EASA
European Aviation Safety Agency

Impact on Certification Process
CS 23 Reorganisation Workshop - Mar 2017

Pasquale Violetti
PCM General Aviation

Your safety is our mission.

An agency of the European Union

Type Certification – Phases overview

Phase	0	I	II	III	IV
Description	Definition and agreement of the working methods	Technical familiarisation and establishment of the TC basis	Agreement of the Certification Programme and Level of Involvement	Compliance determination	Final phase
Main steps	Eligibility check; Gen. Fam. Meeting.	Kick off Meeting; Familiarisation meetings.	Review of Certification Programmes; Determination of LoI.	Verification by the EASA team of the applicant compliance demonstration	Final TBM; ESC presentation.
Conditions for closure	Application acceptance; Team nomination.	Technical familiarisation of the team completed; First issue of CRI A-01 notified to the applicant; The initial set of applicable CRIs drafted; First issue of PID.	Certification Programme acceptance; Issuance of CAI documenting the LoI and accepted by the EASA team; All CRIs issued and closed.	Completion of EASA verification activity (document review, test witnessing, audits and flight test; Preliminary list of Post TC mandatory actions available.	Final report issuance; TCDS/TCDNS issuance; TC issuance.

Application acceptance

- Application Forms remains unchanged
  - FO.00030-002 (Type Certificate or Restricted TC)
  - FO.00031-002 (Major Change or Major Repair Design)
  - FO.00033-002 (Supplemental Type Certificate)

4.3 Airworthiness Code	Please specify the proposed airworthiness code, e.g. CS-23

  - No need to indicate selected AMC at this stage

- No impact on eligibility check, as it depends on product categorization in terms of ELA or not ELA and related DOA capability

Certification Basis

- What’s different?

Current CS 23		Future CS 23
Airworthiness Standards (Prescriptive)	Regulations	**Airworthiness Standards (Performance based)**
EASA guidance material (AMCs, cert. memos, etc)	Means of Compliance	EASA Accepted Means of Compliance - Prescriptive (consensus standards i.e. ASTM, other EASA accepted…)
Industry standards or methods (SAE ARP, RTCA DO-…)		EASA guidance material (AMCs, cert. memos, etc)
CRIs		Industry standards or methods (SAE ARP, RTCA, DO-…)
		CRIs

CS-23 subparts comparison

CS-23 amdt 4	CS-23 amdt 5
Subpart A – General	Subpart A – General
Subpart B - Flight	Subpart B - Flight
Subpart C – Structure	Subpart C – Structures
Subpart D – Design and Construction	Subpart D – Design and Construction
Subpart E – Powerplant	Subpart E – Powerplant
Subpart F – Equipment	Subpart F – Systems and Equipment
Subpart G – Operating Limitations and Information	Subpart G – Flight Crew Interface and Other Information

While they almost perfectly match concerning subpart segregation…forget about paragraph numbering!!

New paragraph numbering

- The level of change (from prescriptive to performance based requirements) is so deep that keeping the old numbering system makes no sense
- EASA is working on a cross reference matrix between current and future requirements, intended to be published with the AMC

MOC List – Prescriptive requirements

- Currently, MOC are proposed against the prescriptive requirement

CS Paragraph	Title	CS requirement	Method of Compliance	Not applicable for type	Compliance statement	Drawings, Description	Calculation, Analysis	Safety assessment	Laboratory test	Ground test	Flight test	Inspection	Simulation	Equipment qualificatior	Reference Documents *To be completed at later issues*
SUBPART E - POWERPLANT				N	0	1	2	3	4	5	6	7	8	9	
967 (e) 1	Fuel tank installation	So as to retain fuel when subjected to the inertia loads resulting from the ultimate static load factors prescribed in CS 23.561 (b) (2); and	Classical & FEA calculations			x							x		Fuel Tank Load Tests Report TR-GB1-28-10-001 Fuel Tanks Stress Calculations Report CA-GB1-28-10-001
967 (e) 2	Fuel tank installation	So as to retain fuel under conditions likely to occur when an aeroplane lands on a paved runway at a normal landing speed under each of the following conditions:		I											
967 (e) 2 (i)	Fuel tank installation	The aeroplane in a normal landing attitude and its landing gear retracted.		x											
967 (e) 2 (ii)	Fuel tank installation	The most critical landing gear leg collapsed and the other landing gear legs extended. In showing compliance with sub-paragraph (e) (2) , the tearing away of an engine mount must be considered unless all the engines are installed above the wing or on the tail or fuselage of the aeroplane.	Design review then statement in Compliance Summary.			x									Powerplant compliance summary CS-GB1-72-00-001
967 (e) 3	Fuel tank	For commuter category aeroplanes, fuel tanks within the fuselage contour must be able to resist		x											

- This is generally sufficient to provide comprehensive information of how compliance will be demonstrated

MOC List – New CS 23

- Proposing means of compliance against the objective rules (performance based) is too generic.

CS Par.	Title	CS requirement	MOC	Documents
23.2225 (a)(3)	Component loading conditions	The applicant must determine the loads acting upon all relevant structural components, in response to: Flight load conditions	2	LA-EASA-551001 LA-EASA-576001 . . .

NOT ACCEPTABLE

- Reference to selected ASTM standards (or other AMC) shall be provided already at this stage (certification plan or compliance check list)

CS-23.2010

<u>CS-23.2010 Accepted means of compliance.</u>

(a) An applicant must comply with this part using an Acceptable Means of Compliance (AMC) issued by EASA, or another means of compliance which may include consensus standards, when specifically accepted by the EASA.

(b) An applicant requesting acceptance of a means of compliance must provide the means of compliance to the Agency in an acceptable form and manner.

Acceptance of MOC

- EASA will publish an AMC to CS 23 amdt 5 with a list of Accepted Means of Compliance
    - F44 ASTM standards
    - CS 23 amdt 4
    - CS VLA amdt 1
- The TLS will provide a “bridge” between F44 standards content and CAA regulatory requirements
- Unless we rescind a MOC, all MOCs that have been accepted are always accepted.
- If the applicant goes for an accepted MOC, no discussion or further coordination (CRI) should be required

Alternative MOC

- An applicant can always propose an alternate means of compliance to an existing accepted means of compliance.
- Applicants should carefully consider the additional time and effort that could be necessary to coordinate a new or alternate means of compliance when scheduling their projects.
- MOC CRIs might develop. Public consultation might also be considered.
- Standardization should be an objective:

  New MOC driven into F44 standards

- FAA drafted an Advisory Circular for the Accepted Means of Compliance Process (AC 23.10)

Existing MOC

Book 2 of CS 23, Part 23 ACs –

- Remain in effect except for the areas of change of the technical content
- Will need to use the cross reference table for section number alignment
- Long term plan is to incorporate into F-44 documents like the old Civil Airworthiness Manuals for CAR 3

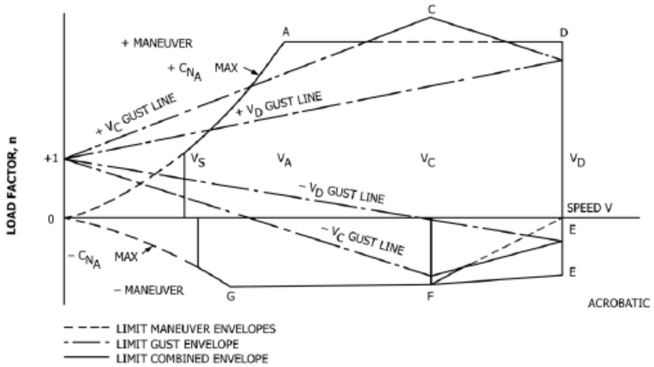
MOC List format example

- How an acceptable format of a MOC list could look like:

Requirement	Sub-para	Compliance Ref.	Compliance ref. Sect.	MOC	Method	Compliance Document	Doc. Status	Remarks / Comments / Statement	CDI	LOI
23.2140 Stability										
	(a)(1)	Ref. to consensus Standard or other AMC (old CS 23).	Ref. to Compliance Ref. subpara. Or section	0,6	Brief explanation of the method used for analysis or testing. Ref. to standard practice if any (FAA AC, EASA CM, Book 2)	Document number, title and revision status supporting the compliance statement	Status of completion of the document	Any relevant remarks. Reason for non-applicability. Compliance statement	CDI no.	LOI code

ASTM format

F3116/F3116M – 15



NOTE 1—Point G need not be investigated when the supplementary condition specified in 4.14 is investigated.

FIG. 1 Flight Envelope

4.5.1.1 $2.1 + \frac{24,000}{W+10,000}$, where W = design maximum takeoff weight (lb), except that n need not be more than 3.8;

4.5.1.2 6.0 for airplanes approved for aerobatics.

4.5.2 The negative limit maneuvering load factor may not be less than:

4.5.2.1 0.4 times the positive load factor;

4.5.2.2 0.5 times the positive load factor for airplanes approved for aerobatics.

4.5.3 Maneuvering load factors lower than those specified in this section may be used if the airplane has design features that make it impossible to exceed these values in flight.

4.6 *Gust Load Factors:*

4.6.1 Each airplane must be designed to withstand loads on each lifting surface resulting from gusts specified in 4.4.3.

4.6.2 The gust load factors for a canard or tandem wing configuration must be computed using a rational analysis, or may be computed in accordance with 4.6.3, provided that the resulting net loads are shown to be conservative with respect to the gust criteria of 4.4.3.

4.6.3 In the absence of a more rational analysis, the gust load factors must be computed as follows:

$$n = 1 + \frac{K_g U_{de} V a}{498\left(\frac{W}{S}\right)} \quad (2)$$

where:

$K_g = \frac{0.88\mu_g}{5.3+\mu_g}$ = gust alleviation factor;

$\mu_g = \frac{2(W/S)}{\rho C a g}$ = airplane mass ratio;

U_{de} = derived gust velocities referred to in 4.4.3 (f.p.s.).

ρ = density of air (slugs/ft^3);

W/S = wing loading (p.s.f.) due to the applicable weight of the airplane in the particular load case;

C = mean geometric chord (ft);

g = acceleration due to gravity (ft/s^2);

V = airplane equivalent speed (knots); and

a = slope of the airplane normal force coefficient curve C_{NA} per radian if the gust loads are applied to the wings and horizontal tail surfaces simultaneously by a rational method. The wing lift curve slope C_L per radian may be used when the gust load is applied to the wings only and the horizontal tail gust loads are treated as a separate condition.

4.7 *Design Fuel Loads:*

4.7.1 The disposable load combinations must include each fuel load in the range from zero fuel to the selected maximum fuel load.

4.7.2 If fuel is carried in the wings, the maximum allowable weight of the airplane without any fuel in the wing tank(s) must be established as "maximum zero wing fuel weight," if it is less than the maximum weight.

4.7.3 For level 4 airplanes, a structural reserve fuel condition, not exceeding fuel necessary for 45 min of operation at maximum continuous power, may be selected. If a structural reserve fuel condition is selected, it must be used as the minimum fuel weight condition for showing compliance with the flight load requirements prescribed in this part and:

4.7.3.1 The structure must be designed to withstand a condition of zero fuel in the wing at limit loads corresponding to:

F3173/F3173M – 15

4.4.2.4 A speed equal to that at which compliance with 23.69(a) has been shown, and

4.4.2.5 All propeller controls in the position at which compliance with 23.69(a) has been shown.

4.4.3 For airplanes with a stall speed in the landing configuration of more than 45 knots, it shall be shown that the airplane is safely controllable without the use of the primary lateral control system in any all-engine configuration(s) and at any speed or altitude within the approved operating envelope. It shall also be shown that the airplane's flight characteristics are not impaired below a level needed to permit continued safe flight and the ability to maintain attitudes suitable for a controlled landing without exceeding the operational and structural limitations of the airplane. If a single failure of any one connecting or transmitting link in the lateral control system would also cause the loss of additional control system(s), compliance with the above requirement shall be shown with those additional systems also assumed to be inoperative.

4.5 *Minimum Control Speed:*

4.5.1 V_{MC} is the calibrated airspeed at which, when the critical engine is suddenly made inoperative, it is possible to maintain control of the airplane with that engine still inoperative and, thereafter, maintain straight flight at the same speed with an angle of bank of not more than 5°. The method used to simulate critical engine failure shall represent the most critical mode of powerplant failure expected in service with respect to controllability.

4.5.2 V_{MC} for takeoff shall not exceed:

4.5.2.1 For multi-engine airplanes with a $V_{S0} \leq 65$ kt and that during the climb demonstration in 23.67(a)(2) cannot climb after a critical loss of thrust, V_{S1}, where V_{S1} is determined for all practical weights and takeoff configurations.

4.5.2.2 For all other multi-engine airplanes, 1.2 V_{S1}, where V_{S1} is determined at the maximum takeoff weight.

4.5.3 V_{MC} shall be determined with the most unfavorable weight and center-of-gravity position and the airplane airborne and the ground effect negligible, for the takeoff configuration(s) with:

4.5.3.1 Maximum available takeoff power initially on each engine,

4.5.3.2 The airplane trimmed for takeoff,

4.5.3.3 Flaps in the takeoff position(s),

4.5.3.4 Landing gear retracted, and

4.5.3.5 All propeller controls in the recommended takeoff position throughout.

4.5.4 For all airplanes except low-speed Level 1 and 2 airplanes, the conditions of 4.5.1 shall also be met for the landing configuration with:

4.5.4.1 Maximum available takeoff power initially on each engine;

4.5.4.2 The airplane trimmed for an approach, with all engines operating, at V_{REF}, at an approach gradient equal to the steepest used in the landing distance demonstration of 23.75;

4.5.4.3 Flaps in the landing position;

4.5.4.4 Landing gear extended; and

4.5.4.5 All propeller controls in the position recommended for approach with all engines operating.

4.5.5 A minimum speed to render the critical engine inoperative intentionally shall be established and designated as the safe, intentional, one-engine-inoperative speed (V_{SSE}).

4.5.6 At V_{MC}, the rudder pedal force required to maintain control shall not exceed 667 N [150 lbf] and it shall not be necessary to reduce power of the operative engine(s). During the maneuver, the airplane shall not assume any dangerous attitude and it shall be possible to prevent a heading change of more than 20°.

4.5.7 At the option of the applicant, to comply with the requirements of 23.51(c)(1), V_{MCG} may be determined. V_{MCG}, is the minimum control speed on the ground and is the calibrated airspeed during the takeoff run at which, when the critical engine is suddenly made inoperative, it is possible to maintain control of the airplane using the rudder control alone (without the use of nose wheel steering) as limited by 667 N [150 lbf] of force and using the lateral control to the extent of keeping the wings level to enable the takeoff to be safely continued. In the determination of V_{MCG}, assuming that the path of the airplane accelerating with all engines operating is along the centerline of the runway, its path from the point at which the critical engine is made inoperative to the point at which recovery to a direction parallel to the centerline is completed may not deviate more than 9.1 m [30 ft] laterally from the centerline at any point. V_{MCG}, shall be established with:

4.5.7.1 The airplane in each takeoff configuration or, at the option of the applicant, in the most critical takeoff configuration;

4.5.7.2 Maximum available takeoff power on the operating engines;

4.5.7.3 The most unfavorable center of gravity position;

4.5.7.4 The airplane trimmed for takeoff; and

4.5.7.5 The most unfavorable weight in the range of takeoff weights.

4.6 *Aerobatic Maneuvers*—Each aerobatic airplane shall be able to perform safely the aerobatic maneuvers for which certification is requested. Safe entry speeds for these maneuvers shall be determined.

4.7 *Control during Landings*—It shall be possible, while in the landing configuration, to complete a landing safely without exceeding the one-hand control force limits specified in Table 1 following an approach to land:

4.7.1 At a speed of V_{REF} minus 5 knots;

4.7.2 With the airplane in trim, or as nearly as possible in trim and without the trimming control being moved throughout the maneuver;

4.7.3 At an approach gradient equal to the steepest used in the landing distance demonstration of; and

4.7.4 With only those power changes, if any, that would be made when landing normally from an approach at V_{REF}.

4.8 *Elevator Control Force in Maneuvers:*

4.8.1 The elevator control force needed to achieve the positive limit maneuvering load factor shall not be less than:

4.8.1.1 For wheel controls, W/10 N (where W is the maximum mass in kg) [W/100 lbf (where W = maximum weight in

MOC List format example

the procedure and meeting the flight characteristics specified in the appropriate stall handling characteristics testing.

4.3 Takeoff Speeds:

4.3.1 The rotation speed, V_R, is the speed at which the pilot makes a control input with the intention of lifting the aeroplane out of contact with the runway or water surface.

4.3.1.1 For low-speed Levels 1, 2, and 3 multiengine landplanes, V_R shall not be less than the greater of 1.05 V_{MC} or 1.10 V_{S1}.

4.3.1.2 For single-engine landplanes, V_R shall not be less than V_{S1}.

4.3.1.3 For seaplanes and amphibians taking off from water, V_R may be any speed that is shown to be safe under all

airspeed, shall be selecte
than the greatest of the f
(1) V_1;
(2) 1.05 V_{MC} determi
(3) 1.10 V_{S1}; or
(4) The speed that a
speed, V_2, before reachir
takeoff surface in accord

4.3.3.3 For any giver
altitude, temperature, an
shall be used to show c
inoperative takeoff and
ments.

Reference to the main section of the consensus standard could be sufficient implying that subsections are applied as well

(except otherwise specified in the remarks column)

MOC List format example

the appropriate stall handling characteristics testing.

4.3 Takeoff Speeds:

4.3.1 The rotation speed, V_R, is the speed at which the pilot makes a control input with the intention of lifting the aeroplane out of contact with the runway or water surface.

4.3.1.1 For low-speed Levels 1, 2, and 3 multiengine landplanes, V_R shall not be less than the greater of 1.05 V_{MC} or 1.10 V_{S1}.

4.3.1.2 For single-engine landplanes, V_R shall not be less than V_{S1}.

~~4.3.1.3 For seaplanes and amphibians taking off from water, V_R may be any speed that is shown to be safe under all~~

airspeed, shall be selecte

than the greatest of the

(1) V_1;

(2) 1.05 V_{MC} detern

(3) 1.10 V_{S1}; or

(4) The speed that

speed, V_2, before reachi

takeoff surface in accor

4.3.3.3 For any give

altitude, temperature, ar

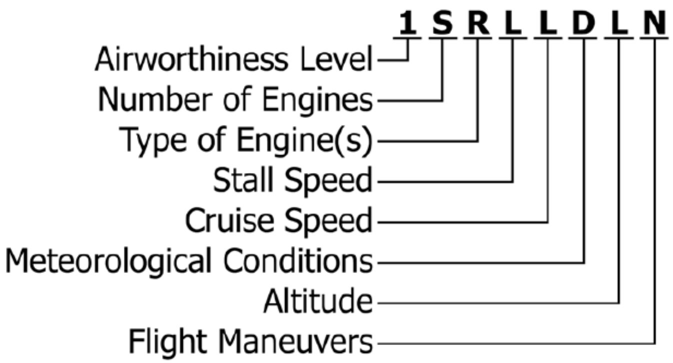
shall be used to show

inoperative takeoff and

ments.

Alternatively, the full section could be reported striking through the non applicable subsections

Compliance Matrix Approach



Aircraft Type Code

TABLE 1 ATC Compliance Matrix, Section 4

Section	Airworthiness Level				Number of Engines		Type of Engine(s)		Stall Speed			Cruise Speed		Meteorological Conditions			Altitude		Maneuvers	
	1	2	3	4	S	M	R	T	L	M	H	L	H	D	N	I	L	H	N	A
4																				
4.1																				
4.1.1																				
4.1.2																				
4.1.3																				
4.1.4																				
4.1.5																				
4.1.6	○								○					○						
4.1.7																				
4.1.8																				
4.1.8.1																				
4.1.8.2																				
4.2																				
4.2.1																				
4.2.1.1		×	×	×						×	×				×	×				
4.2.1.2	○								○					○						
4.2.1.3	○								○					○						
4.2.1.4	○								○					○						
4.2.2	○								○					○						
4.2.2.1	○								○					○						
4.2.2.2	○								○					○						
4.2.2.3	○								○					○						
4.2.2.4	○								○					○						
4.2.2.5	○								○					○						
4.2.3	○								○					○						
4.2.3.1	○								○					○						
4.2.4									○					○						
4.2.4.1									○					○						
4.2.4.2									○					○						

- An empty cell ( ) in all applicable ATC character field columns indicates that an aircraft must meet the requirements of that subsection.
- A white circle (○) in multiple columns indicates that an aircraft is exempt from the requirements of that subsection *only* if all such ATC character fields are applicable.
- A mark-out (×) in any of the applicable ATC character field columns indicates that an aircraft is exempt from the requirements of that subsection.

MOC List format example

Requirement	Sub-para	Compliance ref	Compliance ref. section	MOC	Method	Compliance Document	Doc. Status	Remarks / Comments / Statement	LOI
23.2200 Structural design envelope									
		F3116-15	4.4 Flight envelope 4.5 Limit maneuvering load factors 4.6 Gust load factors	2	Gust load factors are calculated using formulas in F3116 (4.6.3)	LA-EASA-000014 Loads Flight Envelope		Requirements for aerobatics, level 4, canard and tandem wing aeroplanes are not considered.	
	(a)(1)	F3116-15	5.1 Design Airspeeds	2	Vd is calculated as 1.4Vc	LA-EASA-000010 Flight loads			
	(a)(2)	F3174-15	4.2 Airspeed limitations 4.3 Operating Maneuvering Speed 4.4 Flap Extended Speed	1,2	Calculation based on the design speeds derived using F3116-15	DE-EASA-000001 Main datasheet			
	(b)			0				Flight load conditions expected in service are considered by showing compliance to 23.2225	
	(c)	F3116-15	4.2 Flight loads – General	2	Variation from design minimum to maximum weight will be considered in loads determination	LA-EASA-000014 Loads Flight Envelope Rev. 0			
	(d)	F3116-15	4.5 Limit maneuvering load factors	2		LA-EASA-000014 Loads Flight Envelope Rev. 0			
	(e)	F3116-15	4.1.3 Flight loads - Loads	0	Engineering judgement.			Deflections under loads are of minor magnitude for the given aeroplane configuration.	
23.2205 Interaction of systems and structures									

Standard point in CRI A-01:

5. Interpretative Material / Means of Compliance

In addition to the regulatory basis noted in the above sections, EASA is adopting certain "Acceptable Means of Compliance" in several CRI's. These CRI's here are used to develop means of compliance acceptable to EASA for several subject areas.
These acceptable means of compliance are used for EASA certification activities of the aeroplane type applied for, as well as for post-type certification design changes, and are listed following the proposed certification basis.

Streamlining the process

- MOCs can replace the current process of SCs and ELOSs for specific technologies reducing administrative burden
- Currently ca. 90 “standard” CRIs (SC, ELOS and MOC) are identified and applied to type investigations when required by the aircraft design
- Long term plan: ASTM standards to incorporate all of these additional requirements

Some examples

Current Requirement – CS-VLA

- Special Condition IFR
- Special Condition Aerobatics
- Special Condition BRS
- ELOS – fuel selector "BOTH"

Future Requirement – CS-23 amdt 5

All covered by Consensus Standards

Some examples

Current Requirement – CS-23

- Special Condition Human Factor aspects
- Special Condition Lithium Battery
- Several MOC CRIs

Future Requirement – CS-23 amdt 5

All covered by Consensus Standards

Some examples

The certification basis of the PC-24 includes more than **100 CRI**

Even if the reorganised CS 23 gives no relief concerning technical investigation, the amount of work to administrate that high number of CRI would be saved for a great benefit to all parties

End of the process - TCDS

➢ Current information in the TCDS:

• Airworthiness Category:	Utility and Aerobatic
• Airworthiness Requirements:	CS-23 amdt 1

➢ Proposed additions:

• Aeroplane certification level:	Level 1
• Aeroplane performance level:	High speed
• Airworthiness requirements:	CS-23 amdt 5
• Top Level Specification:	TLS revision XX

ATC might be mentioned when compliance matrix approach is used

FAA TCDS changes

What Else is Different?

End of Program

Documenting TCDS is somewhat different –

- List Airworthiness Level and Performance
- Notes may include important required equipment where matrix approach is used

Part 23 Transition Workshop
Spring 2017

Federal Aviation Administration

26

What Else is Different?

8110.4C Chg. 5

3-3. TYPE CERTIFICATE DATA SHEET (TCDS).

e. Information Required for Each Model Aircraft TCDS.

(22) Certification Basis.

* * * *

(h) If the airplane is RVSM capable, indicate the effectivity and modifications required to be RVSM approved, if necessary.

(i) For airplanes certificated to Part 23 after amendment 63, include the airworthiness level and performance level. **(new)**

Part 23 Transition Workshop
Spring 2017

Federal Aviation Administration

27

What Else is Different?

(26) Notes.

4. Add other miscellaneous notes, if the FAA does not offer necessary information elsewhere.
5. ACOs may develop a note to require a modifier to coordinate with them before making a proposed change, for example, cockpit installations or integrated avionics approvals. The ACO must coordinate this with the accountable directorate staff.
6. For Part 23 airplanes using Amendment 63 or later, include important information that may not be obvious in the certification basis such as:
   - Ballistic parachutes systems not for credit verses for credit
   - Crashworthiness features that were required verses not required
   - Low speed characteristics – matrix features required
   - That the applicant used a proprietary means of compliance
   - Gust or Load alleviation for credit

Part 23 Transition Workshop
Spring 2017

Federal Aviation Administration

28

Changed Product Rule

- Significant changes might lead to application of the latest requirement
- Impacted para., selected from the amdt 5, will probably have a much larger scope than the ones from the old rule.

For example **CS-23.2135 – Controllability** covers:

23.141, 23.143, 23.145, 23.146, 23.149, 23.151, 23.153, 23.155, 23.157

- Actual selection of impacted requirements shall be broken down at AMC level.

Example for Significant Change

Change from reciprocating to turbine engine on an aircraft of 3500 Kg MTOW

23.2225 Component Load Conditions

(a)The applicant must determine the loads acting upon all relevant structural components, in response to:

…

(3)Flight load conditions

Requirement	Sub-para	Compliance Ref.	Compliance ref. Sect.	MOC
23.2225 Component Load Conditions				
	(a)(3)	**CS – 23 amdt 4**	**23.361** **23.363** **23.371**	2

Only engine loads requirements actually affected with respect to the wider scope of 23.2225

Former Section	Former Title	New Section	New Title
23.373	Speed control devices	23.2225	Component loading conditions
23.391	Control surface loads	23.2225	Component loading conditions
23.393	Loads parallel to hinge line	23.2225	Component loading conditions
23.395	Control system loads	23.2225	Component loading conditions
23.397	Limit control forces and torques	23.2225	Component loading conditions
23.399	Dual control system	23.2225	Component loading conditions
23.405	Secondary control system	23.2225	Component loading conditions
23.407	Trim tab effects	23.2225	Component loading conditions
23.409	Tabs	23.2225	Component loading conditions
23.415	Ground gust conditions	23.2225	Component loading conditions

Changed Product Rule - STC

- Same consideration as for Major (significant) changes to Type Design
- A major concern may be represented by the visibility of the certification basis for STC when the rules are no longer detailed in the TCDS. In reality there is not that much different. Also today details of the TC certification basis are not all available (especially with older aircraft).
- STC applicants select their own AMC – They are not forced to use those from the initial TC.

EASA
European Aviation Safety Agency

Thank you for your attention!

Questions?