



ACCELERATING the RECOGNITION PROCESS between AIRWORTHINESS AUTHORITIES

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DSAÉ



MAWA
Conference
2017



ATHENS



KEY IDEA

Enhancing the European, or even multinational, **network of the airworthiness authorities**, sharing the pursuit of an aeronautical safety improvement, is a necessity and the appropriate answer to the development of the military common aeronautical programmes or common interests, to more interoperability, and to defend the military interests through the essential dialogue with the civil aviation authorities, especially in the context of the future Single European Sky.

But, in line with NATO and EDA military Aviation Safety objectives, enhancing this military network needs to **accelerate the current recognition process** and to be based on **common airworthiness references**.

1. THE EUROPEAN MILITARY AIRWORTHINESS STATUS

- EMAR: the appropriate military answer to ICAO & EASA conventions
- EU Member States to take over from EDA & to clarify position in relation to the EMARs
- Expectation of pMs, of Aircraft Manufacturers and of Operational Commanders
- The future Single European Sky (SES)

2. A NEW APPROACH TO THE RECOGNITION PROCESS

- The French experience and Lessons learned
- **Recognition** between Airworthiness Authorities: **a key process**
- The pursuing objective
- Using common programmes to accelerate the recognition process
- The French MAA initiative

3. ASSESSMENT OF THE FRENCH GENERIC RECOGNITION IN MAY 2017

- The stages of the process
- The 3 tier levels of recognition
- Using Recognition to promote military airworthiness harmonization

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11a. ICAO convention : a fundamental consideration

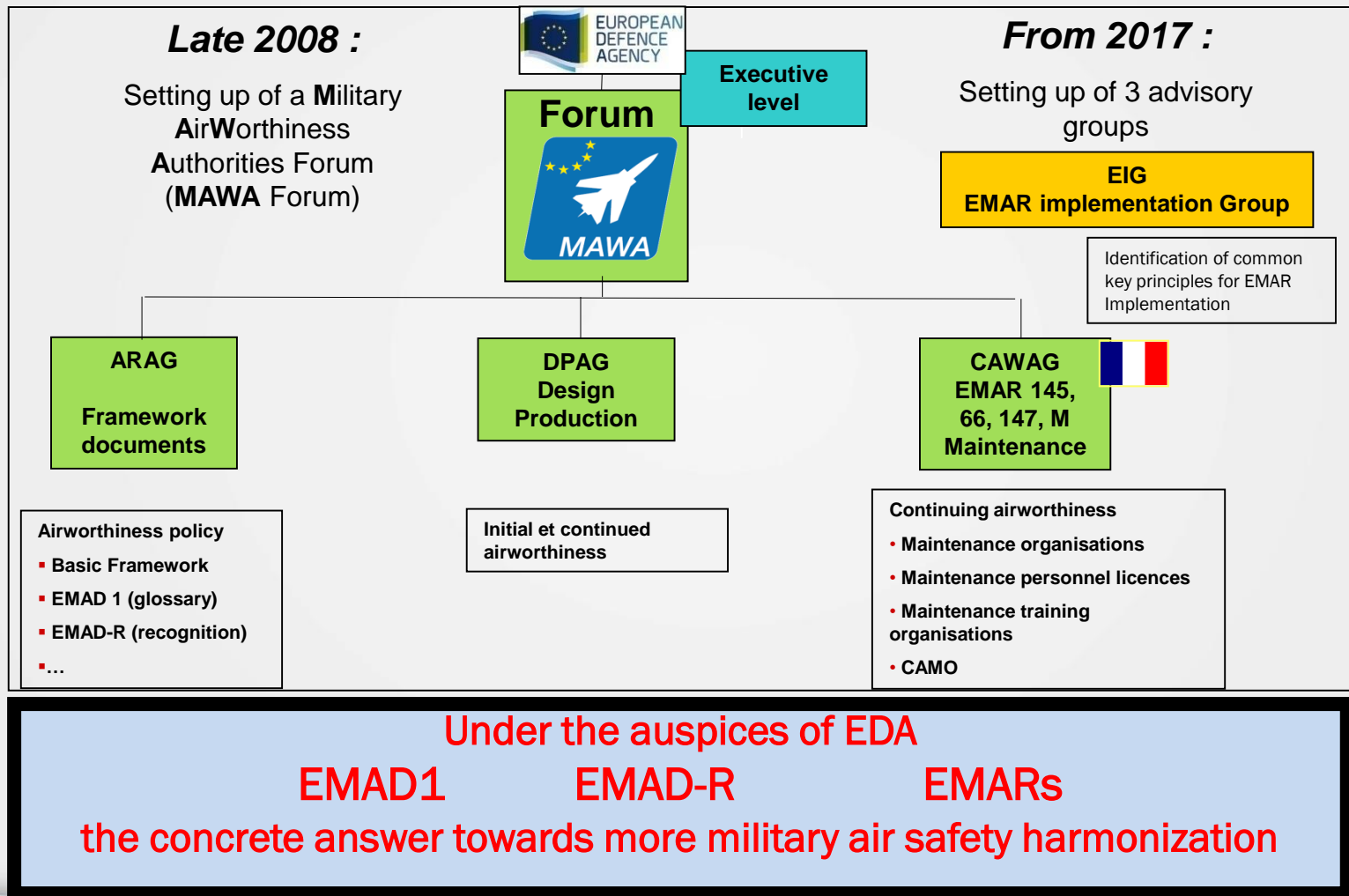
- CIVIL AGENCIES CANNOT REGULATE STATE AVIATION
- STATE AVIATION DOES NOT HAVE TO COMPLY WITH CIVIL REGULATIONS
- STATES UNDERTAKE TO HAVE DUE REGARD FOR CIVIL AIRCRAFT SAFETY

<p>ICAO* Chicago Convention (1944)</p> 	<p>▣ ART 3 (civil aircraft and state aircraft)</p> <ul style="list-style-type: none"> • « 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 »
<p>EASA* EC 216/2008</p> 	<p>▣ Article 1 – Scope of application</p> <ul style="list-style-type: none"> • « 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

11.b. European harmonization with EDA MAWA Forum



12.a. EU Members States have to take over from EDA the dynamic kept by the success get in the Airworthiness field



EUROPEAN MAA
CONFERENCE


FR 2014
NL 2015
CH 2016
DE 2017

Logos: Eurocontrol, European Union, NATO OTAN, AIRBUS HELICOPTERS

Flags: Belgium, Czech Republic, Denmark, Finland, France, Germany, Hungary, Norway, Poland, Portugal, Sweden, Switzerland, United Kingdom

The graphic features a stylized map of Europe with a network of glowing green and yellow lines representing flight paths or connections. The background is a dark blue sky with a bright sun or light source on the right side, creating a lens flare effect. The text and logos are overlaid on the right side of the map.

12.b. EU Member States priority in the airworthiness field

- The AIRWORTHINESS field  an indisputable and essential pillar of all AVIATION SAFETY policy.
- Taking EMARs into account, either adopting them or demonstrating the compatibility of their national regulation, has to become a priority to all MAAs.
- As EMAR is the appropriate and common airworthiness reference, accelerating the recognition process between MMAs comes to accelerate at the same time the implementation of EMARs into their national regulations or, at least, their positioning towards EMARs (level of compliance with).

13. Expectations of the Recognition Process

- **Member States**

➡ **to provide consistency and maintain the airworthiness controlled environment**

when maintenance of aircraft or equipment is performed outside the national territory

- **Aircraft Manufacturers and Buyers**

➡ **to implement multinational in service support contracts**

OCCAR ➡ A400M / TIGER

NAHEMA ➡ NH 90

- **Operational Commanders**

➡ **to be confident about the reliability of the fleet**

NATO ➡ Member States

➡ **to look for more interoperability**

EATC ➡ to save spare parts and to mutualize fleet support

14. The future Single European Sky (SES)



To preserve their capacity to train and operate in the future Single European Sky, the European Military Aviations have to promote their specificities. For that, they have to speak in a single voice with the civilian regulators at European level, mainly with EASA, and **the recognition process between airworthiness authorities is probably the best way to obtain the expected success.**

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21.a. Recognition Process : applying EMAD R DSAÉ experience

Authorities	Field of the recognition	Interests	Certificate issued
FR DSAÉ ↔ UK MAA	maintenance 145	A 400M	08.06.2017 12.01.2017
FR DSAÉ ↔ SP DGAM	maintenance training 145, 147	A 400M, (TIGER, NH90, ...)	Sept.2017 Sept.2017
US NAC → FR MAA	aircraft airworthiness assurance	Competence & reliability	15.12.2015
FR DSAÉ → DE LuftABw FR MAA ← DE LuftABw	maintenance training & licensing Production & design 145, 147, 66, 21	A 400M, (TIGER, NH90, ...)	21.01.2016 et 21.09.2017
FR DSAÉ ← { FLYGI SE DAAA IT DASA AU MAA BE MAA NLD AAN PT	maintenance training & licensing management production M, 145, 147, 66	A400M, NH 90, MRTT TIGER...	Process ongoing

21.b. Recognition Process : applying EMAD R lessons learned

- First :** Competence of an airworthiness authority in the field of production and continuing airworthiness is widely independent of a type of aircraft ;
- Second :** To demonstrate its competence, the work and the investment provided by the evaluated airworthiness authority are the same, whatever the number of recognizing authorities ;
- Third :** Necessity to reduce the workload due to the number of presentations to perform.

Conclusion :

- To group several airworthiness authorities, sharing the same interests ;
- To deliver the same information at once ;
- To gain advantage from the meeting of several Aw authorities to increase the exchanges and experiences ;
- To promote a common culture and network.

22. Recognition between Airworthiness Authorities : a key process

If EMARs allow to harmonize the frame of reference, only the recognition process described in detail in EMAD R will :

- ➔ **provide** the appropriate answer to the development of the military common aeronautical programmes ;
- ➔ **promote** the implementation of harmonized airworthiness rules applied to all EU military fleet ;
- ➔ **enable** the achievement of a military Aw Authorities network ;
- ➔ **defend** the military interests through the essential dialogue with the civil aviation authorities, especially in the context of the future Single European Sky.

23. Using common programmes to accelerate the Recognition process

TIGER



NH90



REAPER



Cooperation

- ▶ Pooling & sharing
- ▶ Spare parts
- ▶ Common maintenance
- ▶ Mutual support / operations
- ▶ Mutual training
- ▶ Costs benefits
- ▶

A400M



MRTT



TYPHOON



C130J



24. The pursuing objective

a TOP / DOWN Approach

- **Generic recognition** : without referring to a specific product !
- **In concrete terms** : to assess / to appreciate
 - the global functioning
 - the entire responsibilitiesof a Military Aviation Authority / Airworthiness Directorate
- **One Aw Authority assessed / max of Aw Authorities assessing**
- **Level of recognition** : using the « three-Tiers' levels » system
- **If needed**: further mutual recognition focusing on specific products

25. The French initiative from May 2017

- First** : Considering the increasingly number of airworthiness subjects which request to be solved in the short term through the recognition process between Aw Authorities (A400M, TIGER, NH90, MRTT, REAPER, C130J,...).
- Second** : According the necessity to accelerate the current recognition process.
- Third** : Sharing this assessment with other Airworthiness Authorities, in particular during last MAWA conference in Lisbon with the German LufABw *.

* German LufABw will organize a working session in November about harmonization of the recognition procedure.

Following EDA willingness to more harmonization in EU military airworthiness field, France decided to launch a global and generic recognition of its airworthiness organization (DGA + DSAÉ), inviting a large number of countries sharing some common interests.

Started in May 2017, this initiative is really a success

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- **DGA (Defence Procurement Agency)**

- ➔ **Technical Authority**

- ➔ **Initial & Continued Airworthiness**

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

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

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

- **DSAÉ (State Aviation Safety Authority)**

- ➔ **Continuing Airworthiness Authority**

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

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

- ➔ The aircraft is maintained in a **FRA-EMAR 145** approved maintenance organisation manned by technicians holding a FRA-EMAR 66 licence

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

31.b. The assessing Airworthiness Authorities



BE



IT



SP



DE



EDA

**EDA & NATO encouraging
and participating**



NATO



UK



SE



PO



AS



PL

32. The tier levels of recognition

adopting flexibility in the recognition process (example of US approach)

- **Tier 1: limited to the recognition of a foreign MAA**
US NAC has recognized the French MAA (DGA + DSAÉ)
- **Tier 2: intermediate level**
- **Tier 3: full recognition of a foreign MAA**
including products and artefacts

33.a. Momentum

Le Bourget Momentum

Le Bourget Momentum

By
National Military Airworthiness Authorities

Of



in the matter of

**Improvement of the efficiency of the
Recognition process**


As promoted by
EDA, NATO





as a substantial contribution for a deeper defence
cooperation.




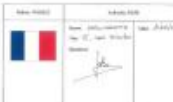
Le Bourget Momentum

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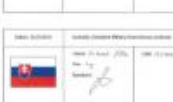
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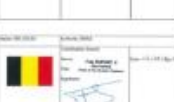
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33.b. Signature of the Momentum



during the 52nd Paris Air Show

FR, DE , UK, IT, SP, SE, GR, HU, AT, SK, NO

before & after the 52nd Paris Air Show

BE , NL, FI, CZ, PO, RO, AU

MAA Supporting this initiative

CH, SZ, PL, CA, SG, IE

Active Support

EDA & NATO



We, the Directors of the participating National Military Airworthiness Authorities (NMAA) have identified the need for a deeper defence cooperation in order to increase the output of defence spending and to optimize the use of national resources to enhance the level of safety in our military air operations.

We support this approach in the field of Airworthiness by signing this “Le Bourget Momentum” with the following content:

- We are aware that the increasing of multinational defence activities requires an effective cooperation and improved interoperability based on common and shared requirements making extensive use of already agreed EMAR standards and **encouraging the implementation process completion.**
- **We have identified the necessity of mutual recognition to enable NMAAs and Nations to use national artefacts with the aim to reduce the associated resources such as manpower, efforts and time.**
- **We will populate a multilateral timeline and we will define a matrix to indicate the required scope of the Recognition Process.**
- **While conducting recognition activities we will learn from each other.** The exchange of best practices will lead to continuous improvement of airworthiness culture.

CONCLUSION

Using Recognition to promote military airworthiness harmonization

Following NATO and EDA military Aviation Safety objectives, and taking into account the lessons learned of the French MAA global recognition, the speeding-up of the recognition process decided by numerous Military Airworthiness Authorities will make easier the deployment of international aeronautical programmes and will promote the synergies based on a tested confidence.

Beyond this essential benefit, accelerating the recognition process will contribute to the strengthening of the international military community showing a same willingness to improve the aeronautical safety, sharing experiences and best practices.



A.Jeuland / Armée de l'air

Thank you for your attention!