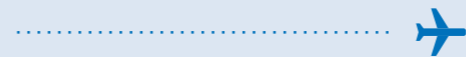
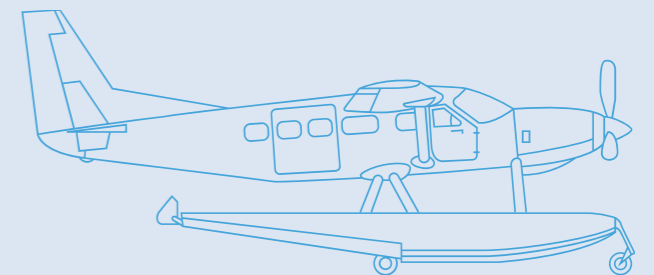


Product Certification Update



Greg Baum – Team Leader Product Certification





Responsibilities

Design Approvals: TC, STC, Mod, TSO, PMA

Design Validation: Acceptance of TC, technical data & specifications

Design Delegation Holders: New, renewal

Support to 146/148 certification, monitoring & inspection

Support to 102 initial airworthiness (UAS)

PBN approval for Part 91, input to Part 119 operators

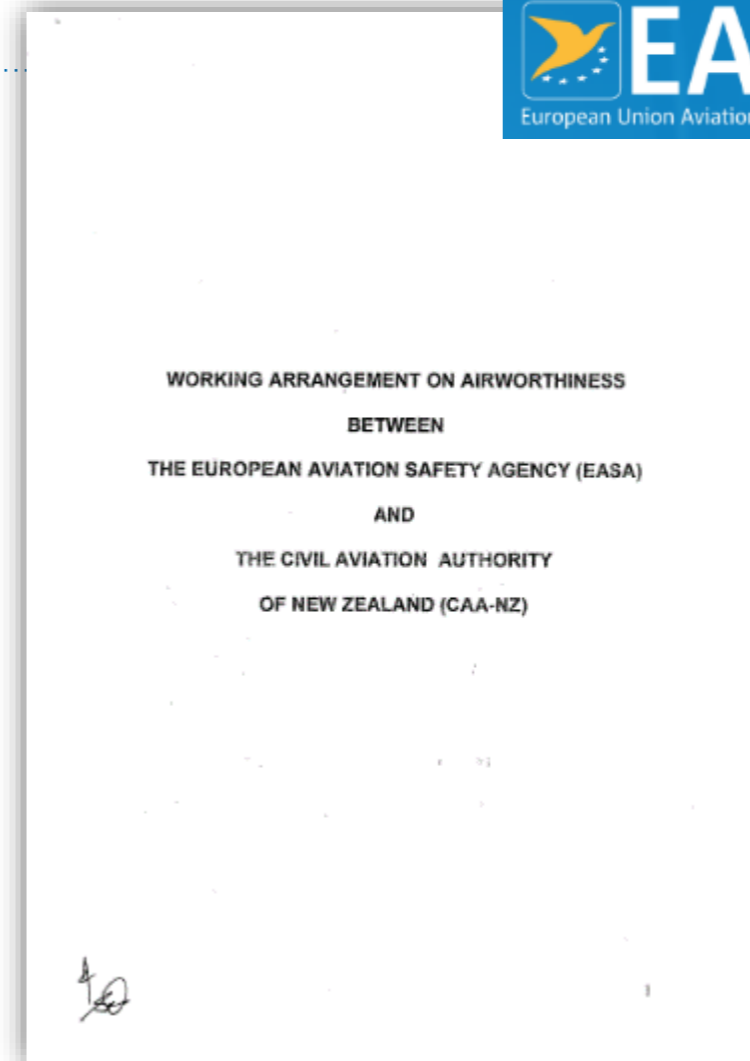
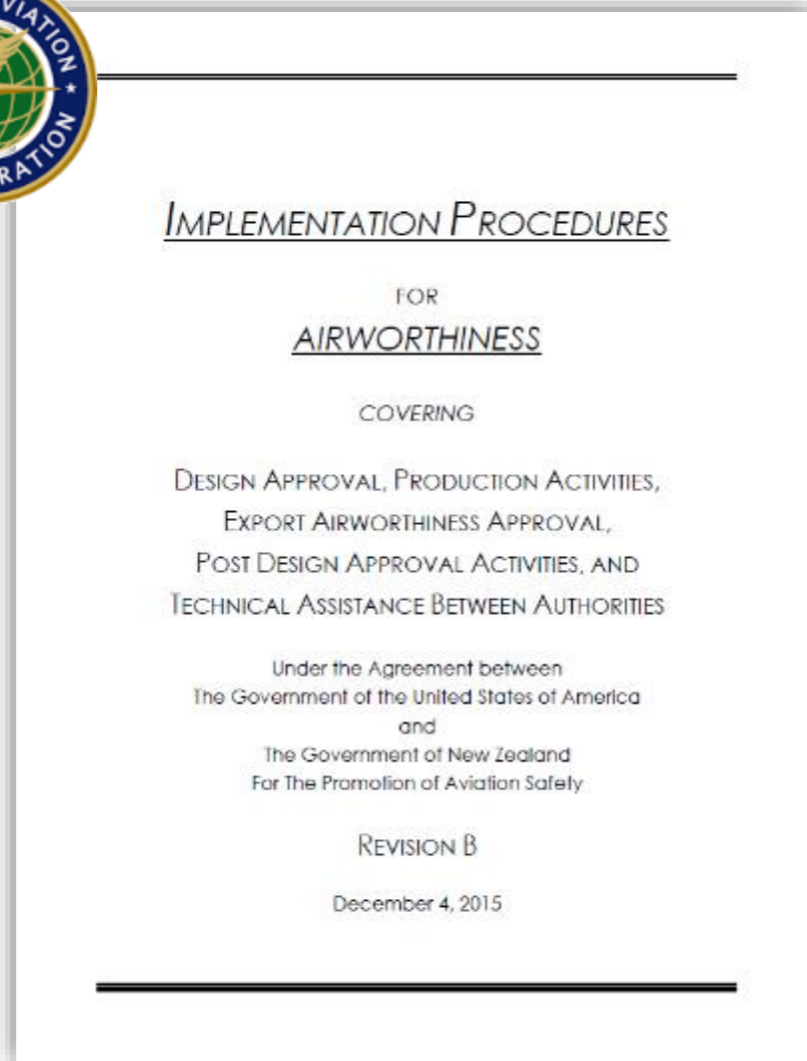
Collaboration: Bilaterals, ASTM, EUROCAE, SAE



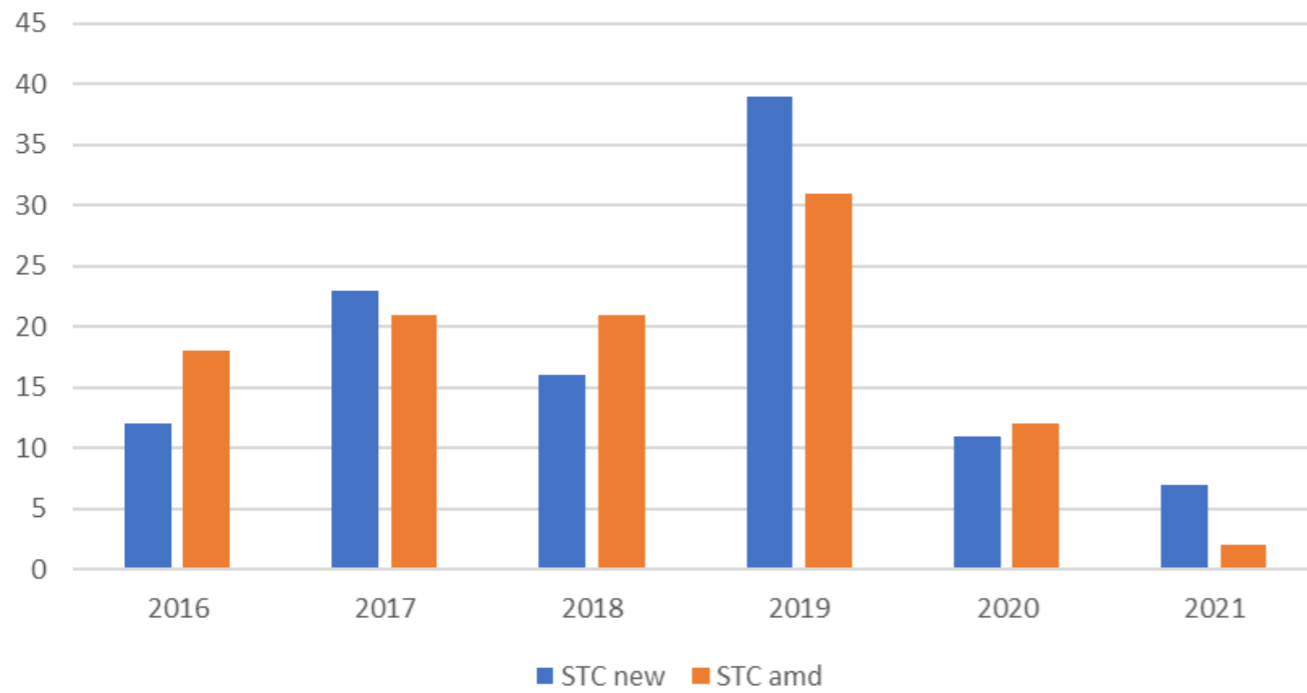
Policy & Guidance

- AC21-10 **Experimental Flight Test Guidance** (released)
- AC00-6 **Electronic signatures/recordkeeping/manuals** (released)
- AC21-7 **Type Certification** (wip)
- AC21-8 **Supplemental Type Certificates** (wip): Update PSCP template for Finding of Compliance.
- AC146-1 **Aircraft design organisations** (wip): Develop a clearer scope definition for Part 146 and DDH to ensure consistency and global alignment. Clarify delegation issue process. Clarify standalone FMS approvals. Remove 'negligible' W&B definition.
- AC43-14 **Standard Design Changes** (wip): Appendices for LED lights, AoA sensors, CO sensors, real time tracking systems e.g. Spidertracks.
- AC91-13 **Night Vision Systems** (wip): Clearer split between Ops & Airworthiness requirements. Clarity on Major/Minor for amendments to existing NVIS.
- AC133-01 **External Load Operations** (wip): Clear up confusion between CAR 133 and 14CFR 2x.865 requirements

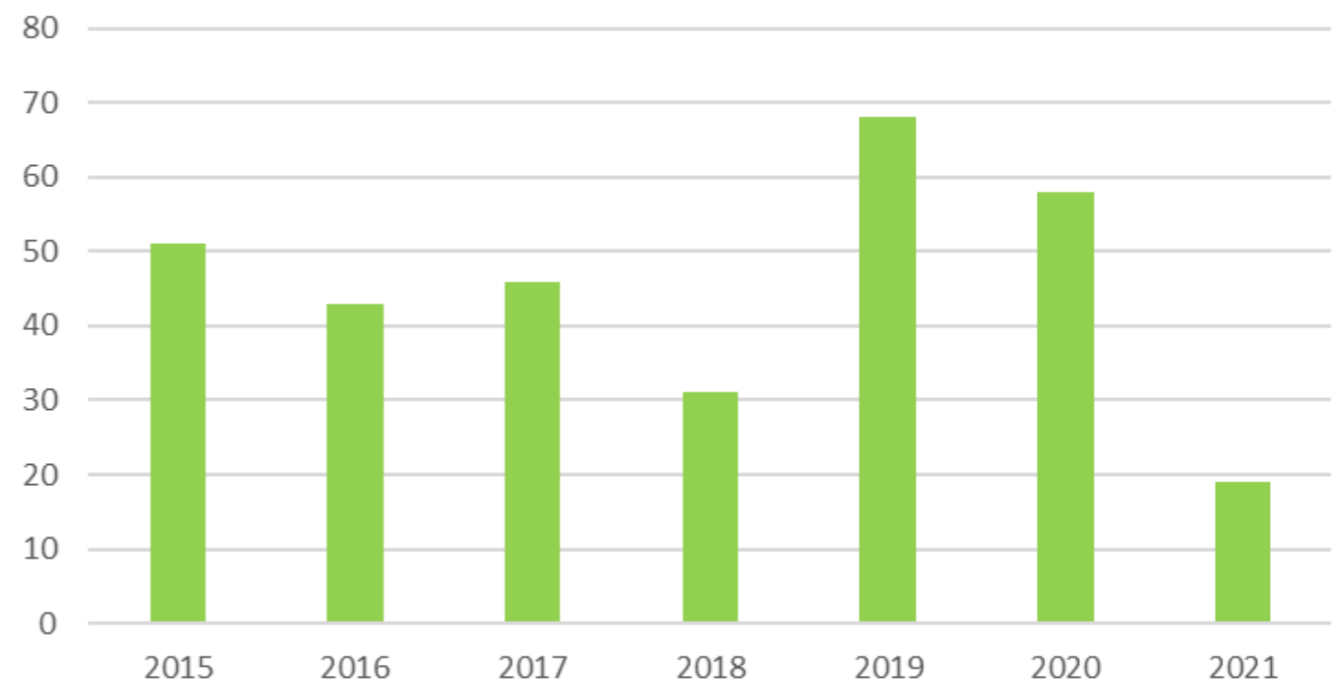
International Engagement



Supplemental Type Certificates (closed)

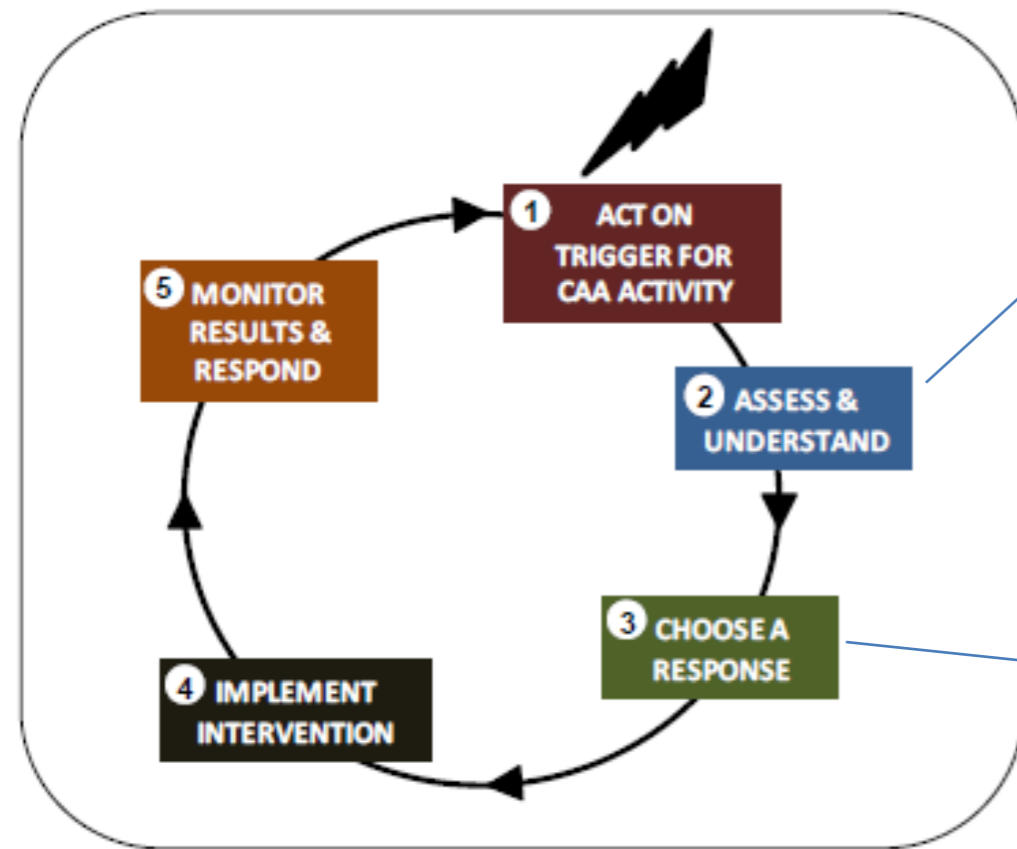


Major Design Change Authorisations



Part 146 Monitoring

Figure 1: Cycle of CAA activity



Considerations:

Nature of risk (private / # of passengers)
Attitude & behavior of participant involved

Considerations:

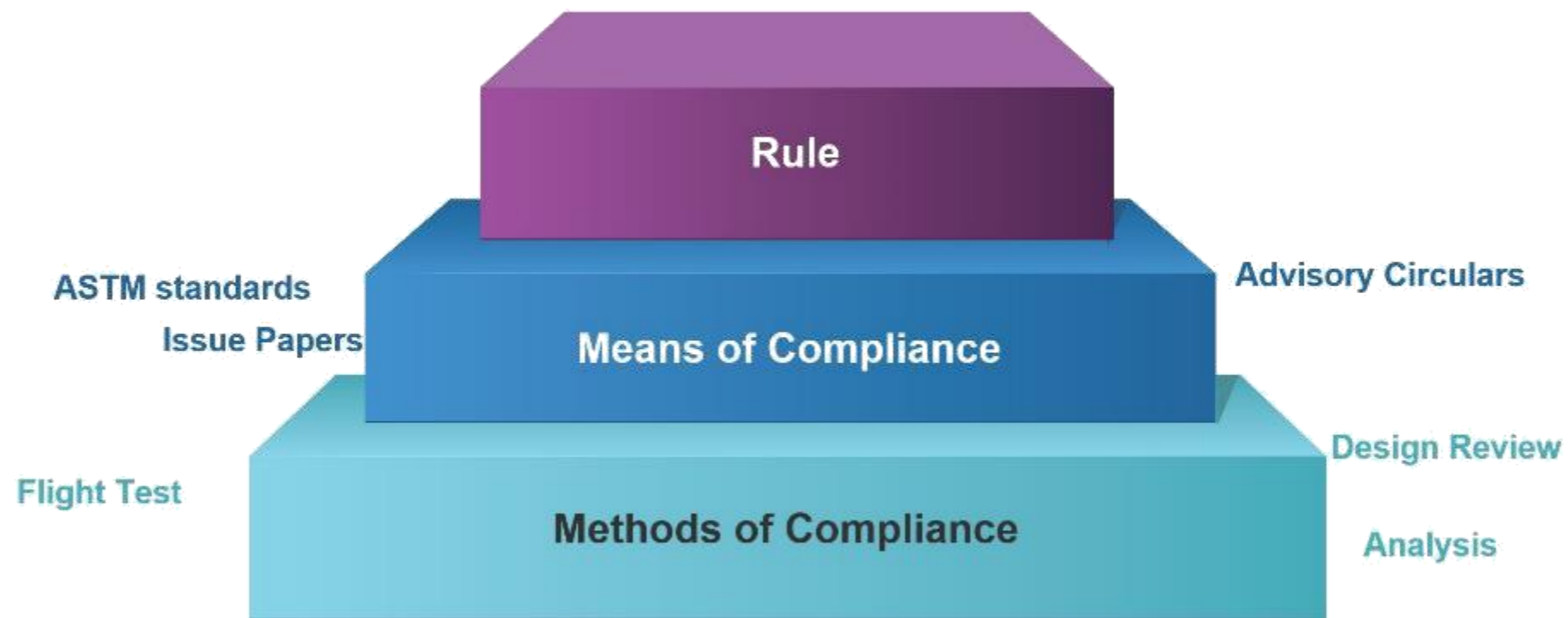
Corrective: Unsafe condition, Legal,
Preventative: Continuous improvement, Process/Education

Hot topics



Part 23

Means of compliance vs. Methods of Compliance



Part 23

Applicant proposed Means of Compliance

- Means of compliance require FAA review and acceptance
- Means of compliance must be followed completely and correctly

Proposals



FAA
Means of Compliance
Acceptance



FAA will only accept means of compliance that achieve the safety objectives of part 23

CAA accept via Issue Paper

Helicopter External Installations



Effect on Crash Resistant Fuel Systems

- Is 14CFR/CS/JAR 27/29.952 in aircraft type certification basis?
- Is external load in vicinity (underneath) of fuel tank?

If YES to both, continued compliance to 2x.952 is required to be assessed for external loads.

Design precautions:

- Keep out of the boundaries of the fuel tank; or
- Install shield or fuel tank protection features to ensure no projections or features that can rupture the tank; or
- Fuel tank drop testing



Inspect in this area for cracks.

Cargo Hooks



CAA NZ Continuing Airworthiness Notice (CAN) – 05-014

Onboard Systems Cargo Hooks – New inspections for hooks used for torsional load applications

CMM update

20 hr & 100 hr inspections

2x.1529 ICA wording



“When validated by the FAA, the Airworthiness Limitations Section is FAA approved and specifies maintenance required under 14CFR § 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved”

and

“The Airworthiness Limitations Section is CAA NZ approved and specifies maintenance required under parts 43 and 91 of the Civil Aviation Rules unless an alternative program has been CAA NZ approved”

if required...

“When validated by EASA, the Airworthiness Limitations section is EASA approved and variations must also be EASA approved in accordance with CS2x.1529”.

NVIS



CAA safety trend: increased risk (Major Mod/STC)

FMS:

- Follow CAA AC/FAA AC MG16 format
- Specify only goggles tested (Make & Class/filter)
- All deviations to be tested (pilot assessment not OK)

ICA: Config control, rechecks

Role equipment: e.g. Medical EMS, PEDs etc.

Further info: CAA AC91-13 and FAA AC29-2C chg7

Questions?



Previous slides from Nov 2020



CPD

“We owe it to our passengers to keep learning how to do it better”



Chesley Sullenberger

- KU – online courses (Aircraft Structures, Icing, flight dynamics, EWIS, flight control & hydraulics, System Safety).
- Flight Safety – Human Factors, Gen Fam e.g. PT6, MEL, SMS.
- RTCA – DO-160, 178, 254
- SAE – Design for Manf, Design of Experiments, FEA, AS9100
- FAA – DER recurrency training
- ASTM – meetings on F44
- RAeS CPD sessions



CPD



Industry seminars	Date	Notes
AEA South Pacific conference (Qt)	10-11 Nov 2020	Postponed to 2021
UAS certification working group	Bi-annual	Likely online
ASTM F44 committee meeting	April/Oct	Likely free and online
ASTM F37 committee meeting		Likely free and online
JARUS Plenaries/WG6 meetings		Likely free and online
Fire & cabin safety triennial	Next event 2022	
FAA APAC bilateral partners meeting	Postponed to late 2021	
FAA Rotorcraft safety seminar	<u>27-Oct-20</u>	Online, free
EASA additive manufacturing	tbc	Online, free?
EASA rotorcraft symposium	<u>Nov-20</u>	Online, free.
FAA UAS symposium		
Drone enable (ICAO)	Mar-21	Live free on youtube
Uber elevate	June 21 tbc?	