



**EASA**  
European Aviation Safety Agency

# **Product Certification and Design Organisation Approval Workshop**

**22<sup>nd</sup> -23<sup>rd</sup> November 2016**

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# GA Road Map: Working towards **Simpler, lighter, better rules for** *General Aviation*

## GA Roadmap update

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# Motivation and problem



Avert a dramatic loss of activity as a result of complex and disproportionate rules



Necessary to adopt a specific new approach for GA in order to assure a sustainable development of the sector in Europe



# The cornerstones of the GA Roadmap

## Founded on:

1. Agreed risk hierarchy
2. Agreed strategic principles
3. Cooperation of all stakeholders
4. Commitment at all levels

This foundation gives us a  
higher chance for success!!



## Active application of risk hierarchy





## Strategic direction - six principles

**P1:** One size does not fit all (reduce cliff-effect)

**P2:** Philosophy of minimum necessary rules

**P3:** Adopt a risk-based approach (risk-hierarchy)

**P4:** Protect “grandfather rights”

**P5:** Apply EU “Smart Regulation Principles”

**P6:** Make best use of available resources/expertise





# Cooperation of stakeholders



Member States



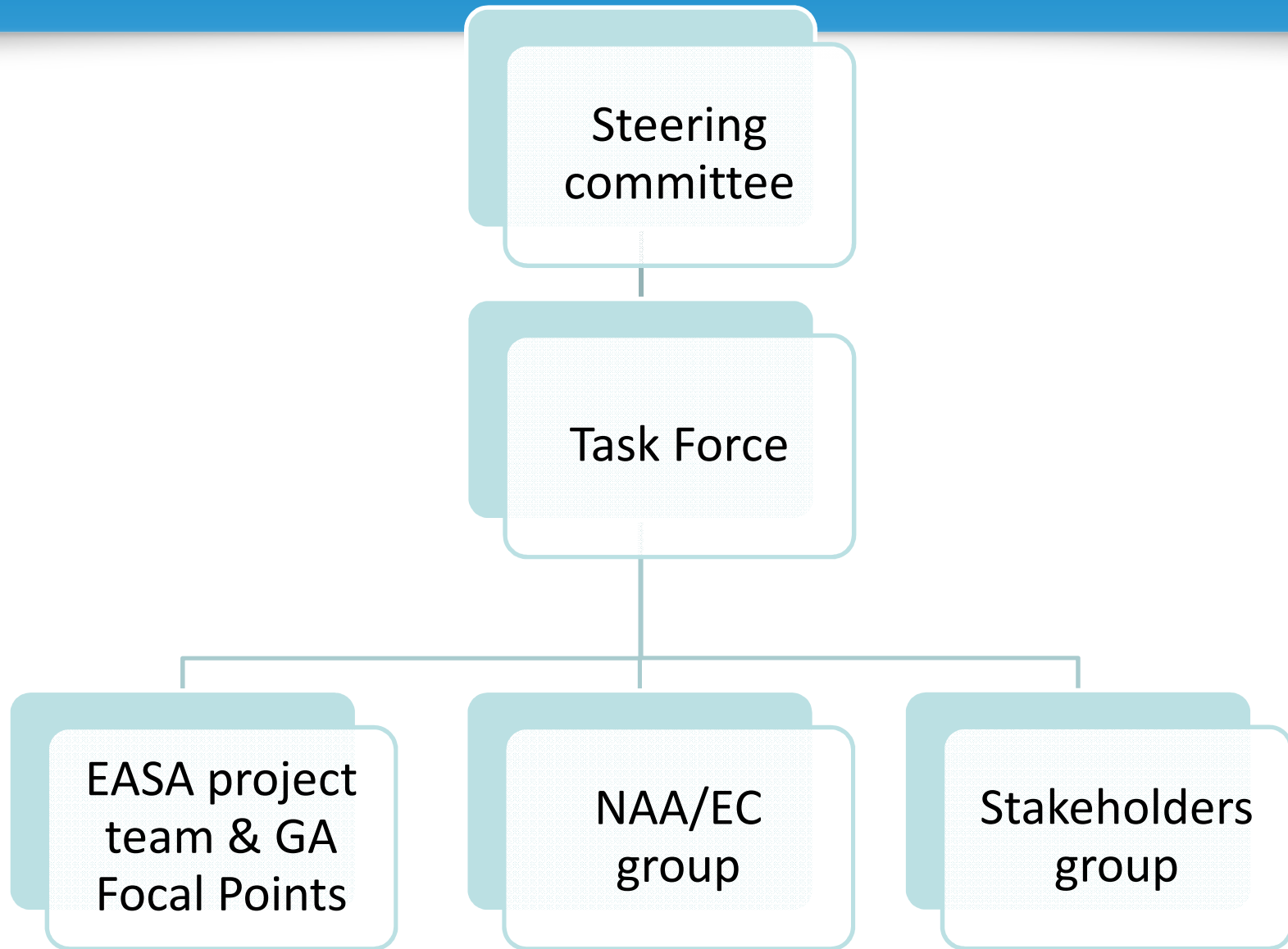
Success when  
all partners  
work together



GA users/industry



# Commitment at all levels







# GA Roadmap

- Simpler, lighter and better rules to stimulate GA
- Regulate only when needed and use other means when possible
  - Hand responsibilities back to people/organisations that are able to take that responsibility
  - Avoid automatic use of “CAT logic” to GA



# GA Roadmap a selection of topics

- Changes to the Basic Regulation
- Part M Light
- Facilitate access to IFR (holistic approach across domains)
- Aircraft changes and repairs made easy (CS-STAN)
- More options for pilot training outside ATO (DTO)
- Simpler, lighter, better Part-FCL requirements for GA
- Air Operations and licence Balloon Rule Book
- Air Operations and licence Gliders Rule Book
- Simpler Certification (Part 21 proportionality – manufacturer approval)
- Reorganisation of CS-23 using Industry standards
- Communication & Technical Training



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# Aircraft changes and repairs made easy (CS-STAN)

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# CS-STAN easier changes and repairs

Part-21 allows Standard Changes and Repairs that do not require approval when CS-STAN is followed

- CS-STAN Changes and repairs require a release by appropriately qualified mechanic
- A first CS-STAN was published 9th July 2015



# CS-STAN Rev 1

- Reduction of admin
- Promoting safety enhancements

## Group Systems—Communication:

- CS-SC001a — Installation of VHF voice communication equipment
- CS-SC002a — Installation of a Mode S elementary surveillance equipment
- CS-SC003a — Installation of Audio Selector Panels and Amplifiers
- CS-SC004a — Installation of antennas

## Group Systems — Electrical:

- CS-SC031a — Exchange of conventional Anti-Collision Lights, Position Lights and Landing & Taxi lights by LED type lights

## Group Systems — Avionics/NAV/Instruments:

- CS-SC051a — Installation of 'FLARM' equipment
- CS-SC052a — Installation of moving-map systems to enhance situational awareness
- CS-SC053a — Installation of Radio Marker Receiving equipment
- CS-SC054a — Exchange of Distance Measurement Equipment (DME)
- CS-SC055a — Exchange of ADF equipment
- CS-SC056a — Exchange of VOR equipment

## Group Cabin:

- CS-SC101a — Installation of Emergency Locator Transmitter (ELT) equipment

## Group Survivability Equipment:

- CS-SC151a — Installation of headrest
- CS-SC152a — Changes to seat cushions including the use of alternative foam materials
- CS-SC153a — Exchange of safety belts — torso restraint systems

## Group Powerplant:

- CS-SC201a — Exchange of power plant instruments
- CS-SC202a — Use of Avgas UL 91
- CS-SC203a — Use of Avgas Hjelmc 91/96 UL and 91/98 UL
- CS-SC204a — Installation of external powered engine preheater

## Group Flight:

- CS-SC251a — Installation of an Angle of Attack (AoA) indicator system



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# Simpler Certification – Part 21 Proportionality

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# Part 21 Proportionality

## Objective:

- Introduce flexibility and simplification in Part-21 certification for GA that is proportionate to risks and meets an acceptable safety level

## Scope:

- Small organisations designing simple products (Gliders manufacturers, LSA, small CS23...)
- Performing design, production and maintenance activities





# Aiming for a new airworthiness landscape

## Part-21



CS-23/25 Level 3 & up (>7 PAX)

## Part-21Light



CS-23 Level 2 (2-6 PAX)



CS-23 Level 1 (0-1 PAX)



CS-LSA



PtF (MSN, NCO, development)

Member  
State A

Annex I (II)  
Option 1

Member  
State B

Annex I (II)  
Option 2

Member  
State C

Annex I (II)  
Option 3

Member  
State D

Annex I (II)  
Option 4

.....

Member  
State Y

Annex I (II)  
Option 10

Member  
State Z

Annex I (II)  
Option 11



# Challenges to the initiative

- Basic Regulation change discussions could move more aircraft into Member State responsibility (Annex I : 600 kg discussion)
- This would minimise positive effects from this activity
- Making a difference for GA is high on the EU agenda while the consequences of expanding the Member States responsibilities to 600 kg is uncertain



# Challenges to the initiative

- The current system; rules & culture are suitable for large organisations and aircraft  
E.g Oversight aims at checking all procedures, while safety consequences at aircraft level are not relevant
- This would require a new approach for risk based rules and oversight. This is a new way for conducting roles and responsibilities
- When the rules have changed we also need to adjust processes and cooperation between all stakeholders



# What is going on?

- A Task Force started to pursue three initiatives
- 1. Develop alternatives to Part-21 AMC/GM for smaller companies

## Note:

Today the AMC/GM is large aircraft and companies oriented. Especially POA is lacking alternatives

- 2. Test these alternatives in pilot cases
- 3. Develop a new approach for Part-21(Light)
- 4. (Highlight that cultural changes are needed)



# The proposed way forward (Planning)

The Task Force is working on:

- A Workshop and/or a paper (A-NPA) to explain the ideas (2017 Q1)
  - **(Phase 1)** Development of documents (Draft AMC) that show how the current Part-21 can be made workable for smaller companies (2017 Q1/Q2)
  - **(Phase 1A)** Test this in a pilot project (2017 Q3/Q4)
  - **(Phase 2)** Proposing a fundamentally new Part-21L consisting of objective rules supported by flexibility in the AMC (2017 Q4)\*
- \* Taking the BR changes and progress into account



# Phase 1 & 1A

## Simplification:

- Introduction of draft AMC/GM specific for simple products and small organisations (e.g. practical combined approval, templates) to simplify approval processes.
- Try the simplification in a pilot project



## Phase 2

### Flexibility introduced by the Basic regulation :

- Consider moving Competent Authority involvement /responsibilities to qualified entities where appropriate for the risk levels
- Accompanied by privileges for those organisations
- Introduction processes in accordance with acceptable standards and declaration of compliance

*Planning and content taking BR developments into account!*





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# Reorganisation of CS-23 using Industry standards

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## Reorganisation of CS-23/Part 23

- EASA and FAA working on a similar change to CS-23/Part 23 in rulemaking tasks that are a pilot project in EASA/FAA rulemaking cooperation
  - objective based rules
  - Supported by consensus standards providing technical details
  - aiming to reach harmonisation
  
- Background info with regards to harmonisation:
  - NPRM proposes 67 objective requirements replacing the 377 detailed requirements in the current part 23
  - The number is similar to the EASA drafted A-NPA and NPA
  - Coordination with the FAA stopped in December 2014 when FAA rulemaking started



# CS-23 reorganisation Status update

## FAA Part 23

- FAA published their NPRM on 07 April 2016 with a comment period closing 13/05/2016
- The FAA organized a public hearing on May 3-4 for comments
- In total 102 entries in the docket (e.g. 45 EASA comments in one entry)
- FAA final rule aiming for end 2016
- Therefore the final rule proposal left the FAA desk in August

## EASA CS-23

- The FAA NPRM and EASA A-NPA (incl. comments) have been reviewed by the drafting group (meeting 26-28 April, WebEx meeting 10 & 12 May)
- NPA 2016-05 published on 23 June 2016
- Consultation ended 30-09-2016
- 25 entities provided 318 comments



## CS-23 reorganisation Status update

Results from the NPA 2016-05 consultation;

➤ Main area of comments are:

- General: HARMONISE (numbering and content)
- Provide correlation between old and new CS-23
- It was accepted that the Regulatory Impact Assessment (RIA) referred to FAA NPRM data
- CS23.2510 (“1309”) shows discussions. Graphic logic could lead to unintended compliance showing for minor or no safety effect



# CS-23/Part 23 time-line

## Planning

	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
<b>EASA</b>	A-NPA 2015-06	A-NPA Consultation													NPA		NPA Consultation					CS-23 Amend 5
<b>FAA</b>	US Rulemaking Process													NPRM	NPRM Consultation							Final rule
<b>ASTM</b>								F44			F44					F44				F44		





## Harmonisation efforts

- FAA participates in the EASA NPA drafting group
- FAA organized an NPRM tele conference with EASA on 11/05/2016 and discussed the harmonization time-line
- EASA proposed to aim for publication of the NPA before the draft FAA final rule leaves the FAA office
- ~~➤ FAA will comment on the EASA NPA that will help to establish a harmonized positions~~
- *EASA considers to organize a comment review group meeting early 2017 before publishing the revised CS-23*





## What does it mean for certification

- A stable CS-23 certification basis with amendments in AMC level
- Harmonised requirements
- Consensus standards reviewed and accepted as AMC by EASA and FAA (timing and content!)
- Existing CS-23 and CS-VLA will be maintained as AMC to the reorganised CS-23
- The process and training on the use of the reorganised Part-23/CS-23 are being developed by the FAA and will be reviewed for mutual use
- EASA is working on example test-cases applying the new CS-23 (based on NPA) and draft consensus standards



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**Many thanks for your attention!**

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