Experience Sharing to Enhance Safety from an Airline Perspective

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Contents

> Work-As-Done is Work-As-Imagined until verified
Characterising the nature of routine, everyday flights
How can airlines and ANSPs learn from each other?

> Taking a systems approach
Re-thinking approaches to risk management
Developments in safety culture

> Conclusions
Something about us...

> What we do:
We are low-cost European point-to-point short-haul airline.

> Where we do it:
Intra-European short-haul network.

- 700+ routes
- 64.8m passengers
- 32 counties
- 24 crew bases
- 230 aircraft
- 2500 pilots
A typical crew day

100+ destinations

### Personal Crew Schedule from 01/07/2015 to 31/07/2015

<table>
<thead>
<tr>
<th>Name</th>
<th>ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGW</td>
<td>(LGM CF-319, 320, 320s, 319s PO-320, 320s, 319s)</td>
</tr>
</tbody>
</table>

#### 20 Different Airports
- LGW
- GLA
- AGP
- MJV
- NTE
- BFS
- MAD
- BCN
- TLS
- BOD
- LIN
- MPL
- ZRH
- DUS
- VIE
- LYS
- BOD
- SXF
- CTA
- BSL

#### Typical Crew Duty

- LGW-AMS
- AMS-LGW
- LGW-MAD
- MAD-LGW
The variability of routine, everyday flights

- **Multiple agencies**
  - **Airport Environment**
    - Apron Ctrl
    - Aerodrome Ctrl
    - Approach / Radar Ctrl
  - **Terminal Environment**
    - Multiple sectors (Lateral / Vertical)
  - **Enroute Environment**
    - Multiple sectors (Lateral / Vertical)
    - Multiple ACCs
    - Multiple FIR/UIR
View from the cockpit
Variability - Some examples

• Different agencies can mean different local procedures and expectations:

  – Departure in London TMA
    
    | Callsign | SID |
    | --- | --- |
    | Passing Level |

  Local Procedure: Cleared Level

  – Departure in Amsterdam Schiphol
    
    | Callsign | Altitude | SID |
    | --- | --- | --- |
    | At 2000ft transfer to departure: |

  Local Procedure:

  – Arrival into Amsterdam TMA
    
    | On initial contact: |
    | --- | --- |
    | - with APCH/ARR report call-sign only |
    | - with TWR report call-sign and RWY |

  Local Procedure: Contact GND (without ATC instructions) immediately after vacating RWY

  – Arrival into London TMA
    
    | Position |
    | Level / Cleared Level |

  Local Procedure: Expected STAR
Different local solutions – Speed Control

- Approach speed control

<table>
<thead>
<tr>
<th>Location</th>
<th>Speeds</th>
</tr>
</thead>
</table>
| **LGW**  | 220kt  – From HLDG facility  
|          | 180kt  – On base leg / closing HDG to ILS  
|          | 180-160kt – On ILS then 160kt to 4nm |
| **AMS**  | 220kt  – From 15 DME / HLDG facility  
|          | Reductions below 220kt by ATC  
|          | 160kts – On ILS to 4nm |
| **MAD**  | 220kt  – At the IAF  
|          | 200kt  – On ILS LOC intercept  
|          | 160kt  – At 6nm to 4nm  
|          | 170kt  – Until 5nm  
|          | 165kt  – Until 4nm  
|          | 160kt  – Until 5nm |
Variability and complexity

- Runway utilisation
Complexity
Complexity
Complexity
How can airlines and ANSPs establish a common picture of WAD?

- Airport Safety Meetings
  - FLOPSC
  - LRST
- Controller / Pilot Training
- Familiarisation
- Joint training

- ANSP Safety Meetings
  - e.g. NATS SPA
- National / International Safety Meetings
  - e.g. Eurocontrol Safety Conference
Taking a systems approach

- Safety Audits
- Industry
- Confidential Reporting
- Safety Reporting
- Flight Data Monitoring
- Compliance Monitoring
- Investigations
- Monitoring Routine Operations
- LOSA observations
Inadvertent parking brake application on pushback

Correct resting position for nose wheel
Fan cowl door loss on Airbus

Engine doors left 'unlatched' on the BA plane involved in last week's dramatic Heathrow emergency landing

Three months later...
Taking a systems approach
Taking a systems approach
Previous work has focused on measuring and establishing ‘safety culture’ across one domain.

Future sky will look to establish the model across all relevant domains in the aviation system.

It will examine the issues pertaining to safety culture in each domain, and look at inter-dependencies across domains.

“SAFETY CULTURE STACK”
Conclusions

- Work-As-Done is Work-As-Imagined until verified
- Airlines and ANSPs can better learn from each other by creating a dialogue about work-as-done
- Solutions at a local level, without systemised thinking, may introduce unwanted complexity
- A systems approach is needed to avoid working in silos
THANK YOU. ANY QUESTIONS?