

Overview of FAA Bilateral Agreements

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Aviation Suppliers Association Conference

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**Federal Aviation
Administration**



Objective

Discuss the challenges that are being imposed by current complex business models and the evolving global footprint of aircraft certification and manufacturing and the effect on our Bilateral Agreements



Overview

- **AIR 2018**
- **Bilateral Agreements**
 - Current Bilateral Partners
 - Activities
- **Latest FAA-EASA TIP Revisions**
- **FAA Challenges with Globalization**
- **What are we doing to meet these challenges?**



AIR: 2018 - Globalization

AIR provides leadership to achieve a consistent level of product safety across geopolitical boundaries.

- Strong international relationships are in place with a network of partners
- The full benefit of global manufacturing and seamless transfer of products and approvals is achieved through collaboration with international partners and industry
- Safety initiatives are shared among international partners and promoted globally



Bilateral Agreements

- **Our network of Bilateral Agreements covers 48 countries around the globe**
 - The FAA has 35 BAA/BASA partnerships in addition to the EASA agreement.
 - The EU agreement is with all 28 countries within the European Union, 15 of which are included in the 35 partnerships listed above
- **Additionally, we have two active Working Procedures and one being developed**



Current Bilateral Agreements in Effect

Argentina	Korea	Austria	Greece	Portugal
Australia	Malaysia	Belgium	Hungary	Romania
Brazil	Mexico	Bulgaria	Ireland	Slovakia
Canada	New Zealand	Czech Republic	Italy	Slovenia
China*	Norway*	Cyprus	Latvia	Spain
Iceland*	Russia	Denmark	Lithuania	Sweden
India	Singapore	Estonia	Luxembourg	United Kingdom
Indonesia	South Africa*	Finland	Malta	
Israel	Switzerland*	France	Netherlands	
Japan	Taiwan	Germany	Poland	

Under US-EU Agreement

* Executive agreement only at this time

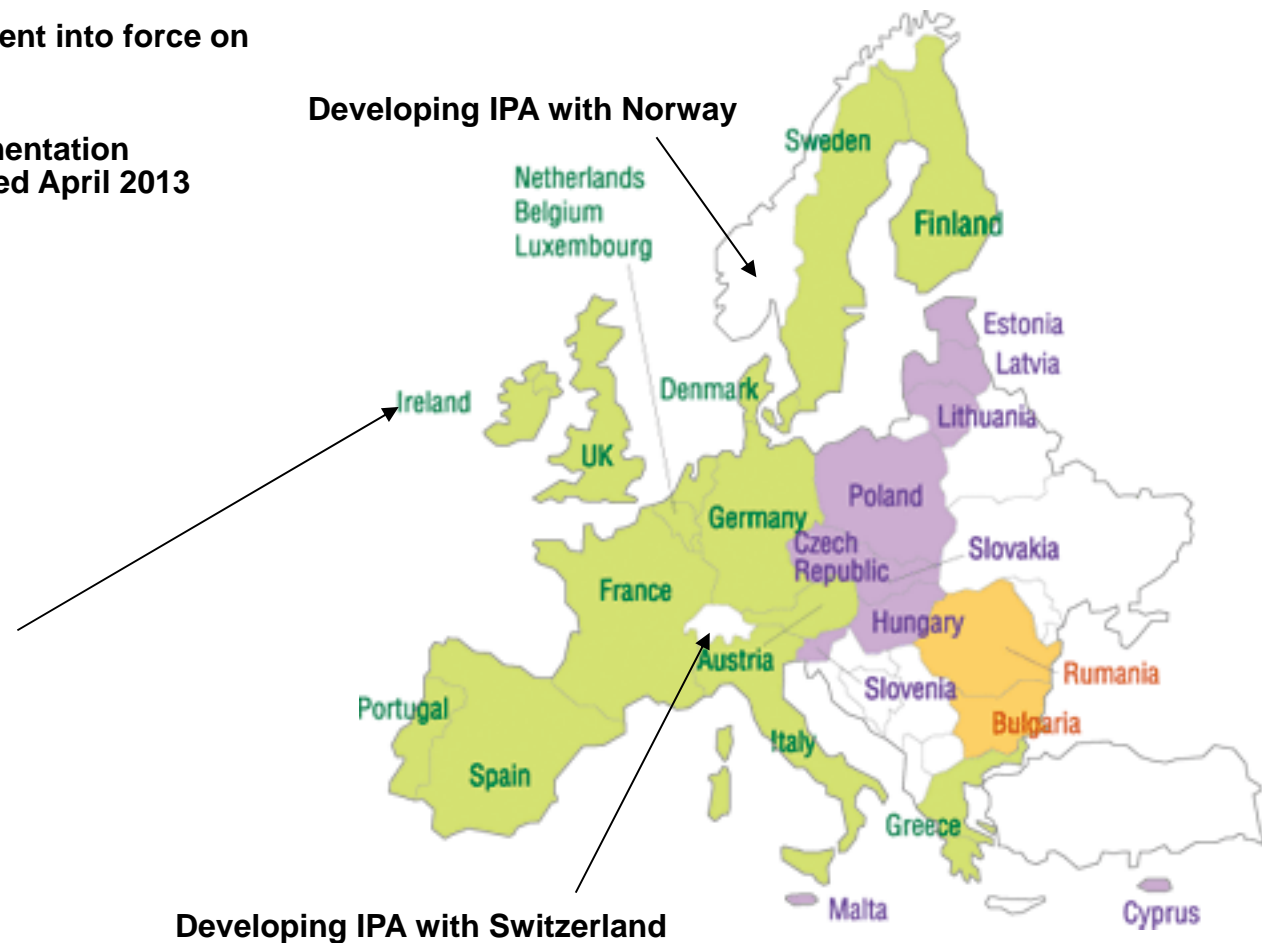
Europe International Activities

U.S./EU Safety Agreement went into force on May 1, 2011

FAA/EASA Technical Implementation Procedures (TIP) Rev 3 issued April 2013

Ireland added in 2013 to Annex I Appendix for TSO articles only.

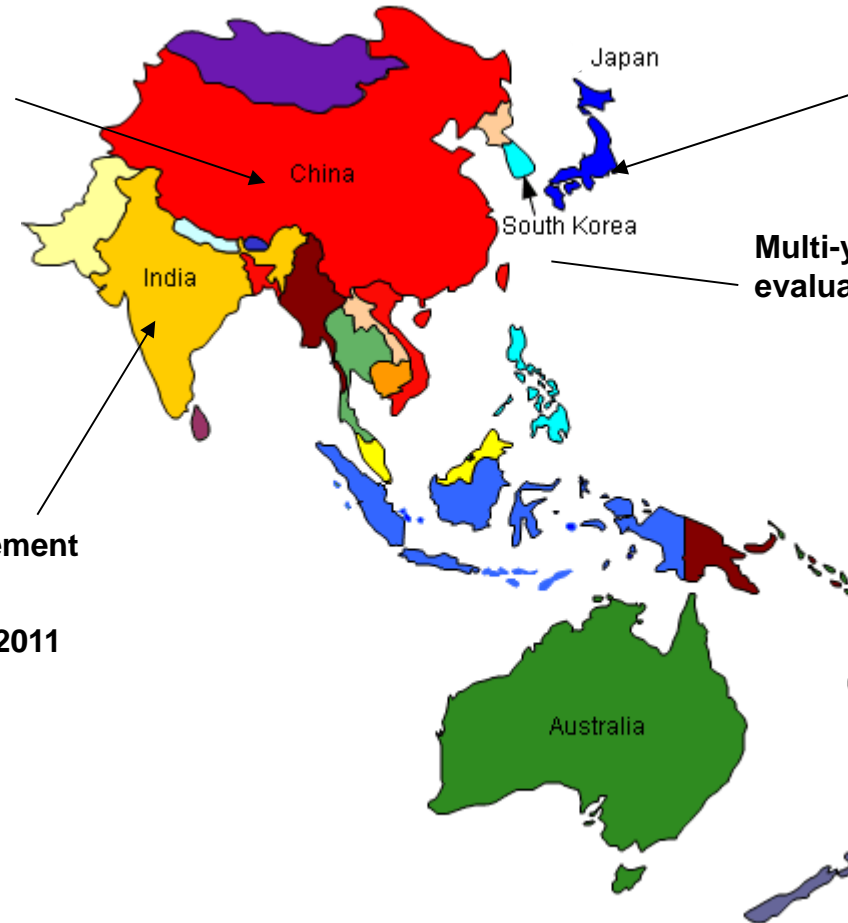
All remaining EU member states added in 2013 to Annex I Appendix for used aircraft.



Asia-Pacific Region International Activities

Multi-year shadow technical
evaluation - Part 25

Convert SIP to IPA



Multi-year shadow technical
evaluation - Part 25

Multi-year shadow technical
evaluation - Part 23

BASA Executive Agreement
signed July 2011

IPA signed November 2011

Growing aviation manufacturing sector involving bilateral partners.

Americas International Activities



Revision of BASA IPA is underway

Working on the implementation of the Project Efficiency Plan (PEP) for Canadian validations (incoming).

IPA completed and signed in July 2009 for U.S. acceptance of Mexican TSO articles



Revision of the BASA IP is underway.

Growing aviation manufacturing sector involving bilateral partners.

FAA-EASA TIP Changes

- **TIP Rev 3 issued April 2013**
- **Based on Validation Implementation Team (VIT) recommendations to develop TIP towards a more streamlined and effective process for validation**
- **VIT identified validation problem areas to target for improvement**
- **Gathered industry and authority input for changes**



FAA-EASA TIP Changes (*cont'd*)

- **Changes introduced in TIP Revision 3 include:**
 - Clarification of unclear and elimination of redundant or conflicting information between TIP and TVP
 - Process to reduce number of validation items
 - Procedures to reduce level of necessary validating authority involvement
 - Clarification on approved manual change validation process
 - More direct and concise descriptions of stakeholder roles and communication expectations
 - Revised STC application process to improve confidence in STC classification
 - Clarification on ICA validation procedures
 - Clarification on familiarization flight objectives

Where do we go from here?

What are some of the challenges facing the FAA Aircraft Certification Service

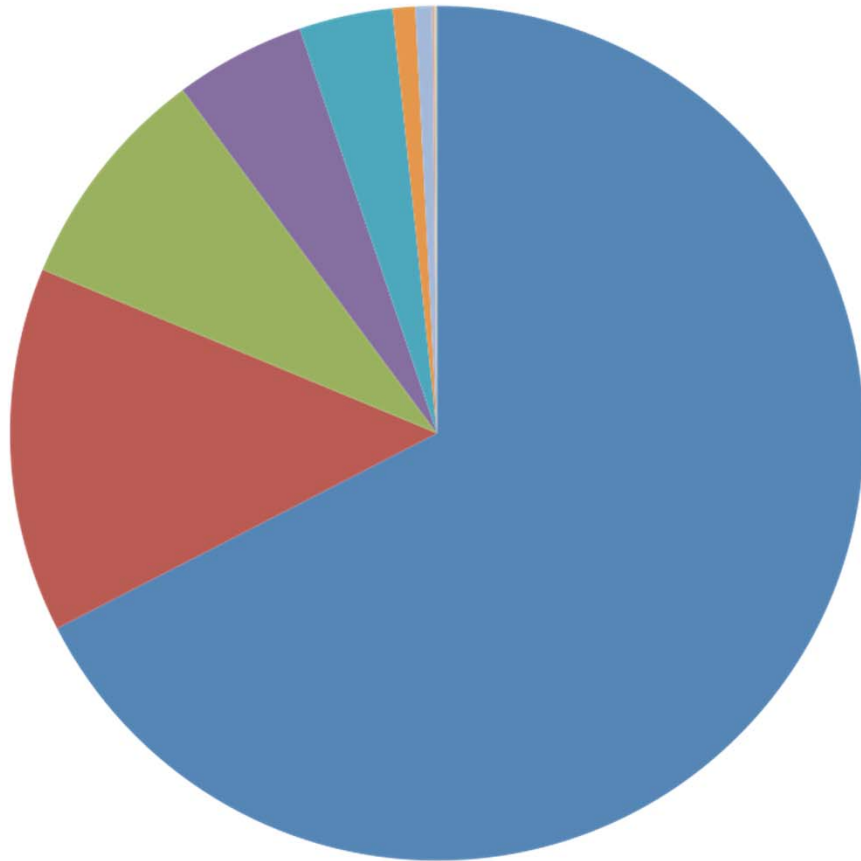
- **Growing diversity of the US fleet**
- **Increased demand for validations of US certificates and approvals overseas**
- **Global Manufacturing – Evolving business models**
- **Increased demand for Technical Assistance**

Validation Challenges – Evolving Global Footprint

Growing number of States of Design (SoD)

- Historically, we had several European States, Canada and Brazil as major SoDs of aircraft/engines
- Currently, we have three major shadow evaluations
 - China – Large Transport Aircraft
 - Japan – Large Transport Aircraft
 - Korea – Small Airplanes
- Other countries with intent to enter the club
 - India: Helicopters; Large Transport Airplanes
 - Korea: Large Transport Airplanes
 - Australia: Small Airplanes

Registry- Foreign SoD Aircraft Today



Territory	Aircraft
European Union	10226
Canada	2092
Brazil	1303
Switzerland	748
Israel	538
Japan	129
Argentina	96
New Zealand	14
Australia	12
Russia	2

Territory	Seats
European Union	340378
Canada	89232
Brazil	53490
Switzerland	8090
Israel	7305
Japan	1799
Australia	143
Argentina	96
New Zealand	76
Russia	3

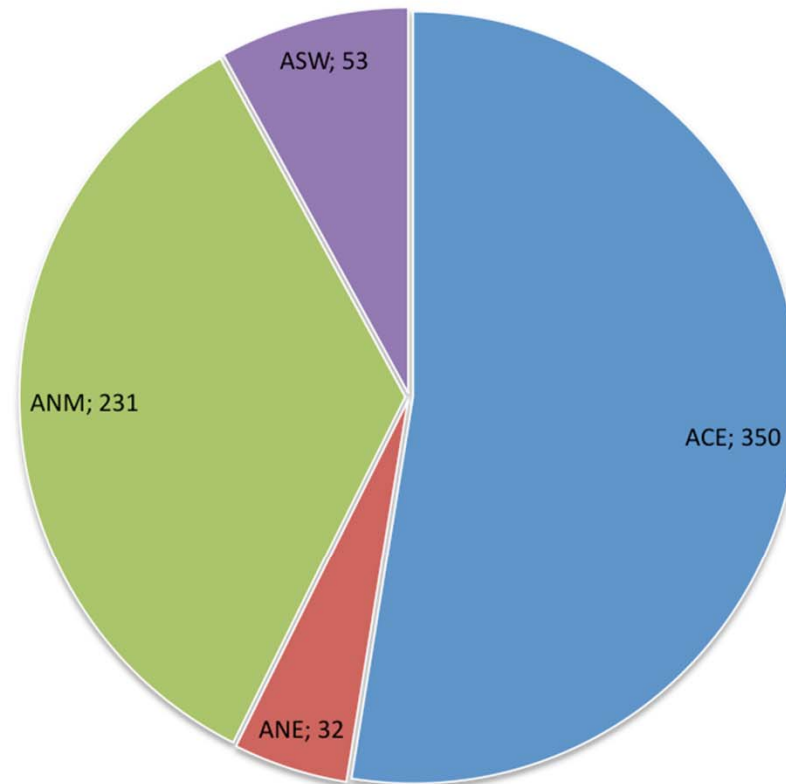
- European Union
- Canada
- Brazil
- Switzerland
- Israel
- Japan
- Argentina
- New Zealand
- Australia
- Russia

Validation Challenges – Growing and Evolving Business

Increasing number of States expecting to validate FAA certified products

- Countries such as New Zealand and Australia issue a Type Acceptance Letter for our certificates
- Other countries which use the Type Acceptance process are increasing level of involvement
- Validation is a more involved process
 - Several are expecting concurrent validation
 - How do we make this validation process more efficient?
 - Do we have the resources to accommodate this demand for our service?

Outbound Type Validation Requests Reported over the Last 18 Months

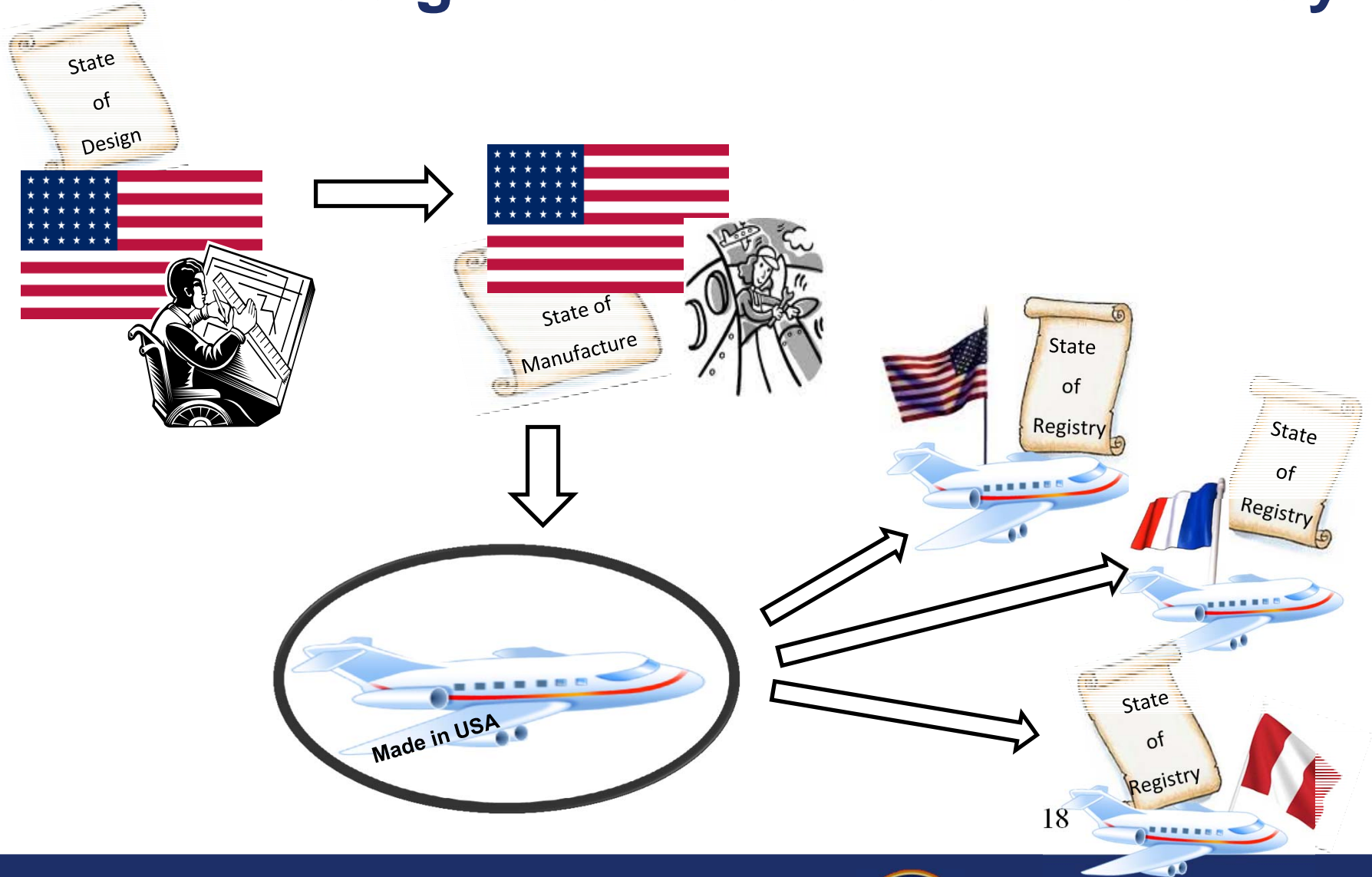


Global Manufacturing

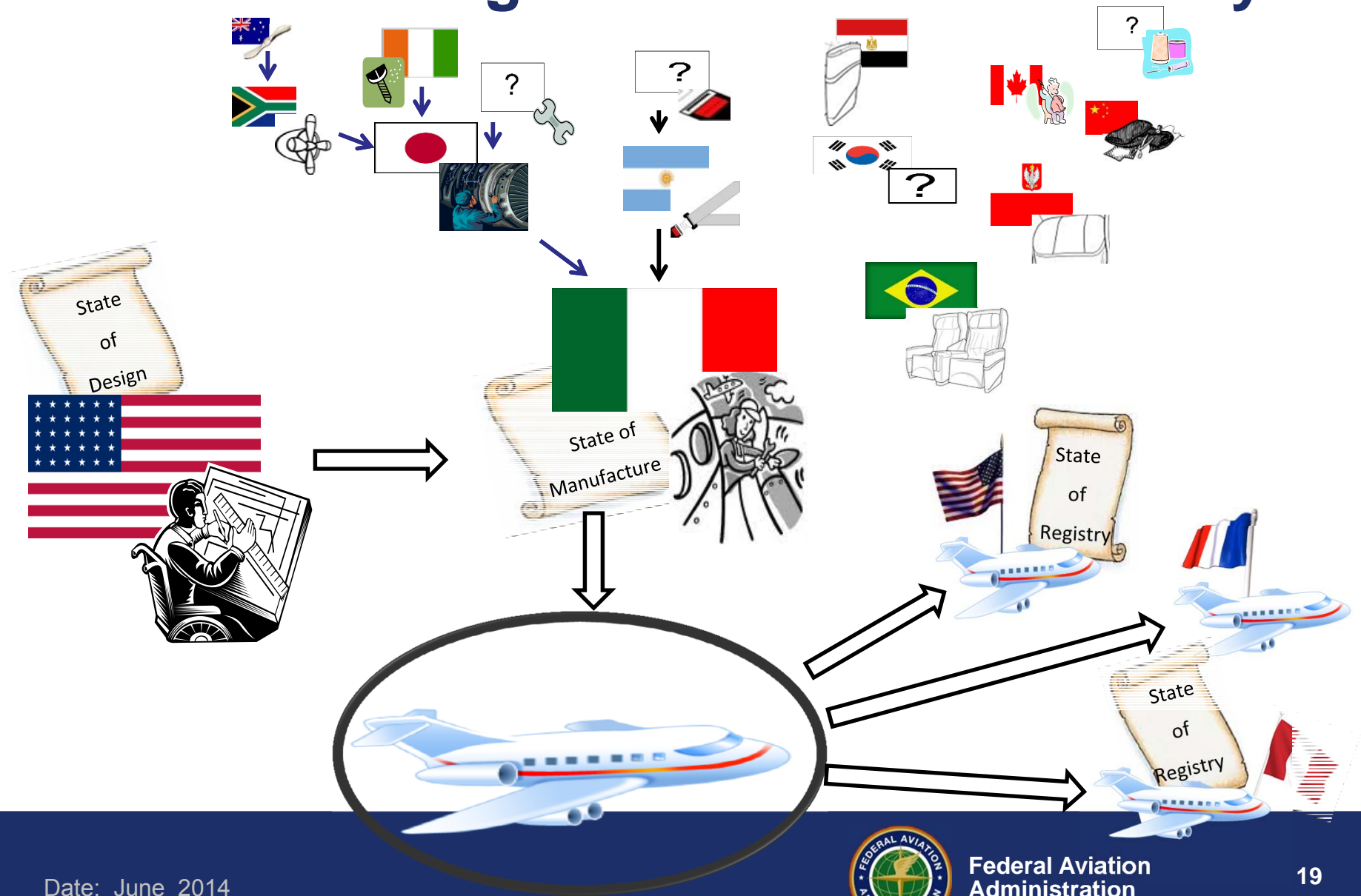
What does “Global Manufacturing” mean?

- **More overseas suppliers for our PCs– Supplier oversight**
- **Evolving business models – Revenue Sharing (Risk Sharing)**
 - Major integrators
 - Super Suppliers
- **PC Extensions overseas/Other production approvals moving to US – Certificate Management (CM)**
- **Split TCs PCs – US SoD/Non-US SoM and Non-US SoD-US SoM**
- **PMA and TSOAs production overseas**

Aircraft Design and Production: Yesterday



Aircraft Design and Production: Today



Global Manufacturing Challenges

- **Challenges for FAA**

- Multi-tier supply chains with technology spread over multiple States
 - Need to perform oversight at site of manufacture
 - Resource demand for extensive supplier oversight models
- State of Design Responsibilities
 - Split TC/PC – FAA still responsible MCAI
 - FAA seal of approval on TCs
- Import/Export
 - Split TC/PC not covered in IPAs
 - Multi-State business models not enabled by IPA

AIR 2018: What are we doing?

- **Revising language in our IPAs to address SoD and SoM**
- **Pursuing internal policy changes to support global certification model.**
- **Adding structure to our Special Arrangement/Management Plan process**
- **Strengthening our Bilateral Relationship Management (BRM) process**
 - Risk based evaluation of our bilateral partners
 - Technical assistance

Bilateral Agreement - IPAs

Our IPA language was designed for the old business model where SoD/SoM are the same

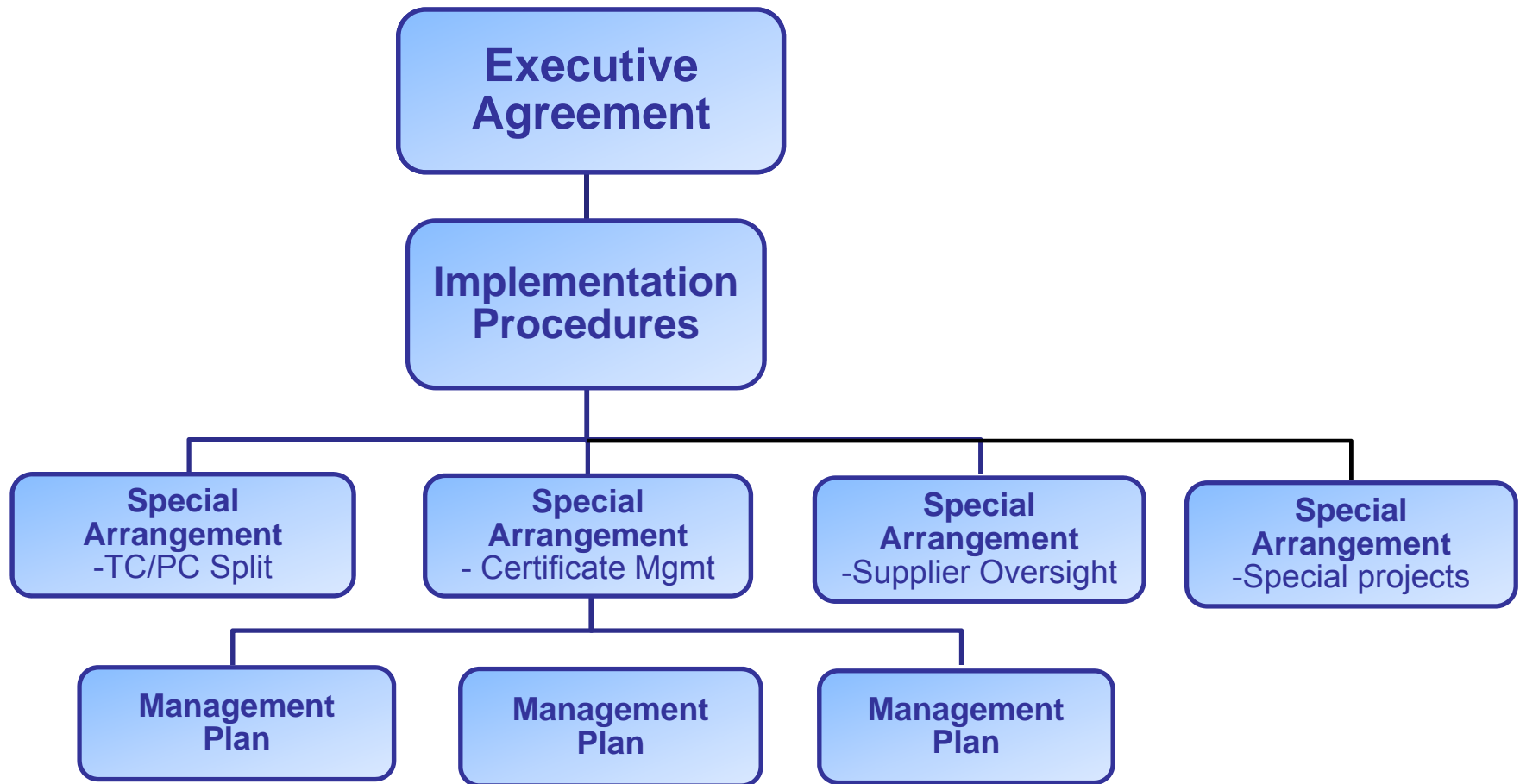
- Today we have situations which split responsibilities between two States
- IPA language speaks to “manufacture” with the expectation that SoD and SoM are the same
- This could result in situations which we may not be expecting



Bilateral Agreements

- **Rely on our bilateral partners by conveying our oversight functions to them through Special Arrangements**
 - Special Arrangement – A high level document between the two agencies to:
 - Identify roles and responsibilities
 - High level acceptance of resource commitment
 - Provide accountability to our legal mandates
 - Management Plans
 - Working level agreement within scope of SA
 - Certificate management office's tool to manage its certificate with resource support from partner authority

Hierarchy of Bilateral Agreements



Bilateral Agreements

- **Special Arrangement to perform supplier surveillance on behalf of FAA**
 - Or FAA perform supplier surveillance on behalf of CAA
- **FAA PC extension with CAA overseeing CM on our behalf**
- **State of Design / State of Manufacturer Split (TC/PC)**
- **Special Projects**
 - Engineering compliance or test witnessing, etc.

Singapore Aviation Academy

- **Partnership between FAA and Singapore Academy to facilitate outreach workshops and technical assistance to multiple authorities.**
- **Help CAAs understand FAAs interpretation and application of guidance and processes. An open dialogue in teaching and understanding the elements of each other's system. Promotes more seamless transfer of products and parts.**
- **Technical Assistances intended to teach CAAs ways to implement and find compliance to technical policies and rules.**



Singapore Aviation Academy (*cont'd*)

- **FAA to provide Instructors**
- **Singapore provides location and logistics**

Scheduled Offerings

- **Fall 2014:**
 - Cabin Safety
 - Changed Product Rule

Questions?

