REGULATORY DEVELOPMENTS II

HIGHLIGHTS FROM THE US FAA/ EU EASA - ASA

Dominick P. DaCosta – FAA DERT/RS-DER/DARF

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Highlights

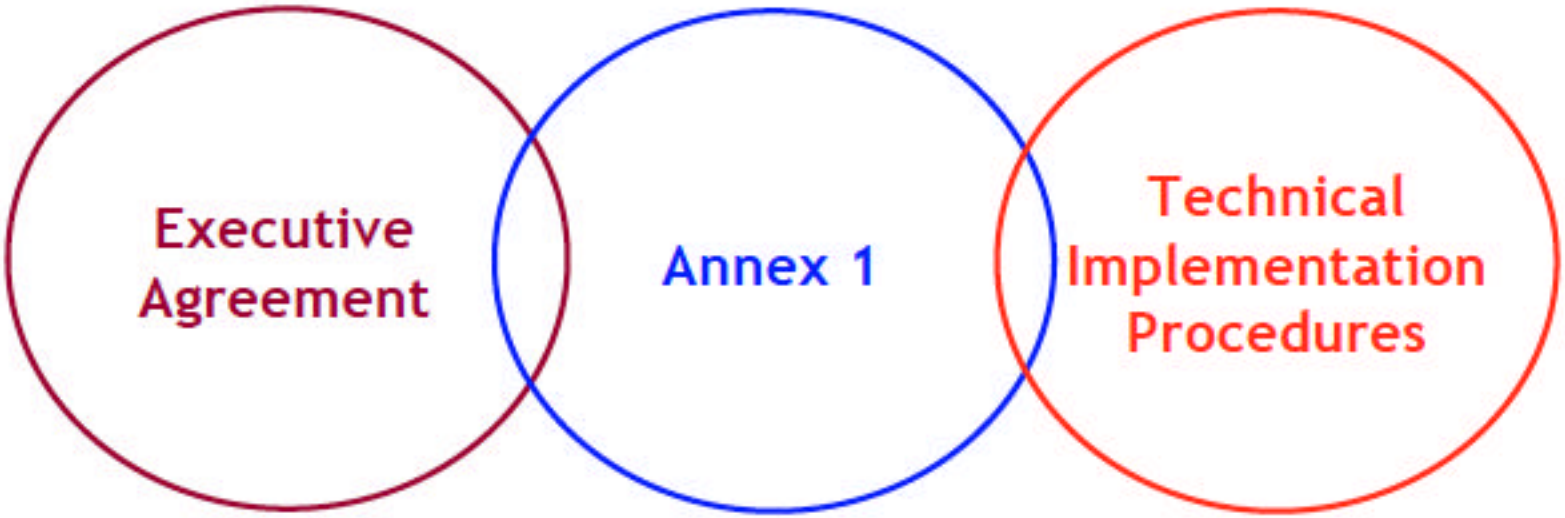
- NEW Agreement & Annexes
- Maintenance Annex Guidance is divided into 3 sections
  - Section A –Authority to Authority
  - Section B –U.S. Based Repair Stations
  - Section C –European Based Repair Stations
- Supplement Example

Highlights

- NEW Agreement & Annexes
- Maintenance Annex Guidance is divided into 3 sections
  - Section A –Authority to Authority
  - **Section B –U.S. Based Repair Stations**
  - Section C –European Based Repair Stations **FOCUS ON**
- Supplement Example

Principles of the Safety Agreement

- Safety Agreement–Is between the United States and the European Union, not industry.
  - Promotes reciprocal acceptance of findings and approvals.
  - **not** mutual recognition.
  - Is based on **system**s that produce equivalent result's, through **processes and procedures** may be different.
  - Relies to the maximum extent practicable on EASA and the aviation authority.
  - Is based on acceptance of **a system**



Article 2: Establishes the principle of reciprocal acceptance for airworthiness approvals between United States and EU.

Defines what will be accepted for airworthiness, e.g., paragraph 3.2.4 states that STCs shall be validated.

Provides the detailed procedures for validation, e.g., paragraph 2.2 defines validation requirements for STCs.

The U.S./EC Aviation Safety Agreement

- **The Agreement with the European Community is an agreement "On Cooperation in the Regulation of Civil Aviation Safety."**

- **The Agreement and it's Annexes may be found at**
  - http://www.faa.gov/aircraft/repair/
  - http://easa.europa.eu/approvals-and-standardisation/organisation-approvals/CAO-foreign-part-145-organisations-located-in-the-united-states.php
  - The Executive Agreement and its Annexes are BINDINGin international law
  - FAA/EASA on-line training can be found at:https://av-info.faa.gov/DsgReg

Key Components of the New Aviation Safety Agreement Format

Safety Agreement between the United States and European Community

EXEC AGREEMENT Tier 1

ANNEXES 1 & 2 Tier 2

Annex 1: Airworthiness and Environmental Certification

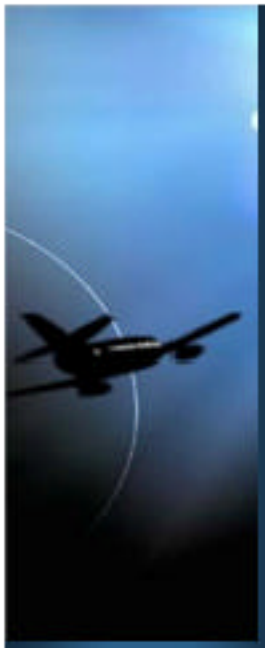
Annex 2: Maintenance

Between the FAA and EASA Tier 3

Technical Implementation Procedures

FAA — **EASA**

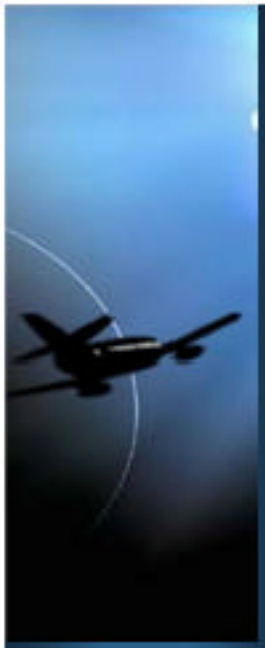
Maintenance Annex Guidance



Briefing Points

- **The FAA and EASA have agreed to reciprocal acceptance of repair data.**
  - Implemented through the new US/EU Aviation Safety Agreement, effective May 1, 2011
    - Annex 1, paragraph 3.2.7
    - Technical Implementation Procedures, paragraph 3.3
  - Implemented prior to May 2011 through Bilateral Aviation Safety Agreements Implementation Procedures for Airworthiness with 6 EU member states.

DERS GROUP SVC LLC - INDIANA (C)



Briefing Points

- **FAA and EASA will accept each others approved repair design data regardless of State of Design of the component/product.**

Two processes established:

- Streamlined Reciprocal Acceptance of repair data for non-critical components and critical components developed by the TC/STC holder
- Formal approval of critical component repair data developed by a third party

DERS GROUP SVC LLC - INDIANA (C)

Process 1: Streamlined acceptance of repair data

US to EUROPE:

- EASA has certificated/validated the product or appliance, i.e. the product has an EASA TC/STC or ETSO approval.
- FAA is the authority of the State of Design for the repair design data.
- Data approved using the FAA system, major repair data approval via an FAA letter, FAA Form 8110-3, 8100-9 or 337

Process 1: Streamlined acceptance of repair data (continued)

EUROPE to US:

- FAA has certificated/validated the product, part, appliance or component (i.e. the product has an FAA TC/STC or TSO approval).
- EASA is acting on behalf of the State of Design for the repair design data.

Assumes the initial approval (acceptance) of repair data!

FAA and EASA have agreed to accept each other's systems for the classification and approval of repair data.

- Data must have a local approval.
  - FAA approval for repairs designed in the US system;
  - EASA approval for repairs designed in the EU system

Remember, FAA or EASA must approve/accept the repair design data under its own system before the other bilateral partner can accept it.

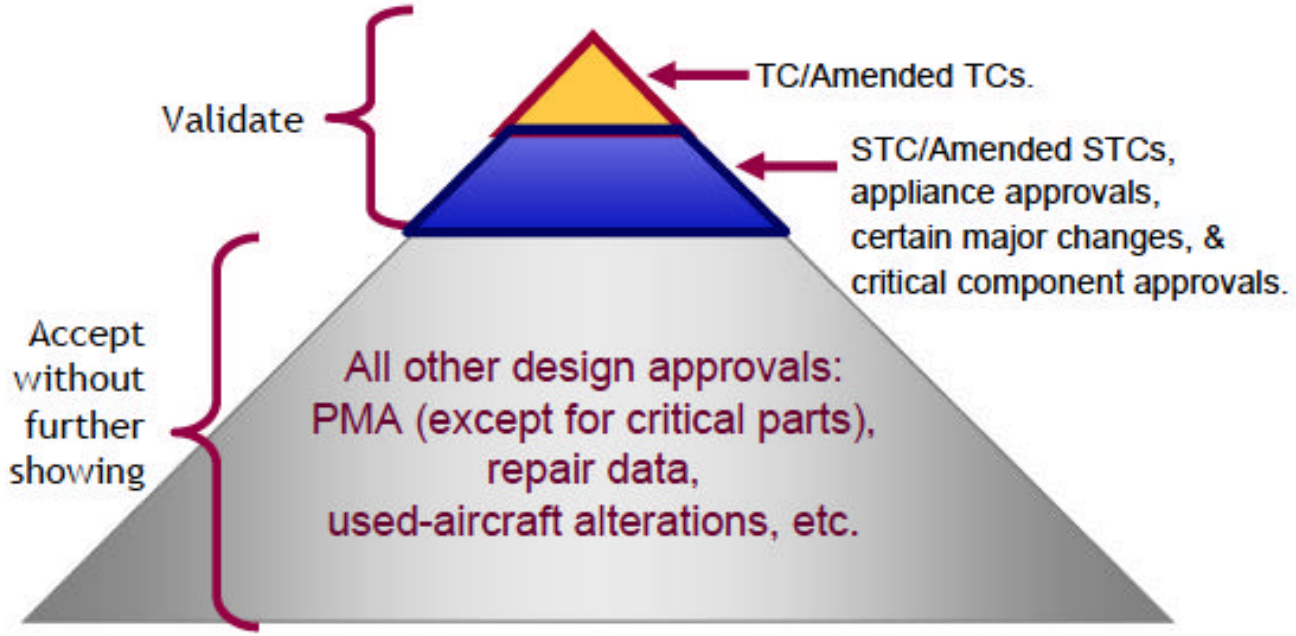
Process 2: CRITICAL COMPONENTS

Formal Approval of Critical Component Repair Data (by other than the TC/STC holder)

- Make application through FAA/EASA:
  - **Fast track process when the FAA or EASA can confirm that the applicant has entered into an arrangement with the TC/STC holder for this data.**
  - **Validation process is required when there is no arrangement with the TC/STC holder.**
  - **FAA or EASA will issue its own approval of the critical component repair.**

Validation Vision

Accept more approvals without further showing.
Limit validation to fewer items.



U.S. Applications for EASA Design Approval

Does EASA Accept FAA PMA? cont.

- EASA accepts FAA Parts Manufacturer Approvals (PMAs) without further showing for parts installed on products certified or validated by EASA if:
  - The part is not a "critical component," **OR**
  - The critical component PMA part conforms to design data obtained under licensing agreement from the TC or STC holder, **OR**
  - The critical component PMA holder holds an EASA STC that incorporates the part.
- An EASA STC is required when:
  - The PMA part is a critical component, **AND**
  - The part was not produced under licensing agreement with TC/STC holder.

TIP

2.8.2 Procedures for EASA Acceptance of FAA PMA

Overview of Annex 1: Airworthiness & Environmental Certification

Annex 1 contains 8 sections:

1. Scope.
2. Joint Coordination Body.
3. Implementation.
4. Acceptance of Findings & Approvals.
5. Communications.
6. Technical Consultations.
7. Technical Assistance.
8. Notification of Investigation or Enforcement Action.

Annex 1: Airworthiness & Environmental Certification

3.2.7 Part Designs, Repair Design Data, and Design Changes

- The FAA and EASA systems for approval of part designs, repair design data, and design changes are "sufficiently comparable" so that…

  …a separate validating authority (VA, FAA/EASA) approval **is not required** to accept parts, repair design data, or design changes once they are approved by the certificating authority (CA).

  – Some exceptions for major changes and critical components are in the Airworthiness TIP.

Key Concepts

Repair and Alteration Data Concepts

1. There are fundamental differences in how the U.S. and EU systems address design changes.
   - The U.S. does not treat every post-design activity, e.g., repairs, as a change to type design.
2. The FAA and EASA accept each other's "systems," e.g., classification and approval processes.
3. The FAA and EASA will conduct additional reviews to approve changes to **critical components** (TIP 1.6.h).

Design Changes, and Repair & Alteration Data

Key Concepts, cont.

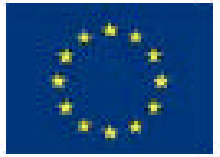
1. Differences in U.S./EU Systems

United States FAA	European Union EASA, AAs
Design changes, part 21	Design changes and repairs, Part 21
Repair data, part 43	
Alteration data, part 43	

- No "accepted" data in the EU system; all data must be approved.
- Repair designs are treated as design changes in the EU system, and must be separately approved.
- Under the new agreement, EU recognizes all types of data from the FAA's certification system, and will accept almost all of the data without further involvement.

Key Concepts, cont.

2. Accepting Each Other's Systems



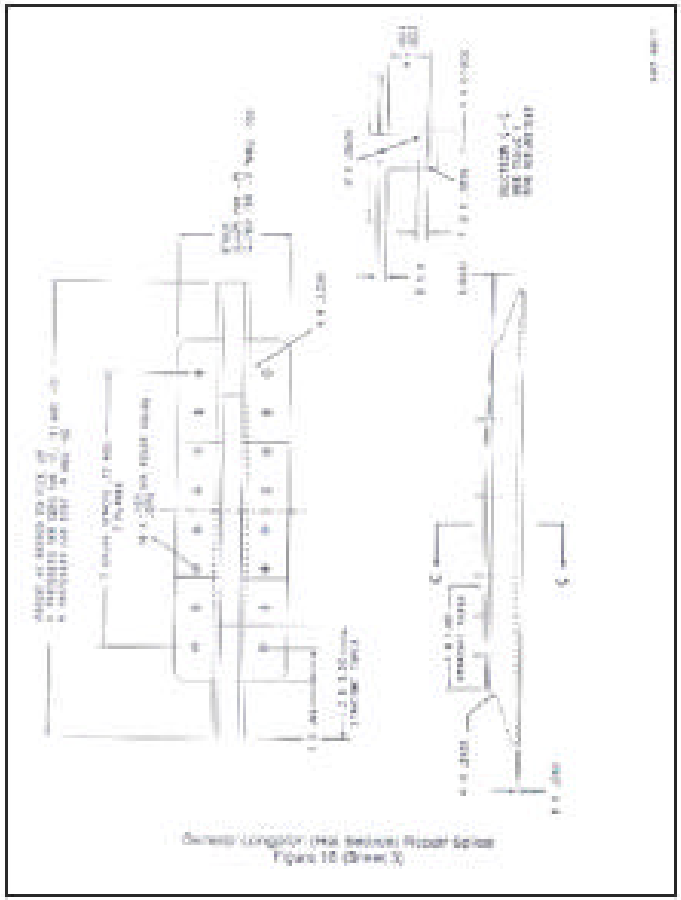
- U.S. and EU **systems** produce equivalent results, despite these differences.
- **Systems** are accepted – applicable classifications are those of the exporting authority.
  - FAA engineers/designees use FAA procedures and forms.
  - EASA engineers/AAs use EASA procedures and forms.
- Importing, or validating, authority relies on the exporting, or certificating, authority's decisions to the maximum extent possible.

Design Changes, and Repair & Alteration Data

3.3 Approval of Design Data Used in Support of Repairs

- FAA and EASA will accept each other's approved repair design data regardless of State of Design of the product (TIP para 3.3).
- Two processes established:

1. Streamlined Reciprocal Acceptance of repair data.
2. Formal approval of critical component repair data.



Approval of Design Data Used in Support of Repairs, cont.

Process 1 **TIP 3.3.2**

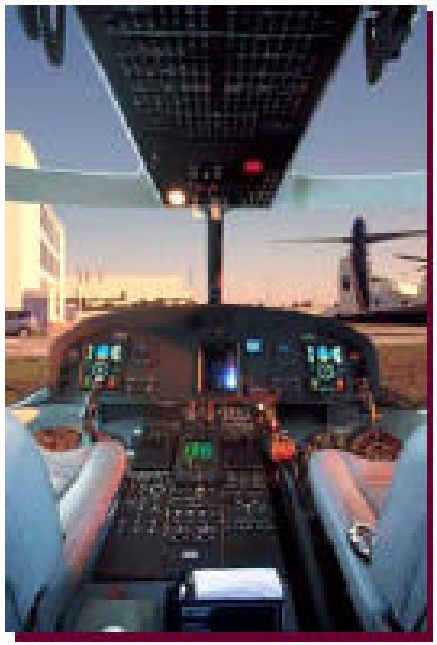
Streamlined Reciprocal Acceptance of Repair Data

- Automatic acceptance of all repair data (minor/major) regardless of the State of Design of the product from:
  - TC/STC holder, or
  - Third party except repair data on critical components.
- Major repair data **must be accompanied** by an ACO letter or properly executed FAA Forms 8110-3, 8100-9, or 337.
- FAA Order 8110.37 and 14 CFR part 43 appendix B address these forms.

3.2.4 EASA Acceptance of FAA Alteration Data

TIP 3.2.4.2(a) NEW

- EASA **does not** have an equivalent to FAA alterations.
- FAA alteration data are considered approved by EASA when:
  - FAA approved or accepted per 14 CFR part 43,
  - Alteration is installed on any aircraft exported from the U.S., **and**
  - Alteration is substantiated via an FAA Form 8110-3, 8100-9, or 337, or logbook entry.



Approval of Design Data Used in Support of Repairs, cont.

Process 2

Formal Approval of Critical Component Repair Data from Other Than the TC or STC Holder

- The company submits formal application through its CA.
- **Fast track process** used when the FAA or EASA can confirm that the applicant has entered into an arrangement with the TC /STC holder for this data.
- **Validation process** is required when there is no arrangement with the TC holder.

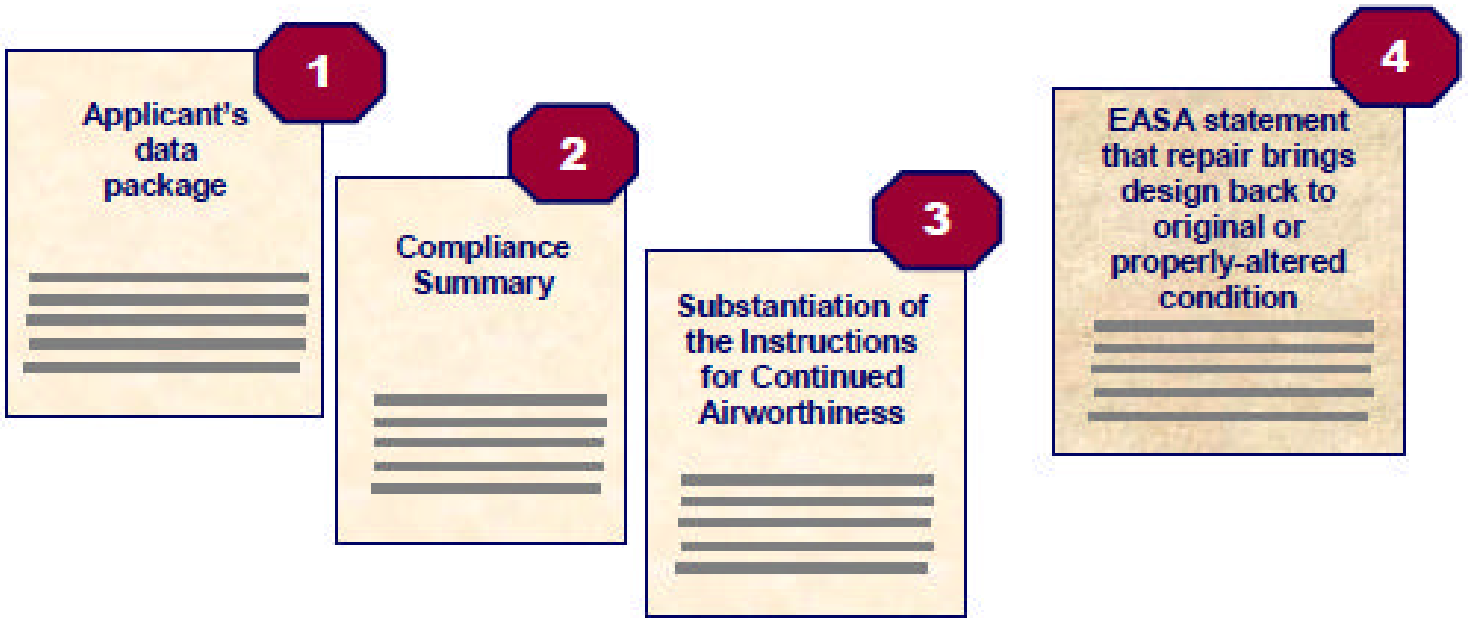
TIP 3.3.3(b) and 3.3.4(b)

Design Changes, and Repair & Alteration Data

Approval of Design Data Used in Support of Repairs, cont.

Validation Process

For **critical component repair data** from other than the TC/STC holder coming **from EU to United States**, the **FAA product Directorate should receive...**



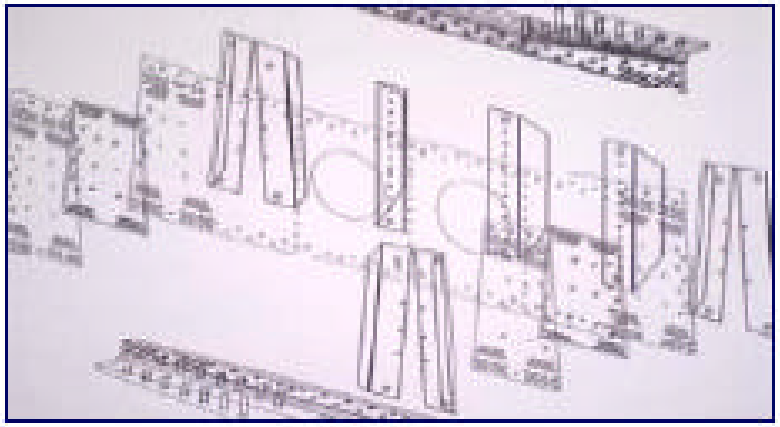
TIP Appendix E

EASA Design Approval Tasks Allocated to Aviation Authorities Accepted by the United States

Aviation Authority of:	ETSO	STCs	Type Certificates (TCs), Changes to TCs, and Repair Data									
			Part 25 airplanes	Part 23 commuter	Part 23 non commuter	VLA	Part 22 Gliders	Part 29 Rotorcraft	Part 27 Rotorcraft	Turbine Engines	Piston Engines	Propellers
Austria	X[1]	X[1]	X[2]		X	X	X				X	
Belgium												
Bulgaria												
Cyprus												
Czech Republic	X	X[1]			X	X	X				X	X
Denmark												
Estonia												
Finland												
France	X	X	X	X	X[1]	X	X	X[1,2]	X[1,2]	X[2]	X	X
Germany	X	X	X[2,3]		X	X	X	X[2]	X	X[2]	X	X
Greece												
Hungary												
Ireland												
Italy	X	X	X[2]		X[1]	X	X	X[2]	X	X[2]	X	
Latvia												
Lithuania												
Luxembourg												
Malta												
Netherlands		X[1]	X[1,2]		X[1]	X[1]	X[1]					
Poland[3]				X[3]	X[3]	X[3]	X[3]	X[3]	X[3]		X[3]	X[3]
Portugal												
Romania												
Slovakia												
Slovenia												
Spain			X[2,3]		X[2,3]							
Sweden	X	X[1]	X[2]	X[2]	X[2]		X					
United Kingdom	X	X	X	X	X	X	X	X	X	X	X	X
Total	7		8/6[2]	4/1[2]	10/2[2]	8	9	5/3[2]	5/1[2]	4/3[2]	7	5

3.2 Design Changes

- Post-design approval procedures apply to:
  - Design changes after an initial design approval, e.g., Amended TC or STC, changes to an appliance,
  - Approval of alteration data, and
  - Approval of repair design data.



Design Changes, and Repair & Alteration Data

Approval of Design Data Used in Support of Repairs, cont.

Remember, per the aviation safety agreement...

- The vast majority of repair design data will be accepted without validation (no application and no subsequent design approval; no additional approval beyond the CA approval).
- The VA needs to conduct a technical review and issue an approval letter for repair design data for a critical component designed by a company other than the TC or STC holder.

Also remember…

- Under the Airworthiness and Environmental Certification TIP, we are only addressing the approval of repair design **data**.
- The acceptance of the **repairs themselves** by an FAA- or EASA-approved repair station is covered under Annex 2, Maintenance.

SUMMARY

- Both US Based maintenance operators & EASA Maintenance operators need to understand the New Oct 22 2012 Safety Agreement to properly comply with their respective EU member state Post Design Approvals.