

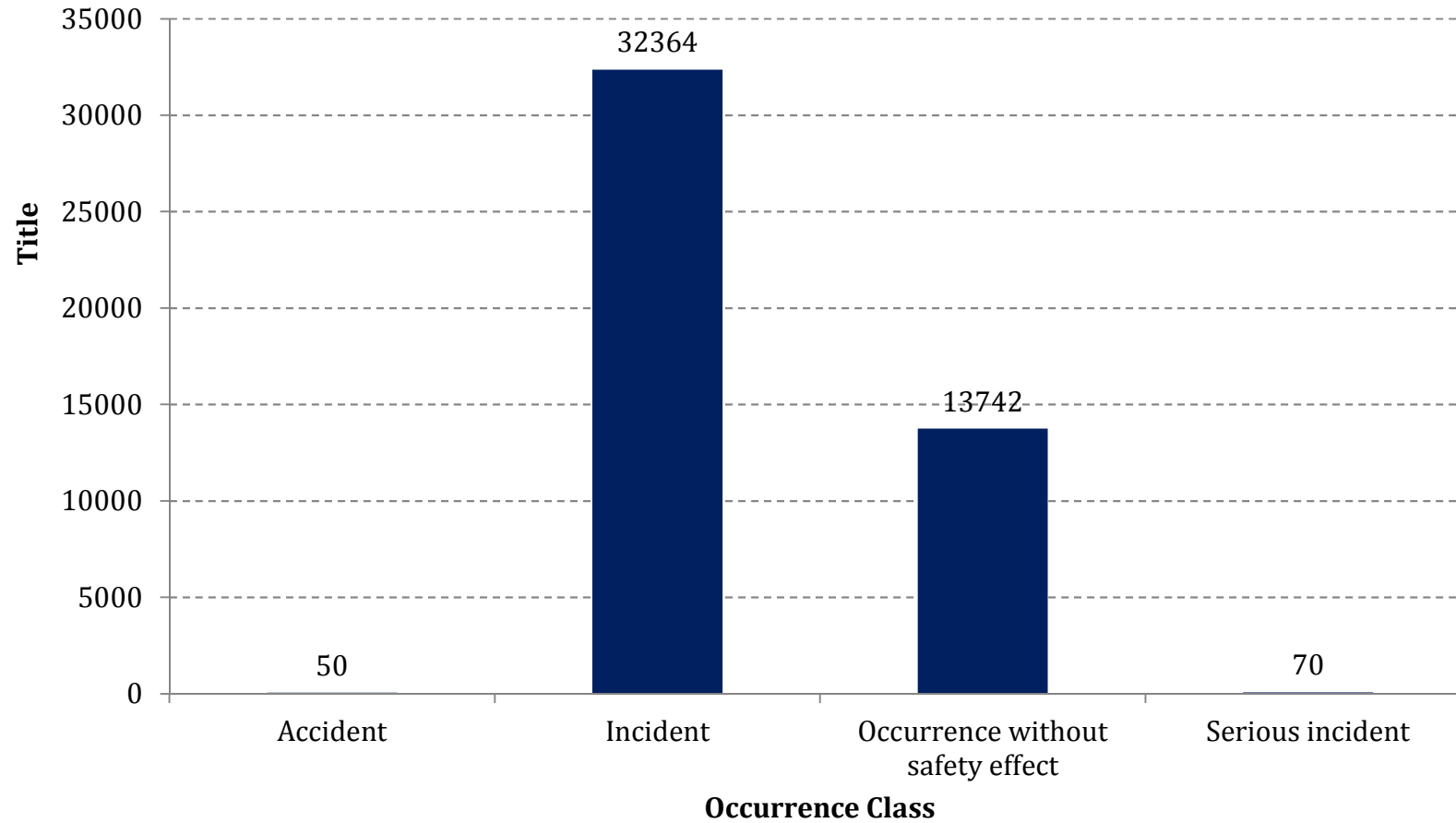


Network of Analysts

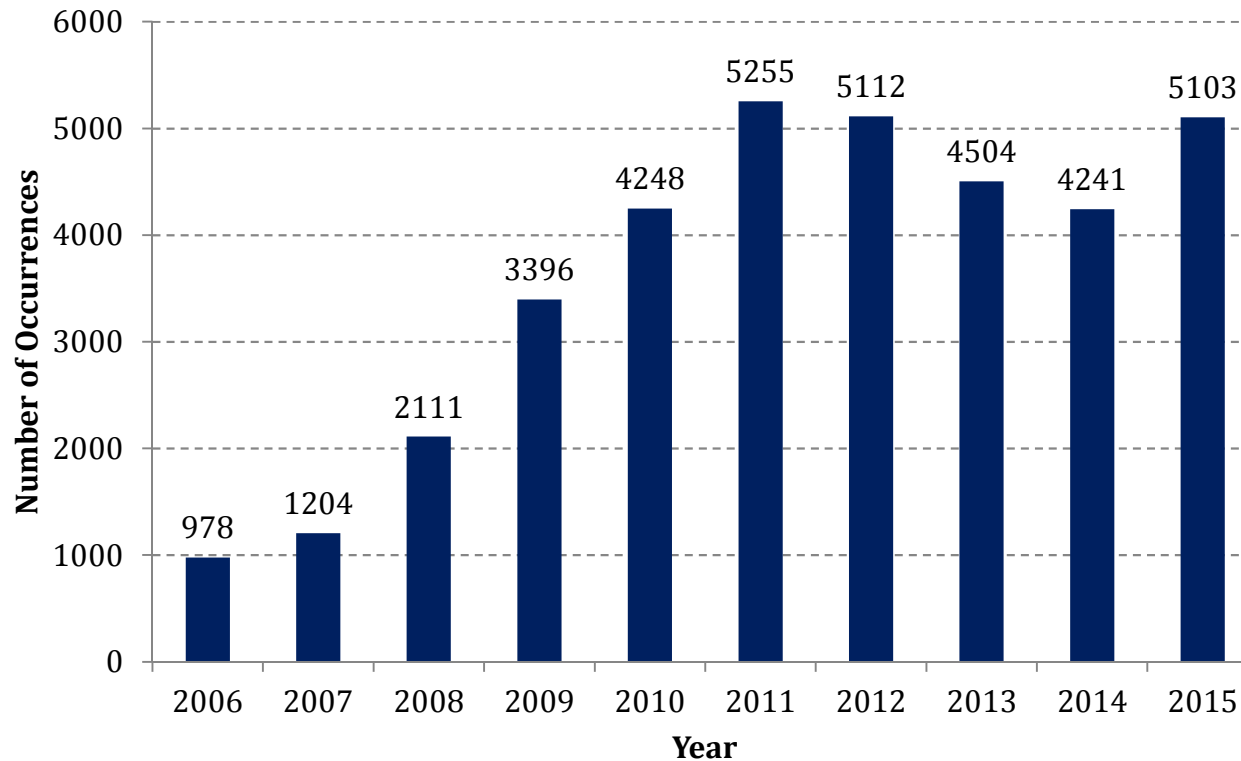
BIRD STRIKES – ECR DATA

- **ECR – European Central Repository**
- **Birdstrikedata 2006-2015**

Occurance Class and Fatal Accidents



CHANGE IN BIRDSTRIKE REPORTING TO THE ECR



The graph above shows the change in Birdstrike Reports in the ECR since 2006. This obviously leads to no specific conclusions other than to highlight the fact that any analysis of the ECR is extremely dependant on the reporting and coding of individual States rather than being a definitive source for analysis.

CODING AND DATA QUALITY

For the purposes of this analysis, only occurrences with either the Occurrence Category “Bird” or the various Event Types related to Birdstrike were included.

TOP BIRDSTRIKE LOCATIONS

This analysis only includes **confirmed Birdstrike** occurrences where either the **Occurrence Category** or relevant **Event Types** were coded.

The numbers are intended only for interest purposes so that States can be aware of the aggregated picture at European Level to support work at National Level.

Naturally, the difference in reporting to the ECR between countries means that this analysis is as much an indication of reporting and coding culture as it is the number of Birdstrikes in any particular location.

TOP BIRDSTRIKE LOCATIONS

No.	Airport	Number of Birdstrikes
1	Amsterdam Schiphol	2815
2	Copenhagen Kastrup	1558
8	Stavanger Sola	654
14	Oslo Gardermoen	570
18	Bergen	441
20	Stockholm Arlanda	419
27	Billund	281
29	Helsinki	256
33	Aalborg	242
35	Kristiansand	218
38	Gothenburg	180
39	Oslo Torp	176
43	Malmö	162
45	Oslo Rygge	154
46	Trondheim	154

Top 50 Locations by Rate

No.	Airport	Number of Birdstrikes (2006-2015)	Estimated Number of Movements/Year	Estimated Rate per Million Movements
1	Almeria	145	10,277	1411
3	Kristiansand	218	18,911	1153
4	Aalborg	242	23,750	1019
7	Stavanger Sola	654	90,862	720
9	Oslo Rygge	154	22,093	697
12	Amsterdam Schiphol	2815	450,679	625
13	Copenhagen Kastrup	1558	254,838	611
16	Gothenburg	180	30,332	593
22	Billund	281	50,719	554
32	Malmo	162	37,044	437
33	Bergen	441	101,456	435
34	Oslo Torp	176	42,139	418
35	Stockholm Arlanda	419	112,987	371
40	Trondheim	154	60,987	253
42	Oslo Gardermoen	570	234,974	243
46	Helsinki	256	165,430	155

Further Analysis

- **More Detailed ECR Analysis**
- **Further Analysis Using National Database Sources**
 - **Initial Collection of Data**
 - **Where and How Frequently Do Birdstrike Occur?**
 - Given the fact that Birdstrikes and their mitigation generally require local solutions at individual airport level, such analysis would support better identification of where effort should be focused.
 - Such an analysis could also be extended to consider the type of birds involved in Birdstrikes at different locations, this would help support the identification of mitigation measures.

Formal Safety Risk Assessment

- The purpose of the formal Safety Risk Assessment is to determine the most common scenarios for Birdstrikes and the potential outcomes that such occurrences could lead to.
- Barrier model analysis would be used to consider the risk of Birdstrikes to aviation safety and identify which barrier in the system could be improved through Safety Actions at European, National or Local Level.

Identification of Potential Actions

- **Best Practice.**
 - Birdstrike is not a new problem and many airports have already developed extremely effective Bird Control Programmes.
 - It would be useful to identify specific airports in different countries who could contribute to the development of best practice that could be used to support improvements across the whole European Aviation Community and potentially beyond.

Questions?