

# Paperless Operations

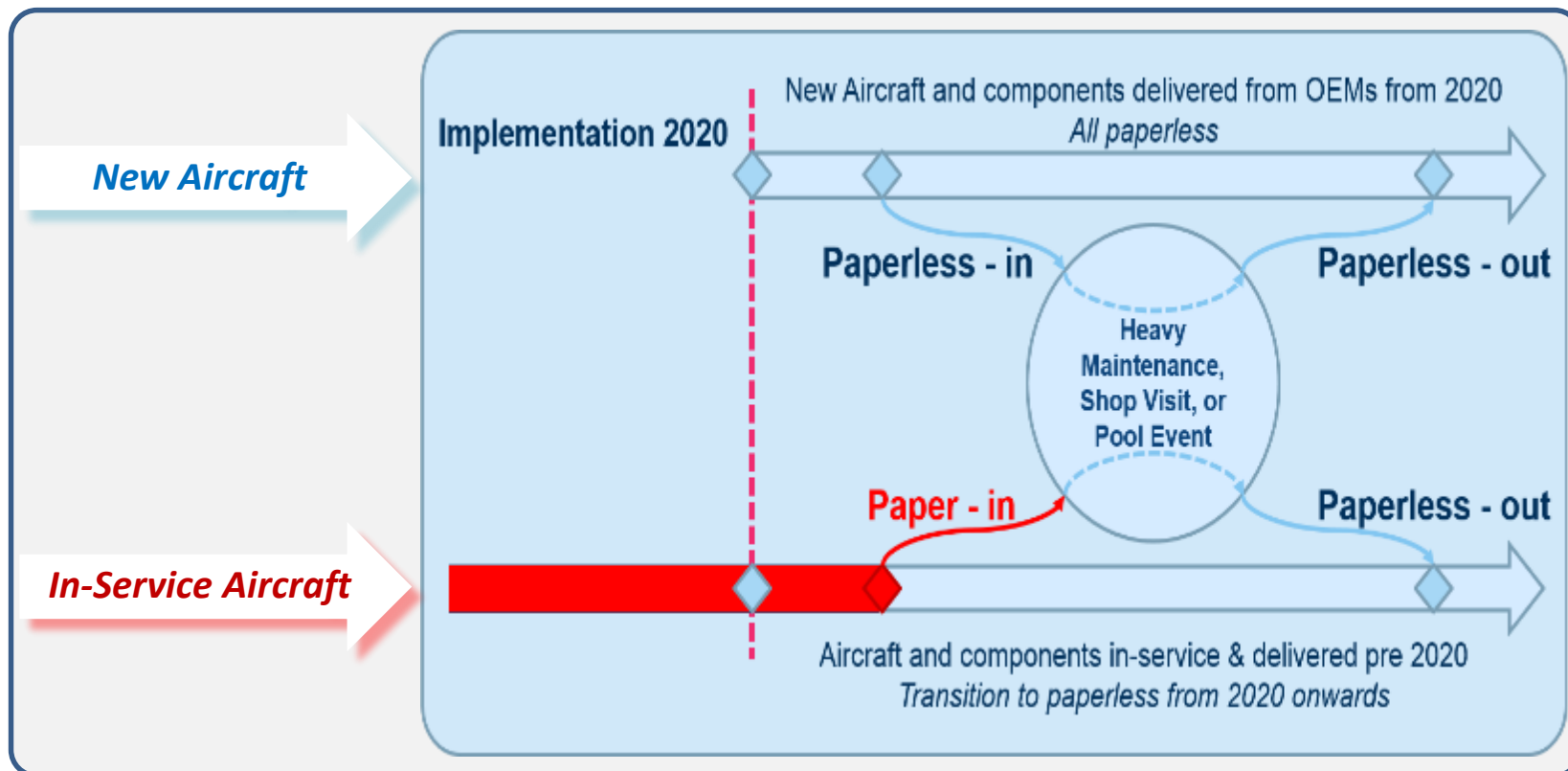
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**13<sup>th</sup> MAINTENANCE COST CONFERENCE** SEPTEMBER 13-15  
**Panama City, Panama 2017**

# Paperless Operations; Vision 2020



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

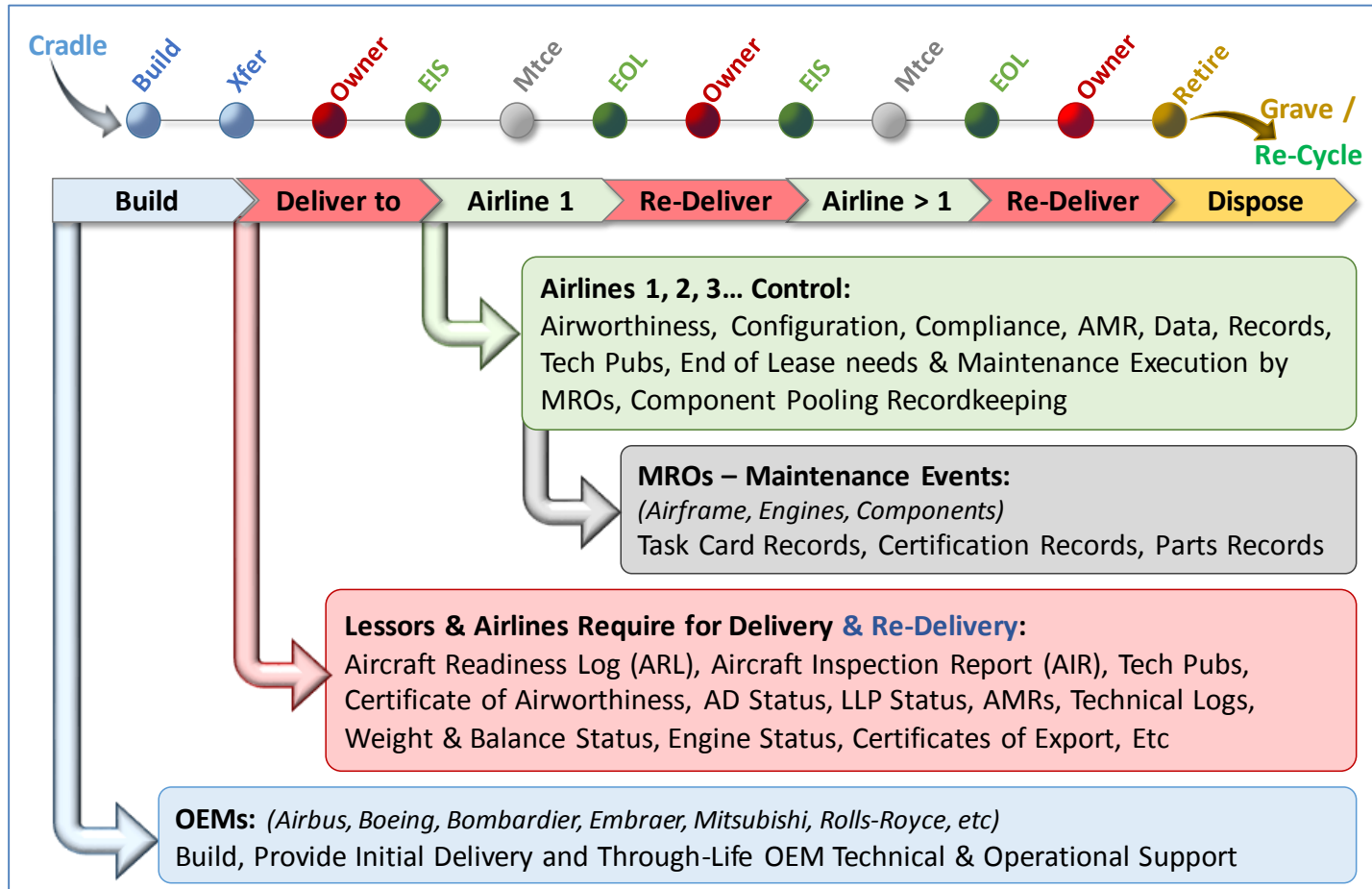


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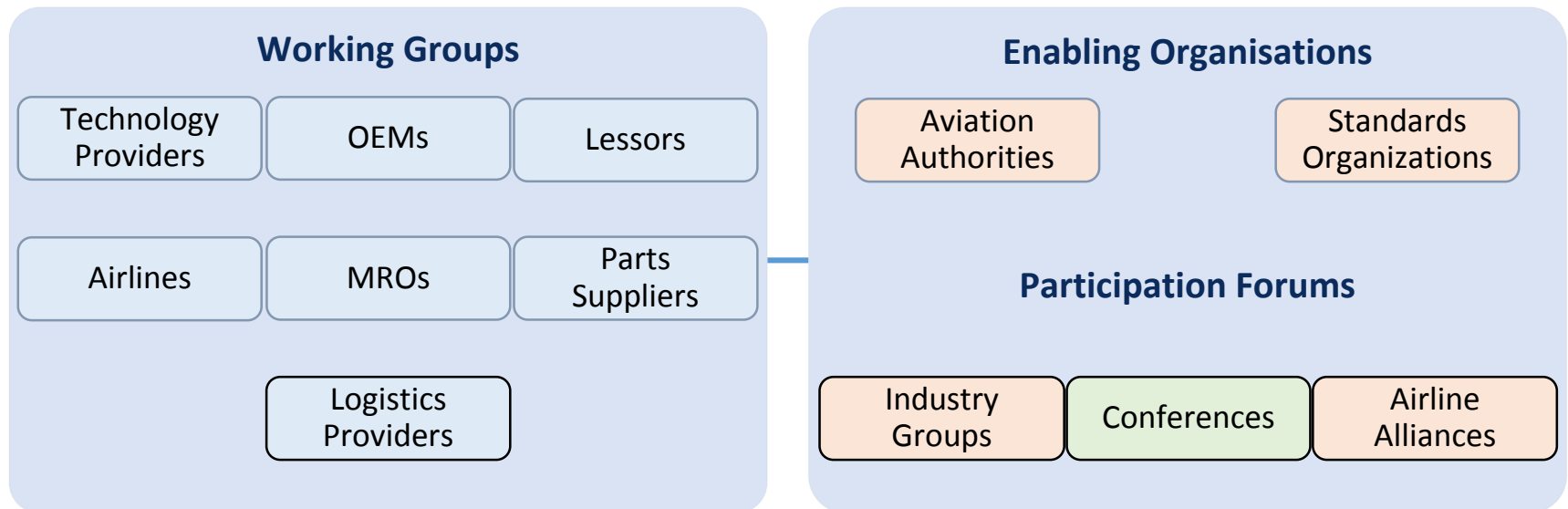
**2017**

# Moving towards paperless environment...



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

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



## 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

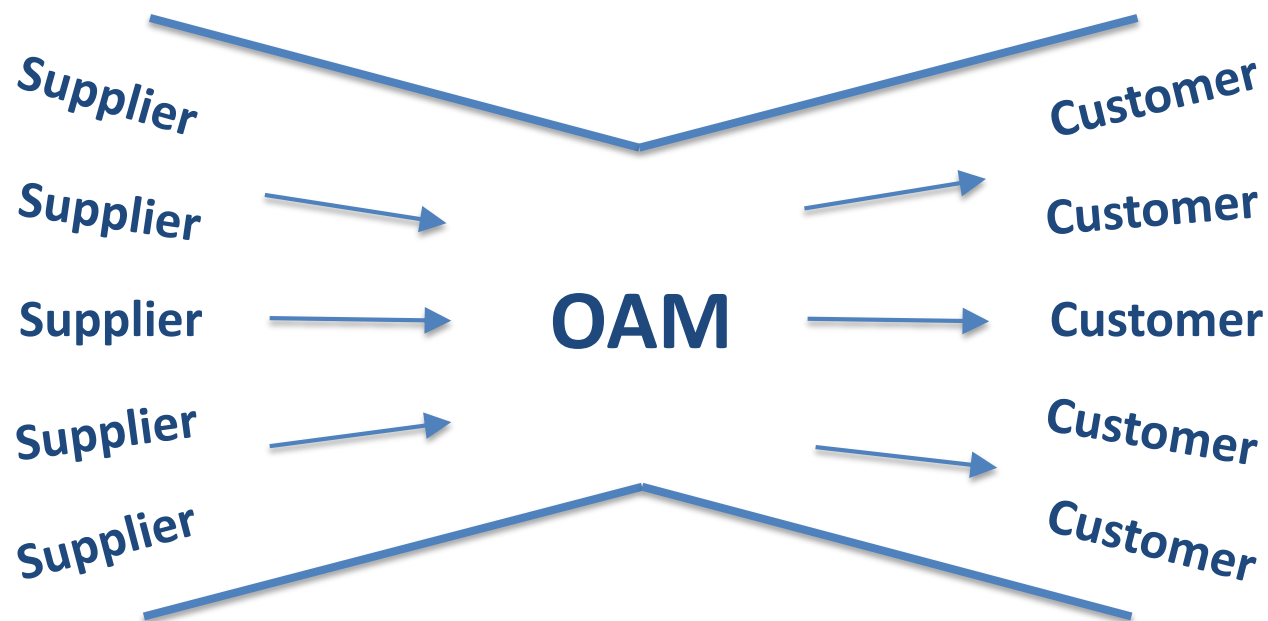


# Myths and truths about paperless operations

- Do we know the regulations? assumptions, responsibilities...
- Do standards exist? knowledge, awareness...
- Do paperless operations exist today?
  - Various levels of implementation
- What is the impact of lack of harmonization?
  - Service providers and parts suppliers



# The significant role of the OAM\*...



The OAM can influence the number of suppliers and affects the customers



\*Original Aircraft Manufacturer

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# Aircraft (re)delivery documents

- Harmonization of paperwork (AIR, ARL...)
- What is the birth record of the aircraft?
- Need to provide acceptable “standards”
- LLP documentation; regulations, commercial
- Technical documentation requirements

E	020	Customer Checklist Document (if applicable).
<b>F</b>	<b>Item</b>	<b>Engine Records (Separate folder for each respective Engine)</b>
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.

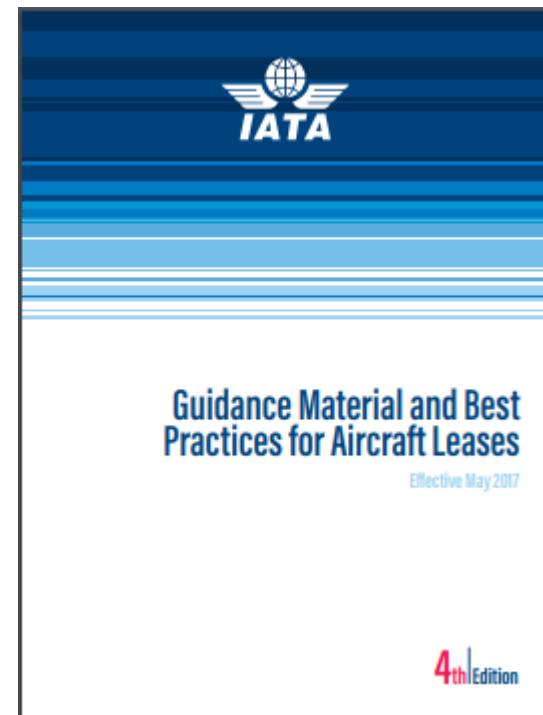




## What IATA has done (1)...

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

- Redelivery process best practices
- Aircraft Redelivery Documentation checklists for aircraft transfers
- ICAO's Cross Border Transfer (XBT) to harmonize aircraft transfer



## What IATA has done (2)...

### Incident Clearance Statement (ICS) to replace the Non-Incident Statement (NIS)

➤ Available for Aircraft and Engines

➤ Working to establish similar document for aircraft parts (based on ATA 106)

➤ Commercial documents

(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: \_\_\_\_\_



# What IATA has done (3)...

## LLP Traceability Template

- Creating a global standard template
- Identifying supporting docs
- Evaluating the potential for a global database/registry /clearinghouse for LLPs

LIFE LIMIT PART MOVEMENT HISTORY SHEET

PART NUMBER: SA1757 SERIAL NUMBER: RSTK33910  
 PART DESCRIPTION: FAN DISK

OPERATOR	INSTALLED AIRCRAFT							INSTALLED ASSEMBLY							PIV	TSN	CSN	LIFE LIMIT	CUMULATIVE UTILIZATION		HOURS & CYCLES REMAINING		SUPPORTING DOCUMENT RECORD ENTRY	REASON FOR REMOVAL	SIGNATURE
	TYPE AND REG	MSN	MTCWA	TSN	CSN	DATE	TYPE	THRUST RATING	SN	TSN	CSN	HOURS	CYCLES	HOURS					CYCLES	REASON FOR REMOVAL	PREFERENCE				
																						HOURS			
AE																									
JS AIRWAY	A320-231(N637AL)	99	250,000	48,502	22,012	230962035	V2500A1	27,000 lbf	V0086	44,565 H	19,296 C	SA1757	0.0	0	0 H	20,000 C	0 H	0 C			Production	8130	John Robinson	John Robinson	
JS AIRWAY	A320-231(N637AL)	99	250,000	60,040	26,600	160902068	V2500A1	27,000 lbf	V0086	55,903 H	24,552 C	SA1757	10,538.0	4,596	0 H	10,538 H	4,596 C			Installation					
JS AIRWAY	A320-231(N632AL)	54	250,000	62,388	27,977	160902068	V2500A1	27,000 lbf	V0086	55,903 H	24,552 C	SA1757	10,538.0	4,596	0 H	10,538 H	4,596 C			Installation					
JS AIRWAY	A320-231(N632AL)	54	250,000	64,658	29,019	240020100	V2500A1	27,000 lbf	V0086	57,414 H	25,534 C	SA1757	12,948.6	5,638	0 H	12,949 H	5,639 C			Installation					
JS AIRWAY	A320-231(N632AL)	54	250,000	67,658	30,294	130020101	V2500A1	27,000 lbf	V0086	57,414 H	25,534 C	SA1757	12,948.6	5,638	0 H	12,949 H	5,639 C			Installation					
JS AIRWAY	A320-231(N632AL)	54	250,000	74,771	33,673	200962012	V2500A1	27,000 lbf	V0086	64,615 H	28,989 C	SA1757	22,360.2	10,075	0 H	22,360 H	10,075 C			In operational para	8130				
JS AIRWAY	A320-231(N633AM)	82	250,000	77,962	35,060	150120113	V2500A1	27,000 lbf	V0086	64,615 H	28,989 C	SA1757	23,562.2	11,470	0 H	23,562 H	11,470 C			Installation					
JS AIRWAY	A320-231(N633AM)	82	250,000	79,443	35,398	160120115	V2500A1	27,000 lbf	V0086	66,303 H	29,897 C	SA1757	20,043.8	14,368	0 H	22,000 C	10,050 H	14,368 C			Removal		Jim Bicknell	Jim Bicknell	
4ERCAP	A320-231(N633AM)	82	250,000	79,443	35,398	160120115	V2500A1	27,000 lbf	V0086	66,303 H	29,897 C	SA1757	22,536.8	15,296	0 H	22,000 C	12,537 H	15,296 C			Change of operator		Ed Farning	Ed Farning	



## Other related initiatives in place?

- ICAO Doc 9760; recognition of e-records and e-signature
- ICAO Guidance on Cross Border Transfer of Aircraft; XBT
- Aircraft Health Monitoring (AHM); update for MSG-3
- e-signature concept using the internet domain name system
- Aircraft part-out and decommissioning; best practices



# IATA Paperless Aircraft Operations Conference 2017

13-15 November, 2017

Montréal, Québec | Canada



<http://www.iata.org/events/Pages/paperless-aircraft-operations.aspx>



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to represent, lead and serve the airline industry



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