European Commission

Working Session on : Synergies between civil and military certification

Prepared by Sylvie GRAND-PERRET – EC DG MOVE

ACARE Certification workshop

EASA Köln - 2 Oct 2013

New European certification Civil/Military Challenges

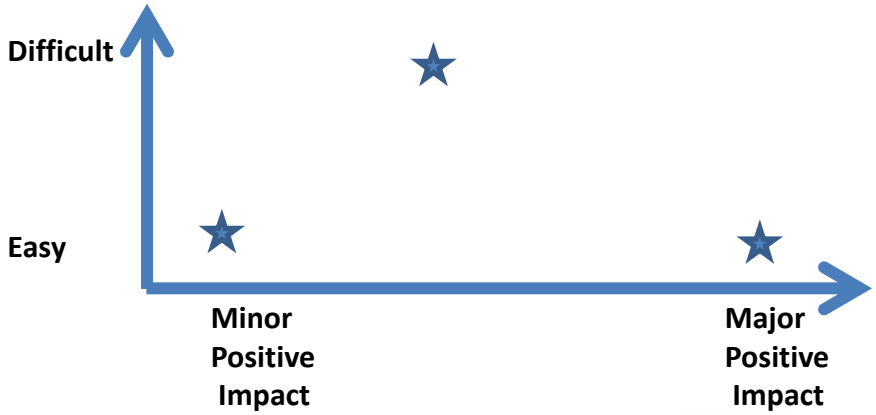
- Military/civil aircraft certification : E.g. A 400M
- SES IR and civil/military interoperability
- RPAS ATM integration
- Flexible Use of Airspace
- Civil use of Military Areodromes

Reminder

- H2020 funds can only be justified for research in the civil sector.
- This working session is therefore about
  - Reviewing the ACARE SRIA certification elements - to be applied to the civil area
  - Reviewing the specific ACARE SRIA certification elements specific to the military sector.
  - Identifying synergies between the two sectors

The working session steps

- Review the potential improvements to current civil and military certification processes
- Asess qualitatively for each of them its potential to reduce cost / effort in the certification exercise
- Provide a visual outcome that can be integrated to the results of the other working sessions



This will help decide on priority actions

ACARE SRIA current content Military focus

3 areas are beeing addressed:

- Regulation and standards
- Efficient Certification
- Resilience Methodologies and Tools (including cyber attacks)

Regulation & Standards

- Harmonised qualification procedures
- Harmonised certification of civil and military certification staff
- KPIs:
  - 100% of certification staff have cross qualification
  - Flight safety is only in the hand of EASA

Efficient Certification

- Virtual environment/simulation ; accepted means of compliance
- Certification process between civil and military bodies is streamlined
- KPIs
  - Routine structural inspection of airframes for fatigue damage no longer a maintenace requirement.
  - In flight structural failure rates in the EASA fleet from all causes reduced to 1% of 1990/2010 rate.
  - Loss of aircraft due to icing/lightning and other enviromental causes reduced to 1% of 1990/2010 rate.
  - 50% reduction in certification cost for aircraft structures and icing performance.

Resilience methodology and tools

- Communication and other electronic systems and infrastructures that link A/C to ground are resilient to failure and cyber threats.
- No KPI
- But synergy encouraged with the military solutions.

European Commission

Some Comments on ACARE military specific material

- Very much vehicle certification centered
- What about ATM civil/military integration in the future concepts /technologies?
- What about military specificities in terms of equipment/ regulations?
- Is the harmonisation process the most appropriate process for the military sector? Are MoC a better option?
- To what extend would these elements reduce certification cost?
- Is virtual testing already being used in the military environment?

European Commission

Some questions for the working session (1/3)

- What are the key issues today with military certification?
- How and at which stage new concepts, new technologies are beeing addressed in the military sector?
- Where do you think synergy should be made in terms of certification between civil and military sector?

- To what extend research could improve the situation?
- What policy action is the most appropriate/efficient to get to the ACARE objectives (cost reduction and safety improvement)?
- How do you see EASA/EDA interaction to improve civil/miltary certification?

Some questions for the working session – Incident Data base (2/3)

- One of the WG4 safety action is to establish an incident data base that could establish a risk modelling and help prevent accidents :
  - Has this approach to safety already been considered in the military environment?
  - Are the incidents taking place on military State aircraft, aerodromes or military airspace currently communicated to the State transport ministry in the European countries?
  - Given the criticality of the data, what barriers do you see regarding sharing the State aircraft incidents with the civil authorities?

Some questions for the working session - Resilience (3/3)

- Another key objective of WG4 is to improve the resilience of the system
  - What are the methods if any that are used in the military environment to improve the resilience of the systems?
  - Are you aware of any resilient approach to certification? (systematic methods, current/emergent environmenal hazards & security threat…)