



# **Import of aircraft from other regulatory systems and Part-21 Subpart H review**

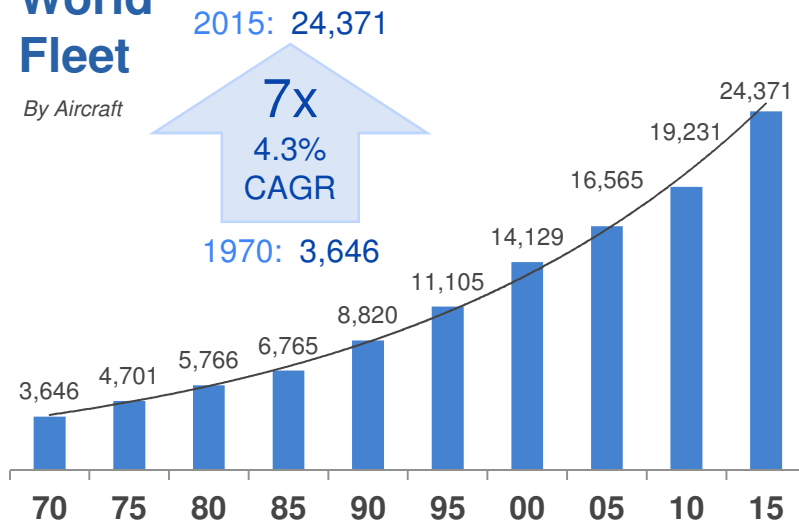
**Liam Creaven  
AWG Representative  
EASA RMT.0278  
Cologne, Sept. 27 2016**

# Leasing perspective

# Growth of the aviation industry

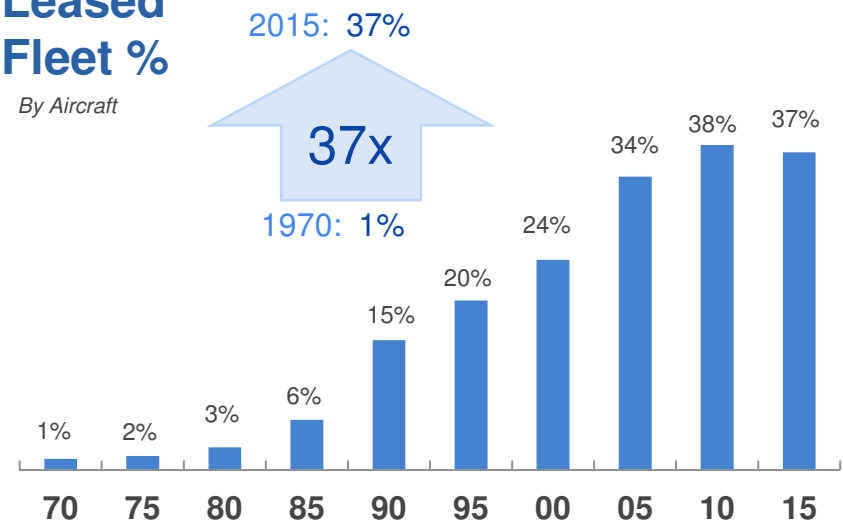
## World Fleet

By Aircraft



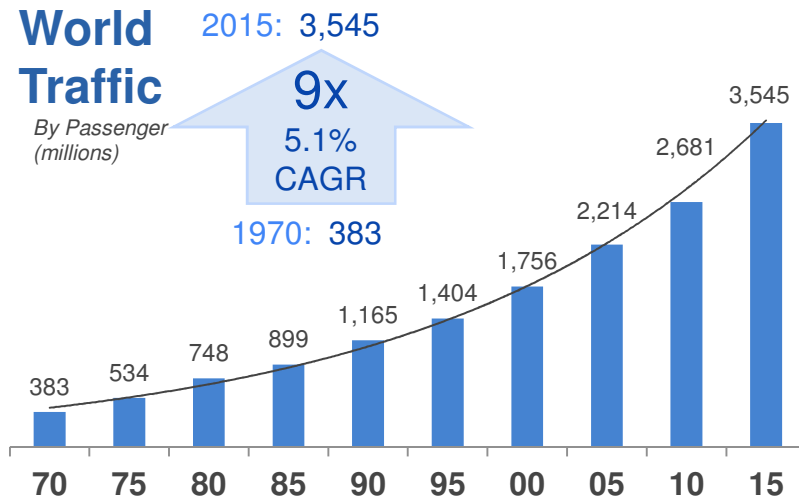
## Leased Fleet %

By Aircraft

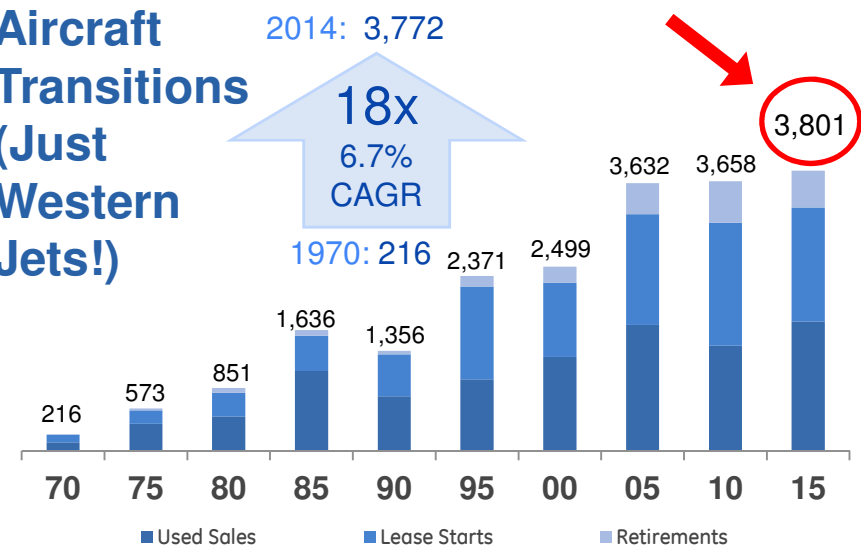


## World Traffic

By Passenger (millions)



## Aircraft Transitions (Just Western Jets!)



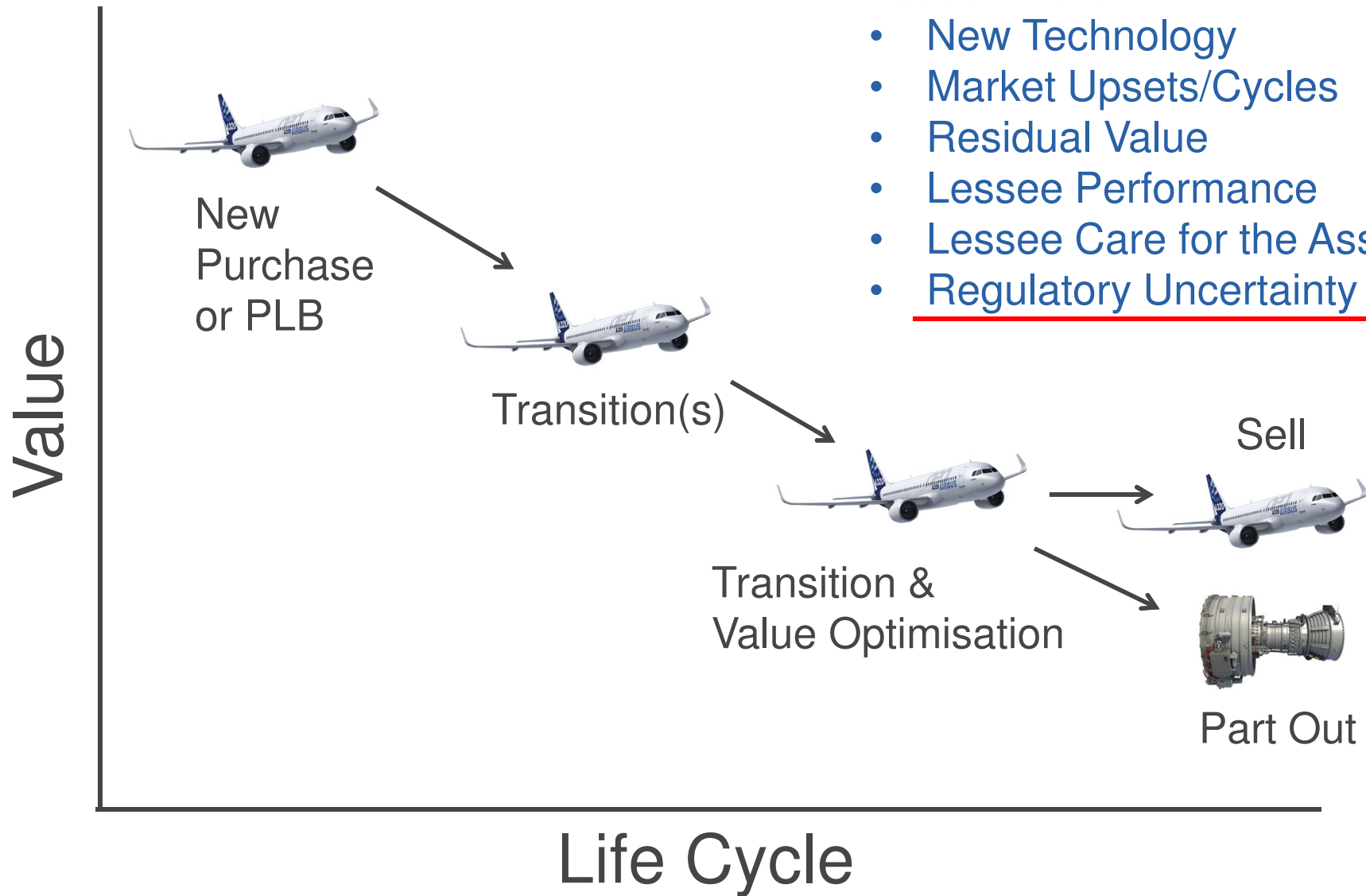
Source: Fleet data from Ascend, traffic data from IATA

Note: Aircraft Transitions for lease start and end estimated assuming Ascend data captures 60% of transactions (per Ascend guidance)

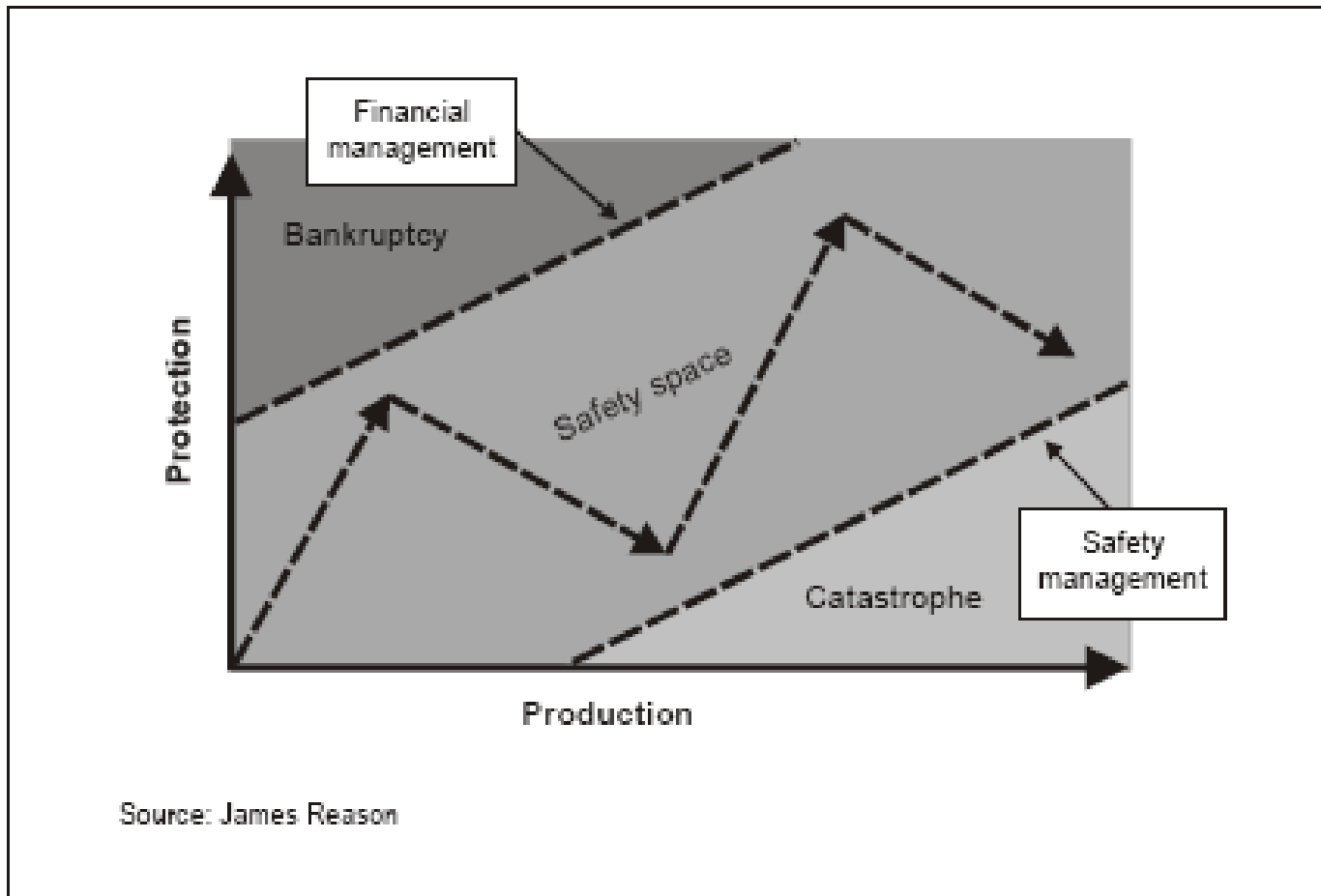
# Leased Asset Life Cycle

## Lessor Risks:

- New Technology
- Market Upsets/Cycles
- Residual Value
- Lessee Performance
- Lessee Care for the Asset
- Regulatory Uncertainty

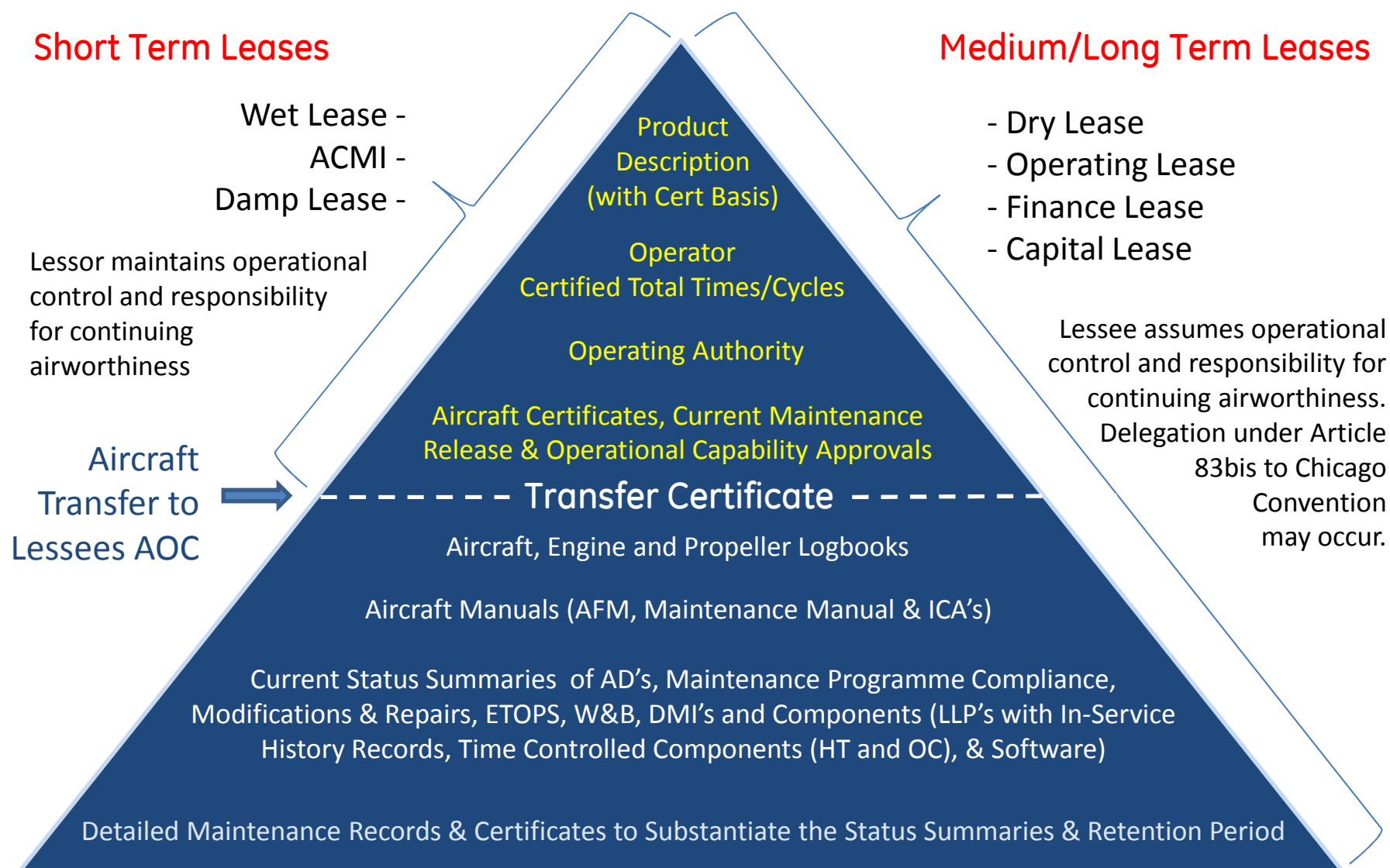


# Safety vs. Cost (and Lease vs. Regulation)



Tendency for lease requirements to creep and 'scan everything' becoming common practice without being fully aware of what the regulations require

# ICAO Doc. 9760 Requirements vs. Type of Lease



- |   |  |    |  |  |    |  |  |  |  |
|---|--|----|--|--|----|--|--|--|--|
| d.  | Radio license  |    |  |  |    |  |  |  |  |
| e.  | Current maintenance release certificate  |    |  |  |    |  |  |  |  |
| f.  | Export certificate of airworthiness (if applicable)  |    |  |  |    |  |  |  |  |
| <p><i>Sections 4 to 7 apply to transfers of operational control and responsibility for continuing airworthiness to a new owner or operator only (e.g. dry lease)</i></p>  |  |    |  |  |    |  |  |  |  |
| <b>Section 4. Log Books</b>   |  |    |  |  |    |  |  |  |  |
| a.  | Aircraft logbooks  |    |  |  |    |  |  |  |  |
| b.  | Engine logbook(s)  |    |  |  |    |  |  |  |  |
| c.  | APU logbook (if applicable)  |    |  |  |    |  |  |  |  |
| d.  | Propeller logbooks (if applicable)   |    |  |  |    |  |  |  |  |
| <b>Section 5. Manuals</b>   |  |    |  |  |    |  |  |  |  |
| This section should contain the following manuals and applicable supplements:   |  |    |  |  |    |  |  |  |  |
| a.  | Aircraft flight manual and evidence of approval satisfactory to the state of registry of the current operator  |    |  |  |    |  |  |  |  |
| b.  | Instructions for continuing airworthiness associated with non-type certificate holder modifications (if applicable).   |    |  |  |    |  |  |  |  |
| c.  | Documents describing the detailed specification of the aircraft at manufacture, as provided by the type certificate holder, including systems and equipment installed.   |    |  |  |    |  |  |  |  |
| <b>Section 6. Current status summaries</b>  |  |    |  |  |    |  |  |  |  |
| a.  | A summary of compliance with each AD applicable to the aircraft type, engine type, propeller type (if applicable) and fitted components as detailed in Section 3.2.1 of this Attachment D.   |    |  |  |    |  |  |  |  |
| b.  | The summary of compliance with the current approved aircraft maintenance programme scheduled tasks, whether in block or equalised format (see note) and unscheduled tasks, indicating when the task was 'last accomplished' and is 'next due' in flight hours, flight cycles, or calendar time as appropriate. The status should provide a description of: |    |  |  |    |  |  |  |  |
| i)  | The action performed and, if the approved maintenance programme task numbers are different from the type certificate holders maintenance task numbers, a cross reference should be provided  |    |  |  |    |  |  |  |  |
| ii)   | Airworthiness Limitation Items (ALI's) and Certification Maintenance Requirements (CMR's) should be identified   |    |  |  |    |  |  |  |  |
| <table border="1"> <tr> <td>d.</td> <td>Current certificate or aircraft registration</td> <td></td> </tr> <tr> <td>c.</td> <td>Certificate of noise limitation</td> <td></td> </tr> </table>  |  | d. | Current certificate or aircraft registration                                     |  | c. | Certificate of noise limitation  |  |  |  |
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| c.  | Certificate of noise limitation  |    |  |  |    |  |  |  |  |
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# Bilateral Agreements & Unilateral Requirements

Out of scope but..



## FAA/EASA MAG

- EASA recognition of modification data if it was previously applied on N registered aircraft
- Limitations (non-critical parts)



## FAA DAR geographical limitations

Use of MPD as AMP (to obtain FAA Ex C of A)



CAAC: Export C of A to be issued by State of Design



Japan: STC validation process slow, SB's preferred



Russia: Comply with Russian TC for 83bis aircraft

Various countries have age limits (non-addition rules)



# EASA RMT.0278

## Importing of Aircraft



## RMT.0278 Team

Hans Kellner (Austro Control) Chairman

Jean-Claude Laborie (Airbus)

Vladimir Vunjak (Boeing)

Francisco Viera (Embraer)

Dean Jackson (Thomson Airways)

Liam Creaven (GECAS/AWG)

Paul Sherry (PPL/IR Europe)

Alberto Fernandez Lopez (EASA) Secretary

Ralf Erckman (EASA)

Bogdan Shulzhynskyi (EASA)

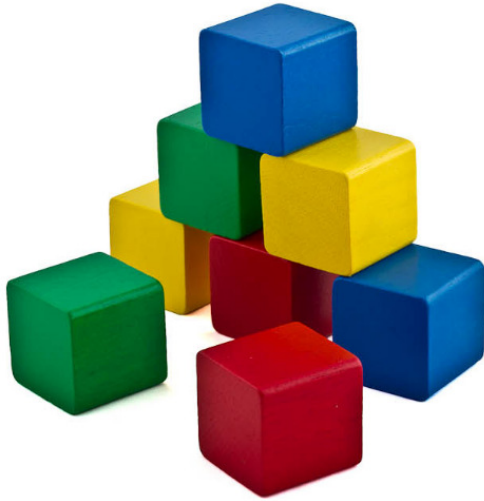
Christian van Lieshout (EASA)



# Proposal Key Objectives

- ❑ Mitigate potential safety risks for aircraft that did not comply with EU rules prior to import
- ❑ Develop a common approach for recognition of other certificates and/or records issued by other stakeholders
- ❑ Clarify ambiguities for issuance of a C of A to achieve standardised implementation and equal treatment in all Member States

Note: 'Transfer' = between 2 Member States  
'Import' = from a non Member State



## 3 Sequential EASA NPA's

RMT.0276 NPA 2014-04 (Feb. 14)  
Technical Records

Part M Sub. C  
CA (300's)

RMT.0521 NPA 2015-17 (Nov. 15)  
Airworthiness Review Process

Part M Sub. I  
ARC (900's)

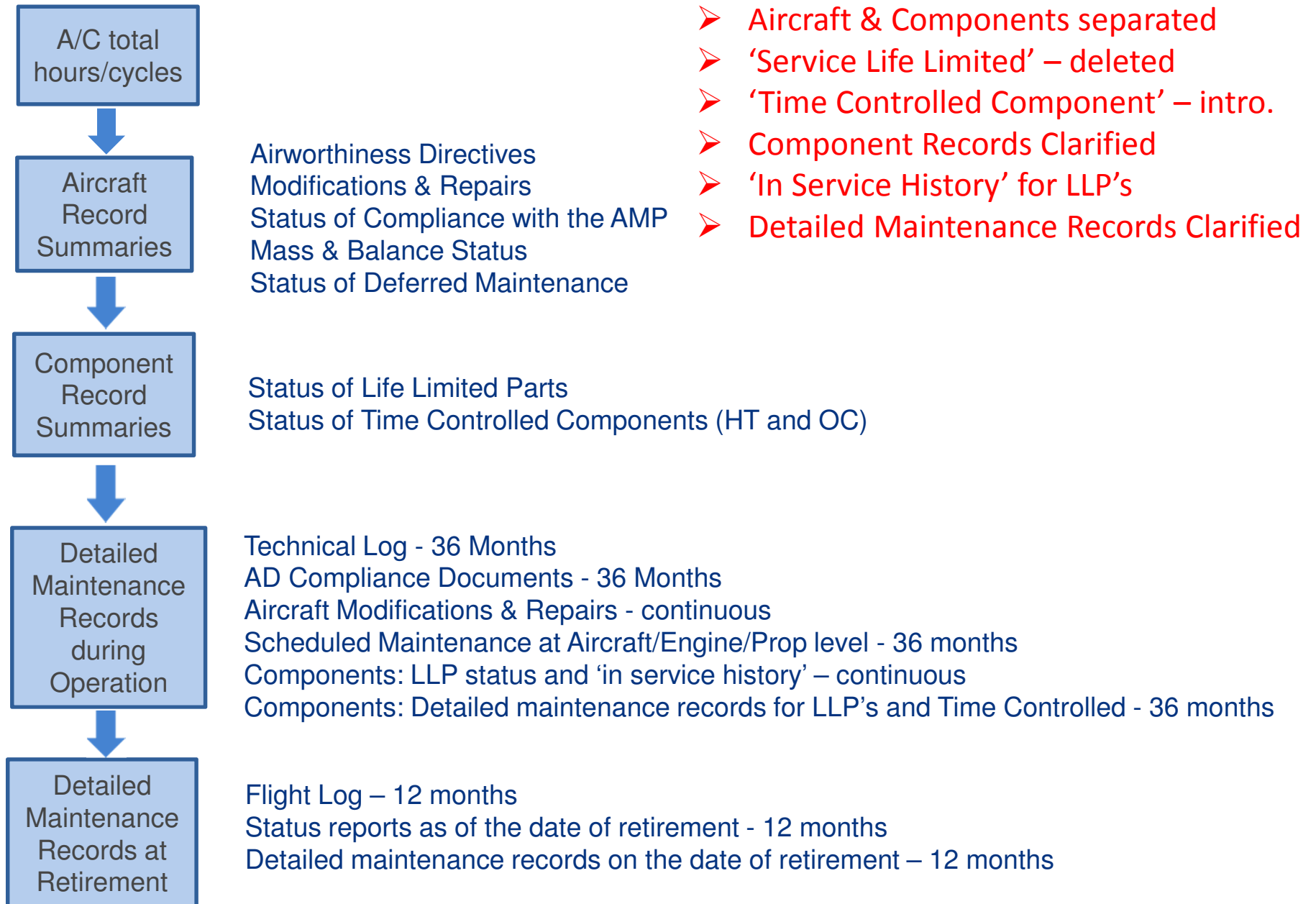
Part M Sub. G  
CAMO (700's)

RMT.0278 NPA 2016-08 (Sept. 16)  
Import of Aircraft from other  
Regulatory Systems

Part 21 Sub. H  
CofA & R.CofA

# Required Records

# M.A. 305 RE-STRUCTURE





## M.A. 305 Benefits

- ❑ M.A. 305 limits the burden on owners/CAMOs to keep only those records needed to establish the airworthiness status of the Aircraft
- ❑ Retention of component records limited to LLP's & TCC's (unless the form contains information necessary to satisfy other parts of M.A. 305 e.g. AD's)
- ❑ M.A. 305 "Detailed Maintenance Records" ≠ Part 145 "Detailed Maintenance Records"
- ❑ Extensive guidance material is provided

# Overlap with other regulatory activities

## Part M Sub. C CA (300's)

M.A.302 AMP

M.A.303 AD's

M.A.304 Data for \*\*

Modifications & Repairs

M.A.305 Aircraft continuing A/W  
records system

M.A.306 Operators Technical  
Log System

RMT.0276 NPA 2014-04 (Feb. 14)

## Part M Sub. G CAMO (700's)

M.A.704 CAME \*\*

M.A.706 Personnel

M.A.707 A/W Review Staff \*\*

M.A.710 A/W Review \*\*

## Part M Sub. I ARC (900's)

M.A.901 Airworthiness review general

M.A.902 Validity of ARC

M.A.903 Airworthiness Review Process \*\*

M.A.904 Airworthiness Review Staff \*\*

M.A.905 Transfer of aircraft within EU

M.A.906 Review of A/C imported into EU \*\*

M.A.907 Findings

M.B.901 A/W review by CA

M.B.902 Assessment of A/W review staff

M.B.903 Assessment of Recommendations

M.B.904 Transfer of A/C within the EU

M.B.905 Import of A/C into the EU

M.B.906 Findings

M.B.907 Record Keeping

RMT.0521 NPA 2015-17 (Nov. 15) \*\*\*

## Part 21 Sub. H CofA & R.CofA

21.A.174 Application \*\*\*

21.A.179 Transferability within a Member State \*\*\*

21.B.320 Investigation

21.B.325 Issue of Airworthiness Certificates

21.B.326 Certificate of airworthiness

21.B.327 Restricted Certificate of Airworthiness

RMT.0278 NPA 2016-08 (Sept.16) \*\*



# Since Basic Regulation (EC) 216/2008 and (EC) 2042/2003 (M.A.305) is not applicable prior to Import:

What would we like:

- ☐ Recognition of foreign CAA's declarations of compliance as much as is reasonable
- ☐ Recognition of equivalent forms of maintenance release while in the foreign system
- ☐ Record review scope limited to those items which M.A. 305 requires EASA operators to retain
- ☐ Procedure to compensate for 'missing' records
- ☐ Procedure to compensate for lapsed C of A and for State aircraft

What do we expect to demonstrate:

- ☐ Aircraft complies with the EASA type certificate (is an approved design)
- ☐ Maintenance status is known & complies with EASA airworthiness requirements/limitations
- ☐ Modifications and repairs are in accordance with data acceptable to EASA (with component records limited to M.A. 305)
- ☐ History of life limited parts is evidenced
- ☐ Unusual history is addressed as required

Example:

Import of a Used Aircraft from  
a Member State

or

a non member state with an  
Airworthiness Statement  
(No Bilateral)



Transfer from Member State or Import with Transfer Cert

## Issue:

Delays in transferring  
aircraft within EASA  
Member States

Uncertainty about scope  
of airworthiness review &  
records for **Import from  
non-EU state where  
Transfer Certificate (e.g.  
Export CoA) is provided**

## Proposal:

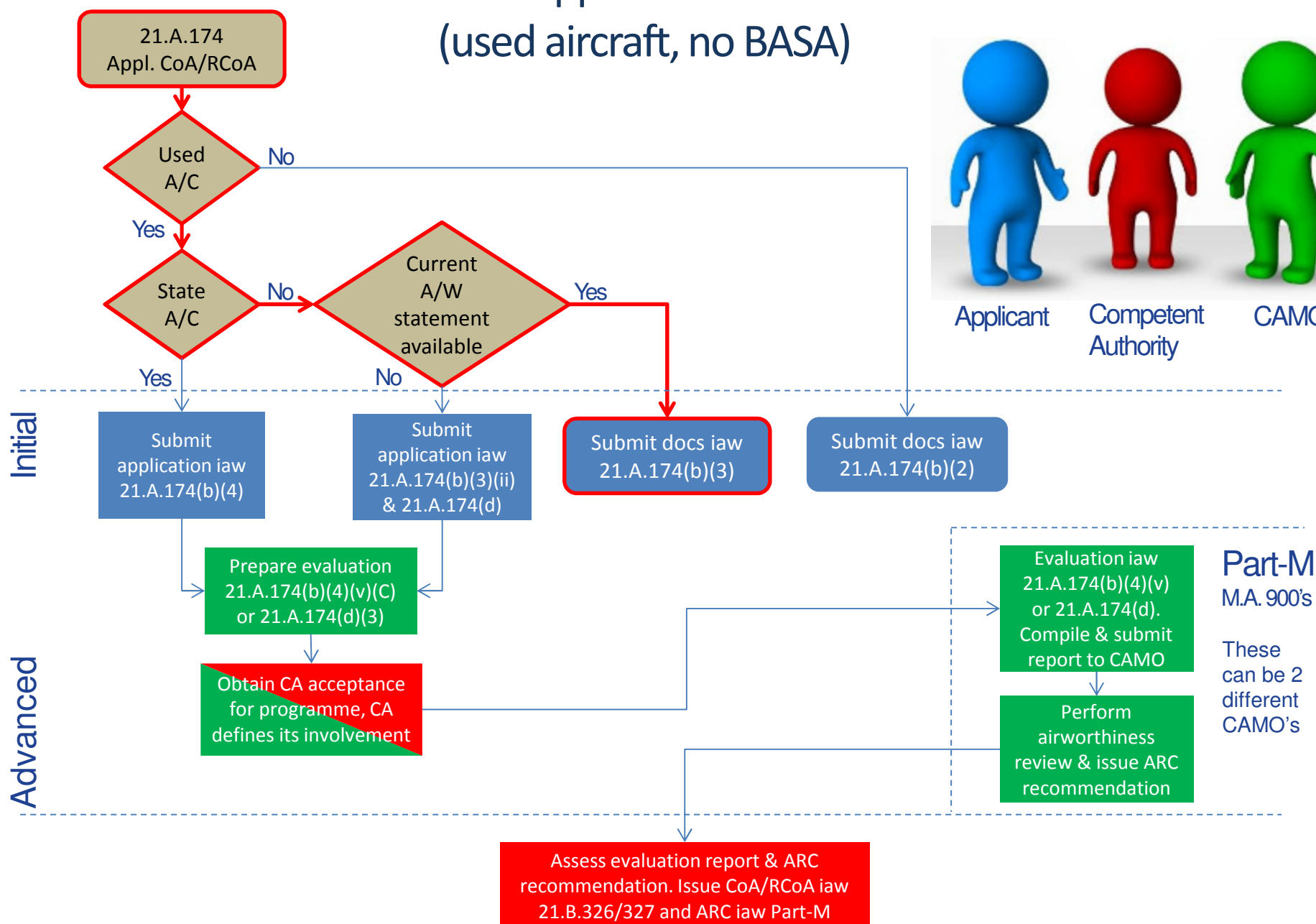
21.A.174(b)(3)(i) to explicitly state that  
transfer from a Member States needs a  
valid ARC and a copy of the CoA

Amend 21.A.179, 21.B.320, 21.B.326,  
21.B.327 to include admin. changes for  
aircraft already compliant with EU rules.

Clarify application process in 21.A.174

Amend M.A. 904 '*Review of Aircraft  
Imported into to the EU*' to M.A. 304  
**'Data for Mods & Repairs'** to include  
**configuration assessment (for  
acceptable design)** & provide AMC & GM  
for the airworthiness review, **recognising  
foreign system procedures & scope of  
record review to be iaw M.A.305.**

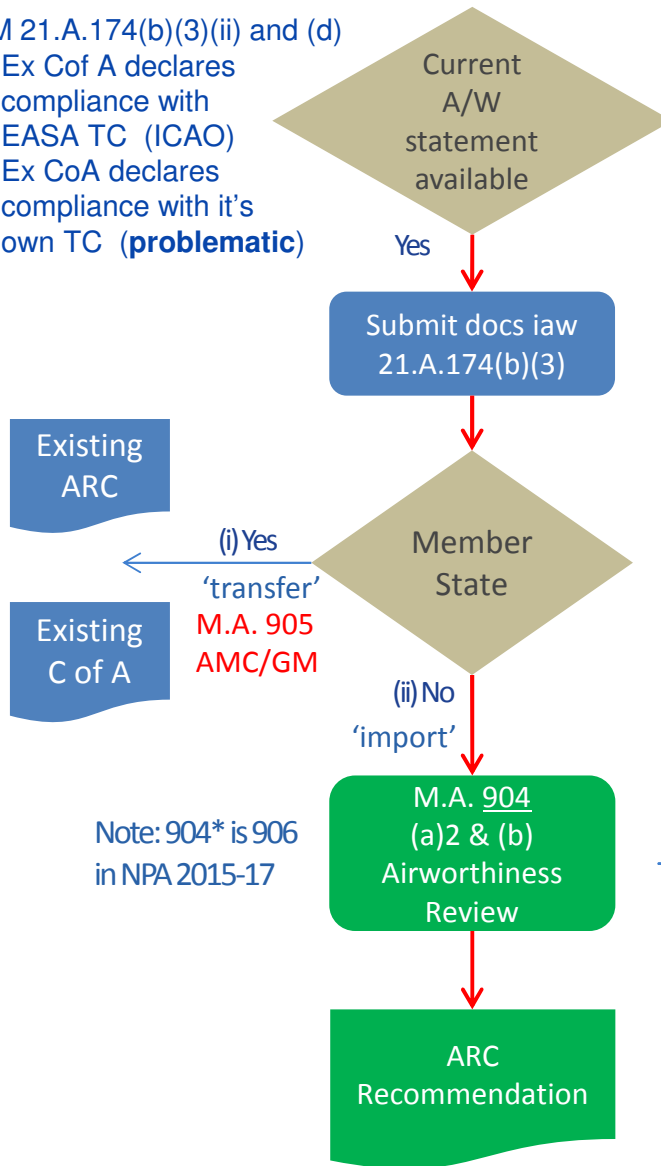
# 21.A.174 Application for a C of A (used aircraft, no BASA)



## 21.A.174 Application for the Most Common Import Scenario

GM 21.A.174(b)(3)(ii) and (d)

- Ex CoF A declares compliance with EASA TC (ICAO)
- Ex CoA declares compliance with its own TC (**problematic**)



Note: 904\* is 906 in NPA 2015-17

NPA 2014-04  
NPA 2015-17  
NPA 2016-08

M.A. 904 \* Review of Aircraft Imported into EU

(a)(2) Airworthiness review iaw M.A. 901 **(including assessment of a/c configuration)**

(a)(3) All maintenance carried out in accordance with the applicable MP (not AMP)

AMC M.A. 904\* (a)(2)

**To determine the work for the airworthiness review consider:**

- ✓ Information from 3rd country such as the export certificate
- ✓ Record system requirements equivalent to those specified in **M.A. 305 & 306**
- ✓ Missing records may be reconstructed in accordance with **AMC M.A. 305 (h)**
- ✓ Acceptance of previous foreign maintenance if the standards are deemed equivalent to Annex 1 (Part-M)
- ✓ Repaired parts subject to scheduled maintenance (e.g. inspections or overhaul) to be accompanied by Form 1's or certificates determined to be equivalent.
- ✓ Components with airworthiness limitations, if replaced since new, must be demonstrated to be produced by the OEM and the part numbers verified.
- ✓ Maintenance to be repeated where there is a doubt over level performed.
- ✓ Modification & repair status, STC's, production deviations.
- ✓ Bridging maintenance to any new AMP & mods required for EASA TC compliance
- ✓ Physical survey (AFM, fireproof plate, reg. marks, emergency equip, lights etc.)
- ✓ System checks or check flight if verification cannot be performed on ground

Furthermore M.A. 901 was redrafted in NPA 2015-17.....

M.A. 901 Airworthiness Review – General

- ✓ Airworthiness review iaw M.A. 903 'Airworthiness Review Process'
- ✓ If review is satisfactory then ARC recommendation is issued to the CA
- ✓ The CA carries out the review if the CAMO is located in a non-EU state
- ✓ CA must be provided the data required by **M.A. 305**, 306 and 401
- ✓ Review to be made within 90 days of expiry of the current ARC

AMC M.A. 901(b) A

4) Review of the continuing airworthiness records in accordance with **M.A.305** and — checklist/report covering all items defined in M.A.903(b);

M.A. 903 Airworthiness Review Process

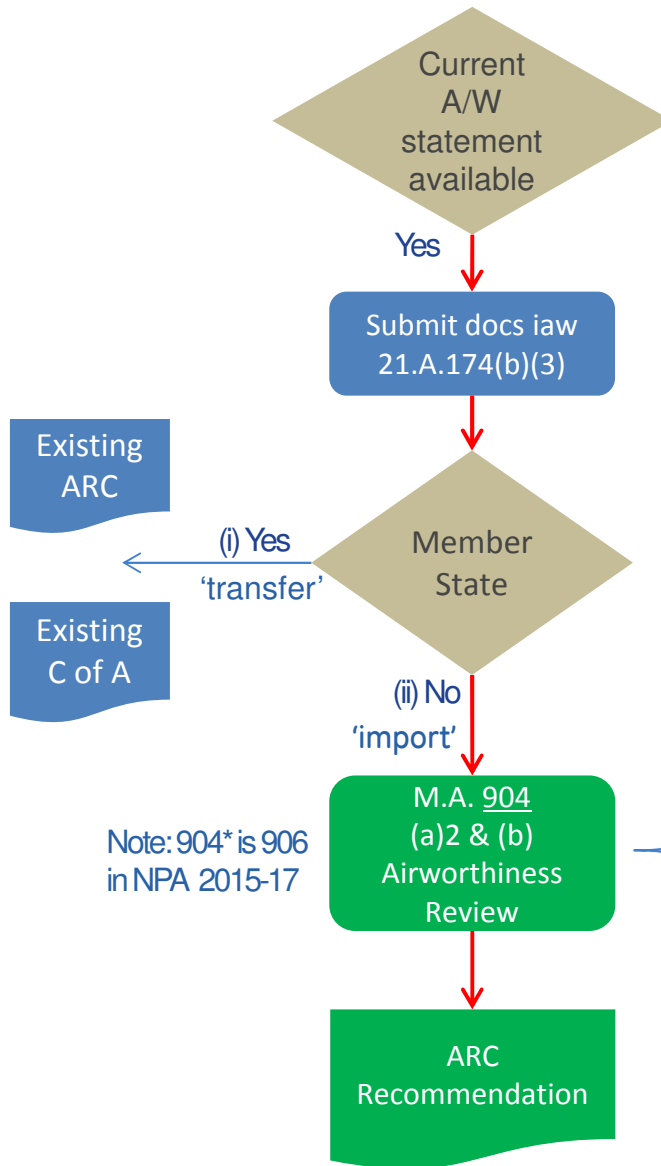
M.A.903 (b) review of aircraft records

AMC M.A. 903 (b) & (c) para (b):

CAMO to have a procedure that includes 100% review of the statuses in **M.A. 305**

## 21.A.174 Application for the Most Common Import Scenario (continued)

### Assessing Configuration



M.A. 904 \* Review of Aircraft Imported into EU

- (a)(2) Airworthiness review iaw M.A. 901 (including assessing the a/c **configuration**)
- (a)(3) All maintenance carried out in accordance with the applicable MP (not AMP)

#### NEW GM M.A.904(a)(2) Review of aircraft imported into the EU

A/C meets approved design =

**f** (quality of physical survey, records of configuration management)

Determine interference effects between mods & repairs  
(especially if originating from different organisations)

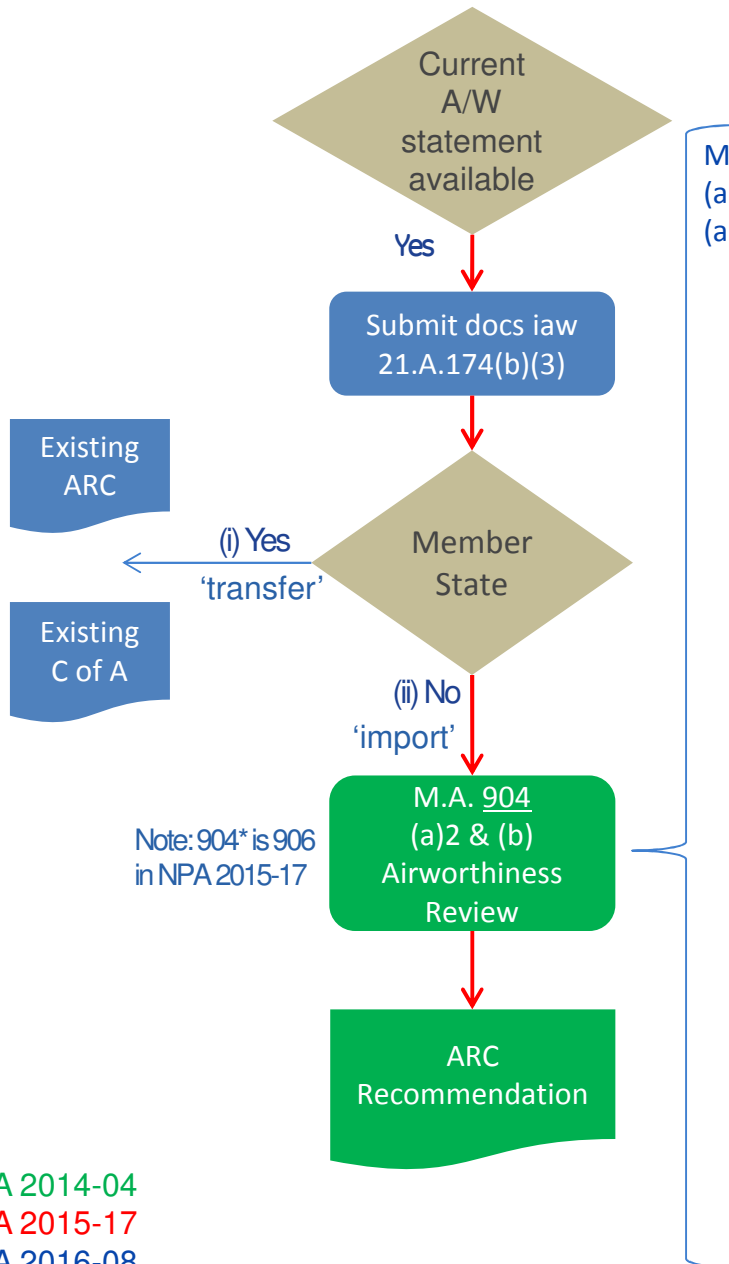
- ☐ collect the design-related documents or data
- ☐ determine if design meet applicable airworthiness requirements and
- ☐ assess if combined effect may have a safety impact requesting assistance from TC holder or data approval holder if necessary

Consider

- ☐ applicable bilateral at the time of import
- ☐ declarations issued by the former State of registry

## 21.A.174 Application for the Most Common Import Scenario (continued)

### Assessing Configuration (continued).



M.A. 904 \* Review of Aircraft Imported into EU

(a)(2) Airworthiness review iaw M.A. 901 (including assessing the a/c configuration)

(a)(3) All maintenance carried out in accordance with the applicable MP (not AMP)

#### NEW GM M.A.304 Data for modifications and repairs

**configuration** = aircraft functional and physical characteristics as defined in the aircraft documentation, the understanding of which is essential to ensure the aircraft continuing airworthiness:

- ✓ a complete description of the aircraft type design, plus all embodied modifications and repairs.
- ✓ is the baseline for determining the aircraft physical conformity with the approved design.
- ✓ may influence the AMP and the AFM etc.

The interaction of modifications and repairs may cause unintended affects on airworthiness.

The person responsible for its continuing airworthiness must verify:

- ✓ the modifications and/or repairs are in compliance with M.A.304,
- ✓ the addition of a new modification or repair will not interact negatively and affect airworthiness.

Example:

Return to service when C of A is expired or ARC overdue.

Issue C of A for aircraft previously operated outside EASA (i.e. State aircraft)





## No transfer certificate at Import, C of A expired/AOC overdue, & integrating ex 'State Aircraft'

### Issue:

Uncertainty regarding process to import aircraft where no export certificate was issued

Uncertainty regarding process to restore airworthiness status of Member State aircraft

Uncertainty regarding process to integrate State Aircraft into EASA system

### Proposal:

New section 21.A.174 (d) added for aircraft presented for import with no transfer certificate

New section 21.A.174 (e) added for Member State aircraft with lapsed/invalid C of A

New section 21.A.174(b)(4) added for State Aircraft (from a Member State)

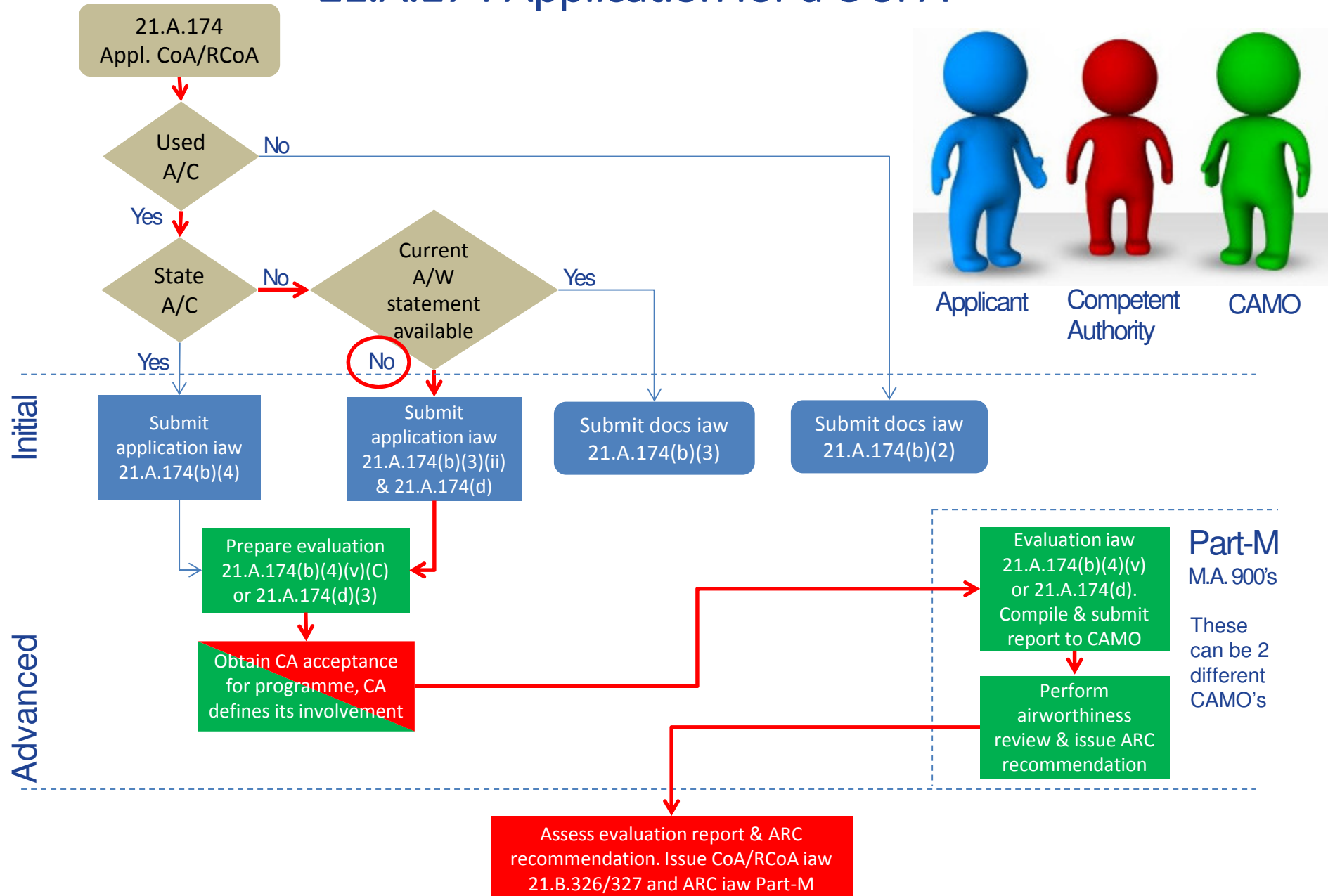


No transfer certificate at Import,  
C of A expired/AOC overdue ,  
& integrating ex-'State Aircraft'

## General Common Approach

1. An evaluation programme, dependent on certain information preconditions, must be developed by a suitably experienced EASA CAMO & accepted by the Competent Authority (CA) of the Member State before the evaluation is conducted.
2. The accepted evaluation programme is conducted by a suitably experienced CAMO after which a report and ARC recommendation is issued.
3. The report and ARC recommendation is assessed by the CA who will issue a C of A and ARC.

# 21.A.174 Application for a C of A



## New AMC is provided in AMC 21.A.174(b)(4)(v)(C) and (d)(3)

### Information Preconditions

- ☐ Previous maintenance programme
- ☐ Sufficient historical records to satisfy M.A. 305 or allow reconstruction in accordance with AMC M.A. 305(h)
- ☐ Tech logs to establish previous utilisation & environment

### Evaluation Programme (to must be accepted in advance by the Competent Authority)

- ☐ Result of the Record Review
- ☒ Identify events that required **unscheduled maintenance & remedial actions** taken to restore airworthiness
- ☐ Conclusions drawn from aircraft history, visual condition, storage condition, previous operating environment, past experience with the previous owner/operator, past experience with previous State of registry
- ☐ Inspection plan to:
  - ☐ verify the aircraft configuration
  - ☒ **review previous mods & repairs (including those related to unscheduled maintenance)**
  - ☐ previous maintenance standards
- ☐ Organisations that may be consulted to determine the current configuration & deviations from EASA design (TC/STC holder, POA, DOA..)
- ☐ Organisations involved in the assessment (CAMO and MRO)
- ☐ Docs to determine conformity of design with EASA approved design
- ☐ Proposed dates & location

Suitably  
Experienced  
EASA CAMO

Recognise that '*import review*' is slightly different from '*standard review*'

- ☐ CAMO staff for imports to be **suitably experienced & competent** to evaluate imports in accordance with M.A. 904 (to be re-labelled M.A. 906)
- ☐ CAMO staff for imports to be designated in accordance with M.A. 707(a)(3)
- ☐ **AMC M.A. 707(a)(3) training course & experience gained under supervision**

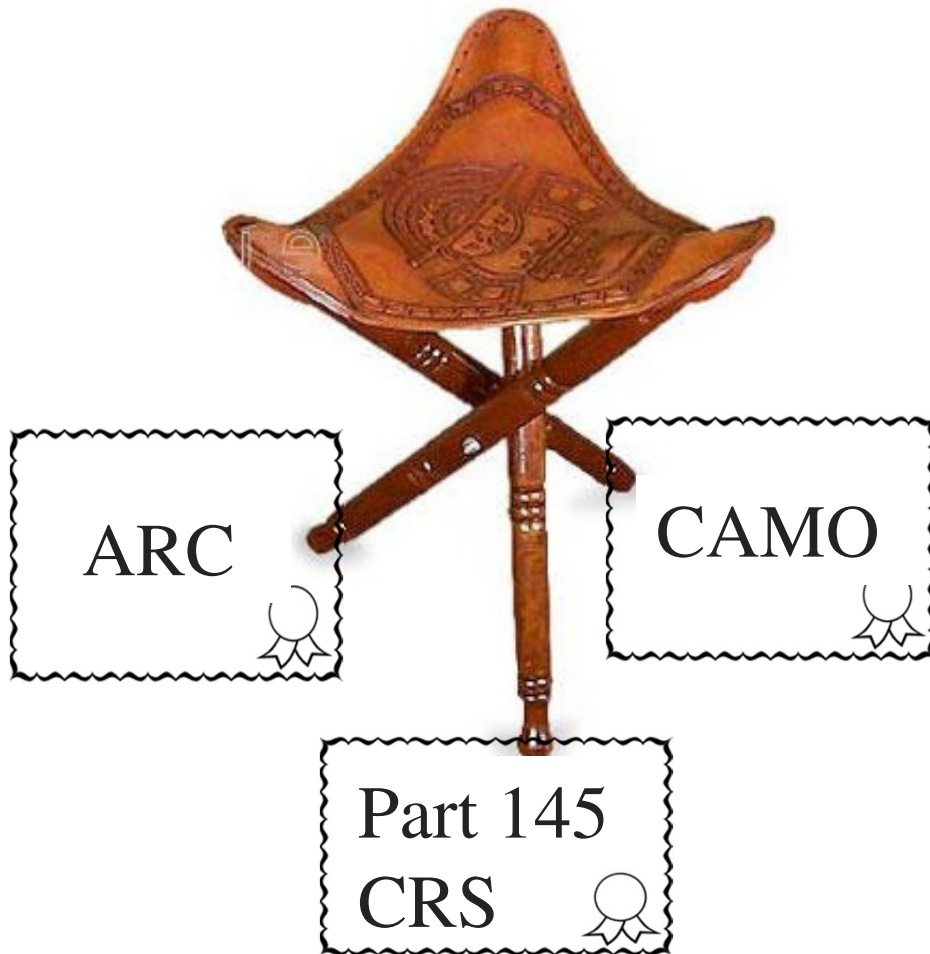
Assessment by  
the Competent  
Authority

New 21.B.326 (c) for 'standard' and New 21.B.327 (a) 3. for 'restricted' C of A

- ☐ **Review of documents** collected/generated in the previous steps
- ☐ Verify that the aircraft conforms to the approved type design
- ☐ Verify that AD's are in compliance
- ☐ Verify that the aircraft has been inspected iaw Part M
- ☐ Competent Authority **may decide to perform a physical inspection**
- ☐ If satisfactory then Competent Authority issues C of A and ARC

Aircraft registered in a  
Member State and  
operating in foreign state  
(e.g. delegated ICAO 83bis)

# ICAO Article 83bis delegated Aircraft



## EASA Member

### State of Registration (SoR)

Annex 8\*: Airworthiness (Partial)

- National Certificate of Airworthiness
- Maintenance Programme Approval
- EASA Part 21 DOA Mods & Repairs
- EASA TC



## Non-EASA Member

### State of Operation (SoO)

Annex 1\*: Licensing of Flight Crew Members

Annex 2\*: Rules of the Air

Annex 6\*: Operation of Aircraft

Annex 8\*: Airworthiness (Partial)

- Continuing Airworthiness of Aircraft
- Maintenance (Line & Base)

If delegated then at Re-Import A/C should be treated as a Foreign Aircraft  
Preference would be to maintain EASA control during foreign operation  
(caveats: subject to agreement of the foreign CAA, FCL to satisfy 1178/2011)

# Questions