Aerospace and Defence
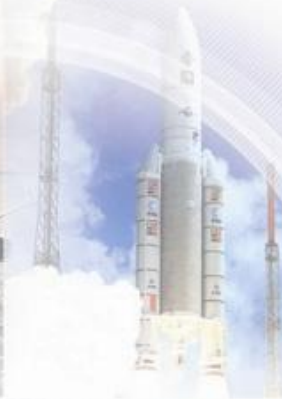Industries Association of Europe

ASD Presentation to

Military Airworthiness Authorities Conference

6th - 7th July 2011

Warsaw, Poland

Aerospace and Defence
Industries Association of Europe

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Aerospace and Defence
Industries Association of Europe

ASD represents 28 associations in 20 countries

ASD in detail:

Over 137 € billion turnover

Over 2000 companies

Over 675.000 Employees

FSI

AFDA

SOFF/SAI

FAD

APAI

ALV/ AOP CR

AAI/ADIG

BDIA

SaSad

HASDIG

FAEI

A|D|S NAI/NIDV

GEBECOMA/ BSDI

BDLI/BDSV

GIFAS/CIDEF

SAIG/ SWISSMEM

AIP/DANOTEC

TEDAE

AIAD

Logos: AIRBUS AN EADS COMPANY, BAE SYSTEMS, COBHAM, DASSAULT AVIATION, DIEHL, EADS, EADS CASA, EADS astrium, FINMECCANICA, FINCANTIERI, GKN GKN PLC, MBDA MISSILE SYSTEMS, RHEINMETALL DEFENCE, Rolls-Royce, SAAB, THALES, SAFRAN

ASD Presenta tion to Military Airworthiness Conference
06.-07.07.2011 Warsaw

Organigramme

OFFICERS
PRESIDENT: D Ureña Raso
PAST PRESIDENT: P.F. Guarguaglini
PRESIDENT ELECT: K. Eberhardt
TREASURER: B Rétat

General Assembly
Joint Meeting of the Council and Board

Council
Presidents of Major Companies

Board
Officers and Presidents of National Associations/Representatives

COORDINATION GROUP

Michael von Gizycki
Secretary General

Antonio Di Blasi, Director External Affairs, Equipment/SME

Patrick de Prévaux, Director Air Transport, R&T and Operations

Gert Runde, Director Security & Defence

Jean-Jacques Tortora, Director Space

TBD Director International Programmes

EXTERNAL AFFAIRS COMMISSION	EQUIPMENT/ SME COMMISSION	AIR TRANSPORT COMMISSION	OPERATIONS COMMISSION	R&T COMMISSION	SECURITY COMMISSION	DEFENCE COMMISSION	SPACE COMMISSION	
Sectoral Groups: -	**Sectoral Groups:** Equipment SME **Project:** Aeroportal	**Sectoral Groups:** -Engine -General Aviation -Rotorcraft **Committees:** -Air Traffic Management -Environment **Programmes**: -Clean Sky -SESAR **Group** Industry Mission Group 4	**Sectoral Groups:** LCS & MRO **Committees:** - Airworthiness - Customer Product Support - SC3 **Group:** EAQG **Affiliated companies:** ASD STAN ASD EASE ASD PRO ASD CERT	**Committees:** -Defence R&T -Security R&T -Space R&T **Group:** Industry Management Group 4 **Initiatives:** -ACARE -ESRAB -Space ETP **Programmes:** Clean Sky SESAR	**Sectoral Groups:** -Air -Land -Naval -Rotorcraft **Committees:** Export Control Economic & Legal R&T Security GMES **Project:** STACCATO **Independent partner:** EOS	**Sectoral Groups:** -Air -Land -Naval -Rotorcraft **Committees:** -Export Control -Economic & Legal -R&T Defence -Space Security & Defence	**Sectoral Groups:** - **Committees:** •Space Committee on Space Standards •Electronic, Electromechanical Equipment •Global Monitoring for Environment & Security •Legal Affairs •Navigation •R&T •Security & Defence •Space Industry Market	**Committee:** IPPC

Committees: -Data Analysis -Economic & Legal **Group:** Industry Mission Group 4

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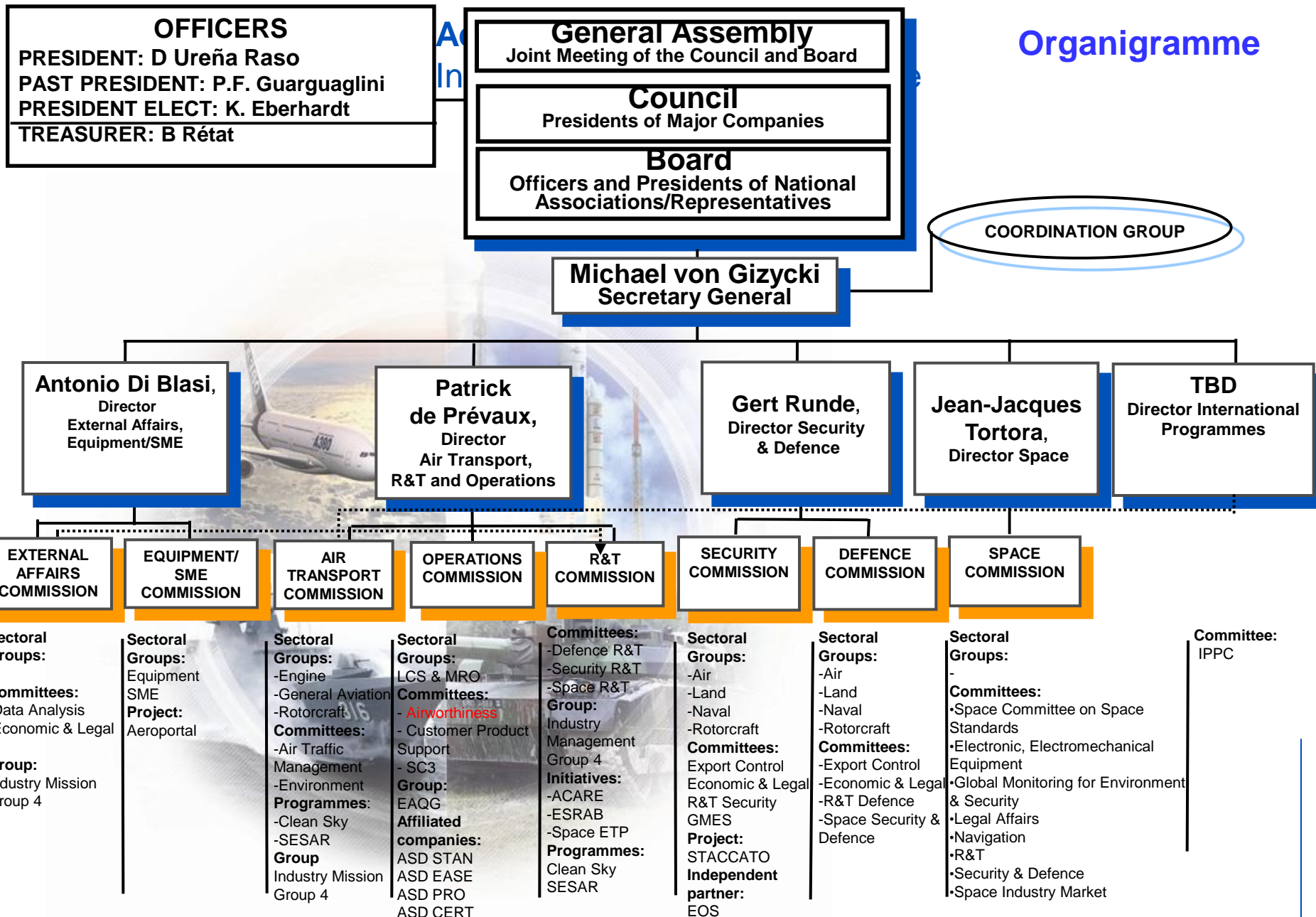
National Participation

The **ASD Airworthiness Committee** has representatives from companies of the following nations:

Italy, Czech Republic, Spain, Germany, Ireland, Belgium, France, Finland, Netherlands, Sweden and UK

The **ASD Airworthiness Military Working Group** has representatives from the following nations:

Italy, Spain, Germany, France, Sweden, UK and Portugal

We would welcome wider participation from other nations and any influence the pMS have with their Industrial representatives

National Participation

ASD Military Airworthiness Working Group Chair is from Germany and Deputy from UK

The focal points / deputy focal points for various TF are as follows

TF1 UK / France

TF2 UK / UK

TF3 UK / UK

TF4 France / UK

At a recent ASD Military Airworthiness Working Group it was agreed that it would be preferable if the focal points were spread more evenly across the nations.

As a start it was suggested that the focal points were aligned with Authority chairs to aid communication ie France would take over TF3 and Italy take over TF4.

However to be to the focal point involves a significant additional work load and is not a commitment that can be undertaken lightly.

Engagement with MAWA forum

- ASD is very **supportive to military authorities** in adopting a regulatory framework based on the civil framework and has actively campaigned for this

- ASD is very **encouraged** how quickly the regulations have progressed since inception of the MAWA forum

- ASD is **pleased to be invited** by the forum to contribute to the development of the regulations sees this as a very positive move by forum

- As any future **regulations will need to be implemented via contract**. We are of the opinion it is essential that the regulators and Industry **cooperate** over their development.

- ASD have been **actively involved with the MAWA forum and with TF2 and TF4.** With **TF1** important issues were discussed, a workshop is scheduled for October 2011. During a TF 2 workshop performed mid March 2011 a common understanding on major topics for EMAR 21 was achieved

- Dedicated **information exchange / training** can be offered by industry on request, i. e. needs and interfaces between different requirements/approvals.

- ASD have offered to **participate in the TF3** meetings as well.

Vision for future Regulatory Framework

A common regulatory framework that:

- **satisfies the needs** of the regulatory bodies.

- can be **implemented by government agencies, the services and industry,** based on national regulations

- is consistent with **equivalent regulations used in the civil sector** (Parts M, 21, 145, 147 & 66) that is complied with by both Industry and government agencies.

- has an **airworthiness authority independent** of budget holder at national level and '**JAA' type organisation** for Europe.

- has clearly **defined and documented responsibilities** for both industry, military personnel and / or airworthiness authorities.

- **empowers all stakeholders through the consistent use of privileges** (similar to those granted in the civil sector).

- A **single** clear definition of the **route to certification** (as Part 21) and common certification codes, consistent with civil practice where applicable (as C23/25/CS29 etc).

Vision for future Regulatory Framework

A common regulatory framework that:

- **Design, Production and Maintence approvals** granted by National Authority which are acceptable by all EU nations. Recognition of existing civil approvals.

- Common **Safety Management System** requirements that allows both the airworthiness authority and industry to satisfy their legal duties.

The principle to produce a military regulations based on existing, e.g. civil once, is a useful way ahead, however there are important issues that need to be resolved.

The civil regulations are predicated on the concept of an independent Airworthiness Authority with a Competent Design Organisation being the TC holder in general with the associated obligations and privileges.

Discussion – Design Organisation

- For some nations it will **difficult to grant privileges to industry**.

- It may be **difficult for industry to accept obligations by regulation** rather than by contract.

- Currently there are **different views on who is the TC holder** by the national authorities, **ASD would like a consistent view across Europe**, however if this is not possible the regulations must reflect this.

- The roles and **responsibilities of the TC holder, the Design Organisation and Airworthiness Authority** must be clearly defined.

Discussion – Design Organisation

For multinational programmes it is difficult to run efficiently when rules and roles are different in each nation. For A 400 M an opportunity exists to have common procedures in all nations.

In the defence world, where the TC holder obligations are generally contractual, it is difficult for industry to accept these obligations without major changes to contractual terms.

It needs **cultural changes within Authorities and Industry**.

Privileges – ASD sees no <u>technical</u> reason - why the **same privileges that exist in the civil world** cannot be **granted in the Defence World**.

Discussion - Certification / Qualification

The **civil regulatory authority only deals with certification**, however the **military regulatory framework** has traditionally **not** really differentiated between certification and qualification.

It is a myth that only certification only occurs in the civil world, qualification still occurs but is a **contractual deliverable** between the organisations rather than a **regulatory requirement**

In the new regulatory framework the opportunity exists to properly **differentiate 'fitness for flight' versus 'fitness for purpose'** and to clearly define the various roles to be fulfilled by the government agencies

Discussion - Certification codes

The civil regulatory framework relies upon a set of certification codes. Therefore it is extremely important that a **coherent set of codes is developed**.

The most challenging **certification code is that required for Combat Aircraft**, in a manned or un-manned configuration.

Military Transport, Helicopters, Engines, Propellers could **use civil codes** with relatively minor changes.

Therefore the **TF work could be separated in two parts** i.e. codes for combat jets and all other codes.

Would it be better to **initially** concentrate on producing certification codes that could be used in shorter term, ie engines, propellers, helicopters, military transport aircraft and UAS.

Significant Issues

Common Approval Schemes:

Common approval schemes for Design, Production and Overhaul is a very positive outcome for both, efficiency and safety.

However it must be **similarly applied to all organisations** who perform Design, Production or Overhaul tasks, even if they are part of the government agencies.

Privileges:

1. Industry expects in general the **same as under civil regulations**, noting privileges are granted to DO in EASA Part 21 not the TC holder.
2. The effect of **non common privileges or no privileges to industry** in MAWA nations will endanger in total the approach of common European military regulations!
3. How would this work in multinational collaborative programs or civil derivatives?

Significant Issues

Legacy:

The application of a new regulatory framework will be problematic for legacy projects and should be given due consideration by the Forum.

Implementation across the nations:

ASD **would prefer**

- direct implementation of EMAR (with published differences if necessary) or direct reference to it in national standard

ASD **would be concerned if**

- if each nation maintains its own regulation, as each version would be slightly different, resulting in significant problems for mutual recognition, difficulty in accepting other nations approvals and loss of the key benefit from the initiative.

Significant Issues

Mutual Recognition:

ASD **would recommend**:

1. Recognition of civil design / production / overhaul approvals as well as acceptance of   approvals by other military authorities in EU.

2. Acceptance of certification granted by MAWA nations by other than MAWA nations.

It is vital that the process of Mutual Recognition and implementation of EMARs is handled in a sensible pragmatic manner.

Indications so far on the implementation of EMAR145 are so far unfortunately not encouraging.

Significant Issues

Type Certificate Holder:

1. Is it intended to have same distinction between state of design and state of registry as in civil ?

2. Can EMAR operate effectively with TC holder and Authority being part of same organisation ?

3. Consequences of a TC holder without DO/DOA to be considered.

4. Regardless if industry or a government agency is the TC Holder, there should be no difference in the requirements for / obligations or privileges of the TC holder / Design Organisation for EMAR to operate effectively.

5. How would it work effectively for collaborative programs if TC holder is different?

6. There is a consequences to other EMAR's of who the TC holder is.

EMAR 21 issues

1. Can one common EMAR operate effectively with very different legal requirements and liabilities for industry?

2. Peculiarities for Unmanned Aircraft

3. Definition / understanding of Continued versus Continuing Airworthiness.

4. Information about Part Z why this has become regulation rather than guidance.

5. Application of Airworthiness codes will probably differ from those available in civil world, should the EMAR take this into account.

6. Compliance times, will these be introduced and complied with by government agencies.

Short term Opportunities

It will take some years before the full set of regulations and procedures are introduced.

Potentially there are some **parts that could be introduced earlier.**

Fundamentally these are the organisational approval schemes i.e. **EMAR's 21 J and G, 145 and 147.**

This would give **benefit to both,** Industry and Regulator in a shorter term for the good work already done.

Potentially some areas of concern will reveal when regulations are practically applied.

Allow Industry to have **one common approval for Design, Production and Overhaul** by granted by an national regulator and which would be accepted by other nations if the concept of mutual recognition is introduced.

In some cases it could take the **benefit from existing civil approvals** with consequent cost saving.

Summary

ASD is keen to be actively involved and is encouraged by engagement

The concerns that still exist are as follows:

- **Certification Codes**

- **Privileges to industry**

- **Mutual Recognition**

- **Acceptance of civil approvals**

- **Non common Implementation of EMARs / National regulations hindering the implementation**

- **Roles and responsibilities of TC holder / design organisation**

- **Application to legacy products**

- **Cooperation with industry**