



# **IATA Paperless Operations; Update**

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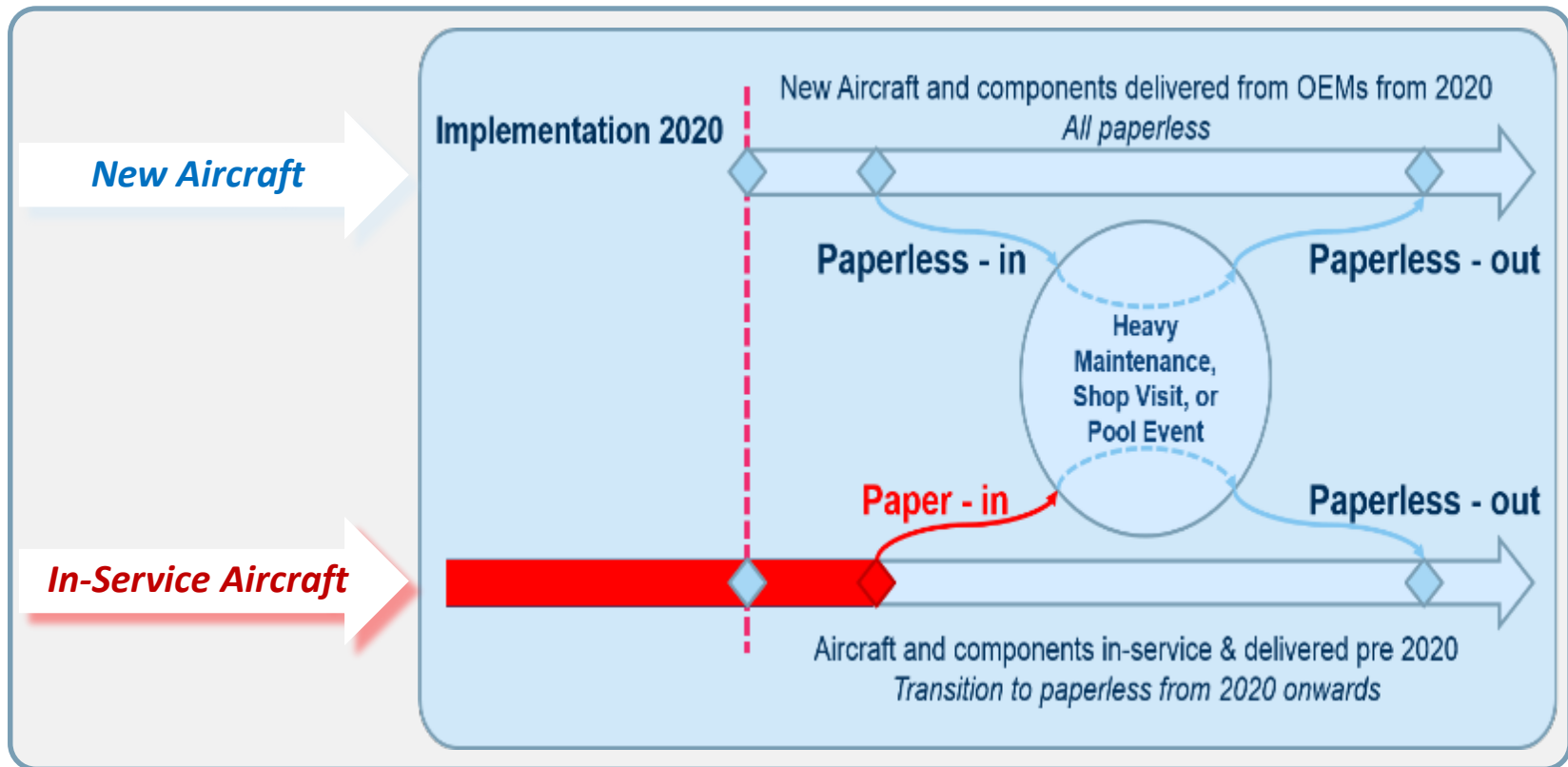


## About IATA (Intern'l Air Transport Ass'n)

- Represents about 265 airlines or 83% of total air traffic
- Mission: represent, lead and serve the airline industry
- Tasks:
  - Safety procedures and audits
  - Clearing house services, account settlements
  - Data analysis on various aspects of airlines
  - Guidance materials, Training
  - Assigns airport and airline codes, accredits travel agents

...more at: [www.iata.org](http://www.iata.org)

# IATA's 2020 Paperless Vision



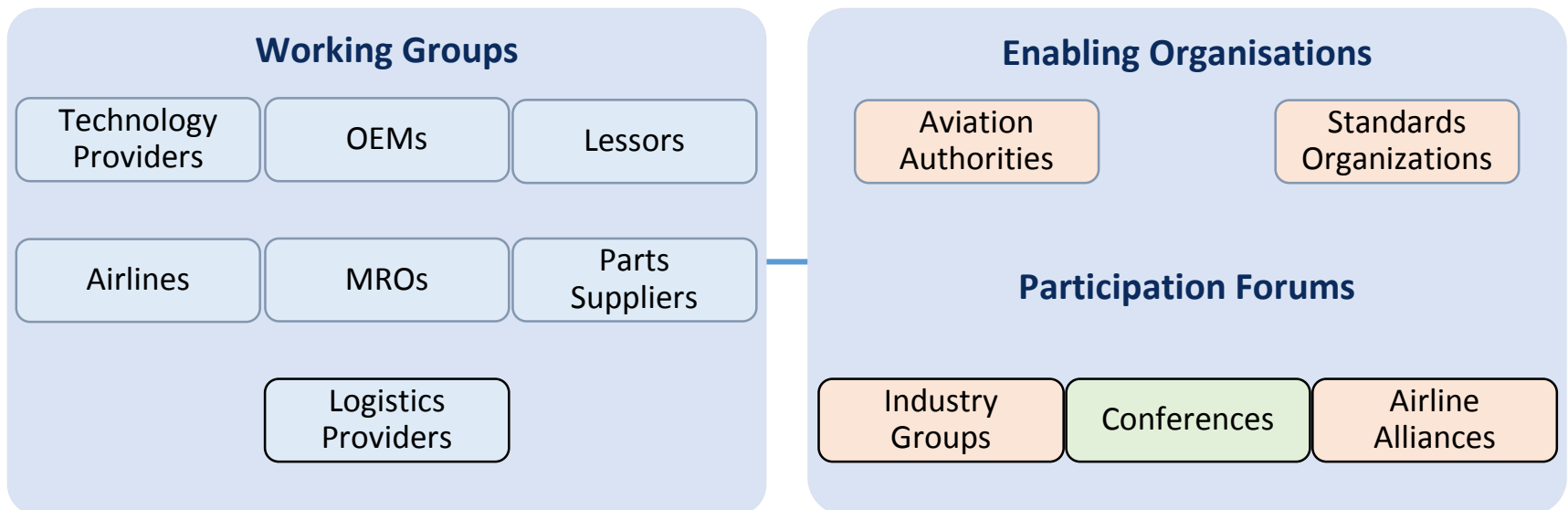
*Digitising of current paper systems is a phase towards ultimate e-business*

## Why IATA is involved?

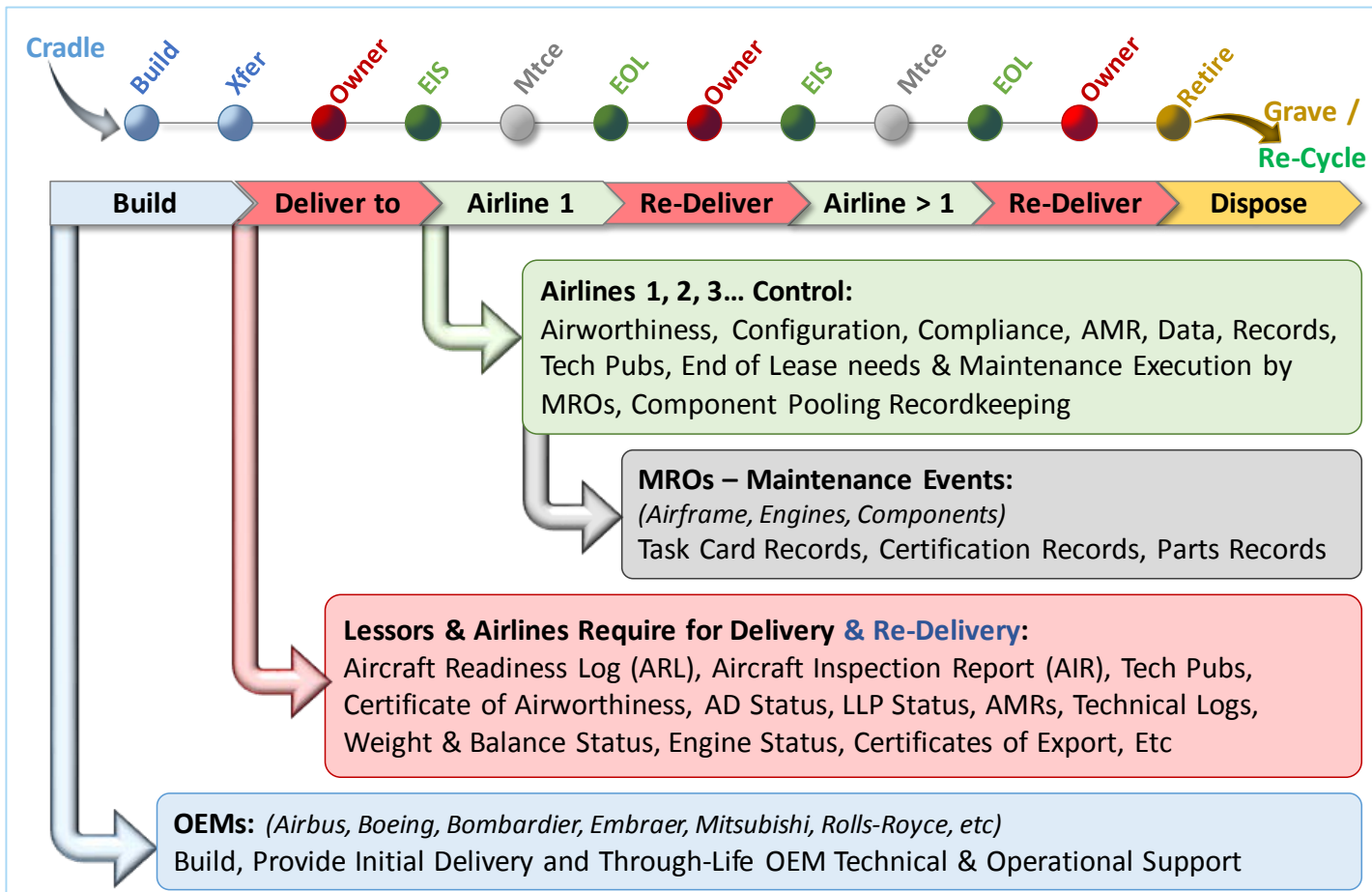
- Need to “Simplify the Business” in Aircraft Operations; need to educate
- Industry requests for standards (strong cooperation w. ATA e-Business)
- Harmonize implementation of new technologies; facilitate deployment
- E.g.: Annual cost of redelivery is enormous ([www.iba.aero](http://www.iba.aero); Oct 2016)
  - Narrowbody redeliveries cost, on average, \$1.65m more than they need to
  - Widebody costs can be easily double that of narrowbodies
- Applications from Aircraft Delivery to Operations and from Leasing to “Part-outs”

# IATA's efforts to simplify the business...

- Paperless Aircraft Operations; Technical Operations
- Aircraft Leasing Advisory Group (ALAG)



# Moving towards paperless environment...



## Benefits of e-documentation

- Compliance; ensure accurate record keeping
- Accuracy; minimize or eliminate manual input/error
- Efficiency; search ability, remote reviews, quick response etc.
- Cost reduction; avoidance of mundane work, transportation, travel expenses to review docs etc.
- Full traceability & completeness; full historical record/trace

# Challenges within Stakeholders (1)...

Aviation Authorities	OEMs	Lessors	Standards Organizations
<p><i>Challenges</i></p> <ul style="list-style-type: none"> <li>• A “void” exists re regulation for Electronic Records Need cross-state interoperability</li> <li>• Acceptance of “e-signature is critical</li> <li>• E-Records need to be = to dirty fingerprint</li> <li>• Authorities are resource constrained</li> <li>• <i>Some acceptance on case-by-case</i></li> </ul>	<p><i>Challenges</i></p> <ul style="list-style-type: none"> <li>• Varying standards applied by each OEM in data configuration. Eg; AIR versus ARL</li> <li>• Varying standards for delivery of service literature</li> <li>• Varying standards for delivery of maintenance program updates</li> <li>• Varying standards applied to in-service operational reporting</li> </ul>	<p><i>Challenges</i></p> <ul style="list-style-type: none"> <li>• Reluctant to accept EMARS for re-delivery due potential non-acceptance by next Aviation Authority</li> <li>• Lease agreements predominantly specify that lessees provide certification “paperwork”</li> <li>• <i>Some acceptance on case-by-case basis</i></li> </ul>	<p><i>Challenges</i></p> <ul style="list-style-type: none"> <li>• Standards are underdevelopment</li> <li>• Challenges associated with data transfer standards between organisational IT systems</li> </ul>



# Challenges within Stakeholders (2)...

## Technology Providers

### Challenges

- Technology exists and is in use in other business sectors
- Challenges associated with IT system intellectual property and no standard for transfer of data between systems
- *Some acceptance of e-signature – mainly with task cards*

## Airlines

### Challenges

- Different stages of paperless journey
- \$\$ committed to internal solutions
- May not be to an industry standard

## Parts Suppliers

### Challenges

- Multiple suppliers across entire asset lifecycle
- OEM, SFE, BFE, PMA, Aftermarket
- Need standards for data transfer
- Need acceptance of e-Release Certificates

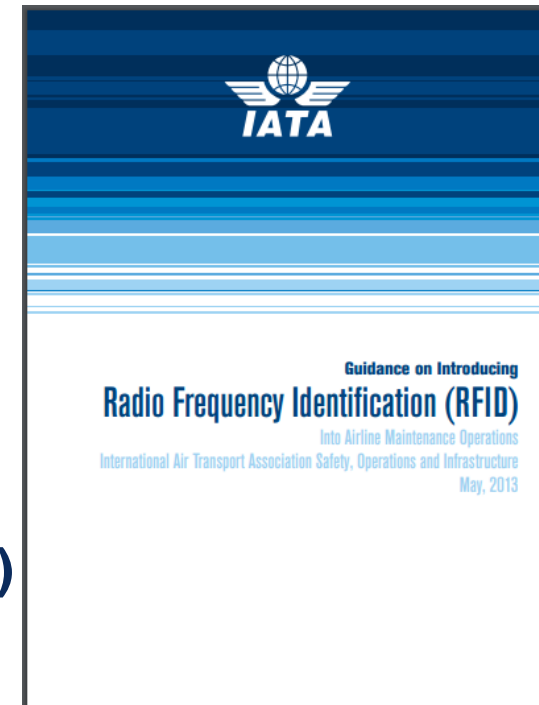
## Parts Suppliers

### Challenges

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- Need standards for data transfer
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## What IATA has done (1)...

- Paperless Aircraft Operations Initiative;  
[www.iata.org/pao](http://www.iata.org/pao)
- 4<sup>th</sup> Paperless Operations and RFID Conference
- Industry Groups; RFID, Aircraft Leasing (ALAG)
- RFID Guidance; 2<sup>nd</sup> ed. (drafted)
- ICAO Airworthiness Manual (Doc 9760; 2017?);  
recognition of e-records and e-signatures



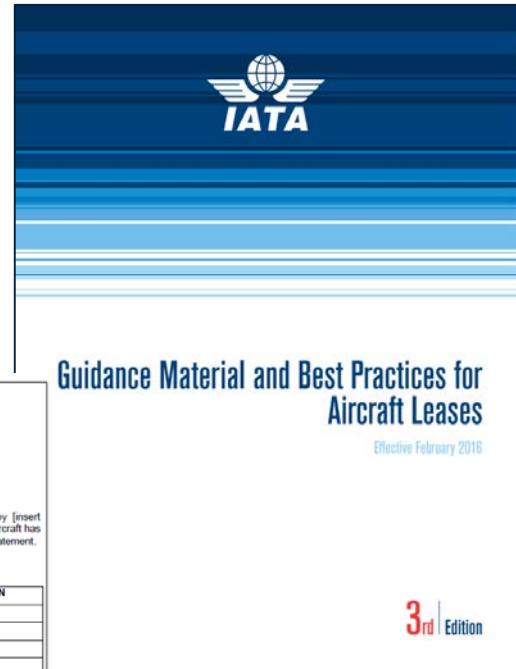
# What IATA has done (2)...

➤ Guidance Material and Best Practices for Aircraft Leasing; [www.iata.org/alag](http://www.iata.org/alag)

➤ Incident Clearance Statement

➤ Redelivery documentation list

➤ LLP Traceability Template



(ON COMPANY LETTERHEAD)

Date \_\_\_\_\_

**Incident/Accident Clearance Statement**

To Whom It May Concern:

Aircraft [enter registration], details of which are specified below, has been operated by [insert company name] during the period from [enter delivery date] to [enter redelivery date]. The aircraft has a valid Certificate of Airworthiness from [insert country of registration] as of the date of this statement.

Configuration details as of date of this statement:

Description	Type/Part No.	Serial No.	TSN	CSN
Aircraft				
Engine				
Engine				
Propeller				
Propeller				

I hereby certify that, to the best of my knowledge, during the period stated above:

- Neither the aircraft, nor any part installed have been:
  - damaged during, or identified as the root cause of, a reportable incident or accident as defined by Annex 13 to the Chicago Convention, or
  - subjected to severe stress or heat (such as in a major engine failure, accident, or fire) or has been submerged in salt water,
 unless its airworthiness status was re-established by an approved maintenance organisation in accordance with the instructions of the type certificate holder and/or supplemental type certificate holder and/or OEM of the part, and supported by an authorised airworthiness release certificate.
- No part has been installed on the aircraft which was obtained from a military source or was previously fitted to a state aircraft as deemed by Article 3 of the Chicago Convention.

Authorised Airline Representative

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Position: \_\_\_\_\_

LIFE LIMIT PART MOVEMENT HISTORY SHEET


PART NUMBER: SA1217 SERIAL NUMBER: 25210310

WIT DESCRIPTION: FWD LSK

OPERATOR	INSTALLED AIRCRAFT					INSTALLED ASSEMBLY					FAA	TSN	CSN	LIFE LIMIT	CYCLE/LINE	CYCLE/TYPE	HOURS & CYCLES	REMARKS	REASON FOR REMOVAL	SIGNATURE	DATE	
	TYPE	AC REG	SEAT	AFIX	TSN	CSN	DATE	TYPE	THRESH	TSN												CSN
25.25.25.25	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310	25210310

# Technical documents

- Electronic records (checklist)
- LLP traceability template - standard
- LLP supporting documentation
- Technical documentation requirements
- Moving from an NIS\* to ICS\*\* to ...
- Harmonization of “paperwork” (AIR, ARL...)
- What is the birth record of the aircraft?

 **Guidance Material and Best Practices for Aircraft Leases**

E	020	Customer Checklist Document (if applicable).
F	Item	Engine Records (Separate folder for each respective Engine)
F	001	Manufacturer Delivery Documents (EDS, Log book, Test Data/Performance Summary, Configuration Listing and SB Status at Manufacture).
F	002	Certificate of Airworthiness for Export at Manufacture (if applicable).
F	003	Certified statement of Total Time in Service (Hours and Cycles).
F	004	Certified status of Engine Airworthiness Directives (including applicability status and statement as to method of compliance e.g. modified/repared/inspected).
F	005	Certified status of incorporated Engine Manufacture Service Bulletins.
F	006	Certified status of incorporated Engine Non-Manufacturer modifications including STC's with applicable regulatory approval.
F	007	Certified Life Limited Parts listing indicating cycle limit, cycles consumed since new, and cycles remaining.
F	008	Individual total cycle substantiation data for each Life Limited Part since manufacture.
F	009	All historical Engine/Module Shop Visit reports (which may not include engine DFP records and shop task cards).
F	010	Condition Monitoring Report (current Trend Data)
F	011	Engine Log Book and/or Master record of Installation & Removals (as applicable).
F	012	Last Borescope report (including video) (if required by lease).
F	013	Last Engine Test Cell report.
F	014	Last On-wing Maximum Power Assurance Ground Run (as performed during end of lease maintenance check if applicable)
F	015	Certified Engine Incident & Accident Clearance Statement for period of operation with Lessee (IATA / AWG format or equivalent, if not covered by Aircraft ICS in B016)
F	016	Certified Power Rating Operation statement (including (if applicable) cycles of operation at different thrust ratings) - may be included in Disc Sheet or LLP tracking template.
F	017	Certified maintenance task cards for Specialist Engine Field Repairs since last shop visit (if applicable)
F	018	Certified maintenance task cards for Fan Blade Distribution (including P/N, S/N, and Moment Weight information)
F	019	Certified inspection status and maintenance task card for last inspection of installed Engine Mounts (if required and if not already covered by Last Done / Next Due listing).
F	020	Certified High Pressure Turbine Blade listing to include TSN/CSN/TSO/CSO.
F	021	Copy of current OEM concessions, (e.g. Customer Departure Record (CDR-GE/CFM), One Time Concession (OTC-PW/IAE) or Technical Variance (TV-RR)) as applicable.

## What other initiatives are in place?

- Worldwide LLP Registry/Clearinghouse (database)
- ICAO Doc 9760; recognition of e-records and e-signature
- ICAO Guidance on Cross Border Transfer of Aircraft; XBT
- Criteria for regulatory approval of AMOs\*
- Aircraft Health Monitoring (AHM)
- e-signature concept using the internet domain name system
- Aircraft part-out and decommissioning

\*Approved Maintenance Organizations

## Key Message...

- Please **get involved** and provide input to:
  - [www.iata.org/pao](http://www.iata.org/pao)
  
- Paperless technologies allow for smooth aircraft, records and parts transitions
  
- Provide feedback on the LLP Traceability template and database/clearinghouse



to represent, lead and serve the airline industry

תודה  
Dankie Gracias  
Спасибо شکرًا  
Merci Takk  
Köszönjük Terima kasih  
Grazie Dziękujemy Děkojame  
Ďakujeme Vielen Dank Paldies  
Kiitos Täname teid 谢谢  
**Thank You** Tak  
感謝您 Obrigado Teşekkür Ederiz  
Σας Ευχαριστούμ 감사합니다  
ขอบคุณ  
Bedankt Děkujeme vám  
ありがとうございます  
Tack



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