



# Aircraft Transfer Records

## Spec 2500

### Amsterdam

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June 13<sup>th</sup>, 2017

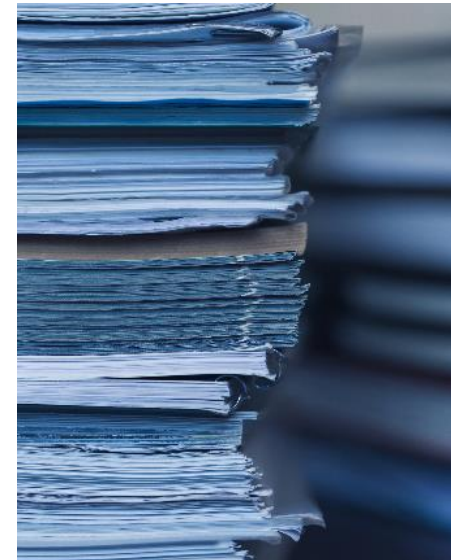


# Aircraft Records Objective

*“A Narrow-Body aircraft itself is worth \$1 while it’s historical records are worth \$50 million dollars”*

Airline Fleet and Network Management, 2006

- Demonstrates the aircraft’s airworthiness.
- Supports high levels of aviation safety.
- Confirms current status - Crucial that they are clear and up to date.
- Allows for maintenance planning and reliability monitoring.
- Maintains financial value of the asset – supporting lease, sale or part-out.



Industry still assumes paper as medium – However, it should be electronic.

# Growth: the aviation industry

## World Fleet

2015: 24,540



1971: 4,056

Source: Ascend

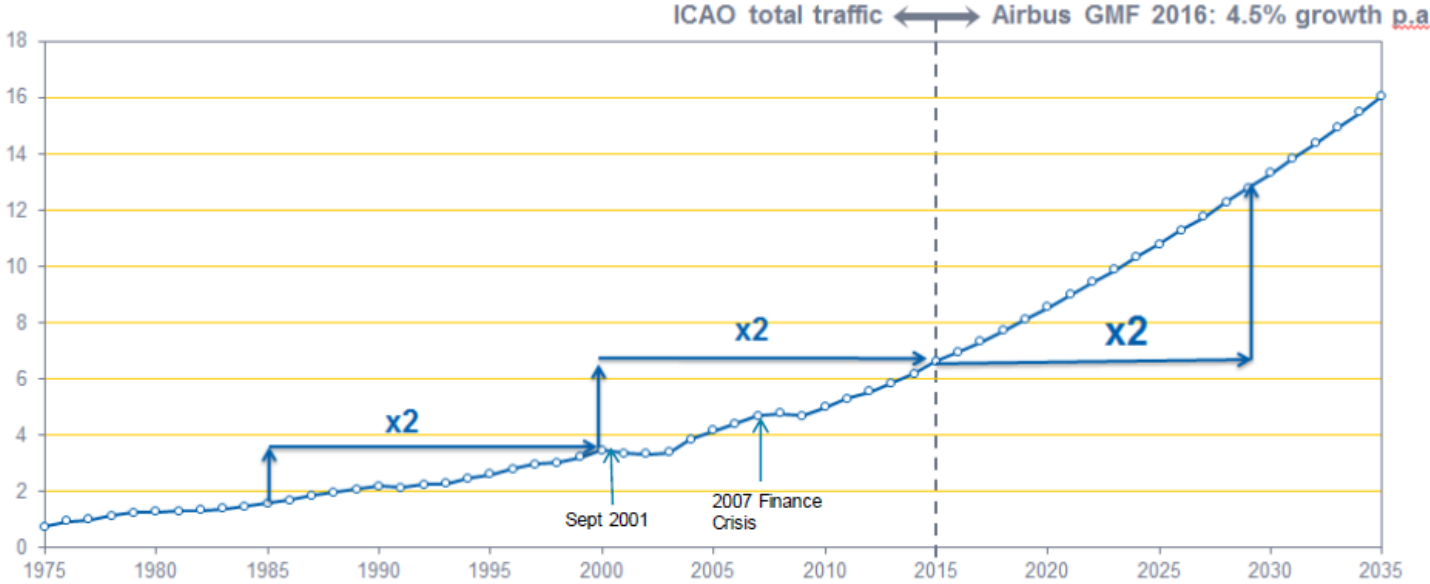
## Aircraft transitions

2015: 3,801

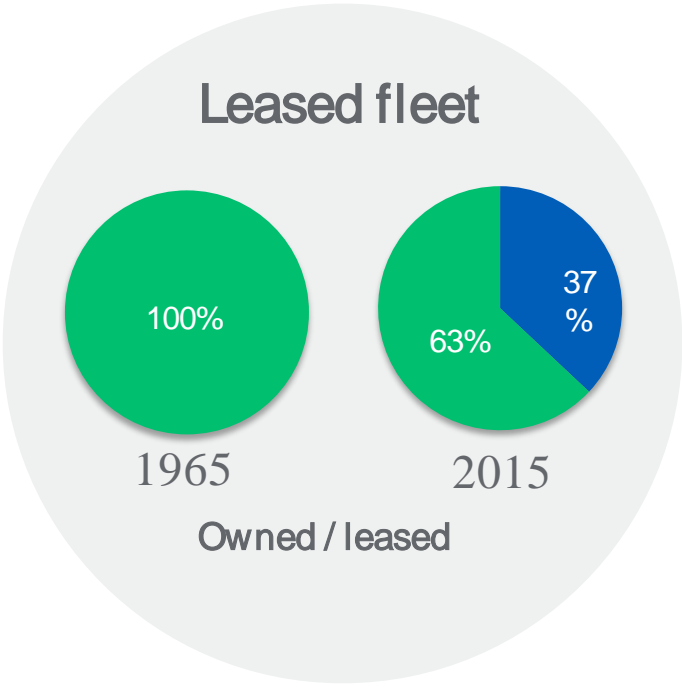


1970: 216

Source: IATA.org



## Owned versus leased fleet



Total annual traffic will double to 13 trillion RPK by 2030

# The Challenge

## Airline 1



**\$85,000**



**Inconvenience/Time + Effort**



## Airline 2



**\$35,000**

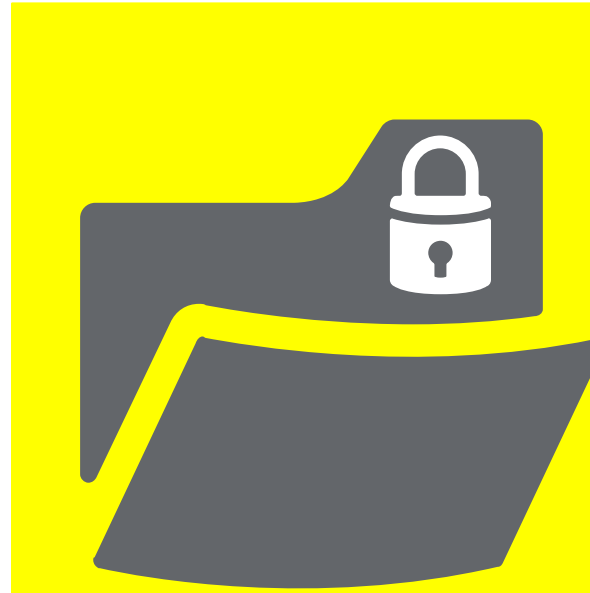
**The Total Cost of Records per Aircraft Transition is \$120,000**



# The XBT Vision – Leverage Spec 2500



Returning Airline



Receiving Airline



**Result:** Improved quality, lower cost and simplified record review



Reduce Cost and Improve Quality

# What is being done?

## Harmonisation

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- Authorities, Lessors and Airlines work with the same content.



## Acceptance

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- Worldwide authority acceptance of electronic records.



## Standardisation

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- Standards for electronic record interchange.



**Significant Industry Activity Underway**

# Harmonised Records

## ICAO Record Recommendations at Transfer

- Regulatory Checklist now included in ICAO Airworthiness Manual Doc 9760, 3<sup>rd</sup> Edition
- Lessors / Operators agree on records at lease return Completed last month



d.	Radio license		
e.	Current maintenance release certificate		
f.	Export certificate of airworthiness (if applicable)		
<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>			
<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		
	d. Current certificate of aircraft registration		
	c. Certificate of noise limitation		
e.	The status of structural repairs and allowable damage on the aircraft including:		
i)	A reference to the type certificate holder's structural repair manual (SRM) repair or allowable damage limitations. Otherwise details of the approval authority acceptable to the state of registration.		

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# Acceptance – ICAO Activity

Air Navigation Work Programme (AIRP.009.01.EAMR)

Provisions for electronic aircraft maintenance records (EAMR)  
Amendment to Airworthiness Manual ICAO Doc 9760

Tasked to provide guidance to States on authorising the use of EAMRs as an alternative to paper based aircraft maintenance records.

## Status

- Draft guidance now available.
- 9760 Rev. 4 due for publication – Q1,18



Part of a broader framework of looking at XBT

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# Standardization: ATA Spec 2500

- AerCap
- AerData
- Airbus
- American Airlines
- ATA e-Business
- Atlas Air
- Boeing
- Embraer
- FedEx
- Finnair



- GE Capital Aviation Services
- GE Aviation
- IATA
- JANA
- KLM Royal Dutch Airlines
- Lufthansa Technik
- Rusada
- SAVISCON
- Swiss Aviation Software
- United Airlines

Initial Publication: Now Available for public purchase



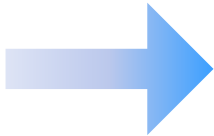
# Standardisation – Transfer via XML



XML is generated per ATA Spec 2500 - Contains all required information & records

M&E system (including records)

1



Crate

Schema

2



Files

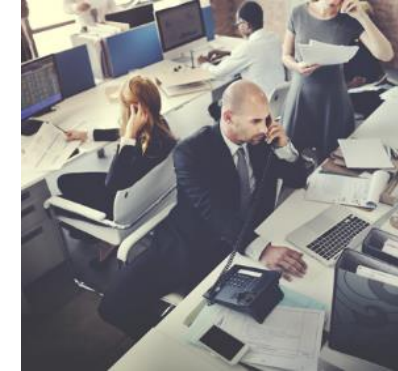


The XML file contains data and links to external files which are transferred along with the XML

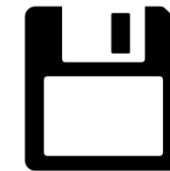
Using secured connection the Crate is then sent to the receiving Airline



3



4



AND/OR



Import programme – M&E (and/or records) system saves the records into specified directory in accordance with Spec 2500 standards

Receiving Airline then uses software to decode and view the XML file as HTML (colours and themes defined by Style Sheet)

# Conclusion

- Exponential growth of aircraft transitions
- Airlines have already embraced digital technology
- Potential \$456MM cost out per annum
- Building blocks now in place
- Spec 2500 links it all together



A standard is only a standard; adoption and use is the key

