



# EASA

European Aviation Safety Agency

## EASA Wildlife Strike Prevention Update

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TE.GEN.00409-001

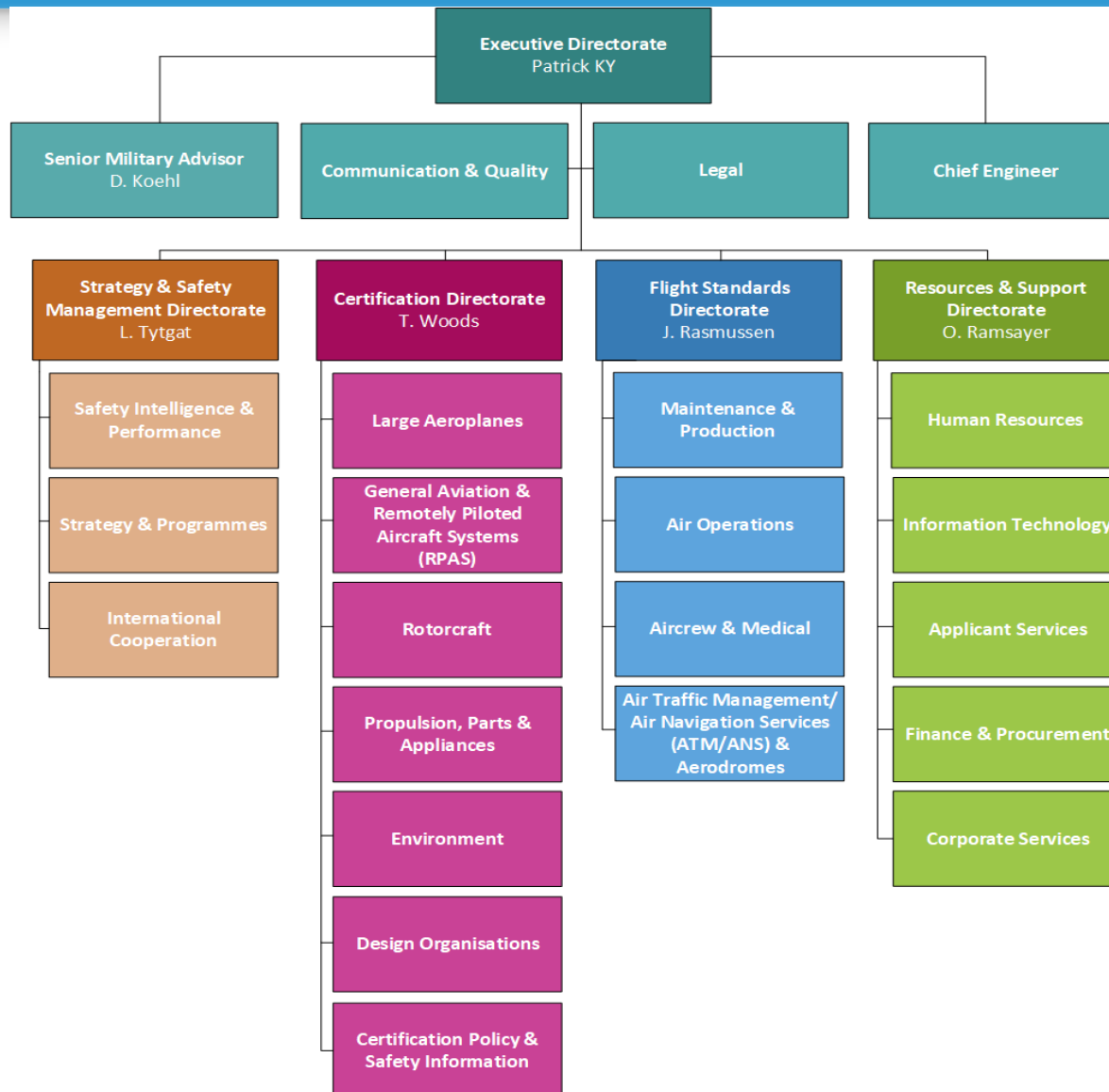


# Agenda

1. The Agency
2. Bird Strike data – European Central Repository
3. Current Activities
4. Future Plans

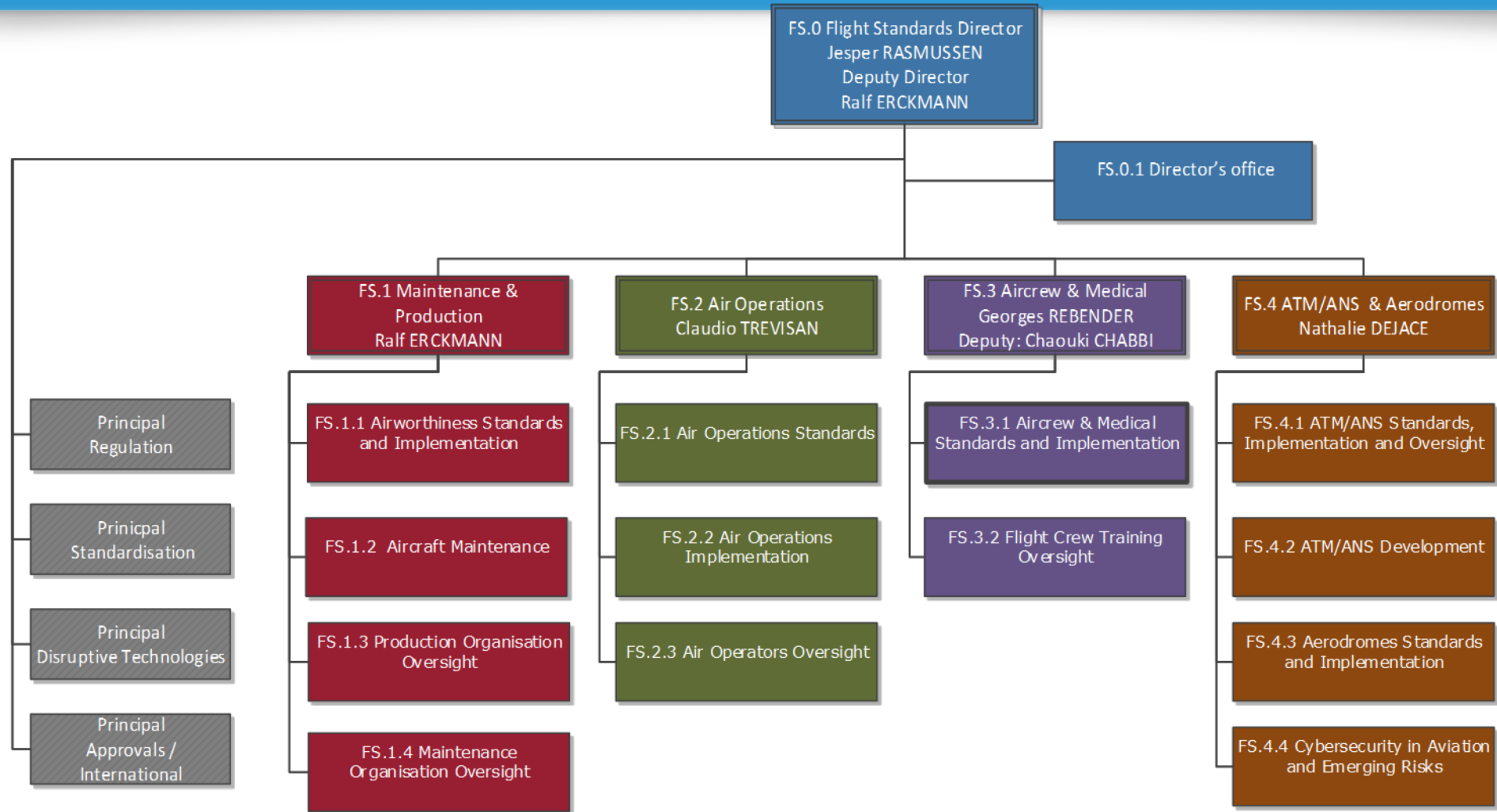


# EASA – Organisation Structure





# FS – Organisation Structure



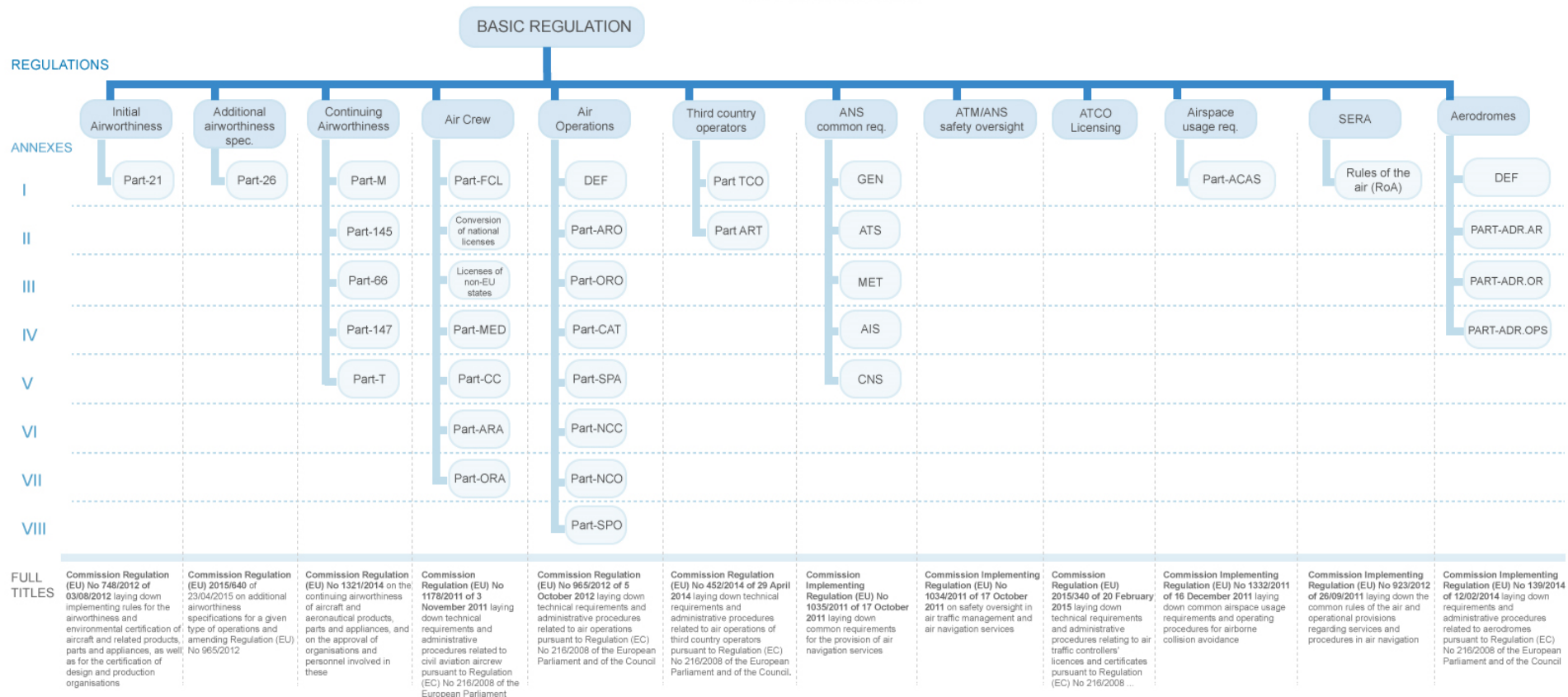


# EASA Regulations

## Regulations Structure

Each Part to each implementing regulation has its own **Acceptable Means of Compliance and Guidance Material (AMC/GM)**. These AMC and GM are amended along with the amendments of the regulations. These AMC/GM are so-called 'soft law' (non-binding rules), and put down in form of EASA Decisions. A comprehensive explanation on AMC in form of questions and answers can be found on the FAQ section of the EASA website.

Furthermore, **Certification Specifications** are also related to the implementing regulations, respectively their parts. Like AMC/GM they are put down as Decisions and are non-binding.

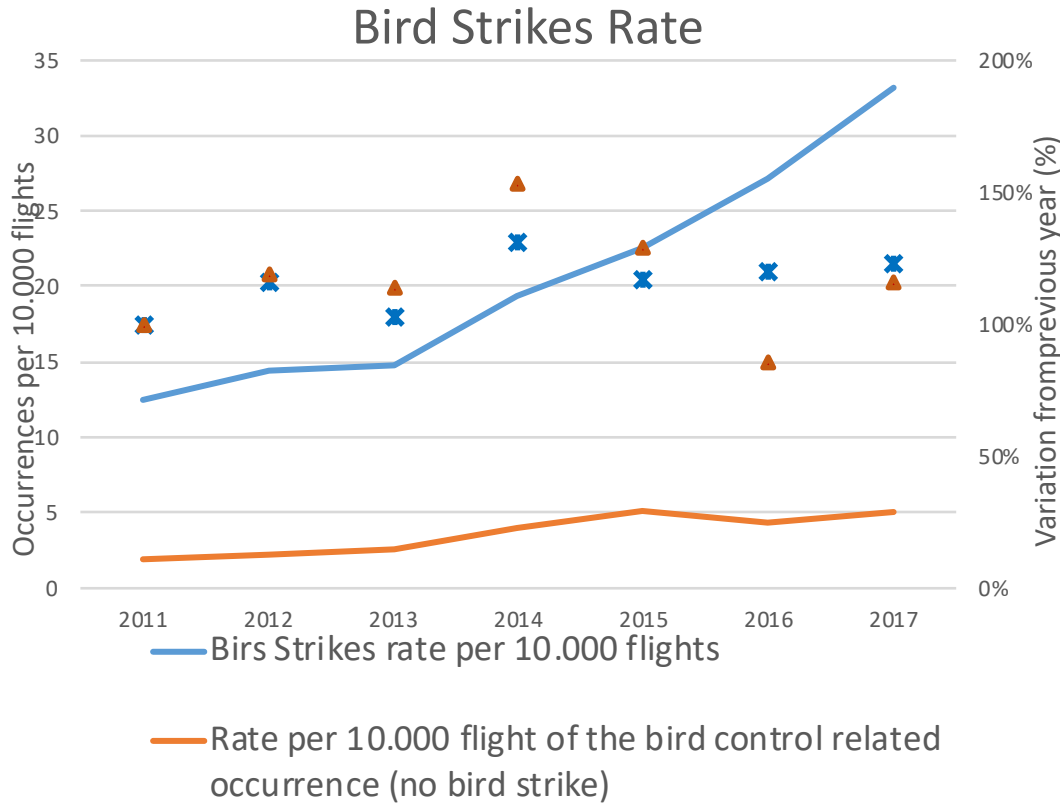




- Occurrences in the European Central Repository (ECR) fulfilling the following criteria:
  - Related to Birds (actual, near-miss or bird control)
  - Occurred in EASA-MS territory (aerodromes)
  - Occurred between 2011 and 2017



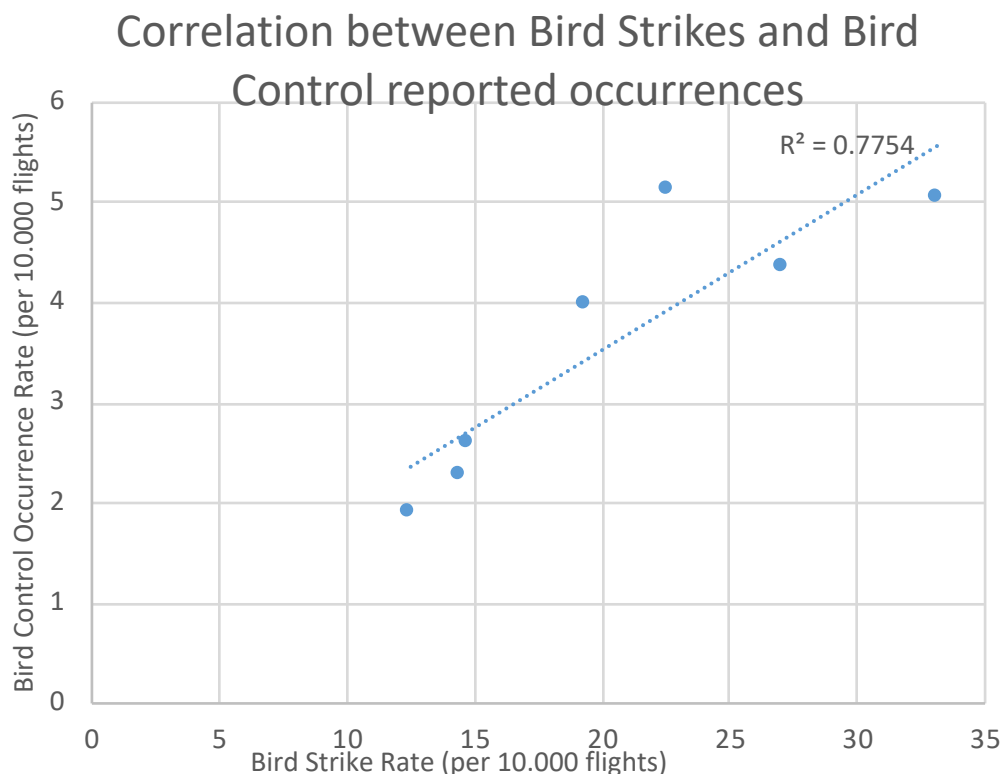
# Bird Strikes Data from the ECR



- Continuous increase of bird strike reported occurrences since 2011
- Yearly increase of 20%-40% since 2014
- Similar increase for bird control-related reported occurrences (no actual birdstrikes but typically reporting ineffective bird control)



# Correlation between reporting of bird strikes and bird control



- There is a significant positive correlation between both, the of bird control and bird strikes reported occurrences
- This relation may suggest an overall increase of the actual number of bird strikes and the insufficient bird control at the aerodrome
- However, it is suspected that the overall improvement of reporting plays a major role in this trend

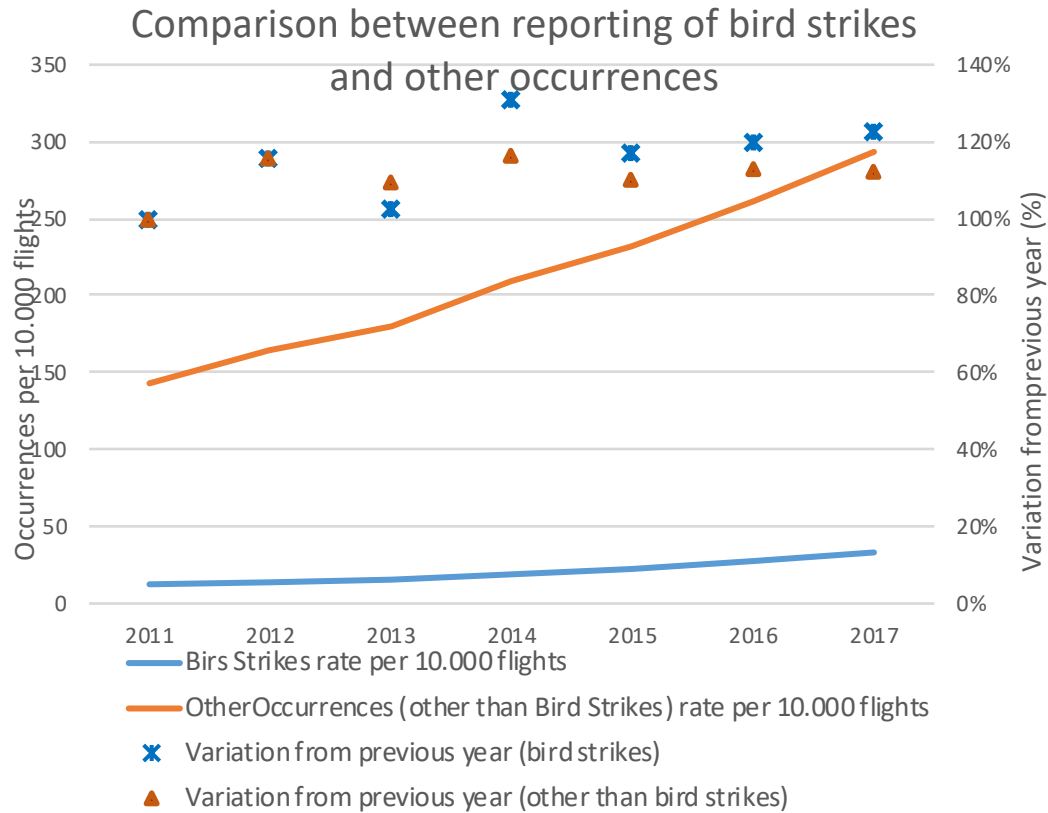




- Occurrences in the European Central Repository (ECR) fulfilling the following criteria:
  - Occurrences not related to birds
  - Occurred in EASA-MS territory (aerodromes)
  - Occurred between 2011 and 2017



# Occurrence Reporting in the ECR

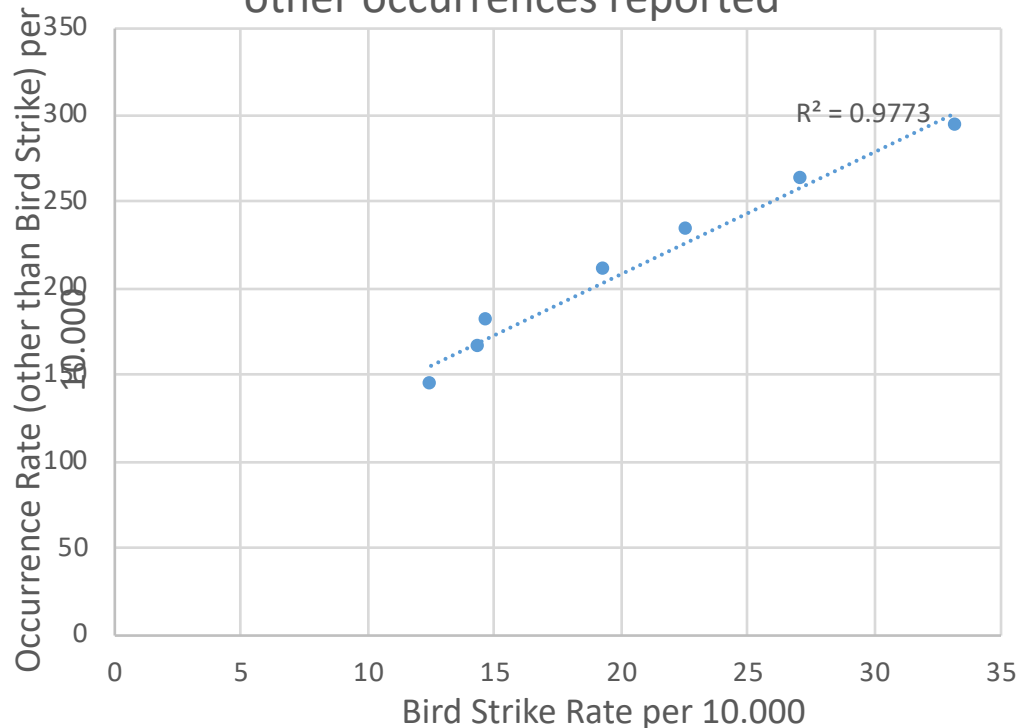


- The yearly increase and the overall trend of both, reported bird related occurrences and all the other occurrences is stable and similar over the last 6-year period
- This suggests a strong correlation with the improvement of the reporting culture in Europe



# Correlation between the overall reporting and bird related reporting

Correlation between the bird strikes and other occurrences reported



- There is a strong positive statistical correlation between the increase of reported occurrences (other than bird strikes) and reported bird related occurrences
- Expert judgement suggests strong causality behind this statistical correlation:
  - Implementation of Regulation 376/2014 on occurrence reporting has caused an overall improvement of the reporting culture across Europe
  - Regulation 376/2014 entered into force in November 2015



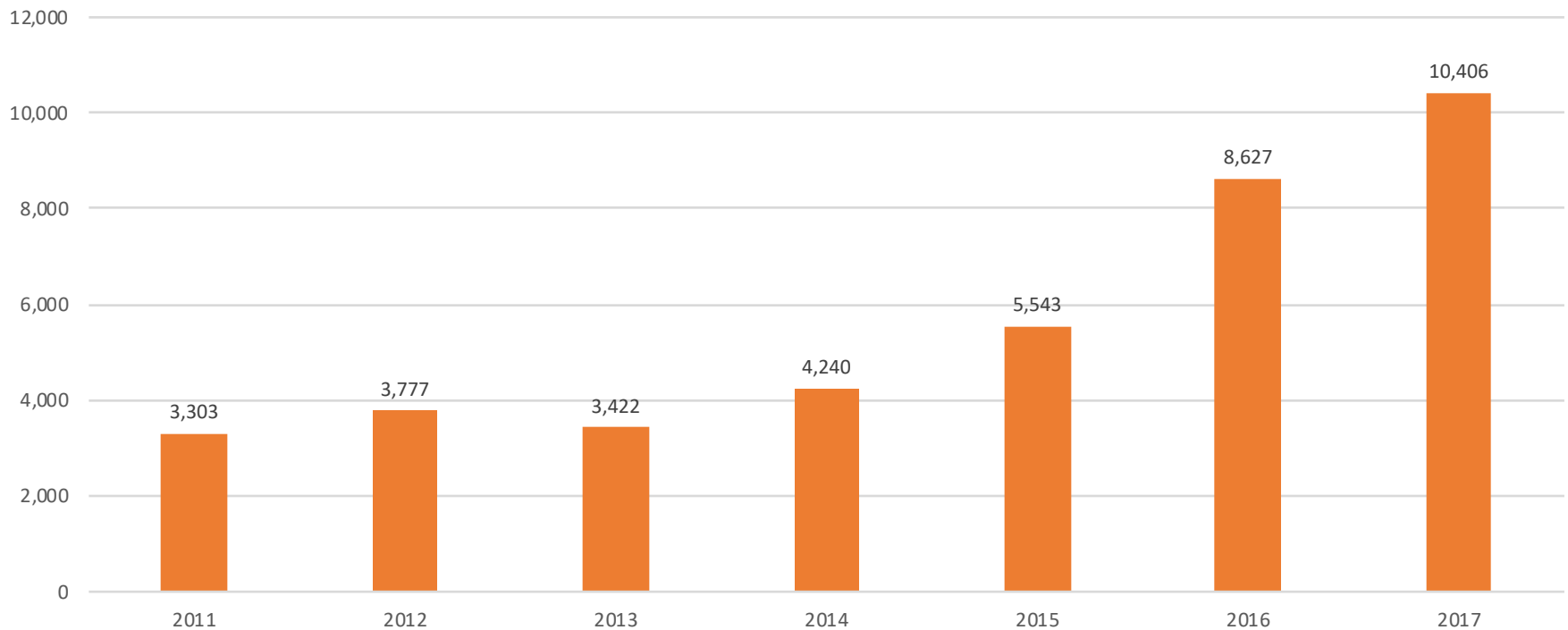
# Preliminary Conclusions

- The review of the ECR data related to bird strikes shows a continuous increase between 20% and 40% each year since 2014
- However, this continuous increase is estimated to be due to the overall improvement of occurrence reporting across Europe during the implementation of Regulation 376/2014



# ECR Birdstrike data – Birdstrikes per year

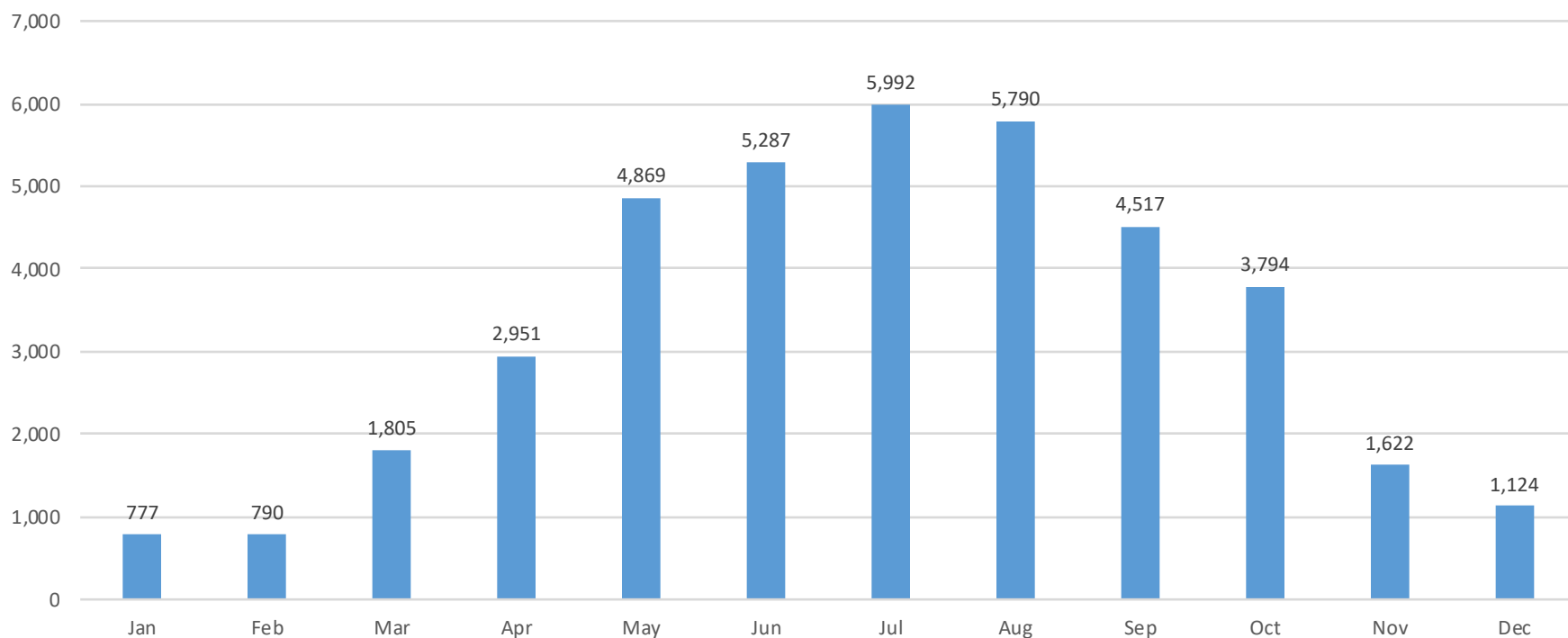
Number of Birdstrikes per year 2011-2017, EASA MS, ECR Data





# ECR Birdstrike data – Birdstrikes per month

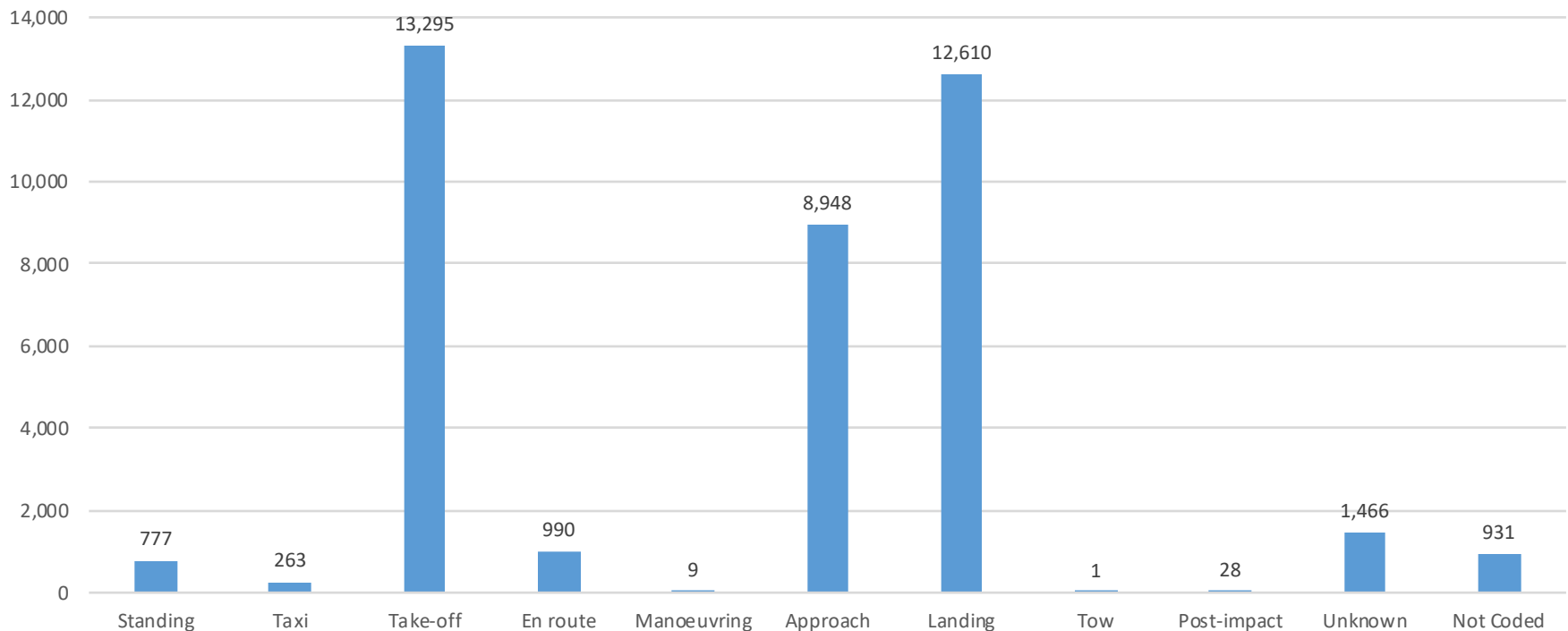
Number of Birdstrikes per month 2011-2017, EASA MS, ECR data





# ECR Birdstrike data – Birdstrikes per flight phase

Number of Birdstrikes per Flight Phase 2011-2017, EASA MS, ECR data

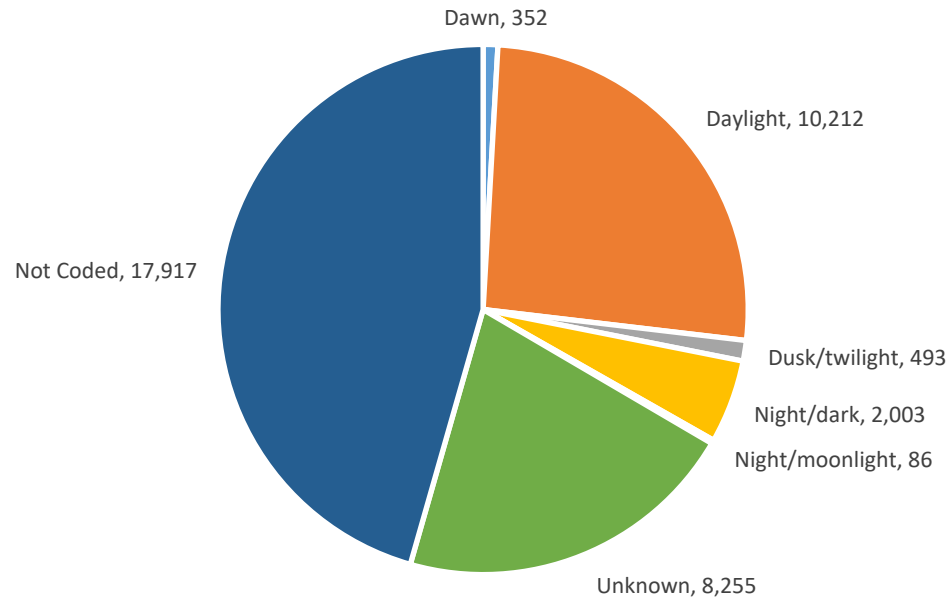




# ECR Birdstrike data – Birdstrikes per light conditions

Number of Birdstrikes per light conditions 2011-2017, EASA MS, ECR data

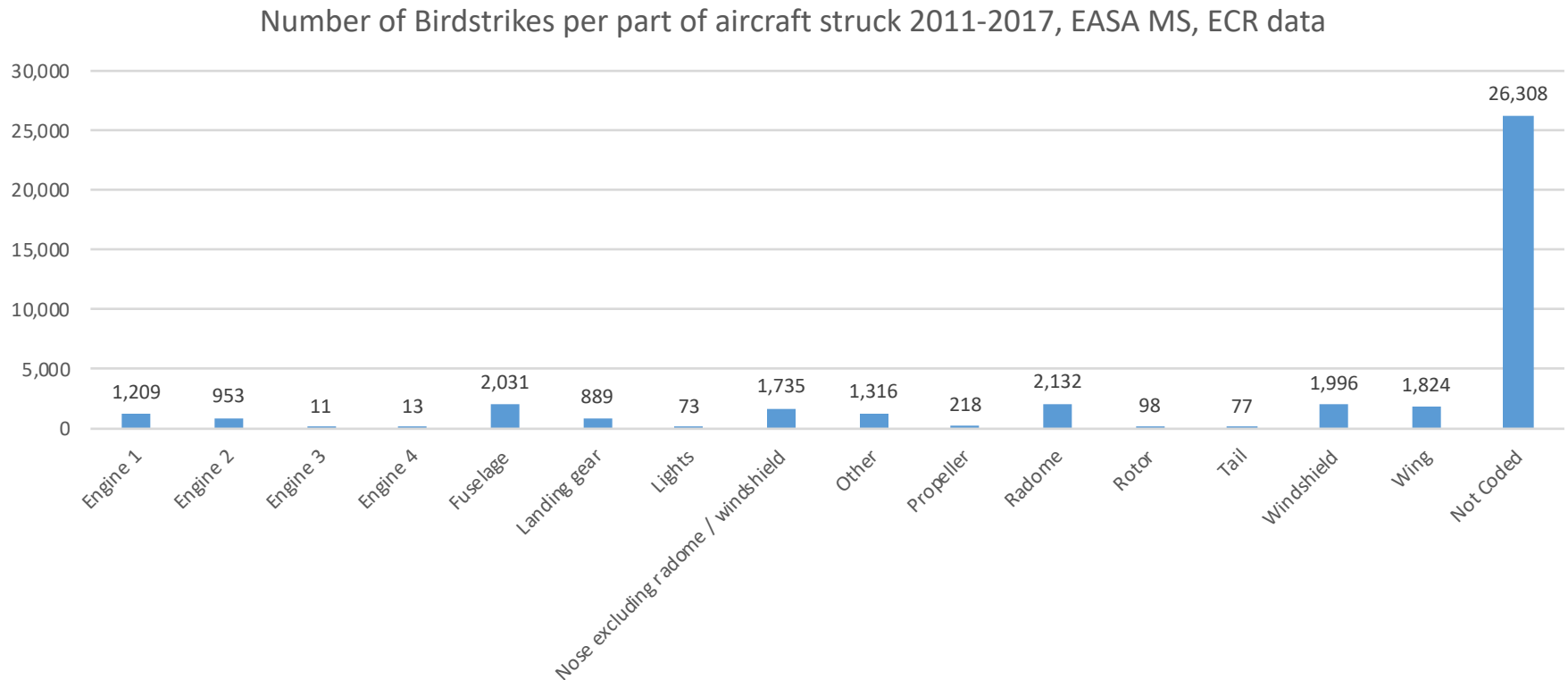
■ Dawn ■ Daylight ■ Dusk/twilight ■ Night/dark ■ Night/moonlight ■ Unknown ■ Not Coded







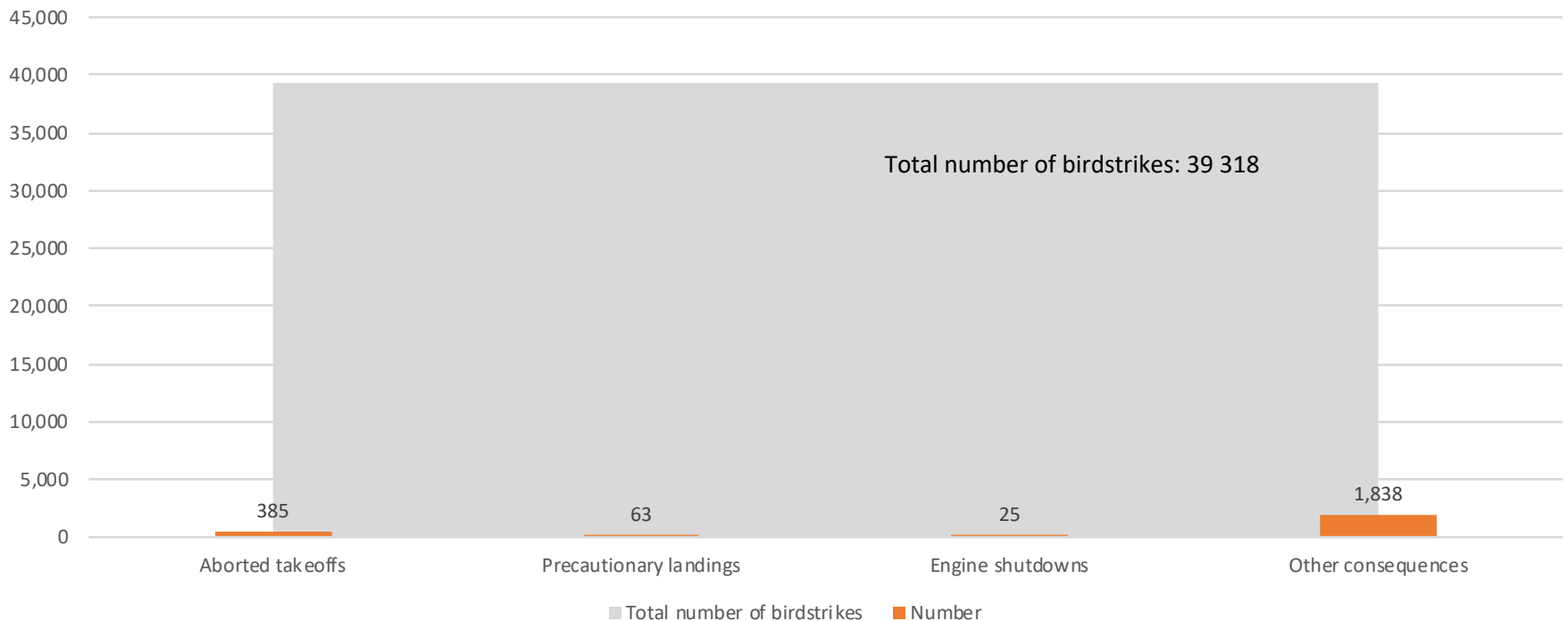
# ECR Birdstrike data – Birdstrikes per part of aircraft struck





# ECR Birdstrike data – Effects on flights

Birdstrikes in EASA MS 2011-2017, Effects on flights





## ➤ NPA 2017-16 – Engine bird ingestion

### ➤ Purpose

- To improve the ability of aeroplane turbine engines to cope with the ingestion of birds that can be reasonably expected to be experienced during the service life of the engine

### ➤ Why

- Safety Recommendation to the Agency by the NTSB following the US Airways accident

### ➤ What

- Changes to CS-E on engine bird ingestion demonstration provisions to include an additional requirement to continue operate following the ingestion of medium-sized bird into the engine core with a fan speed representative to the climb or approach condition, if no bird material is ingested into the engine during the test.



Wednesday 21/11/2018 09:30

See you all there



# EASA

European Aviation Safety Agency

## Thank you very much for your attention

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