

TSO/CTSO/ETSO Reciprocal Acceptance

**Presented to: GORHAM Conference
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**Federal Aviation
Administration**



Scope

- **TSO Regulations**
 - 14CFR Part 21 – Subpart O
 - 14CFR Part 45.15 - Markings
- **Current Process**
- **Mutual Reciprocating Process**
 - Approval / Acceptance Basis
 - TIP Rev. 5 signed on 9/15/15 (FAA/TCCA/EASA)
 - BOB signed on 3/02/16

Notes: TIP (Technical Implementation Procedures)
BOB (Bilateral Oversight Board)



Reciprocal Acceptance

- **The FAA, TCCA and EASA define their own technical standards (TSO's, CTSO's and ETSO's).**
 - For a given class of equipment, they may be:
 - “identical”,
 - “equivalent”
 - “different”

Note: TSO from FAA, CTSO from TCCA, ETSO from EASA



Reciprocal Acceptance (Cont'd)

- The previous bilateral agreements rely on a **validation process**
 - Letters of Design Approval (LODA)
 - FAA Markings
 - FAA paperwork
- **Reciprocal acceptance will eliminate the validation for most TSO/ETSO authorizations.**
 - All TSO/CTSO validations will be eliminated



Reciprocal Acceptance (Cont'd)

- **FAA-TCCA**

- FAA-TCCA IPA was signed on September 15, 2015.

- http://www.faa.gov/aircraft/air_cert/international/bilateral_agreements/baa_basa_listing/

- **FAA-EASA**

- TIP Revision 5 was signed on September 15, 2015.

- However, the new agreement only come into effect after finalization of decision 006 of the Bilateral Oversight Board (BOB) on March 2, 2016.

- http://www.faa.gov/aircraft/air_cert/international/bilateral_agreements/baa_basa_listing/

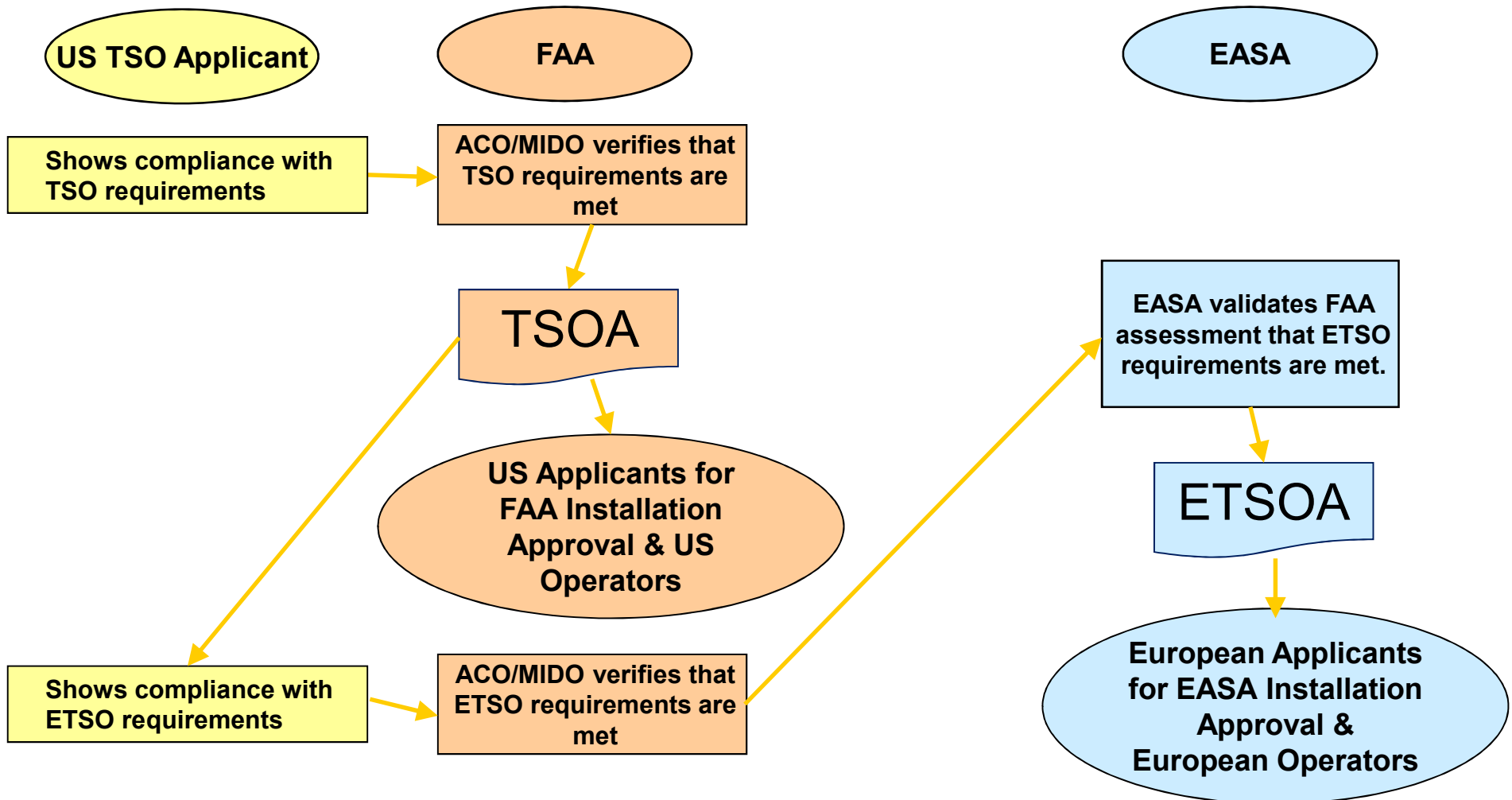
- **FAA FAQs available**

- http://www.faa.gov/aircraft/air_cert/international/media/TSOA-ETSOA-Reciprocal-Acceptance-FAQs.pdf

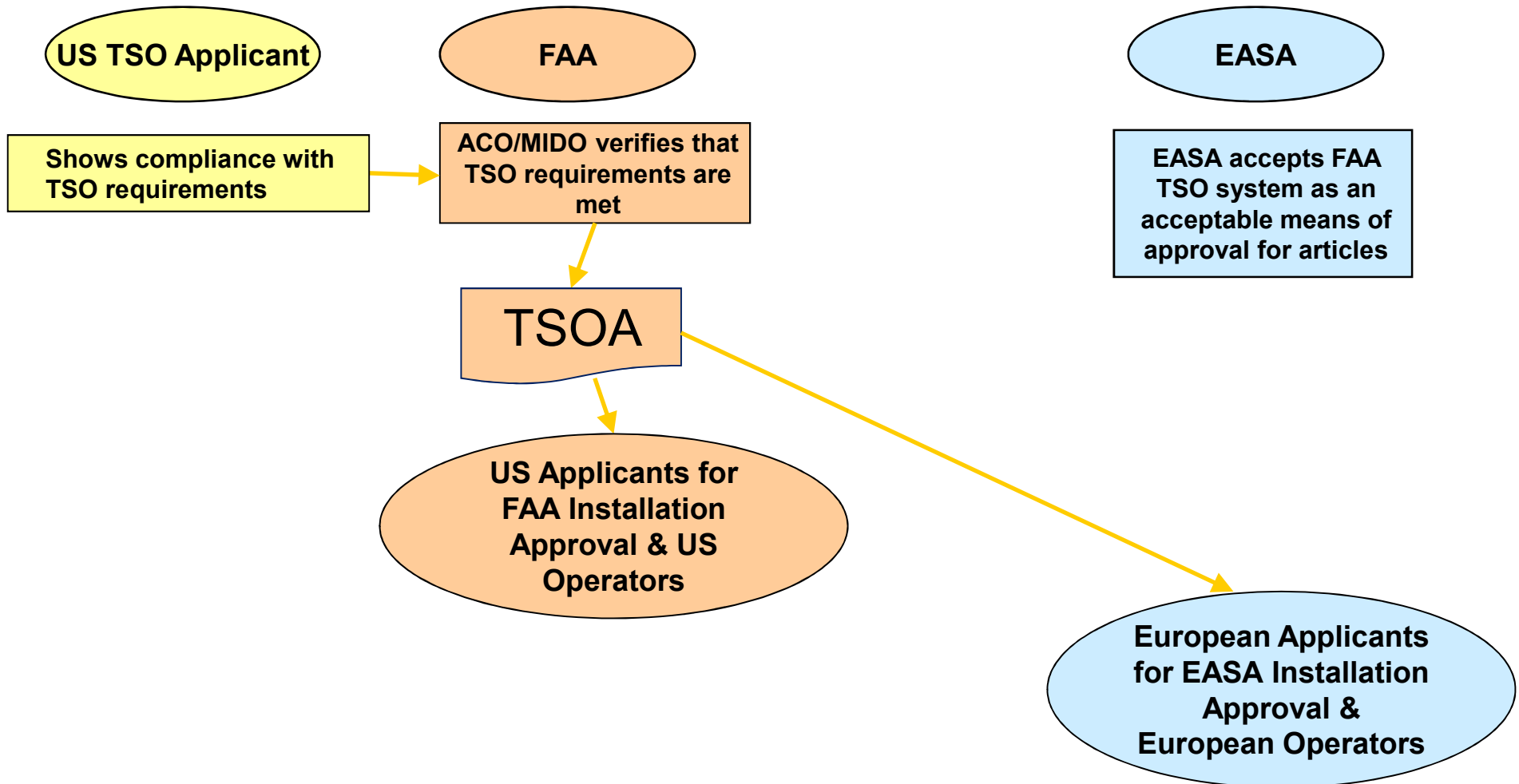
Reciprocal Acceptance (Cont'd)

- **FAA AFS-300 Headquarters
Maintenance Division issued**
 - InFO 16008, dated 6/22/16
- **FAA AIR-100 Headquarters
Engineering/Manufacturing Division
issued a Memo, dated 10/30/15**
 - To all ACO/MIDO offices

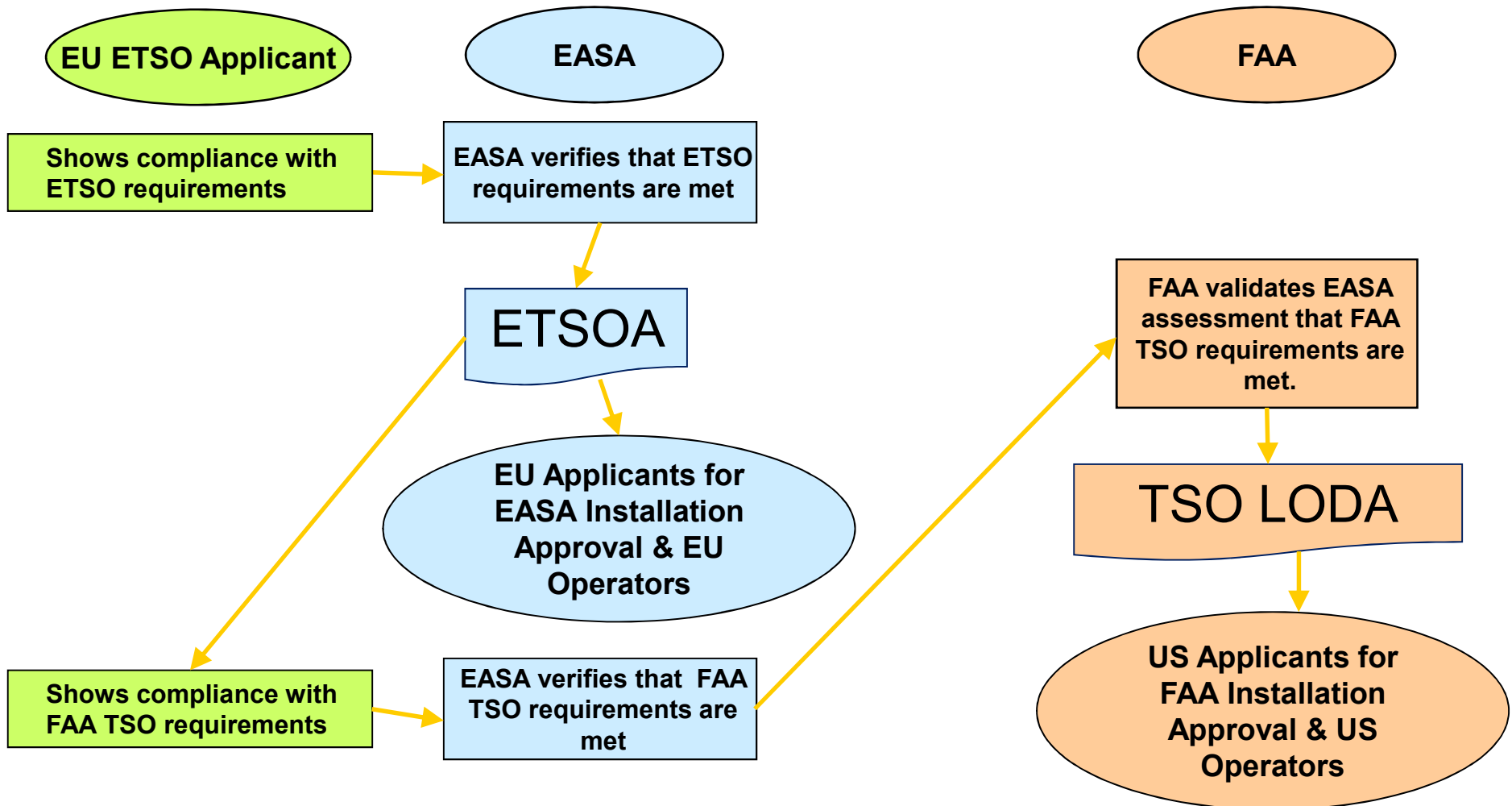
Current Process to Cross the Atlantic Ocean with a TSO article



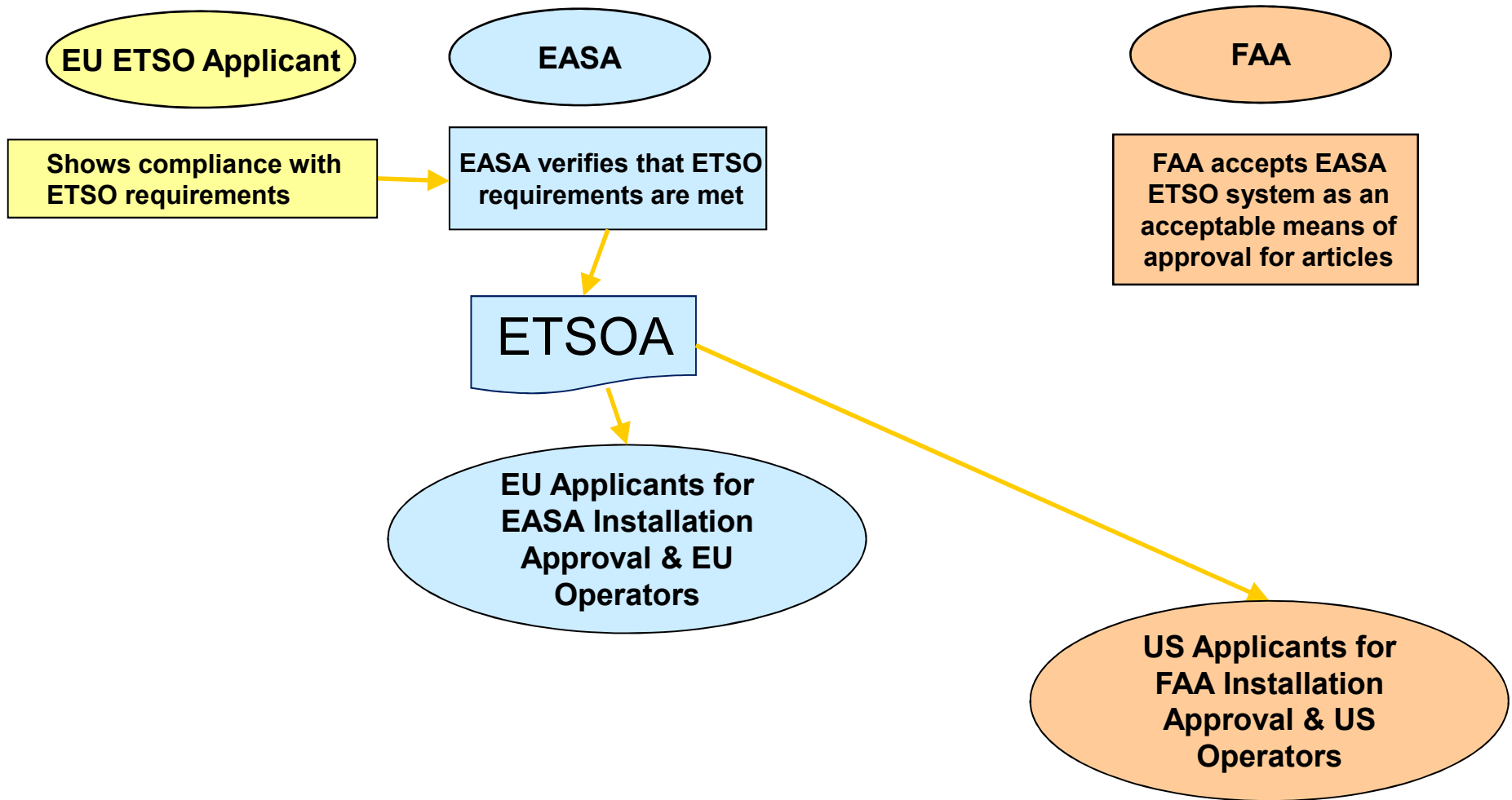
Reciprocal Acceptance Process for TSO articles with EASA



Current Process ETSOA



Reciprocal Acceptance Process for ETSOA



Basis for Approval

- **14CFR 21.1 and 1.1**
 - *Article (21.1): means a material, part, component, process, or appliance;*
 - *Approved (1.1), unless used with reference to another person, means approved by the FAA or any person to whom the FAA has delegated its authority in the matter concerned, or approved under the provisions of a bilateral agreement between the United States and a foreign country or jurisdiction.*
- **14CFR 21.8(d)**
 - *If an article is required to be approved under this chapter, it may be approved*
 - *(d) In any other manner approved by the FAA.*

Basis for acceptance of Articles

- **14CFR 21.502 Acceptance of articles**

- An article (including an article produced under a letter of TSO design approval) manufactured in a foreign country or jurisdiction meets the requirements for acceptance under this subchapter if
 - a. That country or jurisdiction is subject to the provisions of an agreement with the United States for the acceptance of that article;
 - b. That article is marked in accordance with part 45 of this chapter; and
 - c. An export airworthiness approval has been issued in accordance with the provisions of that agreement for that article for import into the United States

What will happen next?

- **Reciprocal acceptance is in effect**
- **For TSO/ETSO - validations are required for:**
 - Integrated Modular Avionics (IMA)
 - Emergency Parachutes
 - Active ULD (Cargo Container with cooling/heating system)
 - APU
- **All existing approvals remain valid**

Note: Active ULD (Unit Load Device)

What will happen next? (continued)

- **No “voluntary“ validations are required by the Authority for other articles on request of Industry**
 - FAA/TCCA/EASA each have provisions in place to facilitate the transition from validation to reciprocal acceptance
 - FAA 8130-3, TCCA Form One, or EASA Form 1
- **Existing approvals should be kept:**
 - Continuing Airworthiness for delivered articles
 - TC/STC holder compliance documentation does include existing approvals

Installation Considerations

- Under the new agreements, a US operator/holder can install the ETSO/CTSO articles.
 - Must have EASA or TCCA Authorized Release Certificate (Form 1) for export
 - These ETSO/CTSO articles may not be identical to the corresponding FAA TSO.
- Installation Approval of ETSO/CTSO Articles
 - *Follow similar process to FAA TSO articles as defined in AC 21-50. An update to AC 21-50 is planned to address reciprocal acceptance.*
 - *Installer should review the ETSO/CTSO MPS and substantiation data to make a determination if the data is applicable to showing compliance to the installation requirements.*

Summary

- **FAA, TCCA and EASA currently expend resources validating compliance to domestic standards**
 - A large volume of low value-added activity (no safety related)
- **Reciprocal acceptance eliminates the requirement to comply with foreign technical standards**
 - May have some risk for an installation non-compliance when ETSO, CTSO or TSO standards are different
- **Reciprocal acceptance allows the FAA, TCCA and EASA to focus resources on higher risk areas**
- **Reciprocal acceptance requires an on-going oversight to assure each authority's confident.**

Challenges

- **Implementation / Education / Outreach**
 - TSO manufacturers, Installers of TSO equipment
 - ACO's, FSDO's, ODAs, and DERs
- **Confidence-keeping / Oversight**
 - FAA, TCCA and EASA may have differences in interpretation or application of those standards in the future; even though, the standards are identical
- **Harmonization of future TSOs or revisions to existing TSOs will be required**

ETSO Component Repairs

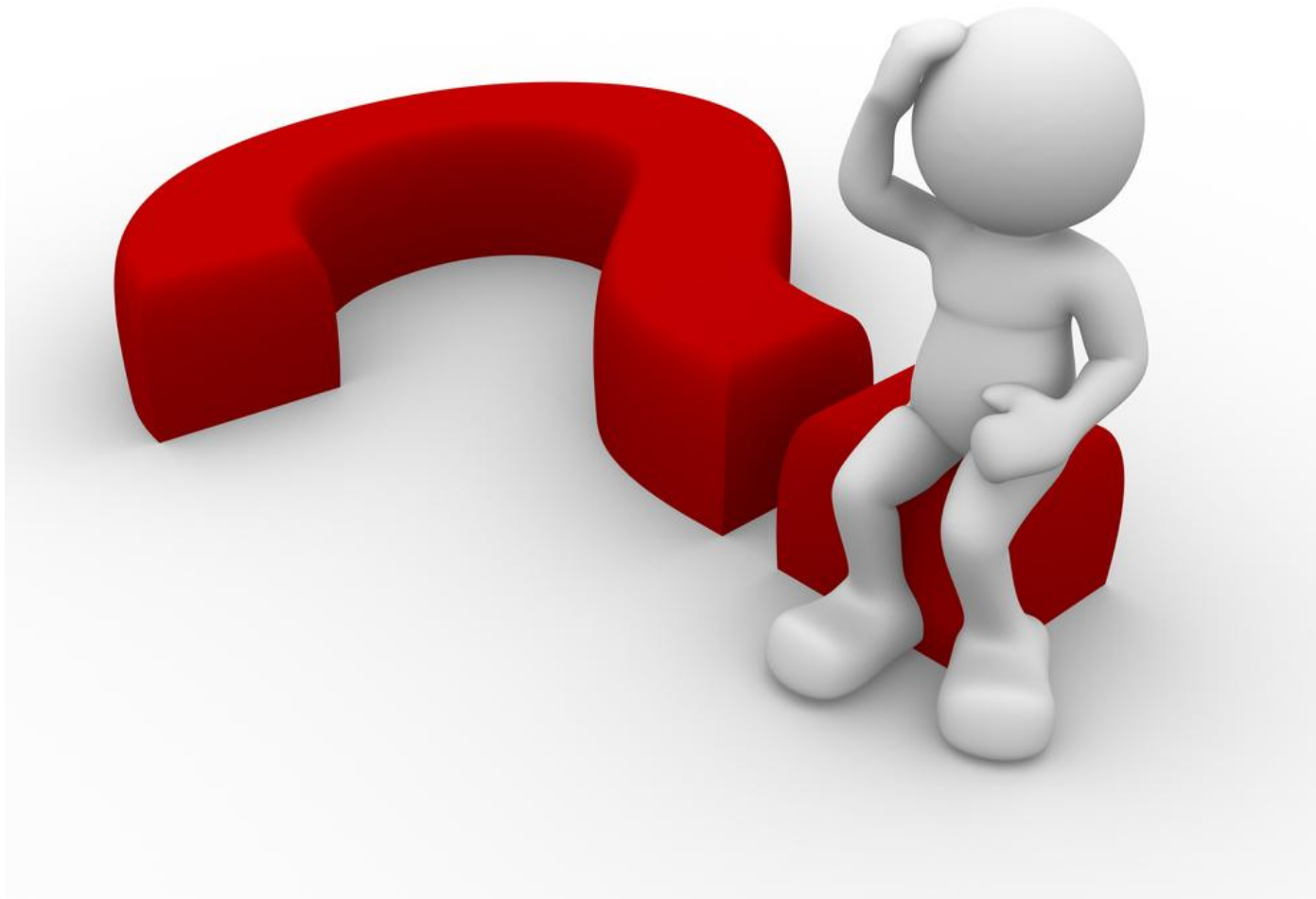
- **ETSO (EASA TSO) components are:**
 - ✓ Marked with ETSO marking
 - ✓ Shipped on EASA Form 1
- **How this being viewed by AFS PMI?**
 - ✓ FAA accepted components as airworthy
 - ✓ Complied to TSO-XXX MPS
 - ❖ MPS – Minimum Performance Standards

ETSO Component Repairs (cont'd)

- **Major Repairs require FAA approved data**
- **Upon repaired, return to service with an Form 8130-3 (airworthiness tag)**
- **Record in Form 337 (Major Repairs/Major Alterations)**
- **No changes or new FAA requirements from the current practices**



Questions



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