WEBINAR
Alternative Parts




Hosted by IATA

November 19th, 2025

IATA Anti-Trust/Competition Guidelines

Do not discuss:

- Any element of prices, including fares or service charges
- Commissions
- Allocations of customers or markets
- Marketing plans, commercial terms or any other strategic decision
- Group boycotts
- Your relations with agents, airlines, or other third parties
- Any other issue aimed at influencing the independent business decisions of competitors

Introduction

Meet the presenters

Stephanie Lambrinakos-Raymond
IATA, Sr. Manager Technical Operations

Chris Markou
IATA, Head of Technical Operations

Patrick Markham
HEICO, VP Technical Services

Jason Dickstein
MARPA, President

Approved Alternative Parts (PMA Parts) Webinar

November 19th, 2025	
Time Slot (EST)	**Topic**
10h00 – 10h05	**Welcome Remarks** **IATA Anti-trust guidelines, Introduction, & Agenda** Stephanie Lambrinakos-Raymond, Sr. Manager, Tech. Ops, IATA
10h05 – 10h20	**IATA Alternative Solutions Initiatives** Stephanie Lambrinakos-Raymond, Sr. Manager, Tech. Ops Performance, IATA Chris Markou, Head of Tech. Ops, IATA
10h20 – 11h05	**Approved Alternative Parts** Pat Markham from HEICO
11h05 – 11h50	**EASA Acceptance of FAA-PMA and FAA-DER Repair** Jason Dickstein from MARPA
11h50 – 12h00	**Closing Remarks** Guidance material & upcoming approved alternative solutions workshop

Webinar Logistics

- The webinar is being **recorded**
- Attendees can submit questions through the Q&A feature

IATA Alternative Solutions Initiatives

April

IATA Supply Chain Workshop

50 senior leaders representing the entire aviation ecosystem convened in Geneva to collaboratively address critical supply chain challenges.

May

Alternative Solution Advisory Group

Members: KLM, Swiss, GA Telesis, ELFC, ACA, LATAM, ALTA

August

IATA PMA Usage Questionnaire

Identified trends amongst airlines

Lessor restrictions identified as no.1 obstacle

October

Lessor Workshop

Focusing on the adoption and support of approved non-OEM solutions (PMA, DER/Part 21, etc.) to ease the supply chain issues within aviation

November

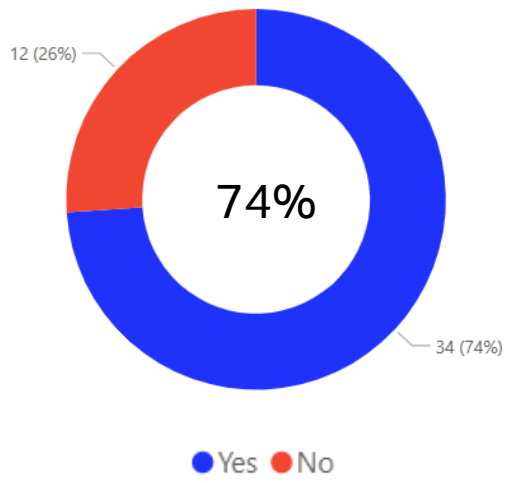
PMA Webinar

Focusing on PMA parts and their acceptance in the European Union

IATA PMA Survey Results

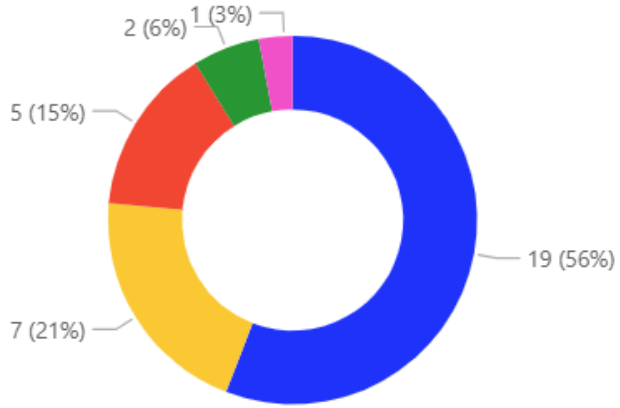
Participation from 46 airlines regarding the use of PMAs within their fleet

Does your company use PMAs in their fleet?

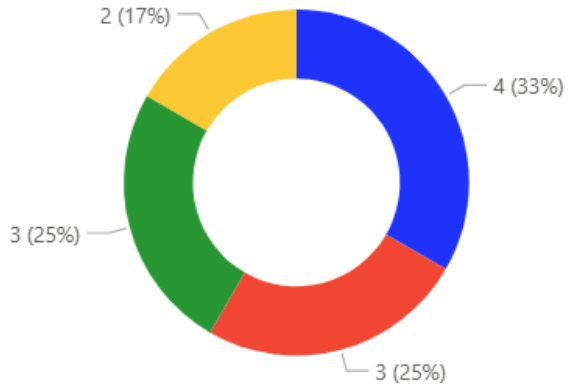


Regional variations

Airlines who use PMA



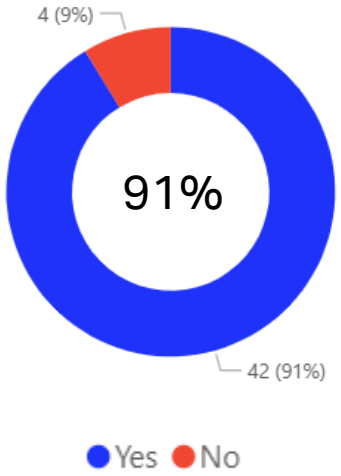
Airlines who do not use PMA



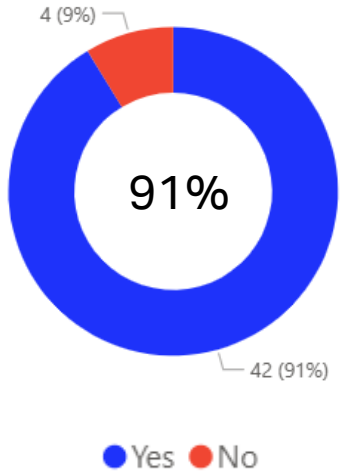
Europe Americas Africa & Middle East Asia Pacific China & North Asia

IATA PMA Survey Results – cont'd

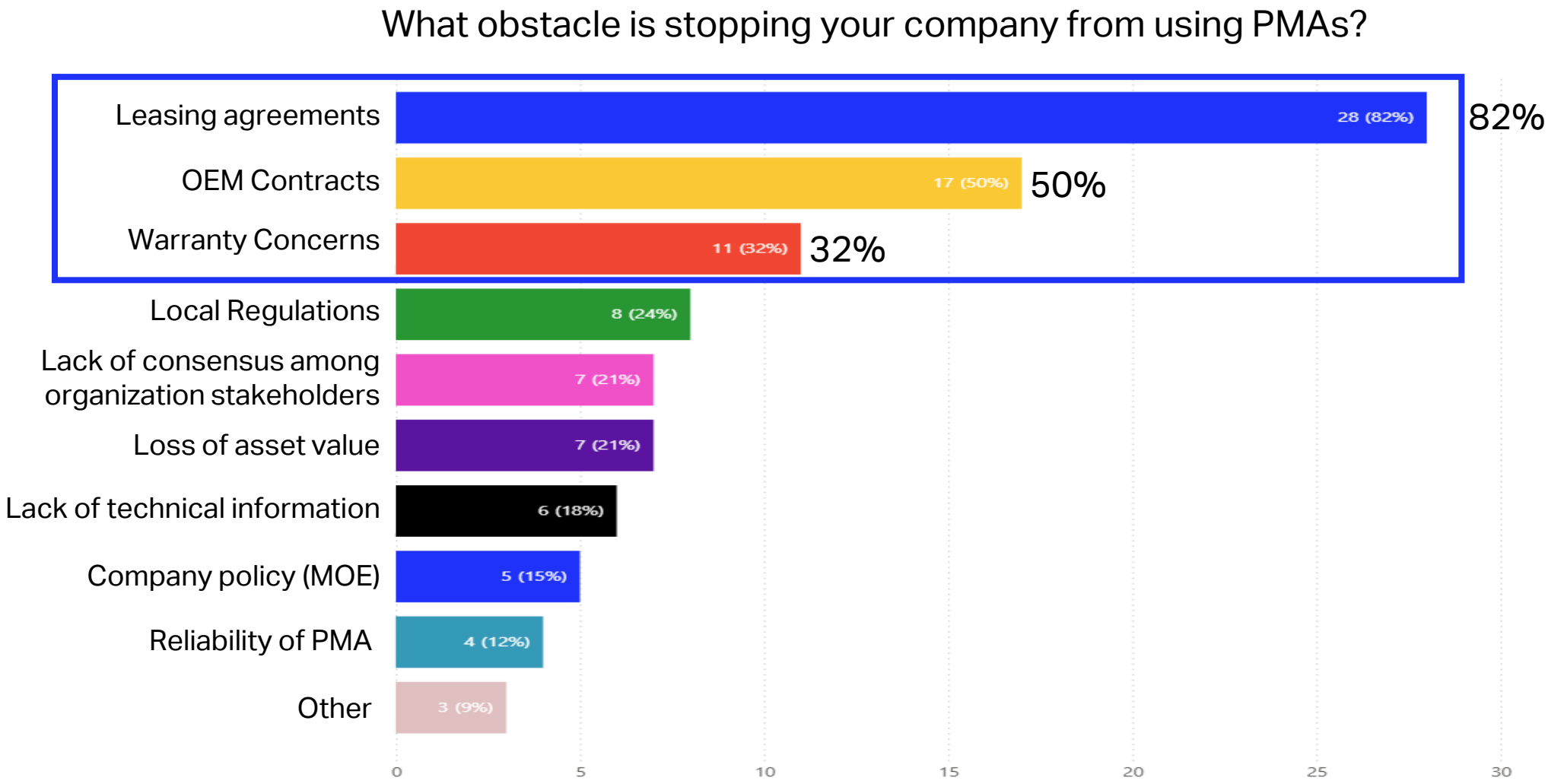
Would widespread market acceptance of PMA by airlines and lessors change the way your company views these parts?



Does your company see value in an industry forum for sharing experiences, case studies, and issues around PMA use?



IATA PMA Survey Results – cont'd



IATA Lessor Workshop

Workshop with 25 participants from various lessors, airlines, and leading organizations in aviation.

Restrictions are due to the impact on transferability & asset value

Mapped the impacts based on groups of category of parts.

	Acceptable				Deferred for subsequent review/discussion					
Part category	**Consumables/ Expendables**	**Interiors NonSerialized**	**Interiors Serialized**	**Piece Parts* for non critical parts**	**Rotables/ Repairables/OCCM**	**Repairs on Airframe Structures**	**Removable structural Components**	**Powerplant LRUs piece parts (non-critical)**	**Powerplant LRUs /Accessories**	**LLPs**
Transferability	No Impact	No impact	As delivered originally		for non IPC parts				for non IPC parts	
Asset Value	No Impact	No impact	Value per contract							

*Excluding engines, auxiliary power units (APU), and landing gears (LG)

IATA Lessor Workshop – cont'd

Next Steps

- IATA to release a statement on the agreed upon recommendations on the adoption of PMA parts at aircraft redelivery
- Host another workshop dedicated to engines, APUs, LGs

Considerations

- Redelivery conditions (and not operational use) is important for lessors ("Quiet enjoyment")
- Licensed PMA (i.e. the part is listed in the IPC) are acceptable
- In cases such as AOG, supply chain (parts shortages, long TATs, obsolescence etc.) the operator should discuss urgently with the lessor to clarify the way forward and avoid complications and delays.

HPG

HEICO PARTS GROUP

Approved Alternative Parts

Pat Markham
VP Technical Services
954 554 6235 (cell)
pmarkham@heico.com

ABOUT HEICO

HEICO Corporation is a rapidly growing aerospace and electronics company focused on niche markets and cost-saving solutions for our customers.

Our products are found in the most demanding applications requiring the highest reliability parts and components, such as aircraft, spacecraft, defense equipment, medical equipment, and telecommunications systems.

Founded in 1957, **67 years in business**

NYSE listed (HEI, HEI.A)

Market Capitalization of **over $20 Billion**

Annual Revenue of **over $2.2 Billion**

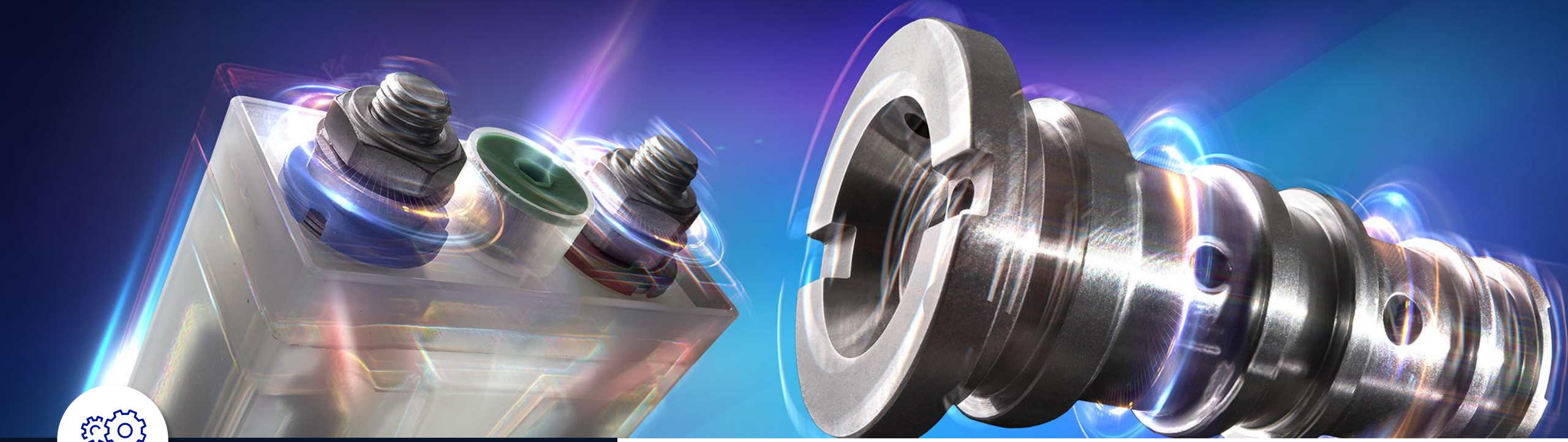
Nearly 10,000 Team Members in 90+ facilities, across 26 US states and 24 countries

RANKED BY Forbes

Forbes List Of The 100 Most Trustworthy Companies In America
Transparency Of Accounting/Governance

Forbes Best Small Companies
Five Years In The Top 100

Forbes World's Most Innovative Growth Companies



PARTS

HEICO Parts Group (HPG)

HEICO Parts Group (HPG) is the world's largest independent supplier of FAA-PMA approved engine and component parts for virtually every engine platform and ATA chapter

Holding over 19,000 FAA approvals on parts for:

- Nearly every aircraft and engine platform
- Every area of aircraft and engine

Producing more than 500 new, highly engineered parts each year:

- PMA Management
- PMA Kitting
- In-house Manufacturing

Research & Development

Advanced Technical Library

Cutting-edge Equipment to Re-Engineer, Design and Test In-house

History of the “PMA”

1955: Civil Air Regulations CAR 1.55

Early authority to approve parts

Geared to support aircraft returning from WWII and entering civilian service

1965: FAA 14 CFR 21 Subpart K

Approval of Materials, Parts, Processes, and Appliances

1975: FAA 14 CFR 21.303

Parts Manufacture Approval “PMA”

2011: FAA 14 CFR 21 Subpart K

Parts Manufacture Approvals

History of the PMA Industry

1980s

LCCs changing business model drives cost reductions
OEMs characterize PMA and surplus as a “cheap alternative”
PMA parts and companies become more sophisticated

PMA still seen as a “niche” activity

1990s

LHT is the first airline/major MRO to partner with HEICO
LCCs, industry cycles, fuel and labor add pressure to legacy carriers
More complex PMA parts are developed and in successful service
PMA industry group started (MARPA)
OEMs react by offering “deals” in exchange to not use PMA

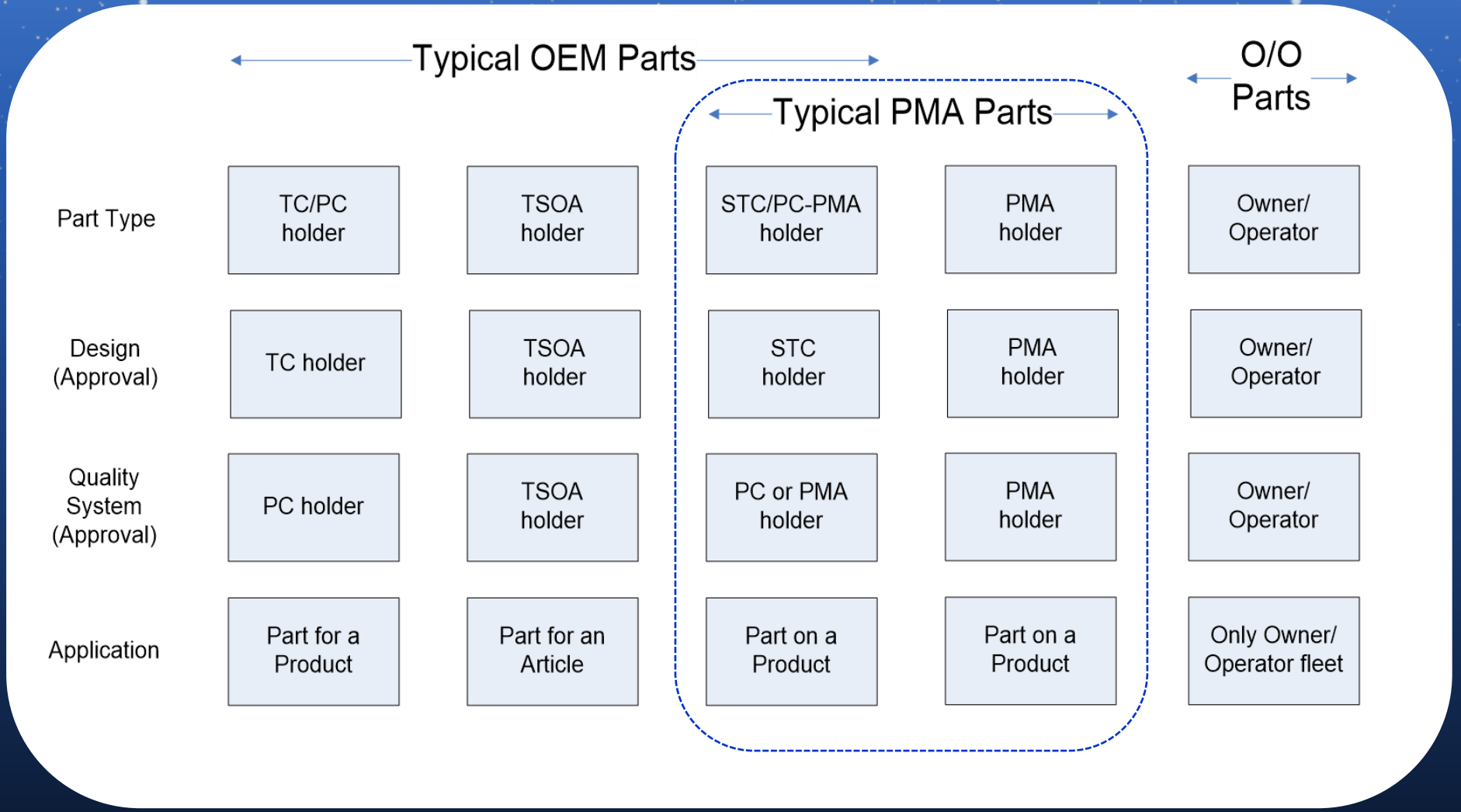
PMA becomes a topic for “discussion”

2000s

PMA becomes even more widely accepted and mainstream
FAA commissions RAFT study resulting in SAIB addressing PMA technical concerns and OEM commercial responses to PMA
Aircraft Technology publishes article in Nov. 2008:
“End of the PMA Legitimacy Debate”

The “End of the PMA (Safety) Legitimacy Debate”

Replacement Part Options



Design and Approval Basis for STC and PMA

Part Type	STC	PMA License	PMA Identicality	PMA Test & Comp
Design Basis	Major Change to the Type Design	Identicality via License Agreement	Identical to Approved Design	Test and analysis show equivalency to Approved Design
Design Approval	14 CFR § 21.113 Order 8110.4	14 CFR § 21.15 Order 8110.4	14 CFR § 21.303 Order 8110.42	
Production Approval	Parts produced under Parts Manufacturer Approval 14 CFR § 21.307 & Order 8110.42			

STC, Identically (with/without License) or Test and Computation is a reflection of the design basis

Different Types of Approval Basis for PMA

STC (Supplemental Type Certificate)

Major Change to Type Design

Separate approval for Design and Production

Test and Computations (Typical PMA)

Reverse Engineered Parts.

Must be Equal to or Better than the “OEM” part

Identicality by License

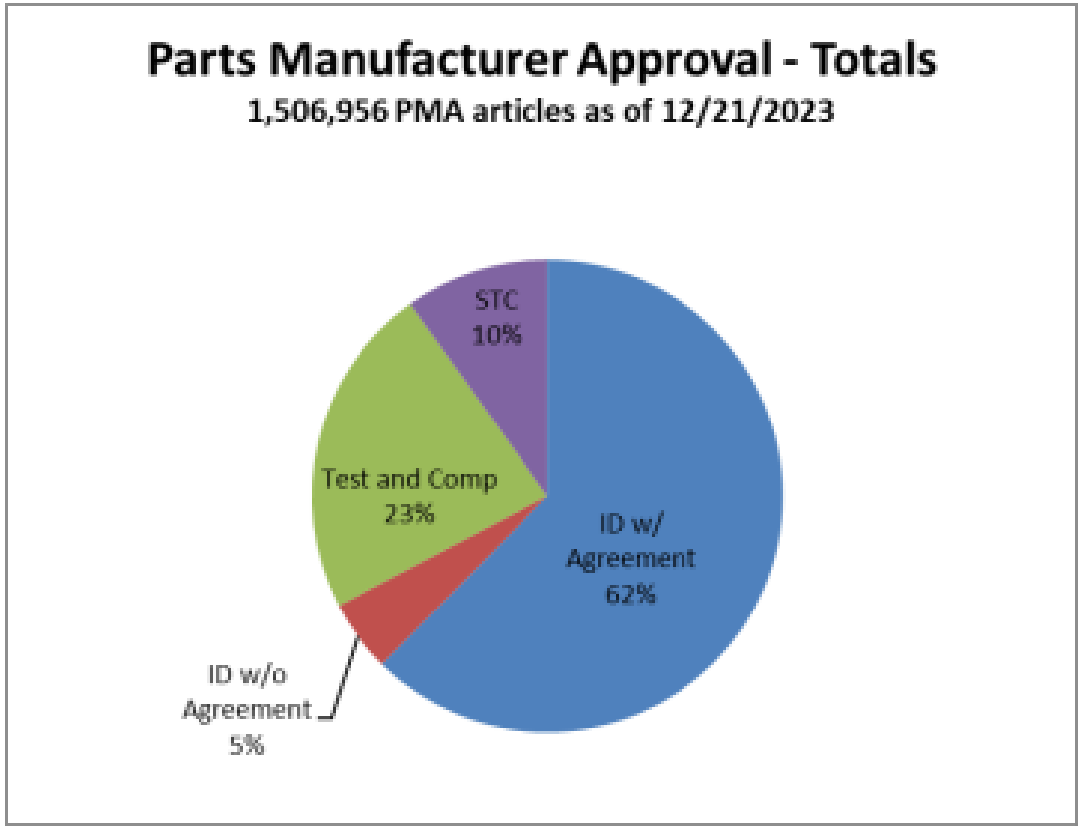
Design is approved with the Aircraft / Engine

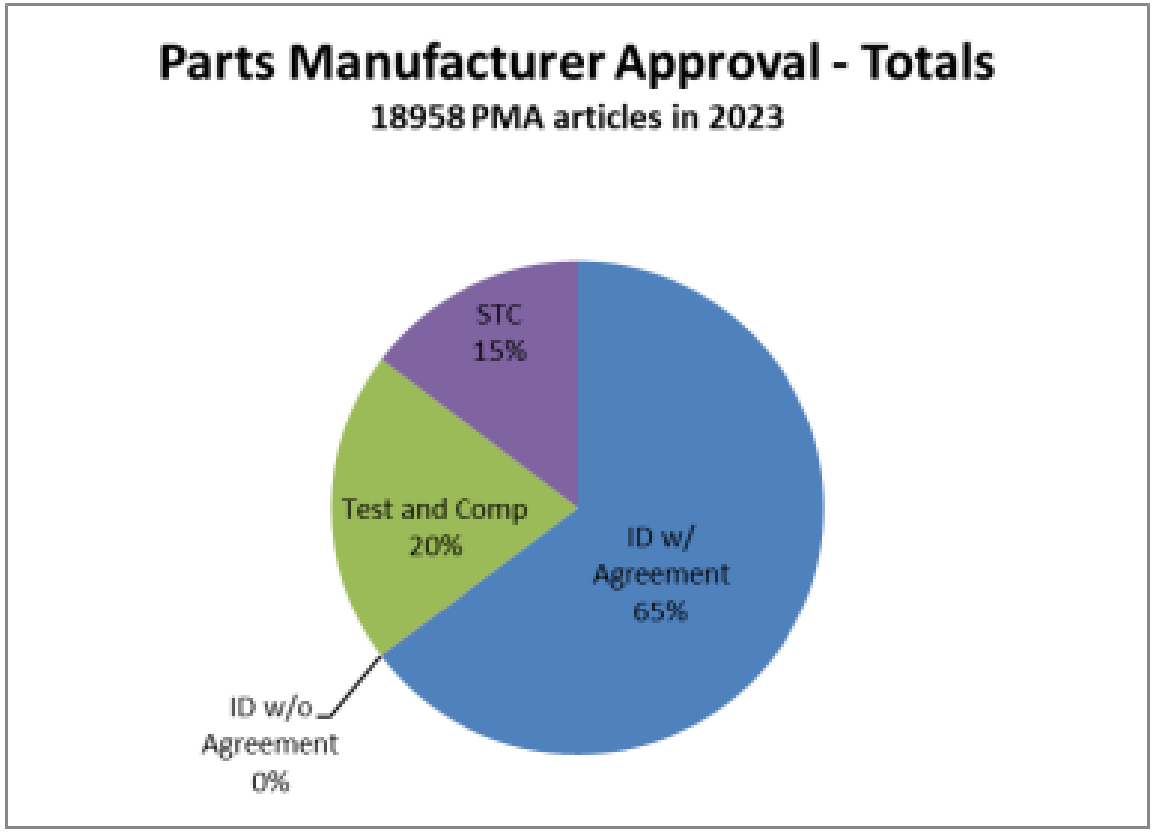
Typical for Sub-Tier OEM

Identicality without a License

Design is identical to TC Holder but used without agreement

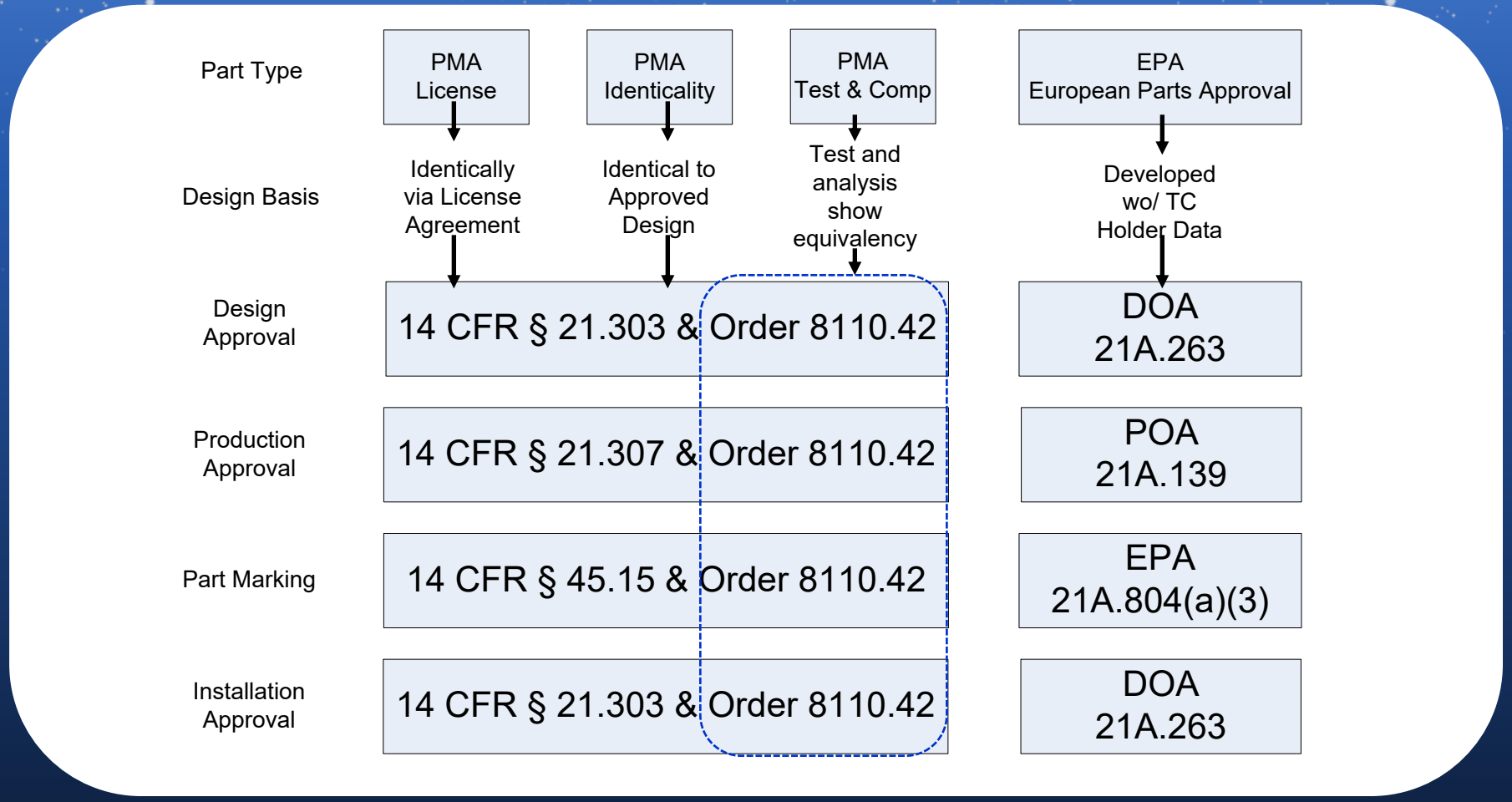
FAA-PMA Approvals by PMA Type





FAA Summary of FAA-PMA approvals
https://drs.faa.gov/browse/PMA/doctypeDetails

PMA vs EPA Parts (Where are we now?)



FAA Order 8110.42 ties it all together for the PMA Holder

EPAs need a DOA, a POA, EPA marking and a minor change

PMA vs EPA Parts (How did we get here?)

EASA Preliminary Regulatory Impact Assessment

The processes used for the design approval of replacement or modification parts are indeed different in Part 21 and FAR 21, mainly due to the basic principles that were used to draft JAR-21, and which are still valid in Part-21. These principles are:

- Clear separation of regulations dealing with design and production
- Demonstration of design capability required, except for minor design changes
- Required link with TC Holders for applicants proposing major design changes, when they need the support of the TC Holders to get design or certification data.
- a replacement part designed by someone who is not the TC holder is considered a change to the design even if it is identical to the original part.

These EU conditions seem to be more demanding than the equivalent US regulations. In addition, the respective role and involvement of EASA and FAA are different.

EASA and the FAA took different paths:

FAA path is vertically integrated (Approves Parts)

EASA path has clear separation (Approves Organizations)

Source: EASA Preliminary Regulatory Impact Assessment Task Nr. 21.046

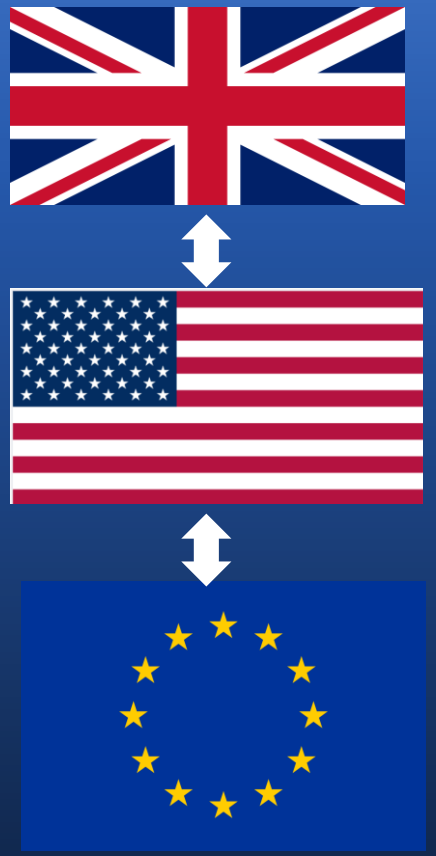
International Parts Approvals

Country	Technical Standard Order	Parts Approval
United States	TSOA	PMA (Parts Manufacturer Approval)
Australia	ATSO	APMA (Australian Parts Manufacture Approval)*
Canada	CAD-TSO	PDA (Part Design Approval)
Brazil	CPAA	CPAA (Certificado de Produto Aeronáutico Aprovado)
European Union	ETSOA	EPA (European Parts Approval)**
Japan	TSO	JCAB PMA (JCAB Parts Manufacture Approval)***
United Kingdom	UKTSO	UKPA (United Kingdom Parts Approval)**

* APMA parts are accepted for Part 23 sized aircraft
** EPA and UKPA parts are not formally accepted by FAA EASA TIPs and FAA UK CAA IP
*** JCAB PMA part accepted for licensed JCAB PMA parts

Source: FAA Bilateral Agreement Listing
Aviation Safety - International Agreements | Federal Aviation Administration

What is a Major vs Minor Repair?



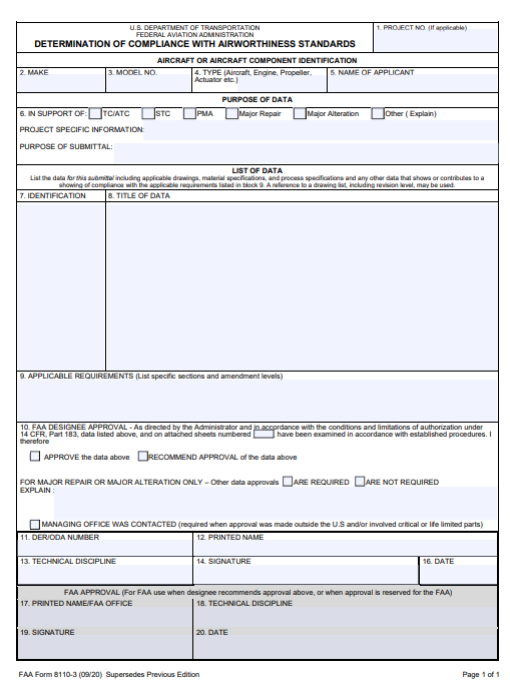
1.12.52 "Repair" can be classified as major or minor. A major repair is a repair that, if improperly done, might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness or that is not done according to accepted practices or cannot be done by elementary operations. A minor repair is any repair other than a major repair.

Major Repair	A repair that, if improperly done, might appreciably affect weight, balance, structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness; or a repair that is not done according to accepted practices or cannot be done by elementary operation.
Minor Repair	A repair other than a major repair.

The potential effect if done wrong..

Or cannot be done with elementary operations

“DER Repair” is but one type of Major Repair Approvals



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

DETERMINATION OF COMPLIANCE WITH AIRWORTHINESS STANDARDS

1. PROJECT NO. (If applicable)

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

2. MAKE	3. MODEL NO.	4. TYPE (Aircraft, Engine, Propeller, Actuator etc.)	5. NAME OF APPLICANT

PURPOSE OF DATA

6. IN SUPPORT OF: ☐ TC/ATC ☐ STC ☐ PMA ☐ Major Repair ☐ Major Alteration ☐ Other (Explain)

PROJECT SPECIFIC INFORMATION:

PURPOSE OF SUBMITTAL:

LIST OF DATA

List the data for this submittal including applicable drawings, material specifications, and process specifications and any other data that shows or contributes to a showing of compliance with the applicable requirements listed in block 9. A reference to a drawing list, including revision level, may be used.

7. IDENTIFICATION	8. TITLE OF DATA

9. APPLICABLE REQUIREMENTS (List specific sections and amendment levels)

10. FAA DESIGNEE APPROVAL - As directed by the Administrator and in accordance with the conditions and limitations of authorization under 14 CFR, Part 183, data listed above, and on attached sheets numbered ____ have been examined in accordance with established procedures. I therefore

☐ APPROVE the data above ☐ RECOMMEND APPROVAL of the data above

FOR MAJOR REPAIR OR MAJOR ALTERATION ONLY – Other data approvals ☐ ARE REQUIRED ☐ ARE NOT REQUIRED

EXPLAIN :

☐ MANAGING OFFICE WAS CONTACTED (required when approval was made outside the U.S and/or involved critical or life limited parts)

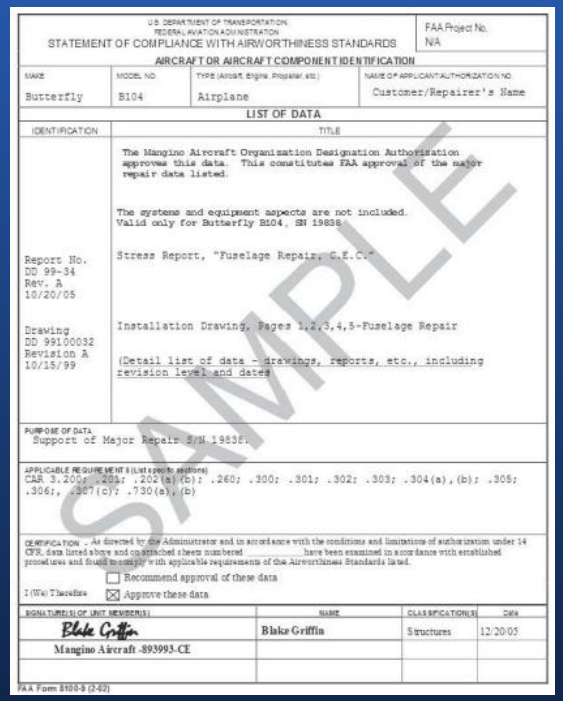
11. DER/ODA NUMBER	12. PRINTED NAME	
13. TECHNICAL DISCIPLINE	14. SIGNATURE	16. DATE

FAA APPROVAL (For FAA use when designee recommends approval above, or when approval is reserved for the FAA)

17. PRINTED NAME/FAA OFFICE	18. TECHNICAL DISCIPLINE
19. SIGNATURE	20. DATE

FAA Form 8110-3 (09/20) Supersedes Previous Edition Page 1 of 1

Form 8110-3
DER Approval



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

STATEMENT OF COMPLIANCE WITH AIRWORTHINESS STANDARDS

FAA Project No. N/A

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

MAKE	MODEL NO.	TYPE (Aircraft, Engine, Propeller, etc.)	NAME OF APPLICANT/AUTHORIZATION NO.
Butterfly	B104	Airplane	Customer/Repairer's Name

LIST OF DATA

IDENTIFICATION	TITLE
	The Mangino Aircraft Organization Designation Authorization approves this data. This constitutes FAA approval of the major repair data listed.
	The systems and equipment aspects are not included. Valid only for Butterfly B104, SN 19838.
Report No. DD 99-34 Rev. A 10/20/05	Stress Report, "Fuselage Repair, G.E.C."
Drawing DD 99100032 Revision A 10/15/99	Installation Drawing, Pages 1,2,3,4,5-Fuselage Repair
	(Detail list of data - drawings, reports, etc., including revision level and date)

PURPOSE OF DATA
Support of Major Repair S/N 19838.

APPLICABLE REQUIREMENTS (List specific sections)
CAR 3.200; .204; .202(a)(b); .260; .300; .301; .302; .303; .304(a),(b); .305; .306; .307(c); .730(a),(b)

CERTIFICATION - As directed by the Administrator and in accordance with the conditions and limitations of authorization under 14 CFR, data listed above and on attached sheets numbered _____ have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed.

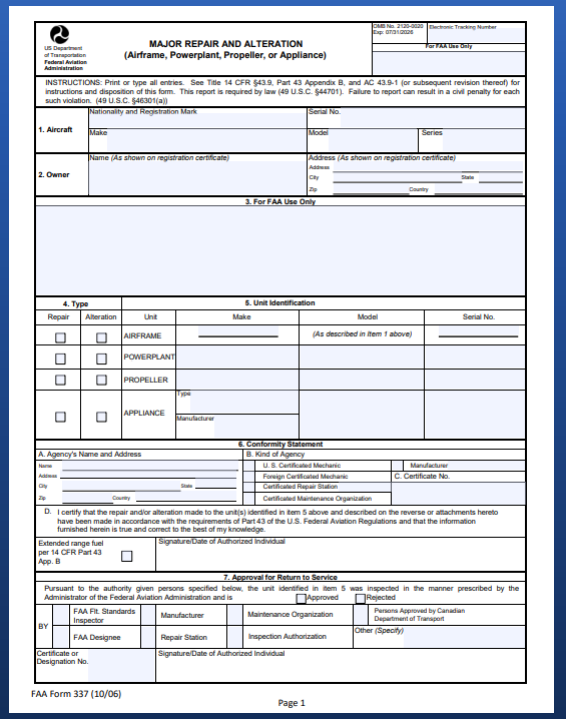
I (We) Therefore ☐ Recommend approval of these data ☒ Approve these data

SIGNATURE(S) OF UNIT MEMBER(S)	NAME	CLASSIFICATION(S)	DATE
Blake Griffin	Blake Griffin	Structures	12/20/05
Mangino Aircraft -893993-CE			

SAMPLE

FAA Form 8100-9 (2-02)

Form 8100-9



US Department of Transportation Federal Aviation Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

OMB No. 2120-0020 Exp. 07/31/2008 | Electronic Tracking Number | For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark	Serial No.
	Make	Model / Series
2. Owner	Name (As shown on registration certificate)	Address (As shown on registration certificate)

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
☐	☐	AIRFRAME		(As described in Item 1 above)	
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type / Manufacturer		

6. Conformity Statement

A. Agency's Name and Address | B. Kind of Agency: ☐ U.S. Certificated Mechanic ☐ Foreign Certificated Mechanic ☐ Certificated Repair Station ☐ Certificated Maintenance Organization ☐ Manufacturer | C. Certificate No.

D. I certify that the repair and/or alteration made to the unit(s) identified in Item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B ☐ | Signature/Date of Authorized Individual

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in Item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☐ Approved ☐ Rejected

BY: ☐ FAA Flt. Standards Inspector ☐ FAA Designee ☐ Manufacturer ☐ Repair Station ☐ Maintenance Organization ☐ Inspection Authorization ☐ Persons Approved by Canadian Department of Transport ☐ Other (Specify)

Certificate or Designation No. | Signature/Date of Authorized Individual

FAA Form 337 (10/06) Page 1

Form 337

FAA Letters can also be used to approve a Major Repair

Each Approval Method is typically accepted by Bilateral Agreements

EASA Acceptance of Major Repairs

3.3.5 Design Data for Repairs

3.3.5.3 EASA Acceptance of FAA Repair Design Data

(a) EASA shall accept data used in support of major repairs regardless of the SoD of the product, part or article, if:

(1) EASA has certificated/ validated the product or article;

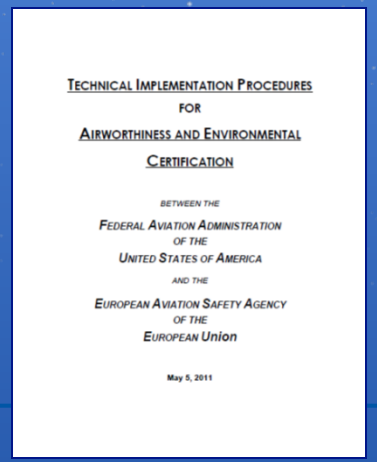
(2) The FAA is the Authority of the SoD for the repair design data; and

(3) The FAA repair design data approval is substantiated via an FAA letter, FAA Form 8110-3, FAA Form 8100-9, FAA Form 337 or a signed cover page of a repair specification.

EASA Accepts

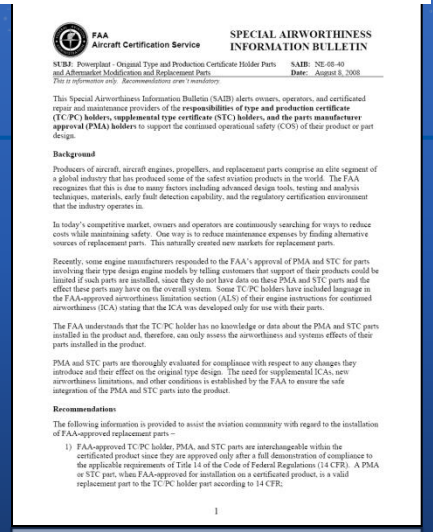
- FAA Letter
- Form 8110-3
- Form 8100-9
- Form 337
- Signed Repair Specification

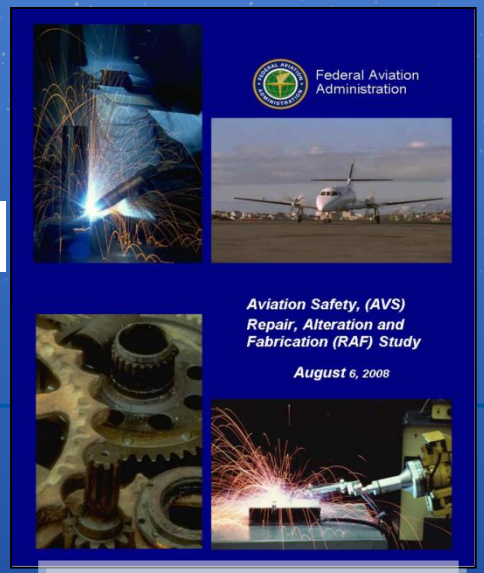
Strong Regulatory Support


TECHNICAL IMPLEMENTATION PROCEDURES
FOR
AIRWORTHINESS AND ENVIRONMENTAL
CERTIFICATION
BETWEEN THE
FEDERAL AVIATION ADMINISTRATION
OF THE
UNITED STATES OF AMERICA
AND THE
EUROPEAN AVIATION SAFETY AGENCY
OF THE
EUROPEAN UNION
May 5, 2011

EASA/FAA TIPS 2011 BASA

FAA SAIB NE-08-40


FAA Aircraft Certification Service
SPECIAL AIRWORTHINESS INFORMATION BULLETIN
SUBJ: Powerplant - Original Type and Production Certificate Holder Parts and Aftermarket Modification and Replacement Parts
SAIB: NE-08-40
Date: August 8, 2008
This is information only. Recommendations aren't mandatory.
This Special Airworthiness Information Bulletin (SAIB) alerts owners, operators, and certificated repair and maintenance providers of the **responsibilities of type and production certificate (TC/PC) holders, supplemental type certificate (STC) holders, and the parts manufacturer approval (PMA) holders** to support the continued operational safety (COS) of their product or part design.
Background
Producers of aircraft, aircraft engines, propellers, and replacement parts comprise an elite segment of a global industry that has produced some of the safest aviation products in the world. The FAA recognizes that this is due to many factors including advanced design tools, testing and analysis techniques, materials, early fault detection capability, and the regulatory certification environment that the industry operates in.
In today's competitive market, owners and operators are continuously searching for ways to reduce costs while maintaining safety. One way is to reduce maintenance expenses by finding alternative sources of replacement parts. This naturally created new markets for replacement parts.
Recently, some engine manufacturers responded to the FAA's approval of PMA and STC for parts involving their type design engine models by telling customers that support of their products could be limited if such parts are installed, since they do not have data on these PMA and STC parts and the effect these parts may have on the overall system. Some TC/PC holders have included language in the FAA-approved airworthiness limitation section (ALS) of their engine instructions for continued airworthiness (ICA) stating that the ICA was developed only for use with their parts.
The FAA understands that the TC/PC holder has no knowledge or data about the PMA and STC parts installed in the product and, therefore, can only assess the airworthiness and systems effects of their parts installed in the product.
PMA and STC parts are thoroughly evaluated for compliance with respect to any changes they introduce and their effect on the original type design. The need for supplemental ICAs, new airworthiness limitations, and other conditions is established by the FAA to ensure the safe integration of the PMA and STC parts into the product.
Recommendations
The following information is provided to assist the aviation community with regard to the installation of FAA-approved replacement parts –
1) FAA-approved TC/PC holder, PMA, and STC parts are interchangeable within the certificated product since they are approved only after a full demonstration of compliance to the applicable requirements of Title 14 of the Code of Federal Regulations (14 CFR). A PMA or STC part, when FAA-approved for installation on a certificated product, is a valid replacement part to the TC/PC holder part according to 14 CFR;
1



FAA RAF Study

Korea / FAA

China / FAA

Hong Kong / FAA

Argentina/ FAA
IMPLEMENTATION PROCEDURES

UK/ FAA
IMPLEMENTATION PROCEDURES
for
AIRWORTHINESS
covering
DESIGN APPROVAL, PRODUCTION AND SURVEILLANCE ACTIVITIES,
EXPORT AIRWORTHINESS APPROVAL,
POST DESIGN APPROVAL ACTIVITIES, AND
TECHNICAL SUPPORT
Under the Agreement between
The Government of the United States of America
and
The Government of the United Kingdom of Great Britain and Northern Ireland
For the Promotion of Aviation Safety
Revision 1
Effective: January 1, 2021

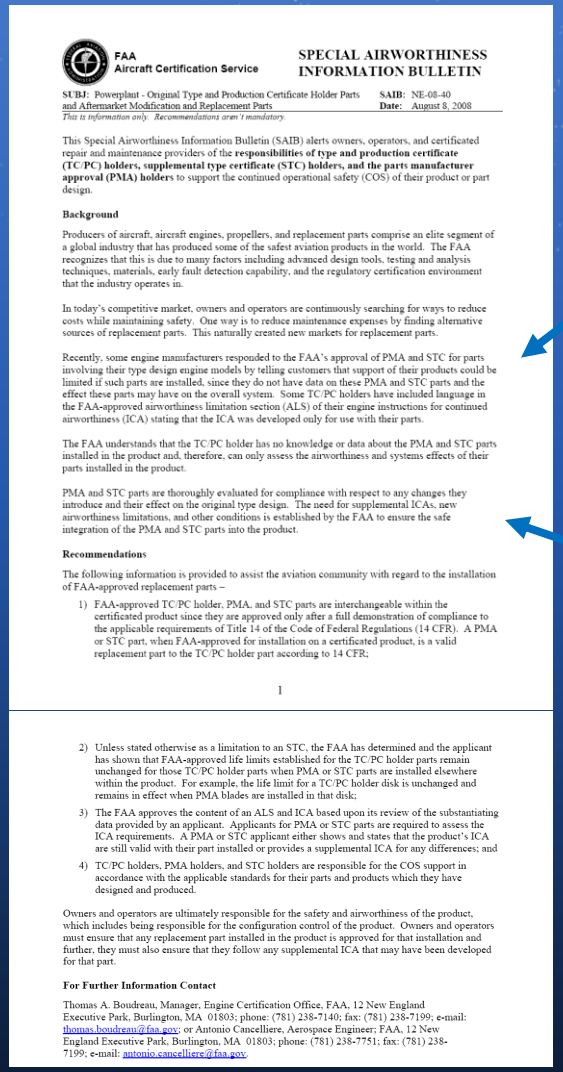
(and many more)

HEICO formed as Heinicke Instruments

We are not aware of any country that does not allow FAA-PMA parts and DER (FAA Major) Repairs.

FAA SAIB: NE-08-40

Use of PMA Parts and DAH ICA



FAA
Aircraft Certification Service

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SUBJ: Powerplant - Original Type and Production Certificate Holder Parts and Aftermarket Modification and Replacement Parts
SAIB: NE-08-40
Date: August 8, 2008
This is information only. Recommendations aren't mandatory.

This Special Airworthiness Information Bulletin (SAIB) alerts owners, operators, and certificated repair and maintenance providers of the **responsibilities of type and production certificate (TC/PC) holders, supplemental type certificate (STC) holders, and the parts manufacturer approval (PMA) holders** to support the continued operational safety (COS) of their product or part design.

Background

Producers of aircraft, aircraft engines, propellers, and replacement parts comprise an elite segment of a global industry that has produced some of the safest aviation products in the world. The FAA recognizes that this is due to many factors including advanced design tools, testing and analysis techniques, materials, early fault detection capability, and the regulatory certification environment that the industry operates in.

In today's competitive market, owners and operators are continuously searching for ways to reduce costs while maintaining safety. One way is to reduce maintenance expenses by finding alternative sources of replacement parts. This naturally created new markets for replacement parts.

Recently, some engine manufacturers responded to the FAA's approval of PMA and STC for parts involving their type design engine models by telling customers that support of their products could be limited if such parts are installed, since they do not have data on these PMA and STC parts and the effect these parts may have on the overall system. Some TC/PC holders have included language in the FAA-approved airworthiness limitation section (ALS) of their engine instructions for continued airworthiness (ICA) stating that the ICA was developed only for use with their parts.

The FAA understands that the TC/PC holder has no knowledge or data about the PMA and STC parts installed in the product and, therefore, can only assess the airworthiness and systems effects of their parts installed in the product.

PMA and STC parts are thoroughly evaluated for compliance with respect to any changes they introduce and their effect on the original type design. The need for supplemental ICAs, new airworthiness limitations, and other conditions is established by the FAA to ensure the safe integration of the PMA and STC parts into the product.

Recommendations

The following information is provided to assist the aviation community with regard to the installation of FAA-approved replacement parts –

1) FAA-approved TC/PC holder, PMA, and STC parts are interchangeable within the certificated product since they are approved only after a full demonstration of compliance to the applicable requirements of Title 14 of the Code of Federal Regulations (14 CFR). A PMA or STC part, when FAA-approved for installation on a certificated product, is a valid replacement part to the TC/PC holder part according to 14 CFR;

1

2) Unless stated otherwise as a limitation to an STC, the FAA has determined and the applicant has shown that FAA-approved life limits established for the TC/PC holder parts remain unchanged for those TC/PC holder parts when PMA or STC parts are installed elsewhere within the product. For example, the life limit for a TC/PC holder disk is unchanged and remains in effect when PMA blades are installed in that disk;
3) The FAA approves the content of an ALS and ICA based upon its review of the substantiating data provided by an applicant. Applicants for PMA or STC parts are required to assess the ICA requirements. A PMA or STC applicant either shows and states that the product's ICA are still valid with their part installed or provides a supplemental ICA for any differences; and
4) TC/PC holders, PMA holders, and STC holders are responsible for the COS support in accordance with the applicable standards for their parts and products which they have designed and produced.

Owners and operators are ultimately responsible for the safety and airworthiness of the product, which includes being responsible for the configuration control of the product. Owners and operators must ensure that any replacement part installed in the product is approved for that installation and further, they must also ensure that they follow any supplemental ICA that may have been developed for that part.

For Further Information Contact

Thomas A. Boudreau, Manager, Engine Certification Office, FAA, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7140; fax: (781) 238-7199; e-mail: thomas.boudreau@faa.gov; or Antonio Cancelliere, Aerospace Engineer; FAA, 12 New England Executive Park, Burlington, MA 01803; phone: (781) 238-7751; fax: (781) 238-7199; e-mail: antonio.cancelliere@faa.gov.

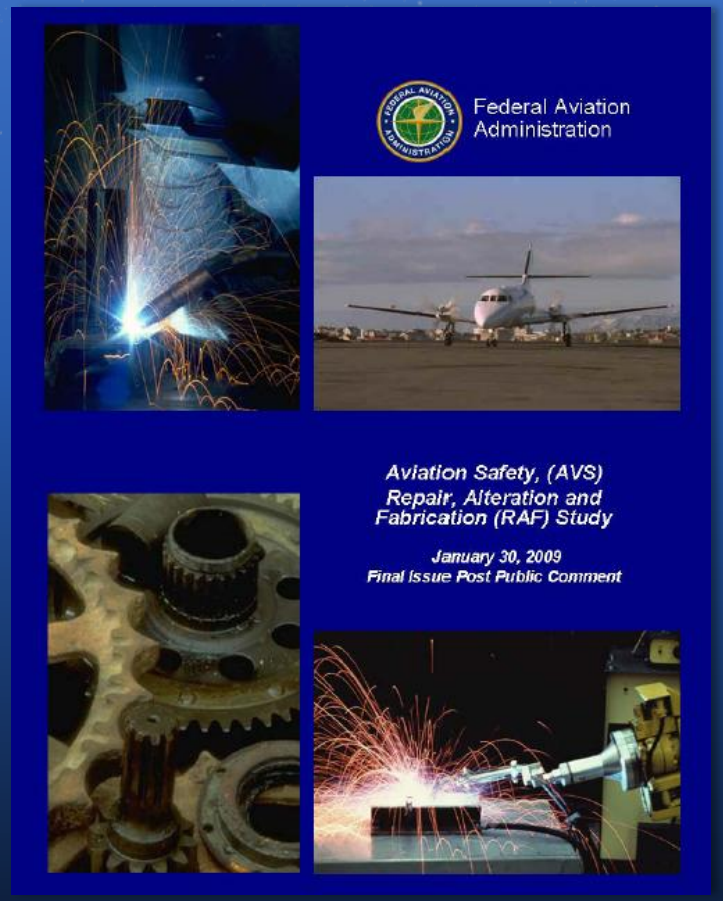
- "Recently, some engine manufacturers responded to the FAA's approval of PMA and STC for parts involving type design engine models by telling customers that support of their products could be limited if such parts are installed…Some TC/PC holders have included language in the FAA-approved airworthiness limitation section (ALS) of their engine instructions for continued airworthiness (ICA) stating that the ICA was developed only for use with their parts."

- "PMA and STC parts are thoroughly evaluated for compliance with respect to any changes they introduce and their effect on the original type design. The need for supplemental ICAs, new airworthiness limitations, and other conditions is established by the FAA to ensure the safe integration of the PMA and STC parts into the product.

<u>PMA and STC parts are reviewed</u>
Unless Otherwise Specified
The ICA remains the same.

FAA RAF Study on Safety and Quality

FAA Aviation Safety Repair, Alteration and Fabrication (RAF) Team spent 18 months evaluating aftermarket safety.



- Owner/Operators have a variety of sources to obtain parts; TC/PC Holder, PMA Holder, TSOA, repair or alter existing parts, fabricate parts during maintenance, owner produce parts, etc.
- FAA concludes “No difference” in airworthiness of parts from these sources
- Team did not find substantive evidence of failures or unsafe conditions from non-TC/PC holder developed data
- Population of PMA parts….has increased substantially …yet the occurrence of service difficulties and AD’s have not….

PMA Parts Safety Record

- Since 1941 the total number of ADs on small and large aircraft is approx. 19,310 (thru March 2023)
- A MARPA review of ADs issued on PMA parts[1] since 1941 has found that…
  - There are 26 ADs that apply exclusively[2] to PMA products
  - 14 are on GA (piston) applications, 4 on rotorcraft, 4 on biz jets
  - 3 are on heavy airframe (hose nut, fire ext. cartridge and fuel cell)
  - 1 is on a large commercial engine

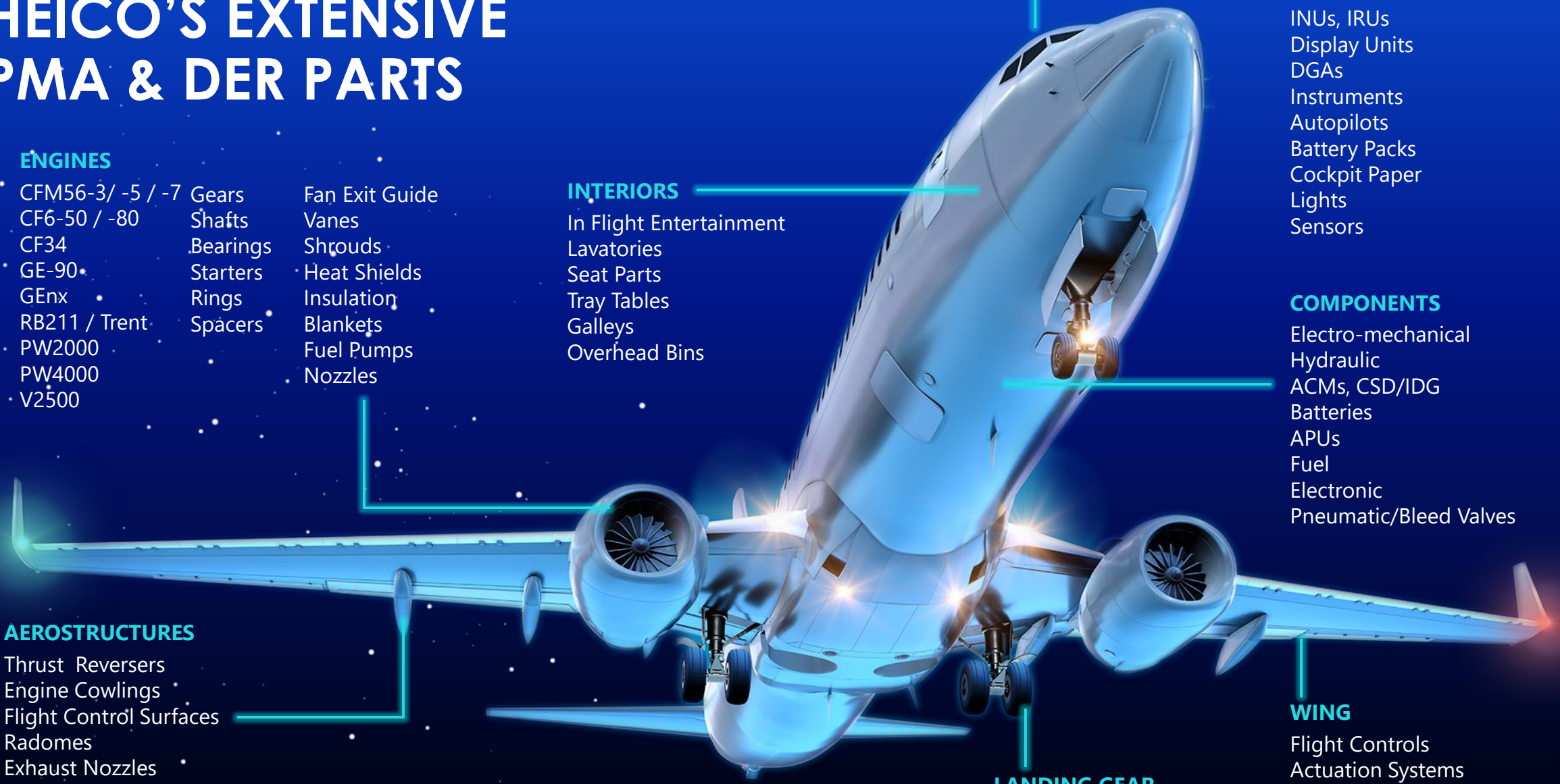
Source: Aviation Data Research (w/ subsequent updates)

- Over the past 82 years on PMA replacement parts, 3 ADs issued on Large Airframe and 1 AD on Large Engines.

Notes:

1. Includes all PMA Replacement Parts (not HEICO exclusive) Approved by a) Test and Computation and b) Identicality
2. Exclusive means either a design or manufacturing defect unique to the PMA part

HEICO'S EXTENSIVE PMA & DER PARTS



ENGINES

CFM56-3/ -5 / -7
CF6-50 / -80
CF34
GE-90
GEnx
RB211 / Trent
PW2000
PW4000
V2500

Gears
Shafts
Bearings
Starters
Rings
Spacers

Fan Exit Guide Vanes
Shrouds
Heat Shields
Insulation Blankets
Fuel Pumps
Nozzles

INTERIORS

In Flight Entertainment
Lavatories
Seat Parts
Tray Tables
Galleys
Overhead Bins

COCKPIT/AVIONICS

INUs, IRUs
Display Units
DGAs
Instruments
Autopilots
Battery Packs
Cockpit Paper
Lights
Sensors

COMPONENTS

Electro-mechanical
Hydraulic
ACMs, CSD/IDG
Batteries
APUs
Fuel
Electronic
Pneumatic/Bleed Valves

AEROSTRUCTURES

Thrust Reversers
Engine Cowlings
Flight Control Surfaces
Radomes
Exhaust Nozzles
Doors

LANDING GEAR

Wheels & Brakes
Landing Gear Components

WING

Flight Controls
Actuation Systems
Flex Shafts
Guides

HEICO DESIGNED PARTS
Quality & Performance

Total Quantity of HEICO Parts Sold:

87,236,461*

Number of SBs Issued: 0

Number of ADs Issued: 0

Number of IFSDs: 0

*Through 01/07/25

PROVEN FIELD EXPERIENCE

The HEICO Design & Quality Process Works!

PMA RESTRICTIONS
Myths & Misconceptions

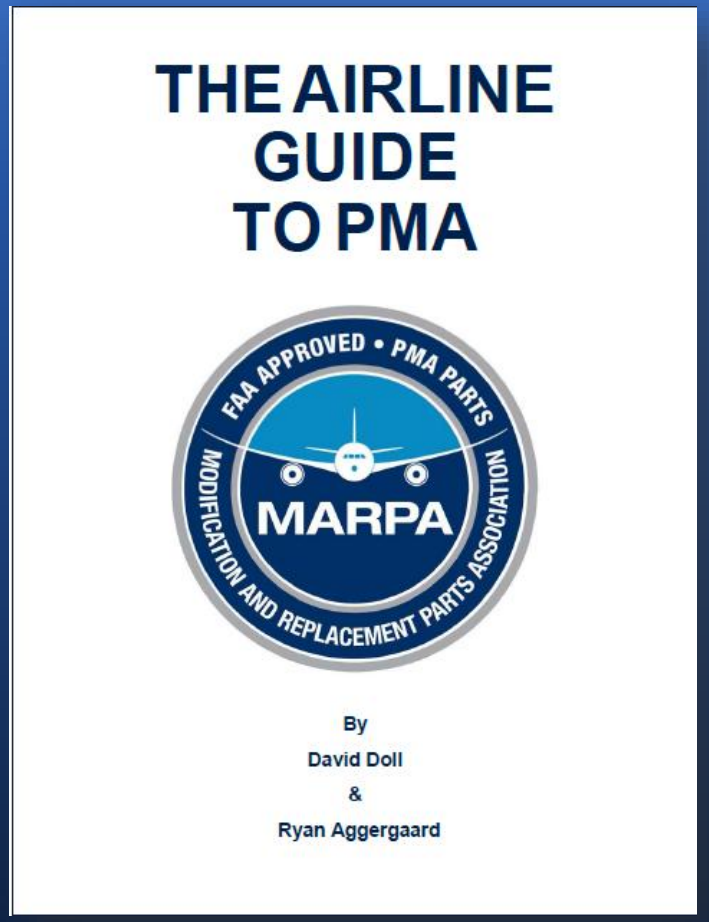
MYTH

- Lessors will not allow the use of PMA parts
- PMA parts decrease the value of your asset
- Using PMA parts voids the warranty
- PMA parts are of inferior quality to the OEM parts
- PMAs / DERs are not safe
- OEMs are the experts in maintenance

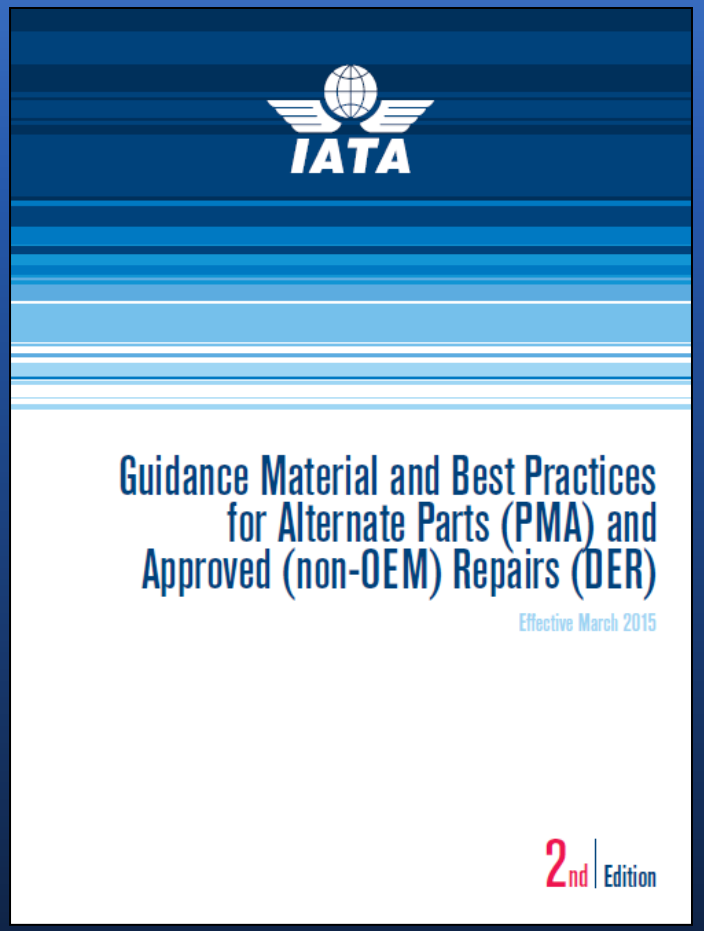
FACT

- Certain lease agreements do allow the use of PMA parts. Others have been renegotiated, to allow the use of PMA parts.
- The use of HEICO PMA parts do not decrease the value of your asset. HEICO parts are not life limited critical parts
- HEICO will warranty their parts at the same level as the OEM
- The FAA approval process and the stringent HEICO reverse engineering process guarantees that HEICO's PMA parts are equal or better than the OEM
- The FAA would not approve the parts if they were deemed unsafe
- They are experts, but they are not the only experts

Other PMA Light Reading



http://www.pmaparts.org/pdf/AirlineGuideToPMA.pdf



https://www.iata.org/contentassets/bf8ca67c8bcd4358b3d004b0d6d0916f/pma-der-2nd-edition.pdf

A GLOBAL NETWORK OF CUSTOMERS*

* Supporting 250 A/L and 500 MRO's

EASA Acceptance of FAA-PMA and FAA-DER Repair

IATA Webinar on Approved Alternative Parts in Aviation

November 19, 2025

Jason Dickstein, MARPA President

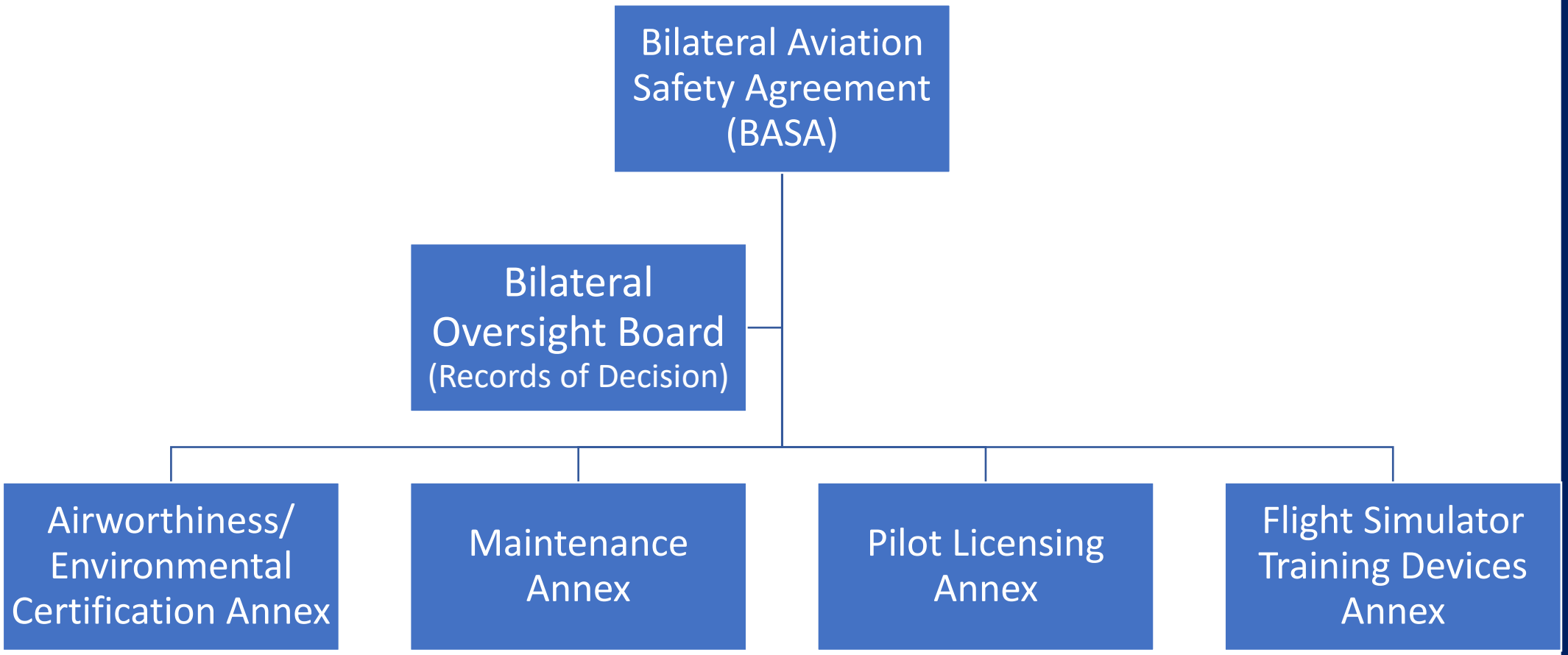
- PMAs are:
  - Design approvals issued by the FAA
  - Production approvals issued by the FAA
  - Installation eligibility approved by the FAA
- In the United States, it is legal to install a PMA part on an aircraft as long as the maintenance performance standards (e.g. 14 C.F.R. § 43.13) will be met.

Can I use PMAs on EU-Registered Aircraft

- Country of registry defines maintenance criteria
- An aircraft registered on an EU-member registry must follow the EU-member's installation requirements
  - Typically built around the EASA regulations
  - As influenced by EASA bilateral agreements

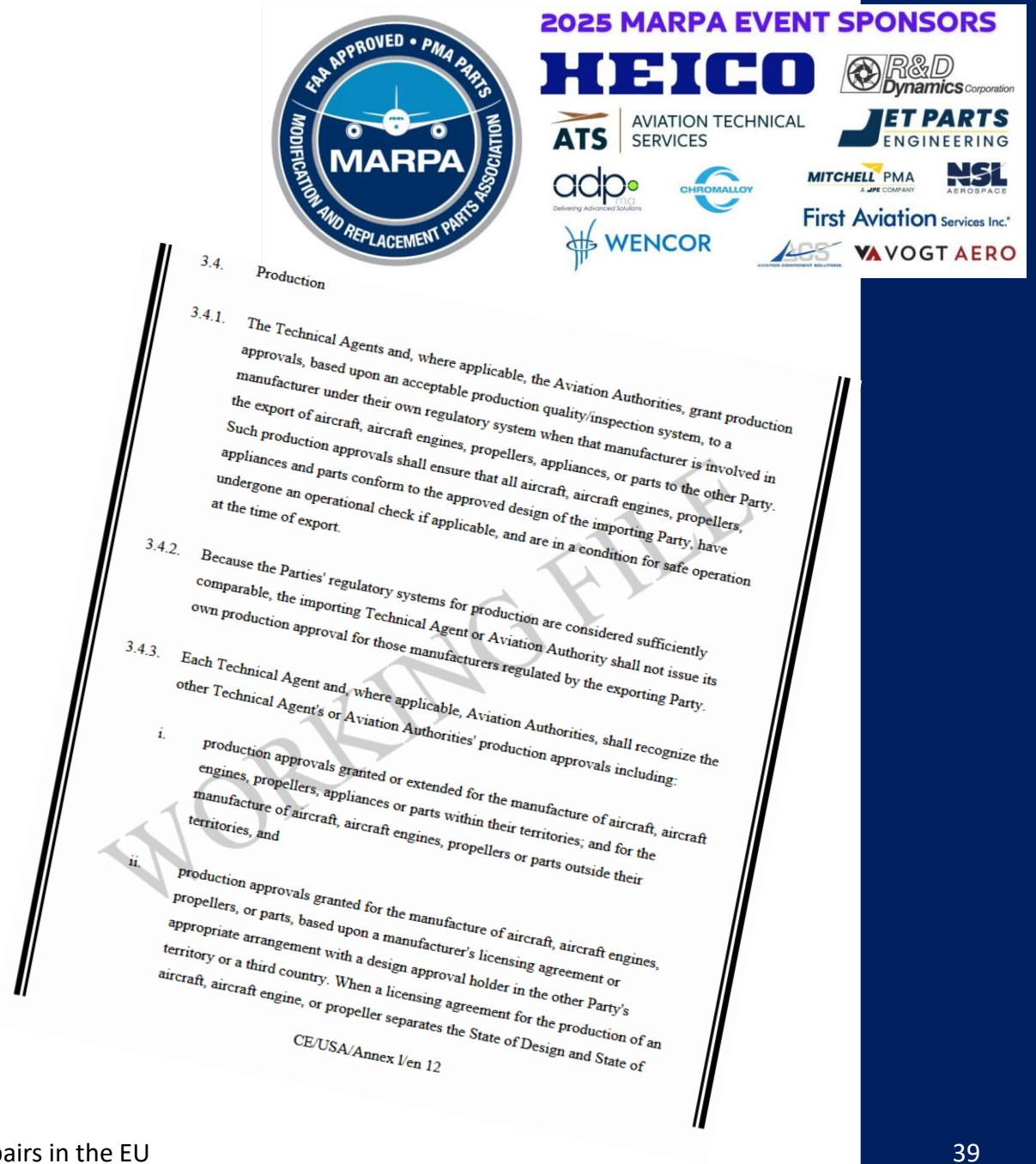
- EU installation standards are built around EASA 145.A.42, which requires an EASA Form 1 or equivalent
  - 8130-3 is equivalent *to the extent authorized* under the bilateral agreements

The Agreements

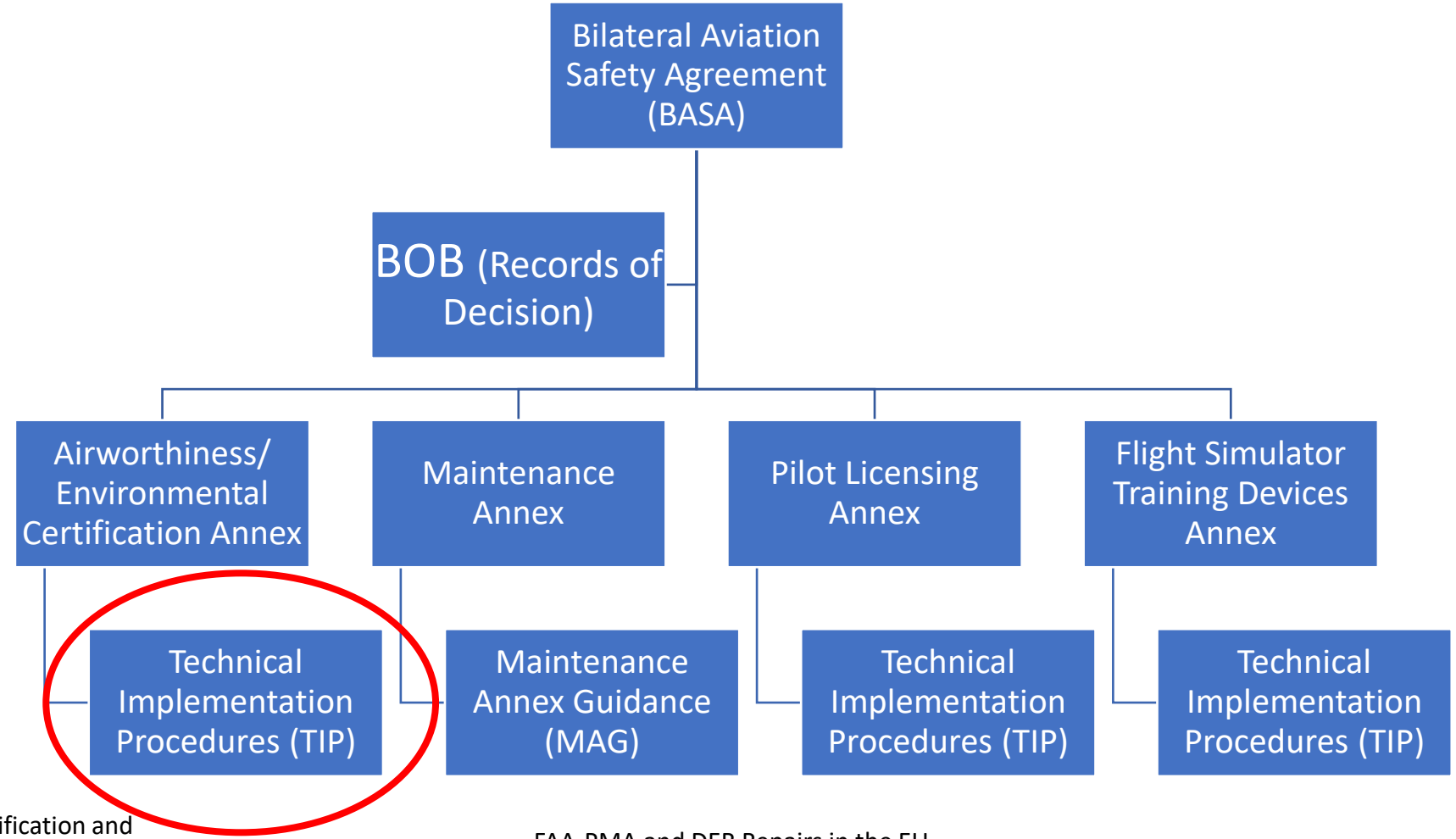


Certification Annex

- FAA and EASA (and the EU aviation authorities) shall recognize each others' production approvals including those for parts
- FAA and EASA (and the EU aviation authorities) shall reciprocally accept the other Party's certifications of airworthiness for all products



The Agreements



Technical Implementation Procedures

New Modification and Replacement Parts

- § 7.10.1: Parts are to be accompanied by authorized release certificates (8130-3 or EASA Form 1)
- § 7.10.2: Importing authorities will accept the exporting authority's authorized release certificates

The part must have documentation

Technical Implementation Procedures

New Modification and Replacement Parts

- § 7.10.1: Parts are to be accompanied by authorized release certificates (8130-3 or EASA Form 1)
- § 7.10.2: Importing authorities will accept the exporting authority's authorized release certificates
- § 7.11: PMA Parts must have one of these statements on the 8130-3:

The part must have a statement on the documentation

Technical Implementation Procedures

New Modification and Replacement Parts

- § 7.10.1: Parts are to be accompanied by authorized release certificates (8130-3 or EASA Form 1)
- § 7.10.2: Importing authorities will accept the exporting authority's authorized release certificates
- § 7.11: PMA Parts must have one of these statements on the 8130-3:
  - "This PMA part is not a critical component."
  - "Produced under licensing agreement from the holder of [INSERT TC or STC NUMBER]."

For non-critical PMA parts (99%+ of all PMAs)

For either critical or non-critical PMA parts

Technical Implementation Procedures

New Modification and Replacement Parts

- § 7.10.1: Parts are to be accompanied by authorized release certificates (8130-3 or EASA Form 1)
- § 7.10.2: Importing authorities will accept the exporting authority's authorized release certificates
- § 7.11: PMA Parts must have one of these statements on the 8130-3:
  - "This PMA part is not a critical component."
  - "Produced under licensing agreement from the holder of [INSERT TC or STC NUMBER]."
  - "Produced by the holder of the EASA STC number [INSERT THE FULL REFERENCE OF THE EASA STC INCORPORATING THE PMA]."

Critical PMAs

Technical Implementation Procedures

New Modification and Replacement Parts

- There is a key limit in the text
- § 7.10.1: Parts are to be accompanied by authorized release certificates (8130-3 or EASA Form 1) **“as identified in paragraphs 2.2.4.2, 2.2.4.3, 2.3.4.2, and 2.3.4.3”**
- This is a limit on the acceptance scope

US Acceptance of Non-US-Manufactured Parts

- Acceptance is based on 14 C.F.R. § 21.502:
  - Source country is subject to a bilateral agreement
  - Article is marked according to US law
  - Source documentation meets the requirement of the bilateral agreement

  - *Thus, a bilateral limit on documentation is an effective way to limit the scope of acceptance*

Technical Implementation Procedures

New Modification and Replacement Parts

- 2.2.4.2: EASA ETSOA Parts
- 2.2.4.3: Original PAH (e.g. TC/POA holder)
- 2.3.4.2 FAA TSOA Parts
- 2.3.4.3(a): Original PAH (e.g. TC/PC holder)
- 2.3.4.3(b): PMA
  - Must conform to one of the eligible conditions, consistent with the 8130-3

Technical Implementation Procedures

New Modification and Replacement Parts

- 2.2.4.2: EASA ETSOA Parts
- 2.2.4.3: Original PAH (e.g. TC/POA holder)
- 2.3.4.2 FAA TSOA Parts
- 2.3.4.3(a): Original PAH (e.g. TC/PC holder)
- 2.3.4.3(b): PMA
  - Must conform to one of the eligible conditions, consistent with the 8130-3
- **What is missing, here?**

What About EPA Parts?

- EU EPA Parts are outside the scope of acceptance
- We expected to see this addressed this year, but instead the June 2025 revision only focused on accepting parts that are no longer eligible for EASA Form 1:
  - Parts identified in the ICA or in CS-STAN as a part for which the consequences of a non-conformity has a negligible safety effect
  - Standard parts with manufacturer's Certificate of Conformity
  - Parts otherwise exempted from airworthiness approval

What About the Maintenance Annex Guidance?

- MAG Section B, App'x 1, Para. 10.11.1.2: "For new components released by an EU PAH, a release must be documented on an EASA Form 1 as a new part."

- MAG Section B, App'x 1, Para. 10.1 NOTE: "For new modification and replacement parts, TIP paragraph 7.10 provides detailed acceptance criteria. In case of version difference between the provisions of the TIP and the MAG, the TIP language takes precedence."

Summary of EASA Standards for Accepting FAA-PMA

- EASA and its member states have explicitly agreed to accept FAA-PMA for installation on their registered aircraft as long as the FAA-PMA Article is accompanied by a properly completed 8130-3

- FAA has agreed to accept EU-produced aircraft parts from the original EU POA holder
- FAA has not (yet) agreed to accept EU-EPA when the sole release is from the EU-EPA holder

What Other Countries Accept PMA?

- First, FAA performed a survey of all ICAO members and found that they all accepted FAA-PMAs
- Second, here is a list of the countries with whom the FAA has bilateral agreements for the acceptance of FAA-PMA:

- Argentina
- Australia
- Brazil
- Canada
- China
- Iceland
- India
- Indonesia
- Israel
- Japan
- Korea
- Malaysia
- Mexico
- New Zealand
- Norway
- Russia
- Saudi Arabia
- Singapore
- S. Africa
- Switzerland
- Taiwan
- UK
- The 27 members of the EU

What About DER Repairs?

- Can I use an FAA DER repair on an aircraft registered in an EU member nation?
- Is the data recognized by EASA?
- Does the fact that it was approved by a DER matter?
- Are there limitations?

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

DETERMINATION OF COMPLIANCE WITH AIRWORTHINESS STANDARDS
AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

2. MAKE	3. MODEL NO.	4. TYPE (Aircraft, Engine, Propeller, Actuator etc.)	1. PROJECT NO. (If applicable)
Boeing	737-800	Aircraft	

6. IN SUPPORT OF: ☐ TC/ATC ☐ STC ☐ PMA
PROJECT SPECIFIC INFORMATION:

PURPOSE OF DATA
☒ Major Repair ☐ Major Alteration ☐ Other (Explain)

5. NAME OF APPLICANT: Repair Design Applicant

PURPOSE OF SUBMITTAL: Data Approval and Process Approval by RS-DER

List the data for this submittal including applicable drawings, material specifications, and process specifications and any other data that shows or contributes to a showing of compliance with the applicable requirements listed in block 9. A reference to a drawing list, including revision level, may be used.

7. IDENTIFICATION	**LIST OF DATA** 8. TITLE OF DATA
Flam-0023	Report: Demonstration of flammability compliance
Interiors Repair Process 001	Applicant's repair process specification 001

9. APPLICABLE REQUIREMENTS (List specific sections and amendment levels)
25.853

10. FAA DESIGNEE APPROVAL - As directed by the Administrator and in accordance with the conditions and limitations of authorization under 14 CFR, Part 183, data listed above, and on attached sheets numbered ☐ have been examined in accordance with established procedures. I therefore
☒ APPROVE the data above ☐ RECOMMEND APPROVAL of the data above
FOR MAJOR REPAIR OR MAJOR ALTERATION ONLY – Other data approvals ☐ ARE REQUIRED ☒ ARE NOT REQUIRED
EXPLAIN :
☐ MANAGING OFFICE WAS CONTACTED (required when approval was made outside the U.S and/or involved critical or life limited parts)

11. DER/ODA NUMBER	12. PRINTED NAME
DER Number	Josephine Designee
13. TECHNICAL DISCIPLINE	14. SIGNATURE
	sig

FAA APPROVAL (For FAA use when designee recommends approval above, or when approval is reserved for the FAA)

17. PRINTED NAME/FAA OFFICE	18. TECHNICAL DISCIPLINE	16. DATE
19. SIGNATURE	20. DATE	11/18/2025

FAA Form 8110-3 (09/20) Supersedes Previous Edition

Page 1 of 1

What About DER Repairs?

- Can I use an FAA DER repair on an aircraft registered in an EU member nation?
- **Is the data recognized by EASA?**
- Does the fact that it was approved by a DER matter?
- Are there limitations?

2.3.2 EASA recognizes, as within the scope of this agreement, the following FAA Approved Design Data:

- FAA-approved design data used in the support of repairs and alterations (except for alterations on critical components):
  (a) U.S. SoD products/articles;
  (b) EU SoD products/articles; or
  (c) A third country SoD product/ article, when both the FAA and EASA have issued a type design approval for the product [*e.g.* Embraer 190]

What About DER Repairs?

- Can I use an FAA DER repair on an aircraft registered in an EU member nation?
- Is the data recognized by EASA?
- **Does the fact that it was approved by a DER matter**?
- Are there limitations?

- TIP section 3.3.5.1(b) explicitly authorizes acceptance of design data approved by a DER
- The data approval should be documented on:
  - FAA Form 8110-3
  - FAA Form 8100-9
  - FAA Form 337 or
  - A signed cover page of a repair specification

What About DER Repairs?

- Can I use an FAA DER repair on an aircraft registered in an EU member nation?
- Is the data recognized by EASA?
- Does the fact that it was approved by a DER matter?
- **Are there limitations?**

- Repair designs requiring the production of new parts that would constitute a design change = NOT eligible for Acceptance
- It is permissible to fabricate parts that will be used in repairs of individual products or articles

What About EU Repairs?

- Note: *FAA also recognizes EASA-approved design data used in support of repairs*
- FAA accepts EASA approved design data that is approved under EASA Part 21 Subpart M
- In both directions, the repair data from the first authority is accepted by the second as “approved” and does not require any additional application to, nor findings by, the second authority

Thank You

Jason Dickstein

MARPA President

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Washington, DC 20007

Tel: (202) 628-6776

Jason@WashingtonAviation.com

Closing Remarks

Resources:

IATA - Guidance Material and Best Practices for Alternate Parts (PMA) and Approved (non-OEM) Repairs (DER)

IATA – CFM & RR agreement on the use of non-OEM parts

MARPA – The airline guide to PMA

IATA - Guidance Material and Best Practices for Aircraft Leases

FAA List of PMAs - Dynamic Regulatory System (DRS)

IATA - MRO SmartHub

Upcoming Events:

Q2 2026 – IATA Approved Alternate Solutions Workshop in Montreal, Canada

- Forum focusing on airline use cases & best practices

Closing Remarks

Thank you for your participation!

Contact Information

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Chris Markou

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