Airlines Safety Procedures – Evolution and Simplification for Global Operations

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Why are we Safe?

What are Airline Safety Procedures?

Technology challenges / Disruptions

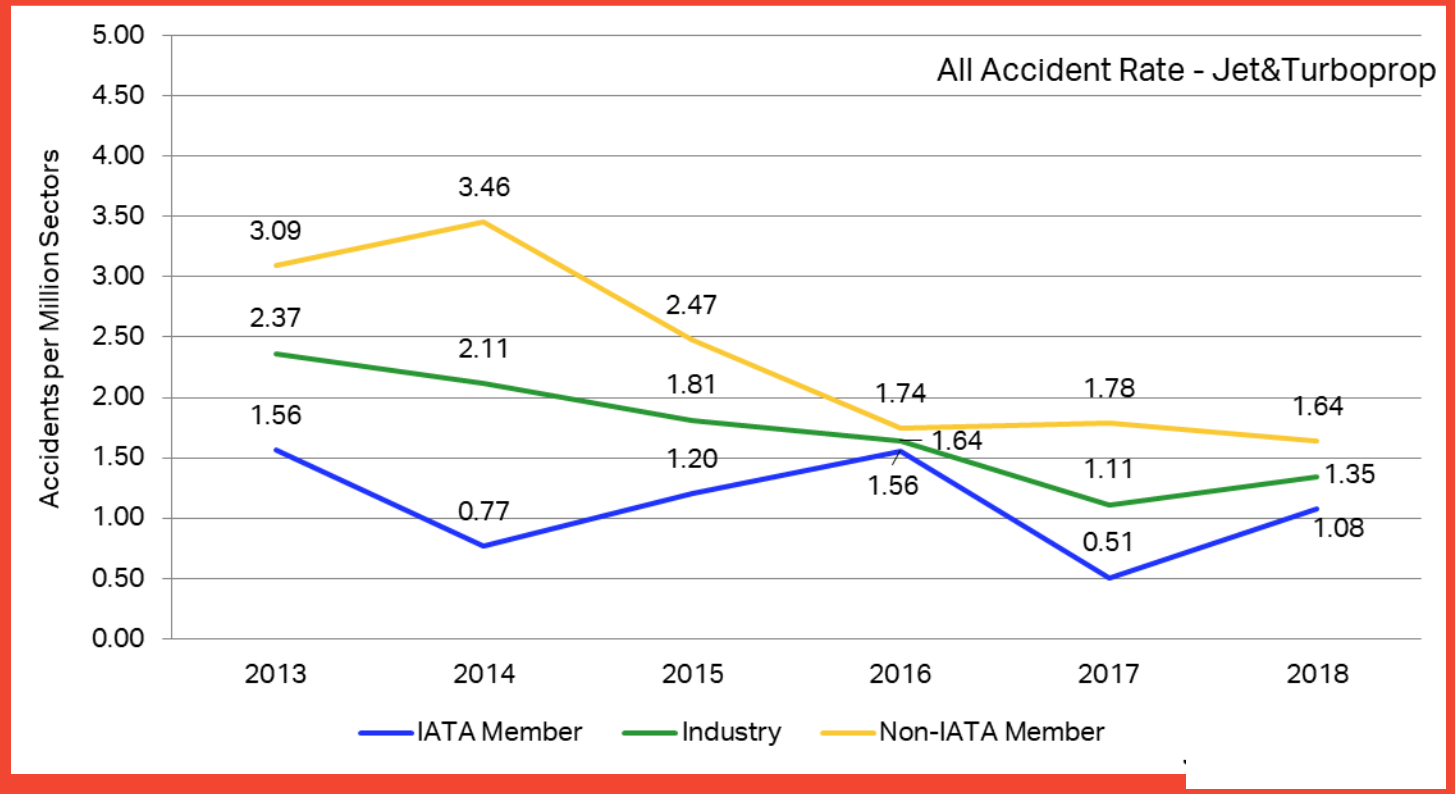
Can we still improve?

What does a typical airline do?

Industry Accident Rate Increased, but it keeps a five year downward trend

Civil Aviation is an ultra safe environment

Civil Aviation is not a static domain



2018 has seen the overall accident rate increase over 2017, which had reached the historical minimum with 45 accidents and 19 fatalities in the whole year

What do we mean by Safety Procedures?

Checklists

Operations Manual (Part A, B, C, D…), Ground, Cargo, Security

Maintenance Manuals and Procedures

SOP = Standard Operating Procedures

Management Manuals and Procedures, Safety, Compliance etc. etc.

Why do we need procedures?

Procedure

An organized series of actions accomplished in a prescribed or step-by-step manner to achieve a defined result.

But a Procedure by itself does not bring Safety.

It is the Operators who consistently use the correct procedures that builds the safe system we all enjoy today.

What keeps us awake ?

Documentation vs. Implementation – “it takes 2 to Tango”

You may have the best procedures in the world but which would come to nothing if not used in operations

Implemented – specifications are established, activated, integrated, incorporated, deployed, installed, maintained and/or made available, as part of the operational system, and (are) monitored and evaluated, as necessary, to ensure the desired outcome is being achieved.

IOSA Effectiveness – impact on Procedures

IATA Digital Aircraft Operations (Paperless)

More efficient aircraft Operations

Move to less paper environment on the flight deck

Move to pilot issued tablets

All documents controlled electronically from original source, through editing, to final operational document, available to pilots and other company staff.

Fleet

Airbus A340-600 — 7 Aircraft

Airbus A330-200 — 4 Aircraft

Airbus A330-300 — 10 Aircraft

Airbus A350-1000 — **EIS 2019**

Boeing 747-400 — 8 Aircraft

Boeing 787-9 — 17 Aircraft

Current Network and Numbers

28 Worldwide Spare Locations

Long-haul only

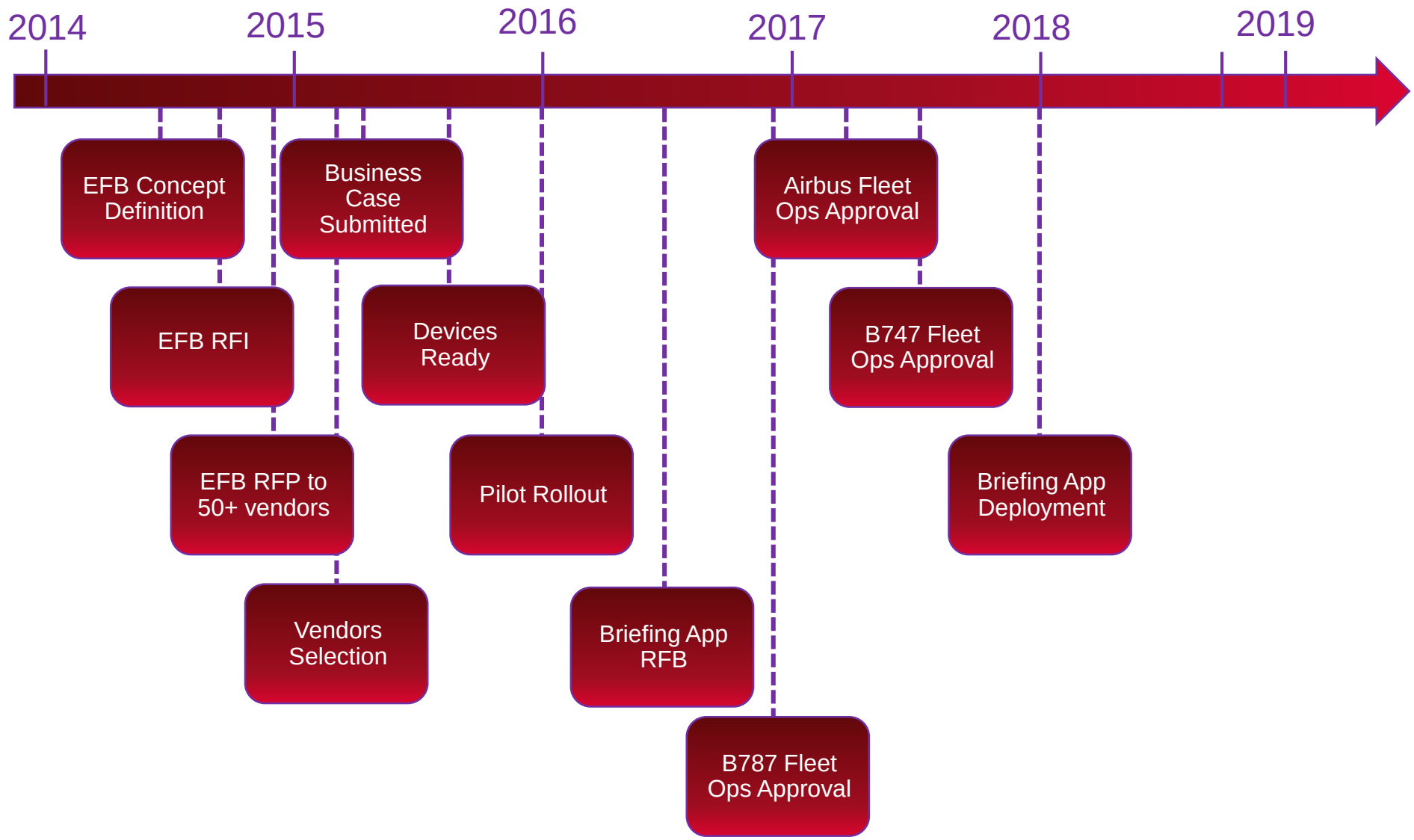
~1000 Pilots

The Objective

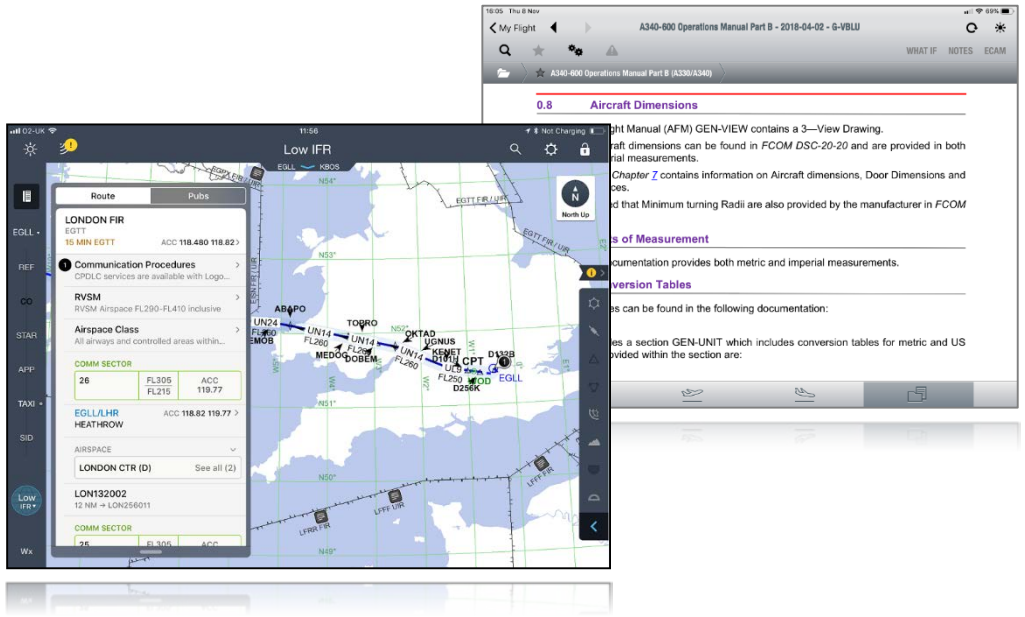
To enable and connect all pilots by taking advantage of a mobile solution in the aircraft environment and outside of it.

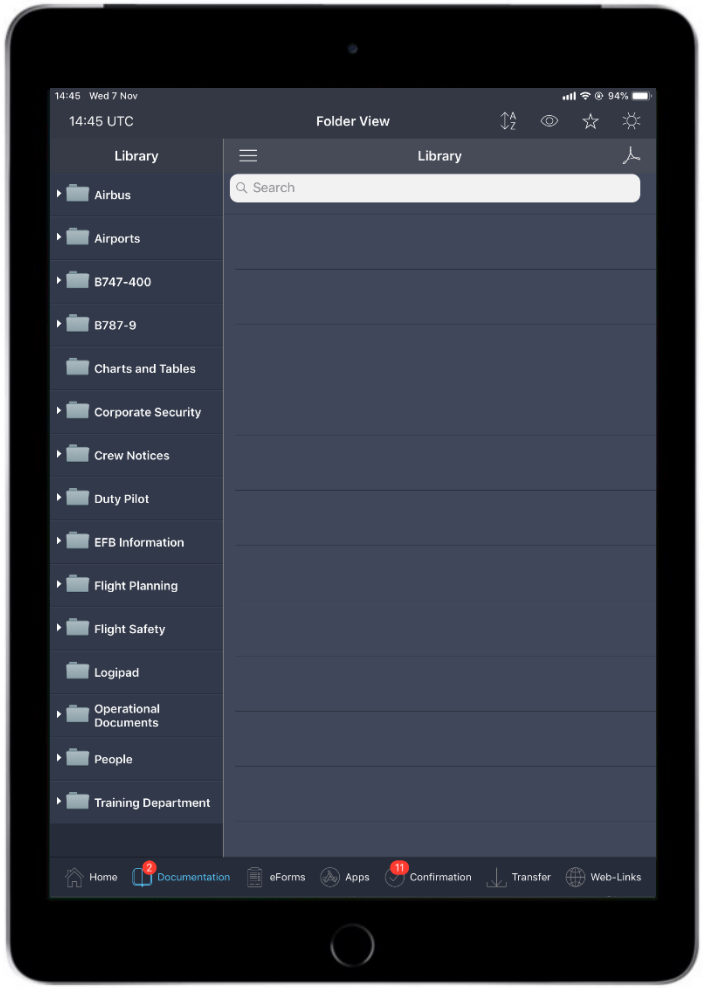
Real time data from the aircraft to ground and vice versa to optimize the operation.

Electronic Flight Bag Project Timeline



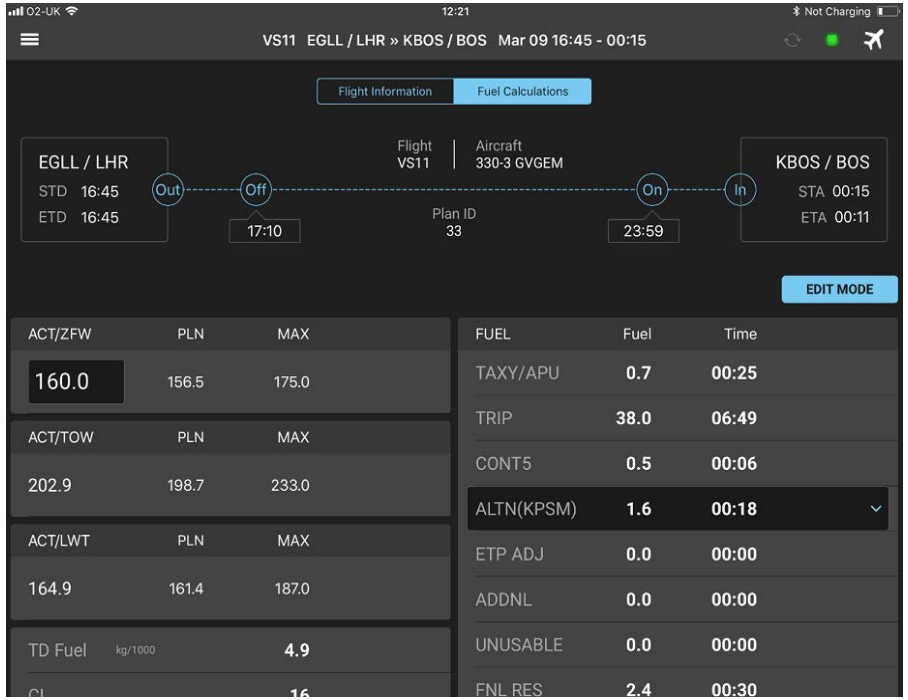
Documentation

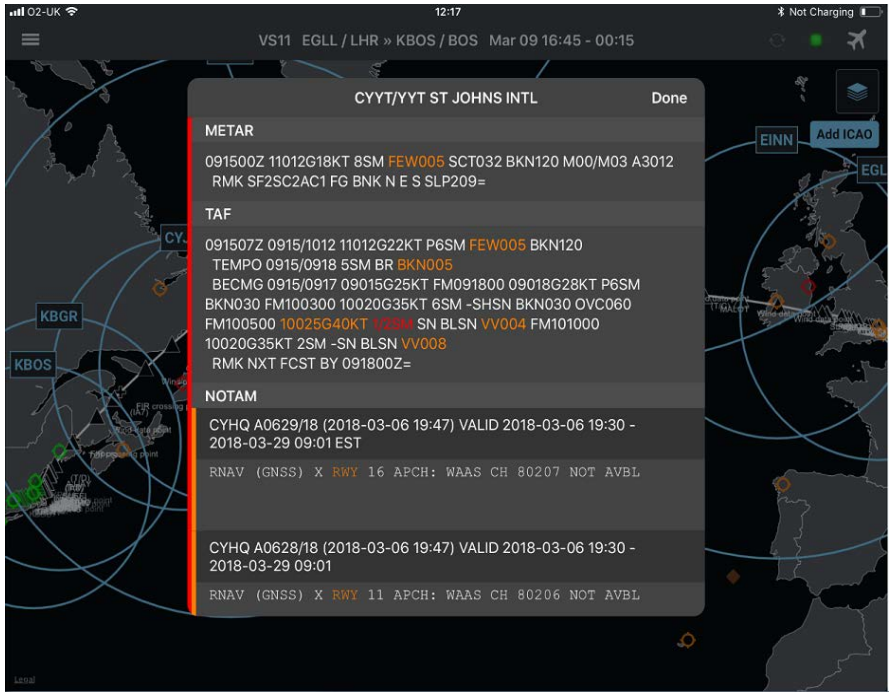




- Logipad main source of Documents
- All fleets have a secondary application as back up
- Gives the ability to quickly push data and track compliance.

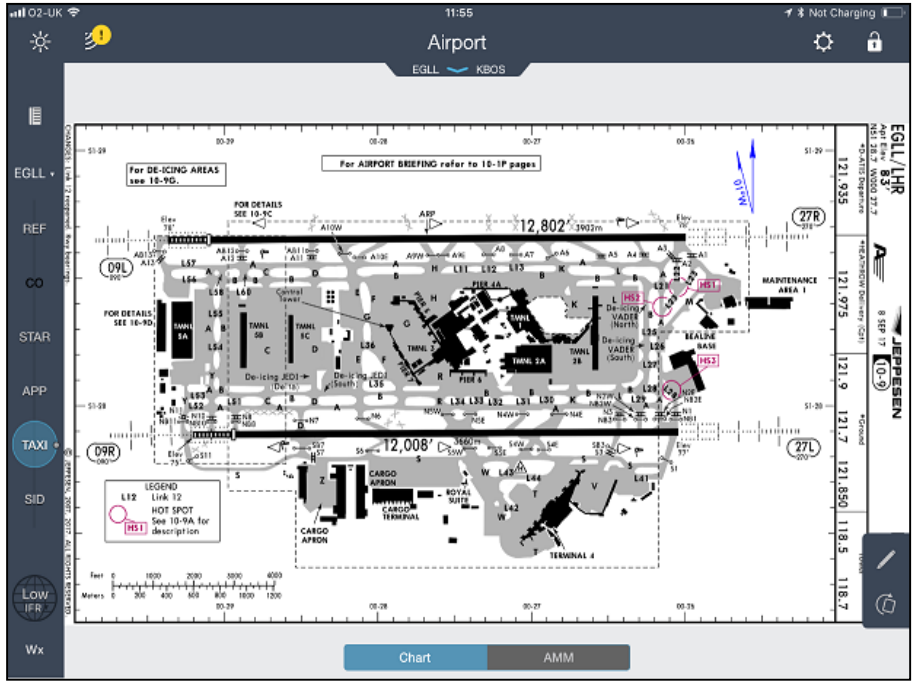
Electronic Flight Manager

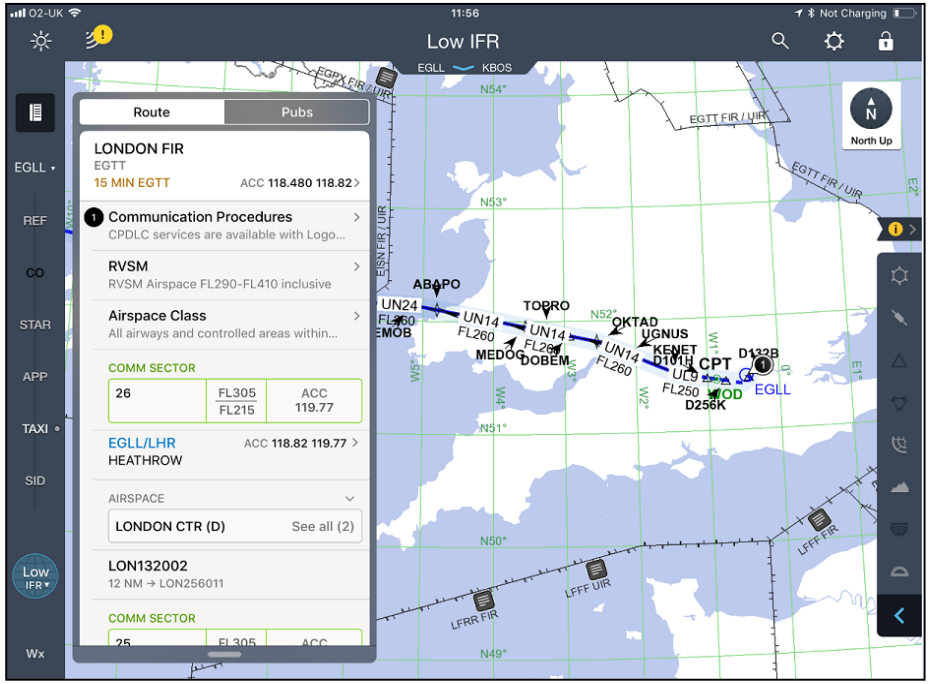




- Sabre eFM
- Crews can access their flight plans remotely 2 hours before flights

Mapping and Charting





- JeppFD-Pro
- Charting solution across all fleets
- Displays routing copied from Sabre eFM

Performance

- Boeing OPT
- Boeing 747 and 787
- Used with installed EFB on 787

- FlySmart
- Airbus A330 and A340

Approval Process

- Submit an operational approval report to the CAA
- Granted a “6 month probation” period with paper as backup.
- Information (operational reports, comments, feedback forms) then collated and sent over to the CAA for review.
- Once all points were satisfied, CAA Approval was granted (with incorporation into AOC Ops Spec Approval).
- Change carried out one fleet at a time: B787, then B747, then A330/340 and lastly A332.


Challenges Faced

- Multiple fleets – various mounting solutions and data access required
- All our flights end in a change of crews
- Multiple applications all needing updating
- Global aspect of updating iPads in areas with poor connectivity

Conclusions

Procedures will remain the backbone of safety into the future

Organizations need to consider the technological and demographical developments

Effectiveness of safety procedures must be monitored

Keep procedures simple – write what you do and do what you write

Always try to improve

Allow feedback from the users

Thank you

virgin atlantic