Wildlife Hazard Management
‘Safety Performance Beyond Compliance’
a UK perspective

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ICAO/ACI WSHRS May 2017
Introduction

- Aerodrome Policy Specialist
- Chair UK Birdstrike Committee
- UK CAA WHM policy coordinator:
  - Editor UK Guidance Material (CAP 772)
  - Engagement, Collaboration, Participation, Supporting stakeholders
  - Intelligence, Reporting systems, Data, Analysis, Supporting stakeholders
  - State Safety Partnership supporting DfT international collaboration on WHM
Compliance

- UK Aerodromes transitioned to EASA regulations meant continued compliance as previous
- WHMP = no changes required
- SMS/Risk Assessment process = no changes required
- Data = adoption of EC 376
- All WHM data is a backward view of lagging ind
- Habitat Management (CAP 772) supp guidance to EASA GM - proportionate flexible (ie wrt ‘LGP’)
- **Consider Safety Performance = what is it and how might it apply to WHM?**
UK Data – a snapshot

- The annual number of birdstrikes reported in the UK has more than tripled in the last 25 years.
- The average annual number of strikes reported has more than doubled since 2003 (when mandatory BS reporting was introduced in UK).
- 2010 – 2016 saw the highest number of strikes reported over a five year period.
- Strike rates per 10k over the past +10yrs period do not indicate significant increases.
- What does the increasing data say about the risk?
- Is there another METRIC or way of looking at data to indicate risk and provide greater safety improvements?
- *Safety Performance*
Reported birdstrikes by year and birdstrike status 2012-2016

- **Confirmed**
- **Near Miss**
- **Unconfirmed**

<table>
<thead>
<tr>
<th>Year</th>
<th>Confirmed</th>
<th>Near Miss</th>
<th>Unconfirmed</th>
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<tbody>
<tr>
<td>2012</td>
<td>1380</td>
<td>649</td>
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<tr>
<td>2013</td>
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<td>2014</td>
<td>1651</td>
<td>246</td>
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<tr>
<td>2015</td>
<td>1665</td>
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<td>829</td>
</tr>
<tr>
<td>2016</td>
<td>1835</td>
<td>268</td>
<td>821</td>
</tr>
</tbody>
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Rates per 10k aircraft movements

- Reported birdstrikes per 10,000 aircraft movements
- Reported confirmed birdstrikes per 10,000 aircraft movements
- Reported near-misses per 10,000 aircraft movements
- Reported unconfirmed birdstrikes per 10,000 aircraft movements
Reported confirmed birdstrikes
year/reported damage
2012-2016

No Reported Damage  Reported Damage

2012: 1,317
2013: 1,400
2014: 1,574
2015: 1,592
2016: 1,749

Reported confirmed birdstrikes


Reported birdstrikes by operational effect 2012-2016

- 94% None
- 3% Aborted take-off
- 2% Return/diversion
- 1% Other

94%
Performance Measures?

Birdstrike Analysis Tool

UK Safety Performance Indicators

Jan-12

- Confirmed birdstrikes: 7,210
- High/medium risk reports: 3,604
- Damage per 10,000 aircraft movements: 2.3

Dec-16

- Confirmed birdstrikes: 7,210
- High/medium risk reports: 3,604
- Damage per 10,000 aircraft movements: 2.3

Damage profile:

- 18% 3% 9% 7%
- 1.5% 0.0% 2.7% 1.6%
- 0.27 0.07 0.29 0.21
- 0.08 0.09

Runway risk:

- A1: 3.7
- B: 0.5
- C: 0.1
- Other: 4.5%

Average monthly rates:

- 2012: 4.02
- 2013: 2.10
- 2014: 2.61
- 2015: 2.52
- 2016: 2.68

Last Updated: 03/08/2017 12:25
Do we have the right information?

- an effective SMS & processes provide a better risk picture
- collection and analysis of data will help deliver a better risk picture
- observable information, reported events and subject matter expert judgements are required
Safety Performance

Compliance-based

Risk-based

Performance-based
FAQ WHM Safety Performance

- how to measure & monitor and improve safety performance?
- what are the key performance principles and indicators (metrics) – who agreed(s) them?
- Is industry sufficiently mature to understand/measure WHM performance?
- do numbers/rates (using standard metrics) equate to risk? has the risk picture changed?
- is reporting consistent, complete, standardised?
- do we have the right information?
Safety Performance Requires…

- Comprehensive risk picture
  - Risk decisions based on multiple sources of data available
  - Factual and targeted/prioritised and measurable

- Proactive and positive approach
  - Focus on hazard and risk identification and target and prioritise mitigation efforts
  - Continuous improvement and engagement with stakeholders

- Above all: remember the *basics* – (WHM) plans & people: trained, competent, motivated
  - Use of technologies: to support and supplement but not replace the basics
Performance Based Regulation (PBR)

- Transform CAA’s into PB Regulators - requires working with stakeholders to reduce safety risk across the total aviation system and develop the capabilities required for future regulators

- Oversight should be targeted, consistent and above all proportionate – one size doesn’t fit all

- Initiate new ‘risk’ conversations based on ‘performance’ beyond compliance

- Performance measurement is the key challenge to tackle
The 5 Key Performance based objectives

- Gather and analyse safety risk information about all parts of an organisation's operations in a joined up way – *the entity approach*.

- Agree the actions needed to improve safety and uphold standards with each entity’s ‘Accountable Manager’.

- Create a better understanding of the top risks facing major aviation sectors and the performance of industry to manage them.

- Make informed decisions about the safety outcomes that the Regulator & Industry should focus on and steps to achieve them.

- Allocate regulatory resources proportionately to the areas of activity with greatest potential to enhance aviation safety.
Key PBR Benefits

- Improvements in the performance of the CAA and industry to manage the oversight of safety risks
- Improvements in the CAA’s ability to allocate resources to areas with the greatest potential to enhance safety
- Increased efficiency and effectiveness of the CAA’s safety regulation activities and projects.

- Gathering / sharing better safety risk intelligence
- Strengthen prioritisation and decision making
- Safety risk discussions with Accountable Managers
- Allocating resources to risk
- Vary oversight levels based on evidence
- Working with industry for joint safety goals
- Standardising / automating oversight processes
- Standardising the governance of safety projects
- Removing legacy systems and tools
Thank you for your attention
Any questions?
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