

An In-Depth Analysis of Bird Strikes in Aviation (2000-2011)

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This dashboard provides insights into bird strikes from 2000 to 2011.



Introduction:

This dashboard provides insights into bird strikes from 2000 to 2011. Bird strikes are a significant aviation safety concern, especially during critical flight phases like takeoff, landing, and approach. By analyzing data on bird strikes, including the species involved, the aircraft affected, and the costs incurred, we aim to uncover trends and develop strategies to mitigate the risks of these incidents.

Total Records

25K

Average Altitude (Feet)

804.57

Average Cost per Strike

6.25K

Average Wildlife Struck

2.84

Injuries per Incident

0.01

Data Overview

The dataset includes **25,429 records** with the following key columns:

Record ID: Unique identifier for each incident.

Aircraft Type: Type of the aircraft involved in the strike.

Wildlife Number Struck: The total number of wildlife involved in the incident.

Cost Total \$: The total cost incurred due to the strike.

Feet above ground: The altitude (in feet) where the bird strike occurred.

Number of people injured: Number of injuries resulting from the strike.

Year: Year in which the bird strike occurred.

Key Insights

25,429 incidents of bird strikes reported from 2000-2011.

Average cost per strike: \$5,566.

The **peak year for bird strikes** was 2008.

Most strikes occurred during **take-off** and **landing** phases.

0.0008 injuries per incident (very rare).

Significant **economic impact** due to damage and delays.

Bird strikes pose a significant safety and financial challenge for aviation. However, by adopting better management strategies and advanced technology, their impact can be minimized.

Key Recommendations:

Improve **wildlife management** at airports to reduce strikes.

Invest in **AI-based bird detection systems** for early warnings.

PAGES

Yearly Analysis & Bird
Strikes in the US'

Safety and Impact
Analysis

Risk Mitigation &
Further Insights

Created By

AVINASH RAI



Data Source:

Source: Federal Aviation Administration (FAA)

Period: 2000-2011

Records: 25,429 bird strike incidents

focuses on analyzing the bird strikes over the years, understanding trends, costs, and flight phases.

Yearly Analysis of Bird Strikes (2000-2011)

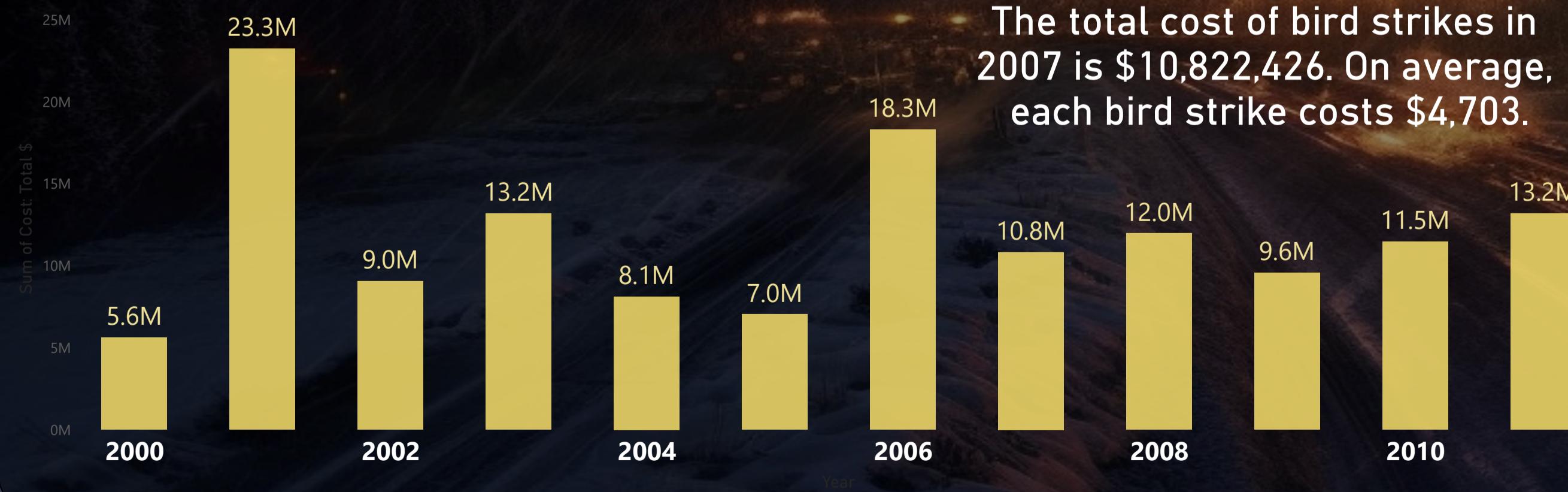
Number of Bird Strikes by Year

In the year 2009, there were 3,247 bird strikes recorded. This represents 12.77% of the total bird strikes. This year had the highest number of bird strikes recorded, with a total of 25,429 strikes. This year is significant in aviation safety history due to its impact on flight safety and operations.



Yearly Cost Incurred Due to Bird Strikes

The total cost of bird strikes in 2007 is \$10,822,426. On average, each bird strike costs \$4,703.



Year

All

Airport: Name

All

Origin State

All

Total Cost Incurred Due to Bird Strikes

142M

Total Bird Strikes

25.43K

Top 50 Airports with Most Bird Strikes

Airport: Name	Count of Record ID
ATLANTA INTL	296
AUSTIN-BERGSTROM INTL	236
BALTIMORE WASH INTL	401
BIRMINGHAM-SHUTTLESWORTH INTL	211
BUFFALO-NIAGARA INTL	182
CHARLOTTE/DOUGLAS INTL ARPT	367
CHICAGO MIDWAY INTL ARPT	296
CHICAGO O'HARE INTL ARPT	332

Top 10 Severity of Bird Strikes by Airline/Operator

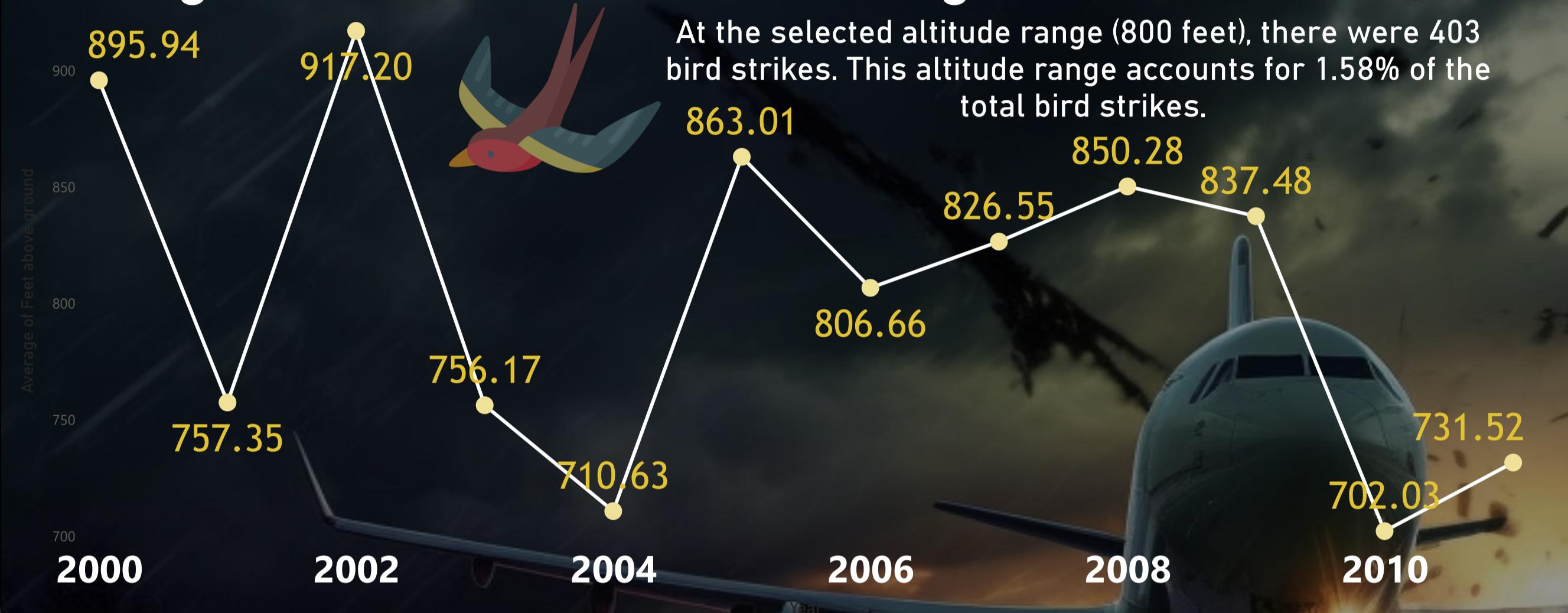


The airline had bird strikes recorded.

A comprehensive analysis of bird strikes in aviation to enhance safety and mitigate risks.

Safety and Impact Analysis (2000-2011)

Average Altitude of Aircraft During Strikes



Year

All

Airport: Na...

All

Origin State

All

Total No. of People Injured by Bird Strikes

21

Average Altitude of Aircraft During Bird Strikes

799.03

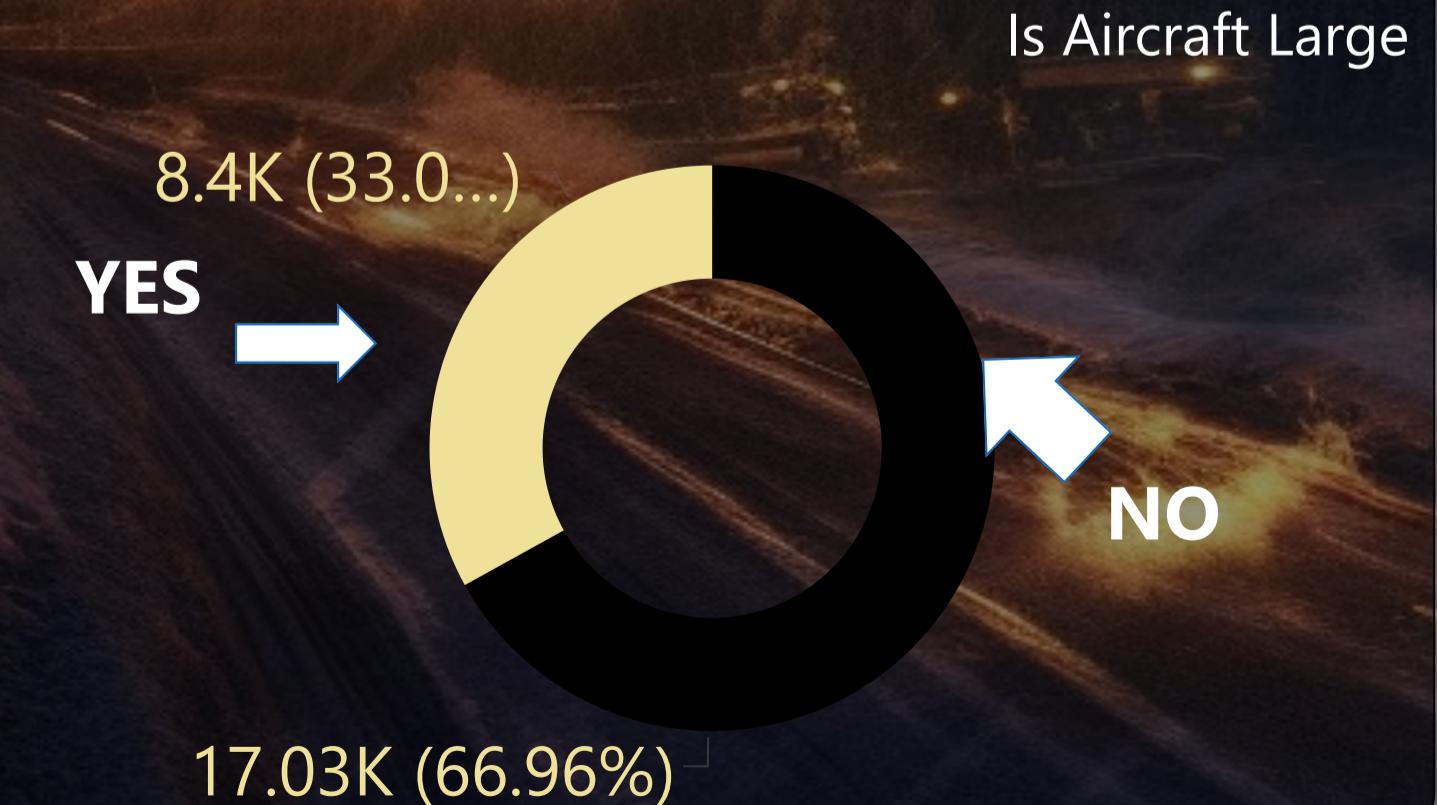
People Injured by Bird Strikes



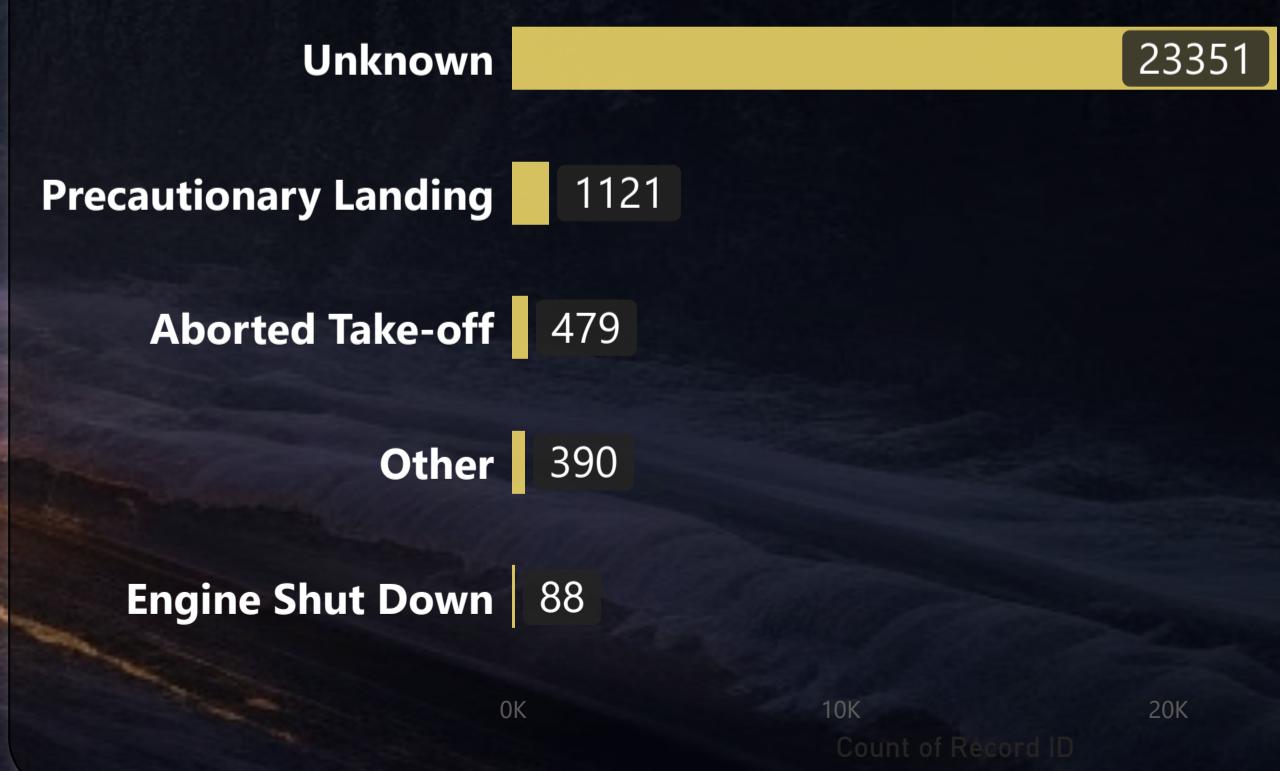
Bird Strikes by Flight Phase



Impact of Bird Strikes by Aircraft Size



Effect on Flight by Impact Type



Risk Mitigation & Further Insights (2000-2011)

Relationship Between Precipitation and Bird Strikes

● Sum of Cost: Total \$ ● Count of Record ID



Year

All

Airport: Name

All

Origin State

All

Total wildlife remains collected

6806

Bird Strikes Involving Large Aircraft

8402

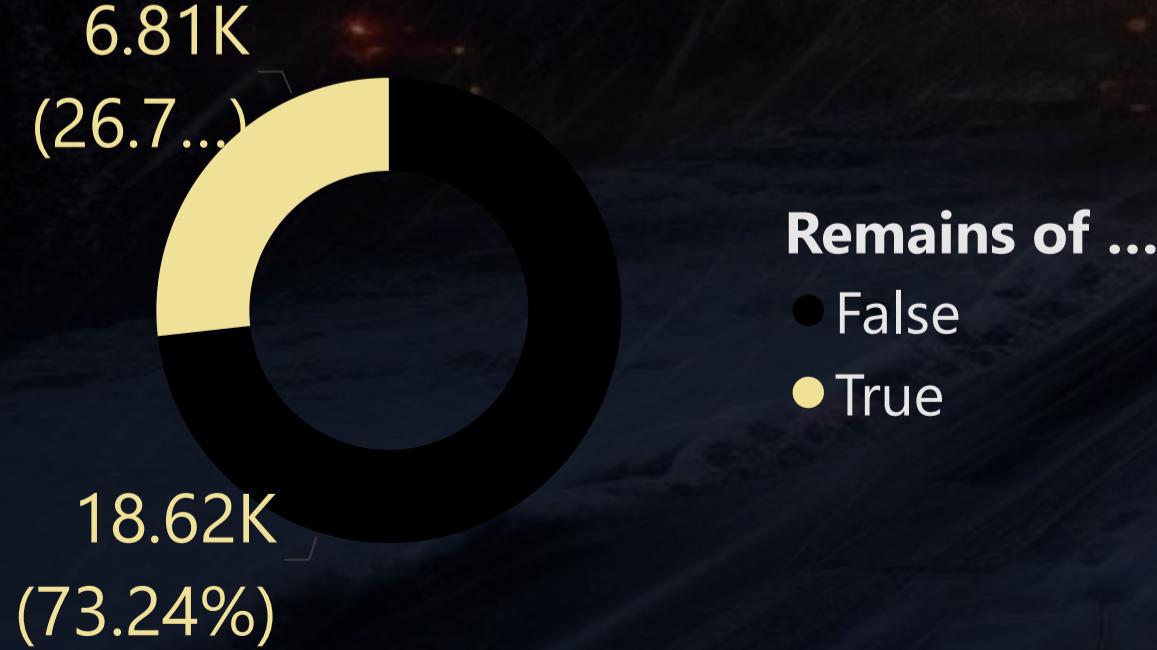
Effectiveness of Wildlife Remains Collection

6.81K (26.76%)

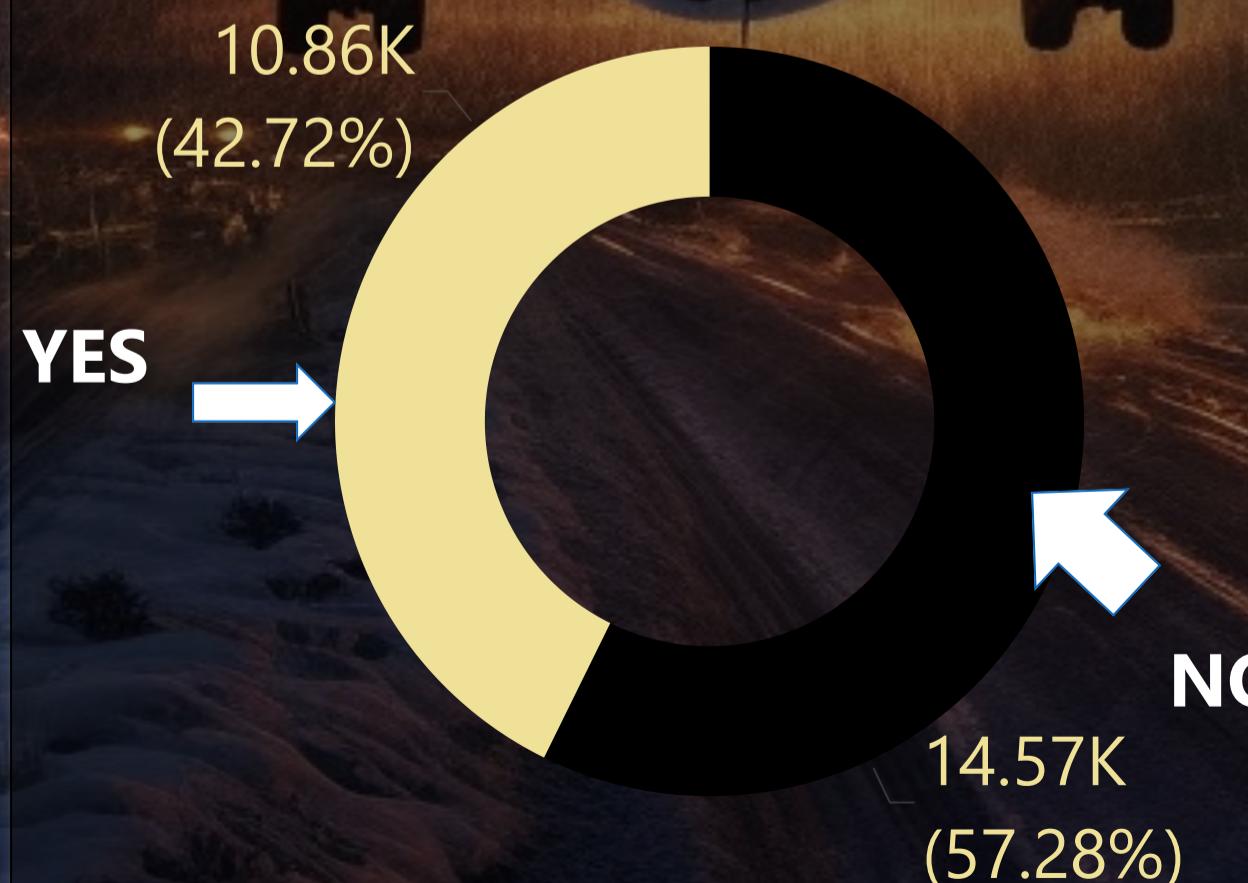


18.62K (73.24%)

Effectiveness of Wildlife Remains Collection



Pilot Warning Effectiveness



Top 10 Bird Strikes Based on Wildlife Species

