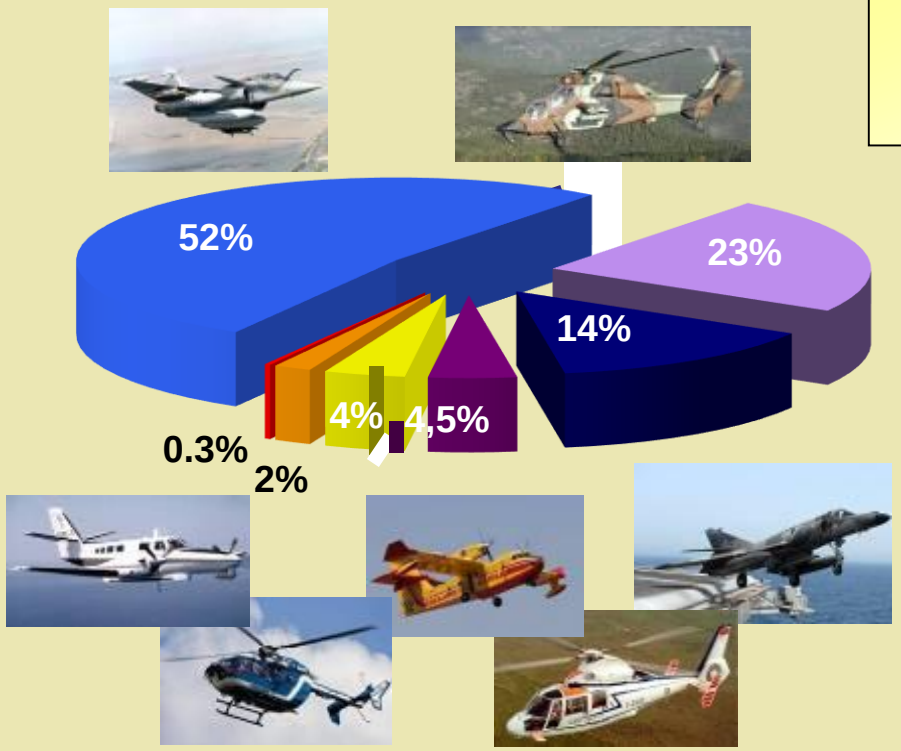
French State Aircraft

DGA Flight Testing

SEVEN AVIATION OPERATING AUTHORITIES (AOA)

Defence	90%
Interior	8%
Budget	2%

FW A/C	57%
RW A/C	37%
RPAS	6%



1367 aircraft overall
70 different types
Up to 40 years of age
FW A/C, RW A/C, RPAS

- Air Force
- Army
- Navy
- Civil security
- Gendarmerie
- Customs
- DGA Flight Testing

Challenge of certifying all aircraft in service

Different options :

1. The regulation is applicable to aircraft procured after the enforcement of the regulation
   - New procurements are so few that the Nation credibility would be at stake

2. The regulation is applicable to all aircraft, including all legacy aircraft in service
   - Transitional provisions are necessary in order not to ground some fleets just because of a legal constraint
   - ☝ Aircraft fleets not sustainable beyond the transition period are excluded

3. Find some trade offs between the 2 :
   - e.g. The regulation is applicable only to recent aircraft, which service life will last several decades

☝ **France chose the very challenging but also very virtuous option 2**

Reminder : some airworthiness documents

- At the aircraft type level :
  - Type Certificates (TC) :
    - Aircraft
    - Engine
    - Propeller
  - Supplemental Type Certificates (STC)

Aircraft TC

Engine TC

Propeller TC

- For each individual aircraft in service :
  - Certificate of airworthiness (CoA)
  - Certificate of registration (CoR)

CoA

CoR

The Airworthiness Controlled Environment in the FR military world

The Production Organisation (PO) has a **FRA-21 G** approval

A Type Certificate (**TC**) is issued:
- Aircraft TC
- Engine TC
- Propeller TC
- STC

The Design Organisation (DO) has a **FRA-21 J** approval

PRODUCTION

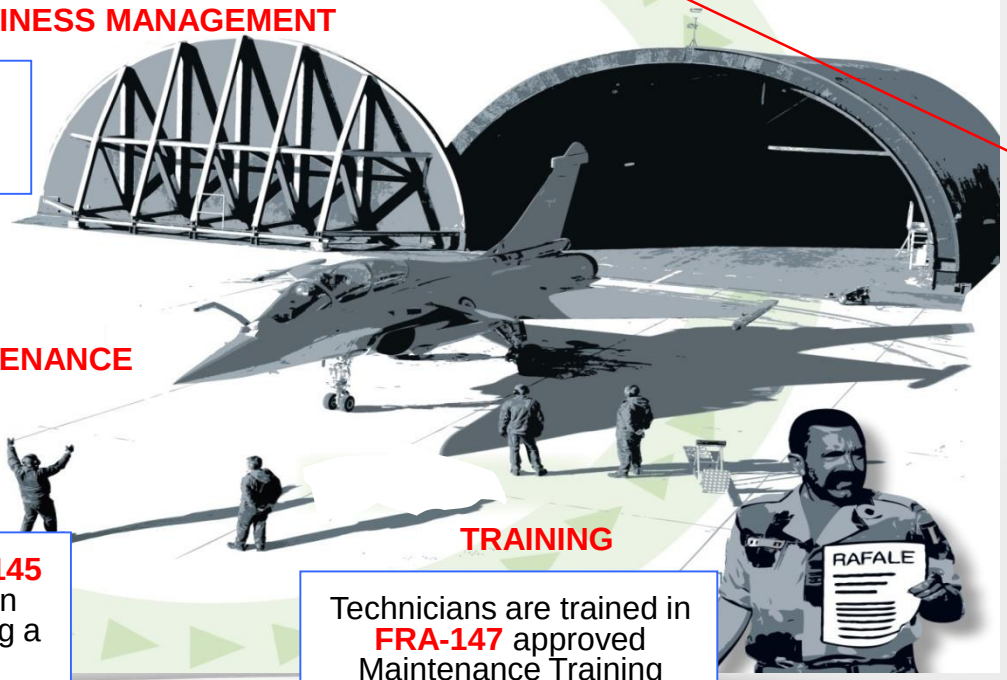
DESIGN

A Certificate of Airworthiness (**CoA**) and a Certificate of Registration (**CoR**) are issued for each individual aircraft

The Type Certificate Holder (TCH) is the Design Organisation

AIRWORTHINESS MANAGEMENT

The military operator has a Continuing Airworthiness Management Organisation (CAMO) holding a **FRA-M** approval



MAINTENANCE

The aircraft is maintained in a **FRA-145** approved maintenance organisation (MO), manned by technicians holding a **FRA-66** licence (mandatory for certifying staff)

TRAINING

Technicians are trained in **FRA-147** approved Maintenance Training Organisation (MTO)

1. **STRATEGIC APPROACH**
   - Why a regulation ?
   - Creation of DSAE (French NMAA): ➔ **a political decision**
     - New established principles in the airworthiness domain
     - Interdepartmental scope of action
     - A new and key actor of French MOD

2. **MISSION & ORGANISATION:** ➔ **a sensitive choice**
   - Range of responsibilities
   - Shareholders and Governance

3. **REGULATION & IMPLEMENTATION:** ➔ **a strong process**
   - Writing a French new airworthiness regulation
   - The choice of an ambitious implementation schedule
   - Challenges and solutions to face

4. **EUROPEAN STATE AVIATION PLAYERS:** ➔ **desire of a global vision**
   - Increasing pressure due to the SES
   - MAWA Forum and European harmonization challenge

5. **CURRENT SITUATION :** ➔ **activity, means & figures**

6. **LEARNINGS & ACHIEVEMENTS:** ➔ **to sum up**

Increasing pressure due to Single European Sky

- **A reality**
  - ✓ The creation of the Single European Sky (SES packages 2004 & 2009) is a **major and complex** political and economic project of the European construction
  - ✓ State aviation is not covered by SES European regulations
  - ✓ The SES pillars (rules, SESAR, FAB) have a direct impact on State aviation

- **The requirement for a State Aviation**
  - ✓ To be capable of speaking in a single voice with the « civilian regulators »
- **The twofold objective for State aviation**
  - ✓ Preserving its capacity to train and operate in a **« single civilian sky » shared by civilians and military**
  - ✓ Reinforcing the « safety of State aviation » through the **global vision of State aviation players**

European harmonization with EDA MAWA Forum

Late 2008 :

Setting up of a **M**ilitary **A**ir**W**orthiness **A**uthorities Forum (**MAWA** Forum)

EUROPEAN DEFENCE AGENCY

Executive level

Forum

MAWA

Early 2009 :

Setting up of 4 dedicated task forces

EIG
EMAR implementation Group

Identification of common key principles for EMAR Implementation

MAWA TF1
Framework documents

Airworthiness policy
- Basic Framework
- EMAD 1 (glossary)
- EMAD-R (recognition)
- …

MAWA TF2
EMAR 21
Design
Production

Initial certification

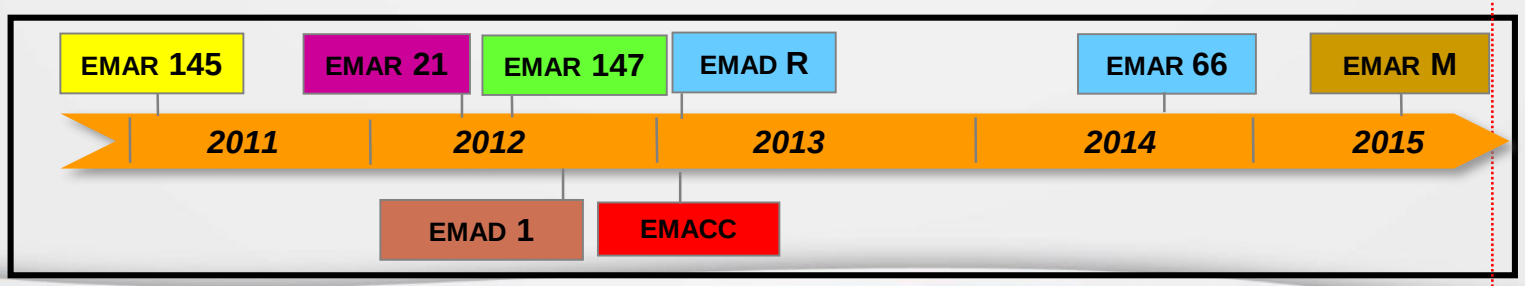
Continued airworthiness (of type design)

MAWA TF3
EMAR 145, 66, 147, M
Maintenanc

Continuing airworthiness
- Maintenance organisations
- Maintenance personnel licences
- Maintenance training organisations
- CAMO

MAWA TF4
EMACC
Certification criteria

Certification criteria for military specificities



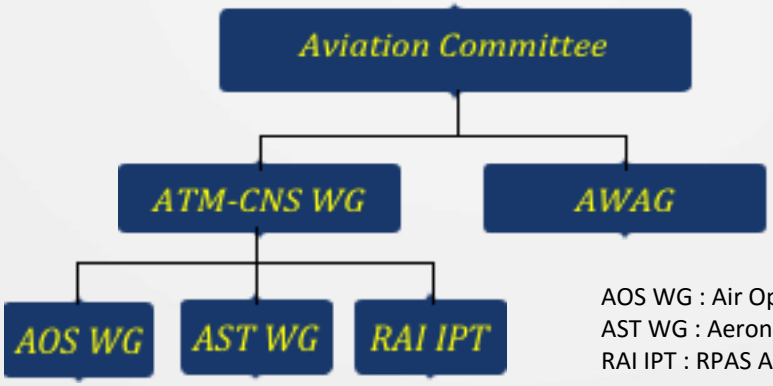
NATO Airworthiness Policy (NAwP)

Aim

To establish a robust airworthiness framework within the Alliance, based on the principles of economy of efforts, cooperation and interoperability

All aeronautical products, parts and appliance provided on behalf of NATO shall be:

- Certified as airworthy by a NATO recognised Airworthiness Authority
- Properly controlled i.a.w approved continued airworthiness provisions
- Operated & maintained i.a.w approved continuing airworthiness provisions



AWAG = **A**irworthiness **A**dvisory **G**roup

AOS WG : Air Operations Services Working Group
AST WG : Aeronautical Systems & Technologies Working Group
RAI IPT : RPAS Airspace Integration Integrated Project Team

☝ In order to avoid duplication, there is no specific NATO Airworthiness regulation


EUROPEAN MAA
CONFERENCE
FR 2014
NL 2015
CH 2016
NATO
OTAN
AIRBUS
HELICOPTERS

The Airworthiness Controlled Environment in the EU military world

Initial certification
Continued airworthiness

Production Organisation (PO) has a **EMAR-21 G** approval

PRODUCTION

A Type Certificate (**TC**) is issued:
- Aircraft TC
- Engine TC
- Propeller TC
- STC

The Design Organisation (DO) has a **EMAR-21 J** approval

DESIGN

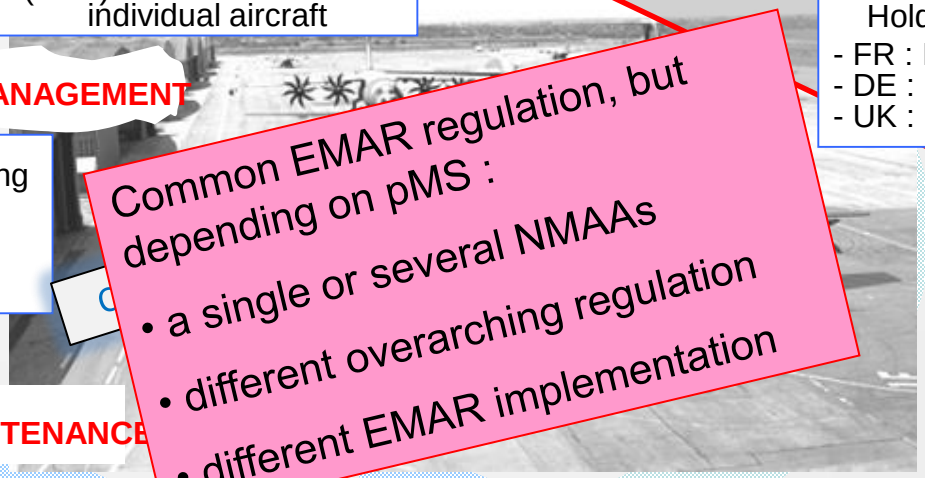
A Certificate of Airworthiness (**CoA**) and a Certificate of Registration (**CoR**) are issued for each individual aircraft

The Type Certificate Holder (**TCH**) is eg.:
- FR : DO
- DE : MoD BAAINBw
- UK : MoD DE&S (TAA)

AIRWORTHINESS MANAGEMENT

The military operator has a Continuing Airworthiness Management Organisation (CAMO) holding a **EMAR-M** approval

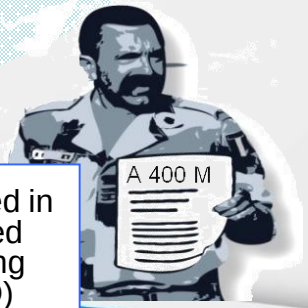
Common EMAR regulation, but depending on pMS :
- a single or several NMAAs
- different overarching regulation
- different EMAR implementation



MAINTENANCE

The aircraft is maintained in a **EMAR-145** approved maintenance organisation (MO), manned by technicians holding a **EMAR-66** licence (mandatory for certifying staff)

TRAINING



Technicians are trained in **EMAR-147** approved Maintenance Training Organisation (MTO)

Implementation of EMARs in the French National Regulation

BULLETIN OFFICIEL DES ARMÉES

Édition Chronologique n° 11 du 17 mars 2016

PARTIE PERMANENTE

Administration Centrale

Texte 1

CABINET DU MINISTRE : *direction de la sécurité aéronautique d'État.*

INSTRUCTION N° 500557/DEF/DSAÉ dite
« instruction EMAR (FR) M, 145, 66 et 147 »

relative au maintien de la navigabilité selon les normes militaires européennes EMAR des aéronefs militaires et des aéronefs appartenant à l'État et des produits, pièces et équipements aéronautiques et relative à l'agrément des organismes et des personnels participant à ces tâches.

Du 18 février 2016

BULLETIN OFFICIEL DES ARMÉES

Édition Chronologique n° 13 du 31 mars 2016

PARTIE PERMANENTE

Administration Centrale

Texte 1

CABINET DU MINISTRE : *direction de la sécurité aéronautique d'État.*

INSTRUCTION N° 500558/DEF/DSAÉ dite
« instruction FRA-M, 145, 66 et 147 »

relative au maintien de la navigabilité des aéronefs militaires et des aéronefs appartenant à l'État et des produits, pièces et équipements aéronautiques et relative à l'agrément des organismes et des personnels participant à ces tâches.

Du 18 février 2016

1. **STRATEGIC APPROACH**
   - Why a regulation ?
   - Creation of DSAE (French NMAA): ➔ **a political decision**
     - New established principles in the airworthiness domain
     - Interdepartmental scope of action
     - A new and key actor of French MOD

2. **MISSION & ORGANISATION:** ➔ **a sensitive choice**
   - Range of responsibilities
   - Shareholders and Governance

3. **REGULATION & IMPLEMENTATION:** ➔ **a strong process**
   - Writing a French new airworthiness regulation
   - The choice of an ambitious implementation schedule
   - Challenges and solutions to face

4. **EUROPEAN STATE AVIATION PLAYERS:** ➔ **desire of a global vision**
   - Increasing pressure due to the SES
   - MAWA Forum and European harmonization challenge

5. **CURRENT SITUATION :** ➔ **activity, means & figures**

6. **LEARNINGS & ACHIEVEMENTS:** ➔ **to sum up**

Continuning Airworthiness in the Military in France : Current Situation

Field of activity to cover :

1350 Aircraft of 70 different types :

1200 in the military and 150 in other services or administrations.

420 Organizations:

60 Continuing Airworthiness Mamagement Organizations CAMO,
100 Aircraft Trainning Organizations « ATO »,
260 Maintenance Organizations « MO ».

10000 Technician Licences to manage.

Continuning Airworthiness in the Military in France : Current Situation

DSAE ressources, average activity & worload capacity

DSAE's Airworthiness Directorate: 65 personnal.

- 50% at the Headquarter (Paris/Villacoublay)
- 50% On the Field (14 units based all other France)
- Internal capacity 40 auditors
- for 4800 days of audit per year

Audits/Year : 600

- 460 Airworthiness reviews,
- 140 Organizations audit,

Licences / year delivered : 2000

Continuning Airworthiness in the Military in France : Current Situation

Achievements & goals:

Fleet certification : 93 %

Organization certification : 60 %

CAMO approvals :100 %

ATO approvals :100 %

MO approvals :36 %

Cruse regime expected in 2017

1. **STRATEGIC APPROACH**
   - Why a regulation ?
   - Creation of DSAE (French NMAA): ➔ **a political decision**
     - New established principles in the airworthiness domain
     - Interdepartmental scope of action
     - A new and key actor of French MOD

2. **MISSION & ORGANISATION:** ➔ **a sensitive choice**
   - Range of responsibilities
   - Shareholders and Governance

3. **REGULATION & IMPLEMENTATION:** ➔ **a strong process**
   - Writing a French new airworthiness regulation
   - The choice of an ambitious implementation schedule
   - Challenges and solutions to face

4. **EUROPEAN STATE AVIATION PLAYERS:** ➔ **desire of a global vision**
   - Increasing pressure due to the SES
   - MAWA Forum and European harmonization challenge

5. **CURRENT SITUATION :** ➔ **activity, means & figures**

6. **LEARNINGS & ACHIEVEMENTS:** ➔ **to sum up**

To SUM UP

Learning's:

- A long and ambitious process.
- A deep cultural and organizational change.
- Difficulties to cope with: legacy A/C.

“United we stand, divided we fall...”

Achievements:

- Strong political will and dynamics instilled by DSAE = key to success
- A.O.A = State aviation not restricted to Military aviation (A.O.A = Aviation Operating Authorities)
- Regulation applicable to all aircraft, including legacy aircraft in service
- French State airworthiness regulation comparable to EASA regulation
- Synergy between NMAA and CAA = economy and efficiency
- European view and ambition of French NMAA

- **A safer situation today than yesterday.**
- **A unique and harmonized way to manage safety in the military in all the services as well as in the industry.**
- **General improvement in safety, in maintenance, in logistics, in training, in joint operations, in budget efficiency, in international cooperation, in aeronautical exports opportunities…**

Thank you for your attention! Any questions?