



DATA VISUALIZATION OF BIRD STRIKES BETWEEN 2000 – 2011

ADITYA SINHA

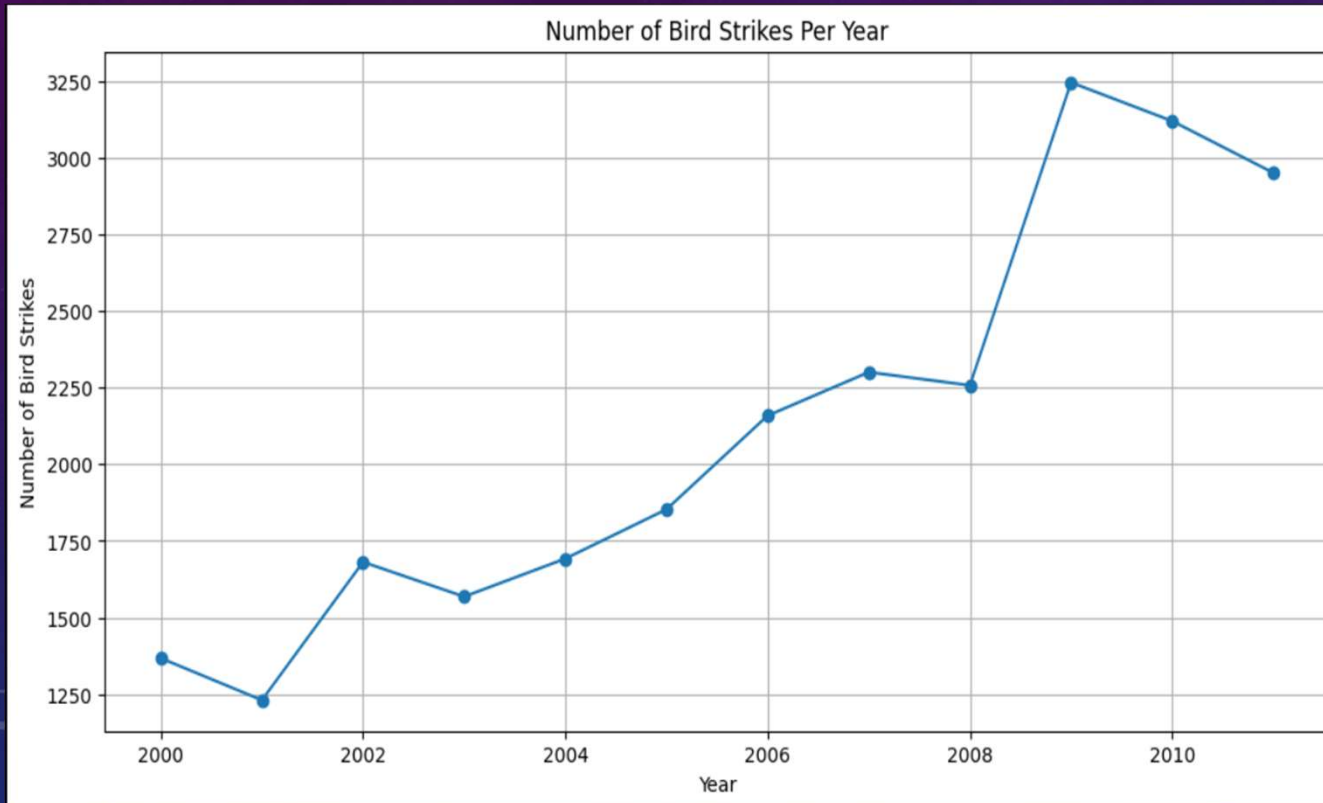
Introduction

This report analyses bird strike incidents involving aircraft which focuses on various aspects such as the timing, altitude, impact on flights, and whether pilots were informed about the potential presence of wildlife. The data used in this report encompasses multiple variables related to bird strikes, providing insights into patterns and consequences.

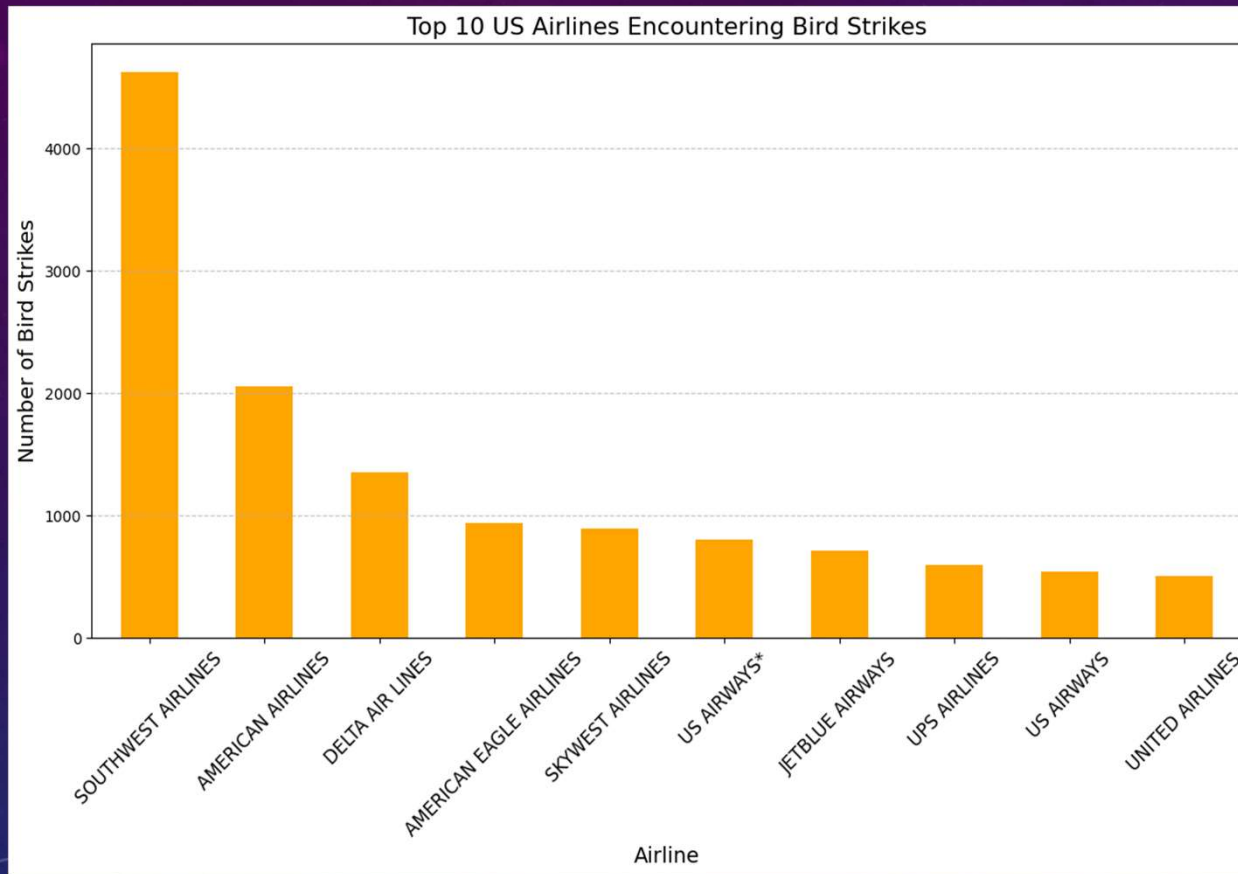
Yearly Analysis of Bird Strikes

Observation:

The number of bird strikes generally increased from 2000 to 2011, with a notable spike in 2009.

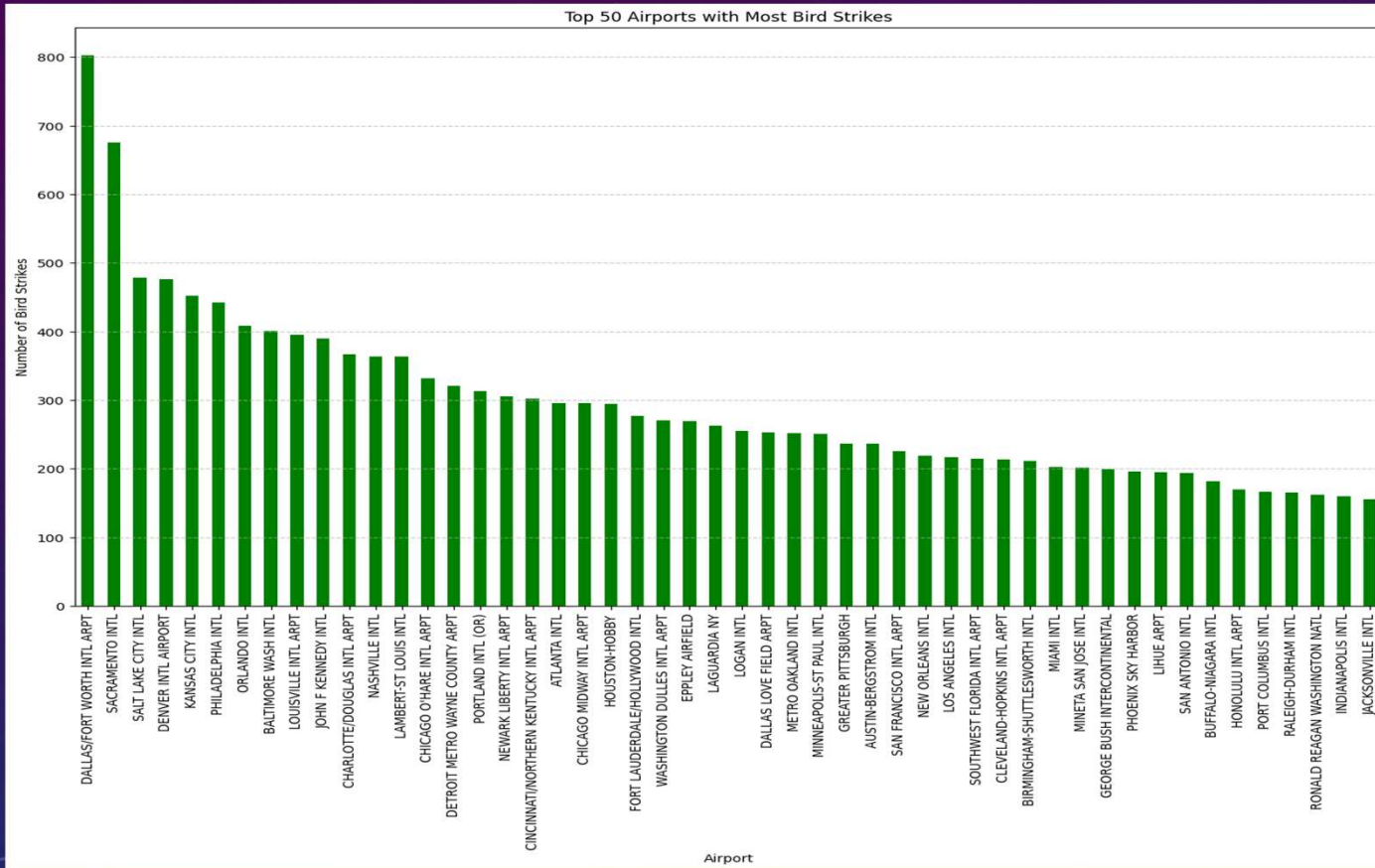


Top US Airlines Encountering Bird Strikes



- Southwest Airlines: 4628 bird strikes
- American Airlines: 2058 bird strikes
- Delta Air Lines: 1349 bird strikes
- American Eagle Airlines: 932 bird strikes
- SkyWest Airlines: 891 bird strikes
- US Airways*: 797 bird strikes
- JetBlue Airways: 708 bird strikes
- UPS Airlines: 590 bird strikes
- US Airways: 540 bird strikes
- United Airlines: 506 bird strikes

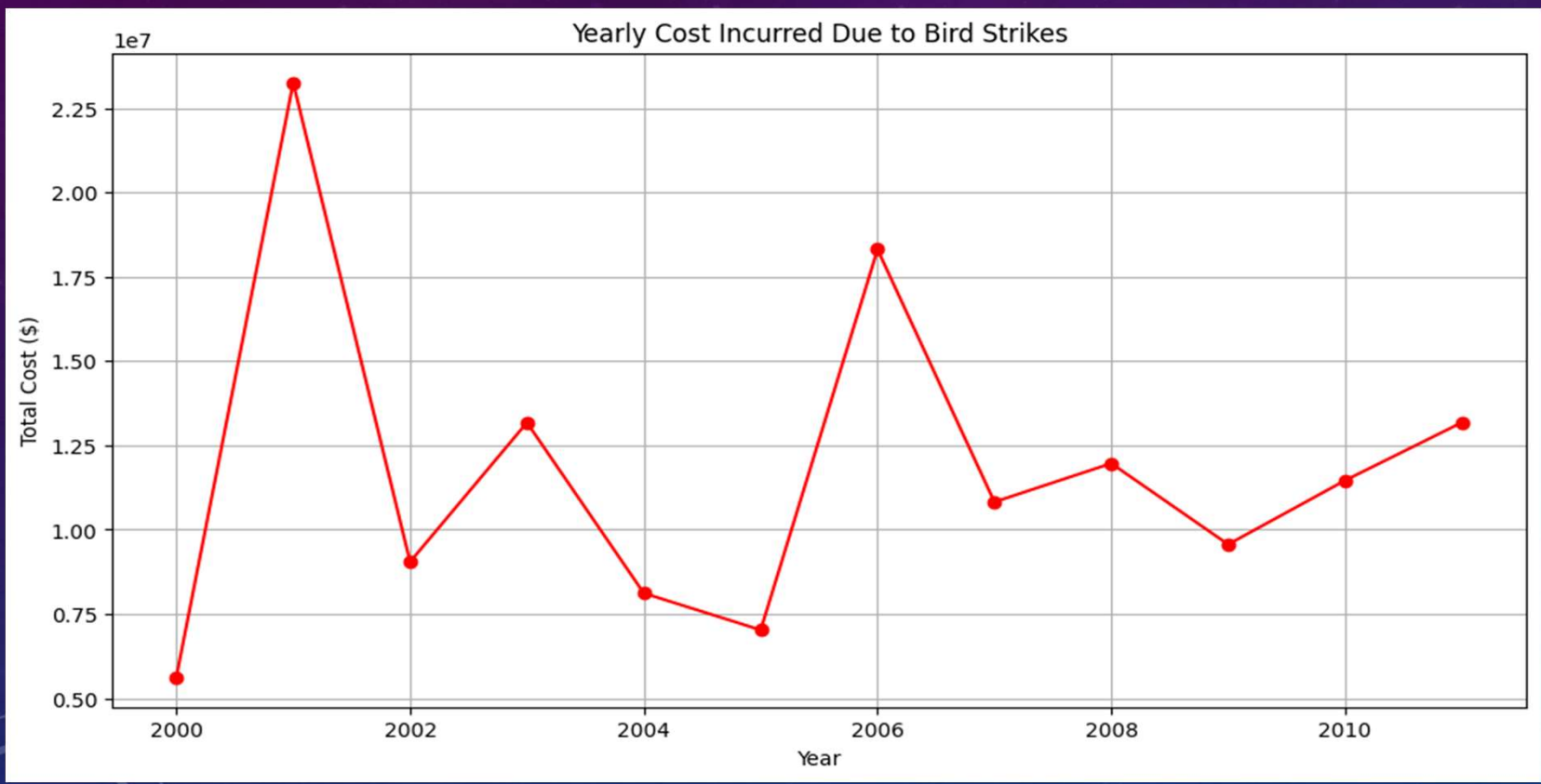
Top Airports with Bird Strikes



- Dallas/Fort Worth Intl Arpt: 803 bird strikes
- Sacramento Intl: 676 bird strikes
- Salt Lake City Intl: 479 bird strikes
- Denver Intl Airport: 476 bird strikes
- Kansas City Intl: 452 bird strikes

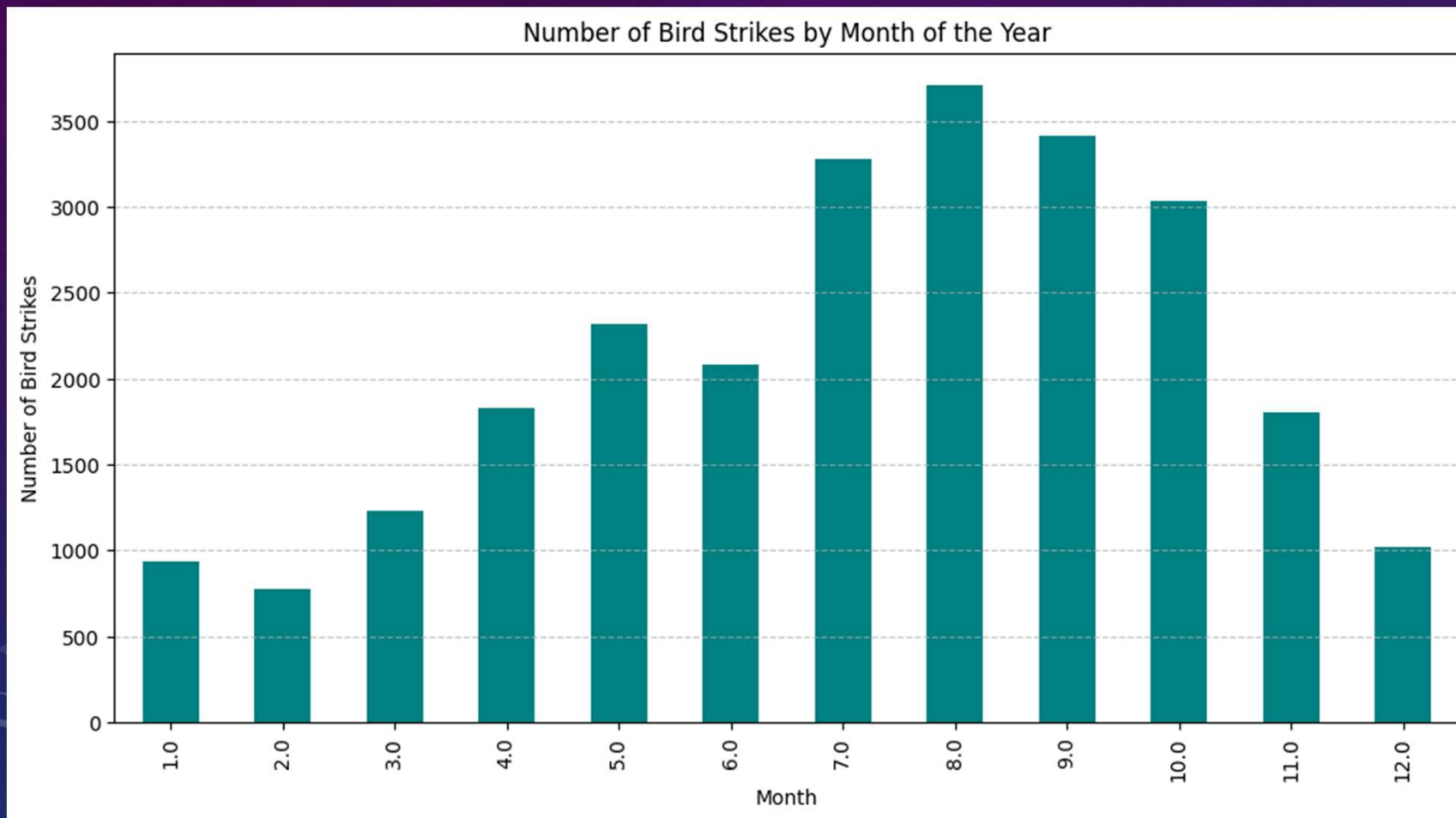
Yearly Cost Incurred Due to Bird Strikes

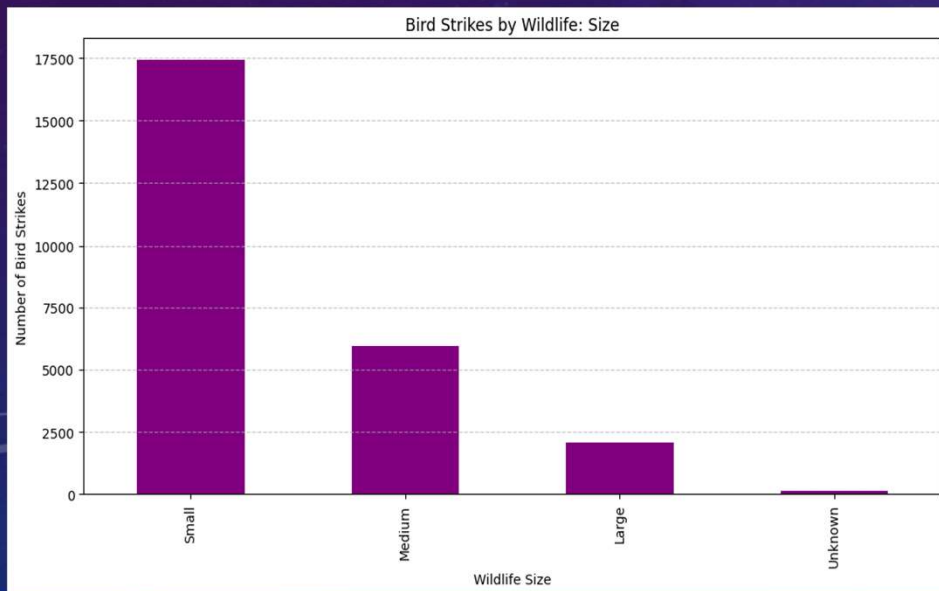
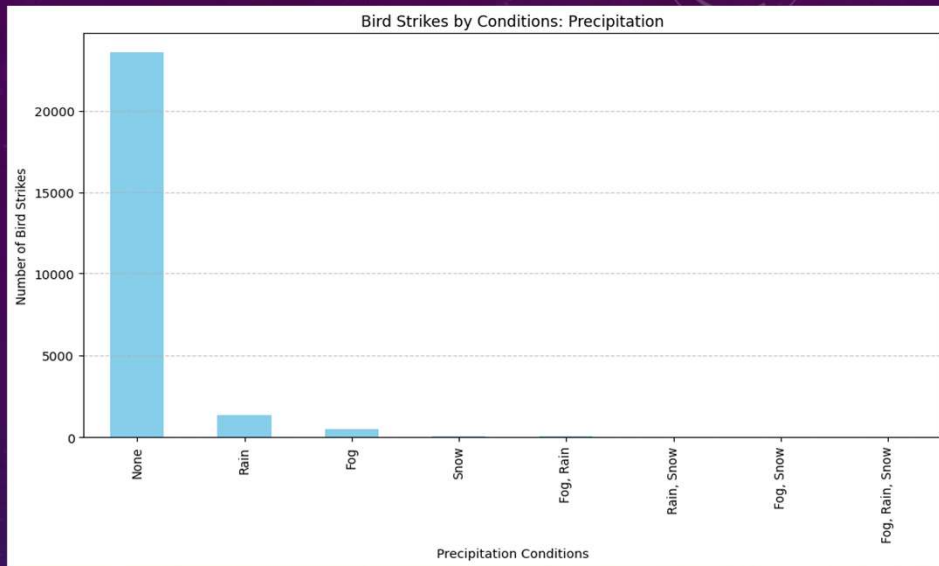
Observation: Yearly cost peaks at 2001, 2003, 2006 with maximum in the year of 2001



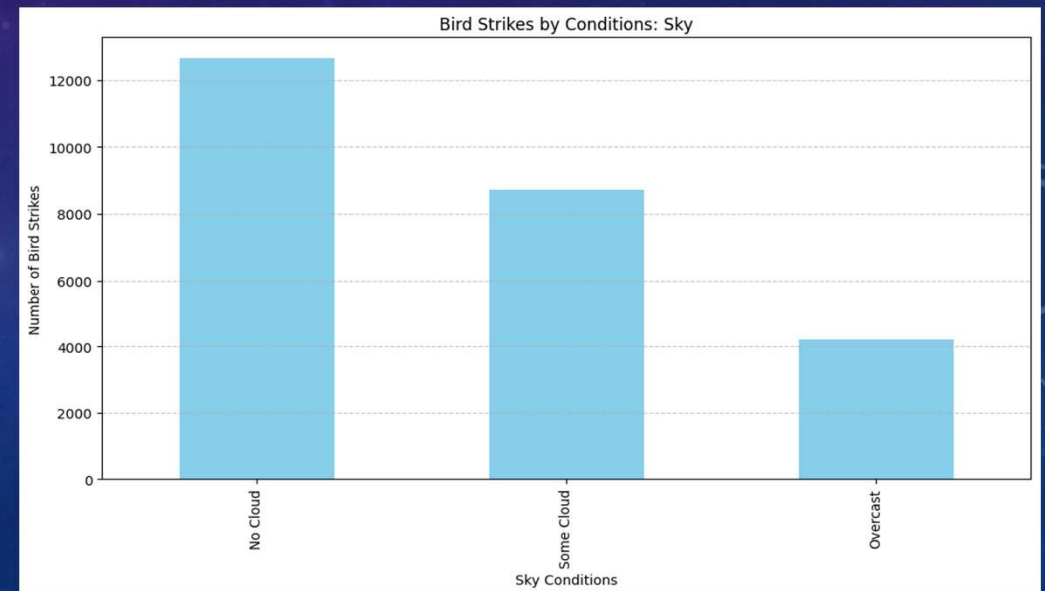
Timing of Bird Strikes

Bird strikes occur throughout the year with maximum in the month of July, August, September...



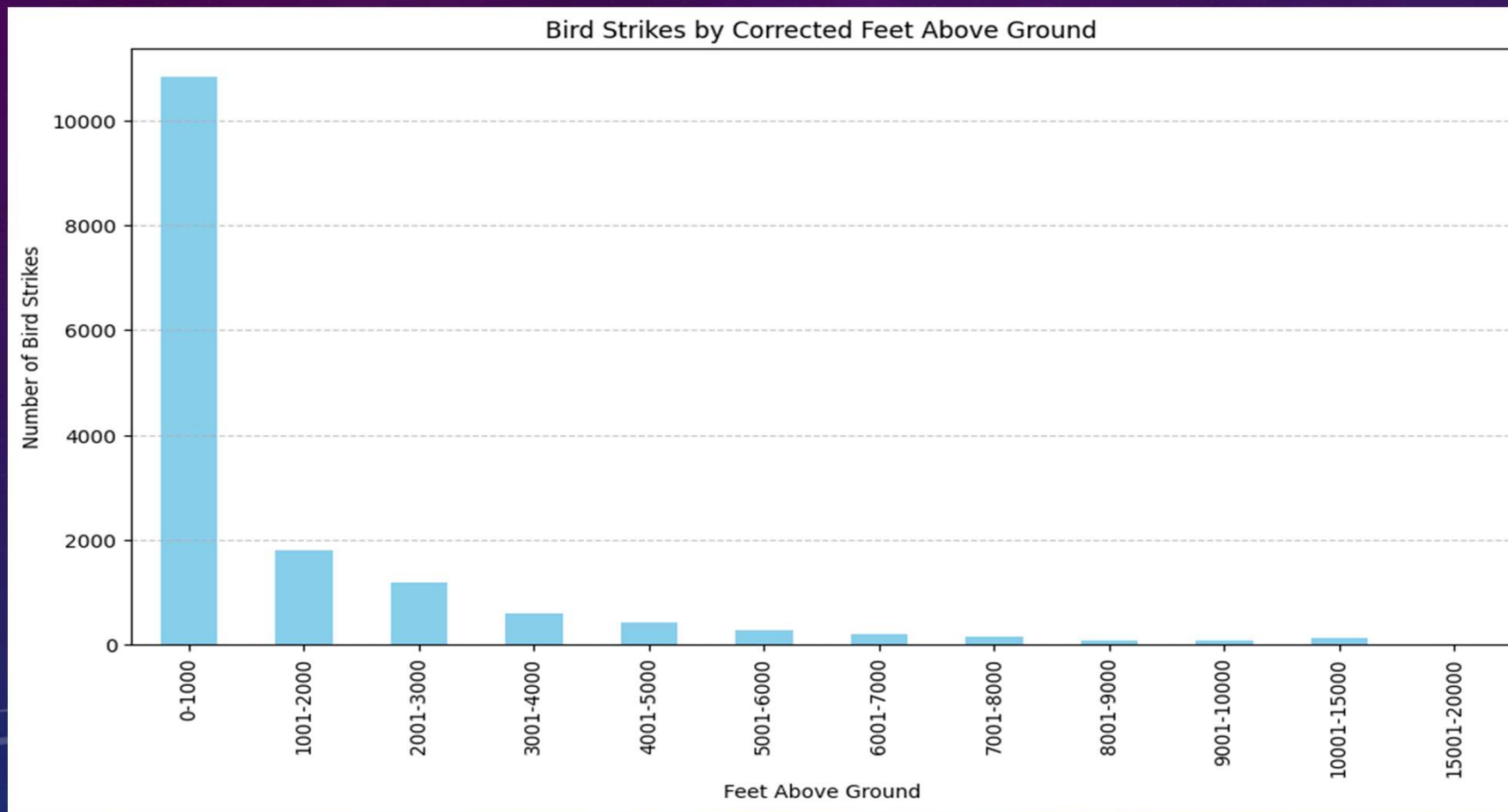


One Inference can be drawn from these 3 graphs is that most bird strikes occurs when weather is clear and size of flock of birds is relatively small.



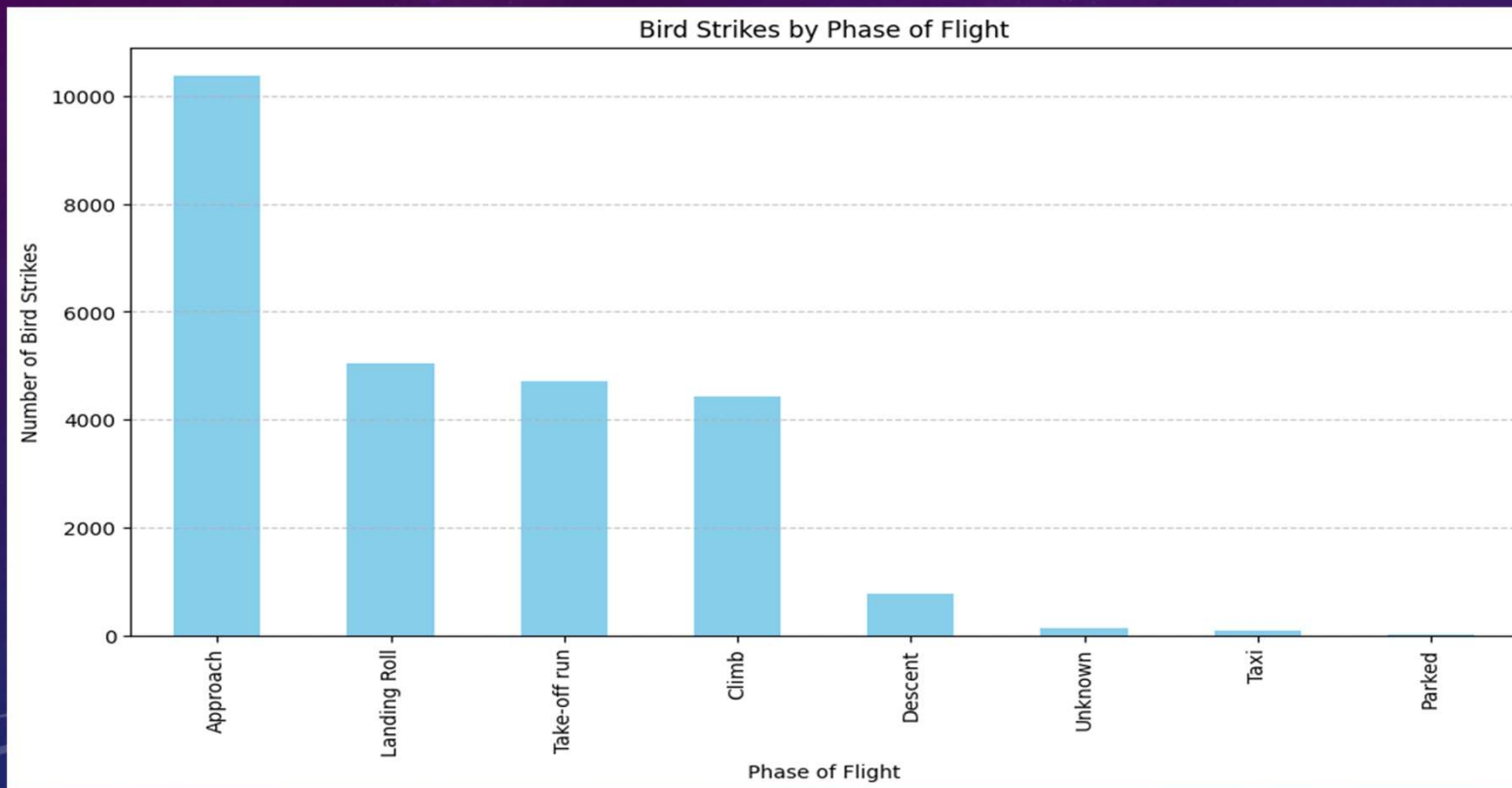
Altitude at the Time of Bird Strike

Most bird strikes occurs at the lower level of altitude (near 1000 feet above ground or lower)



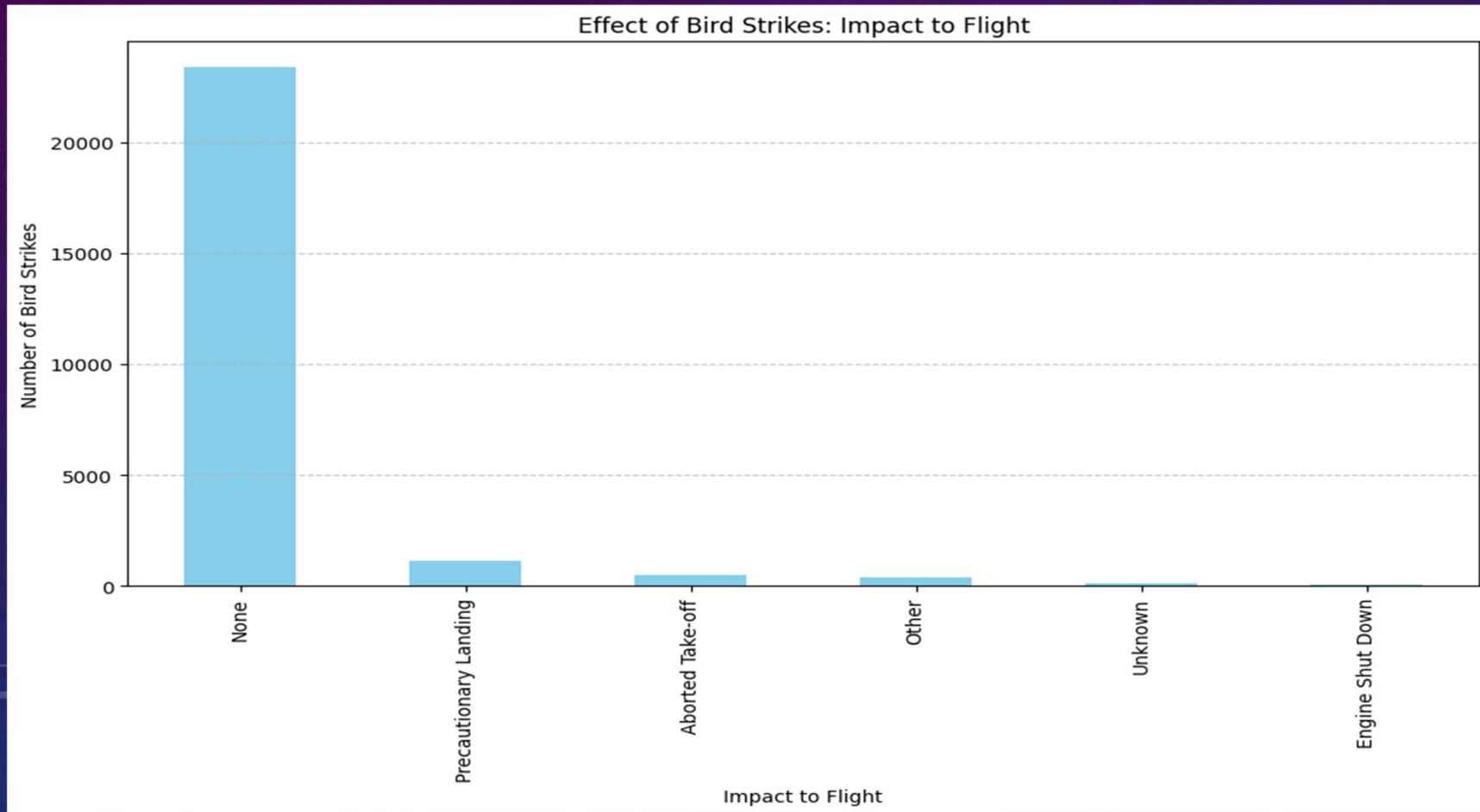
Phase of Flight at the Time of Strike

Most of the Bird Strikes occur during landing Approach, landing Roll, Take-off run, Climb with maximum during Approach (Low Altitude as observed in previous slide)

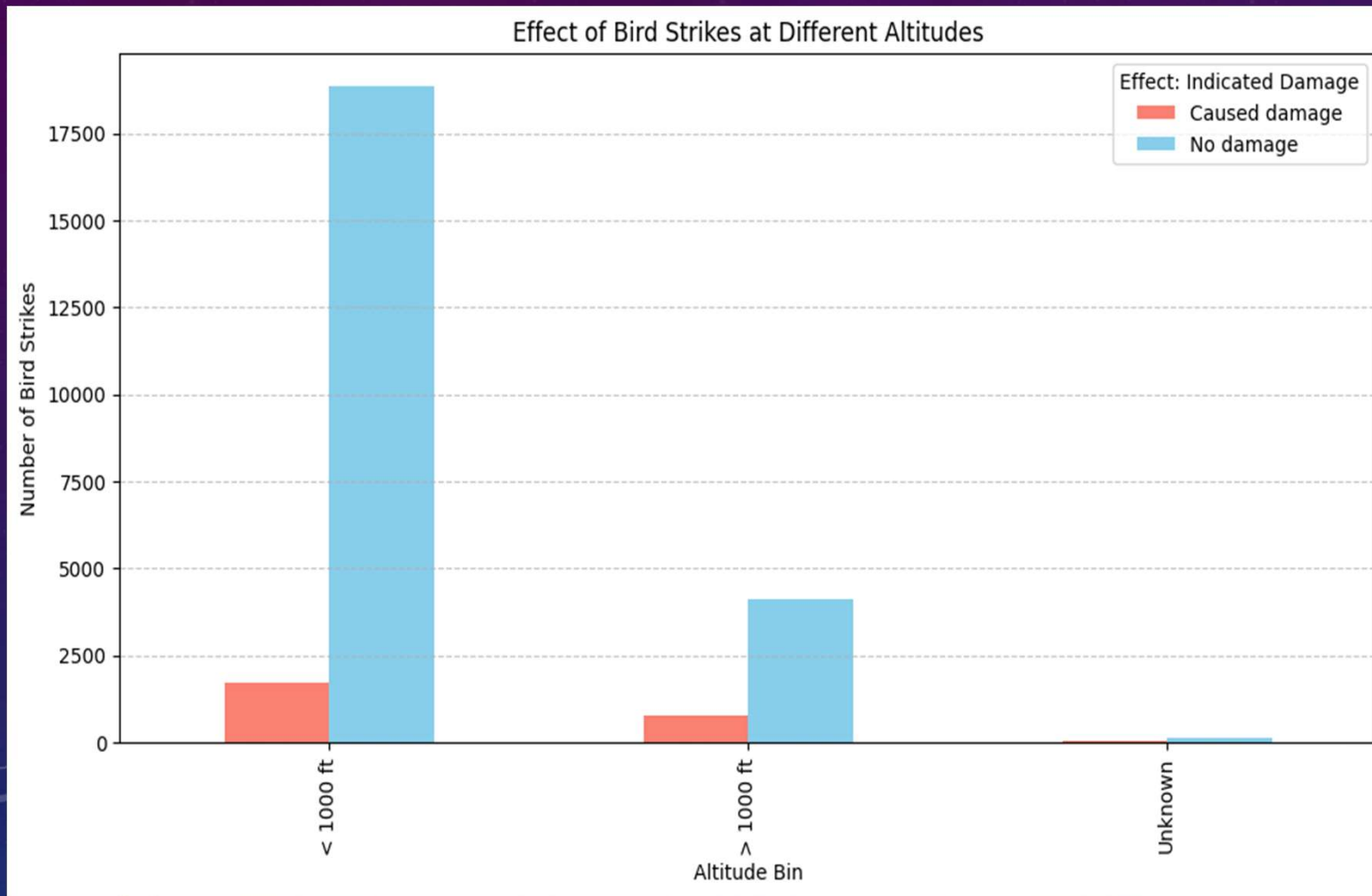


Effect of Bird Strikes & Impact on Flight

It can be observed that most of the Bird Strikes doesn't affect the flight but some causes Precautinary landing and some causes serious damage to aircraft as it strikes resulted into Aborted Take-off



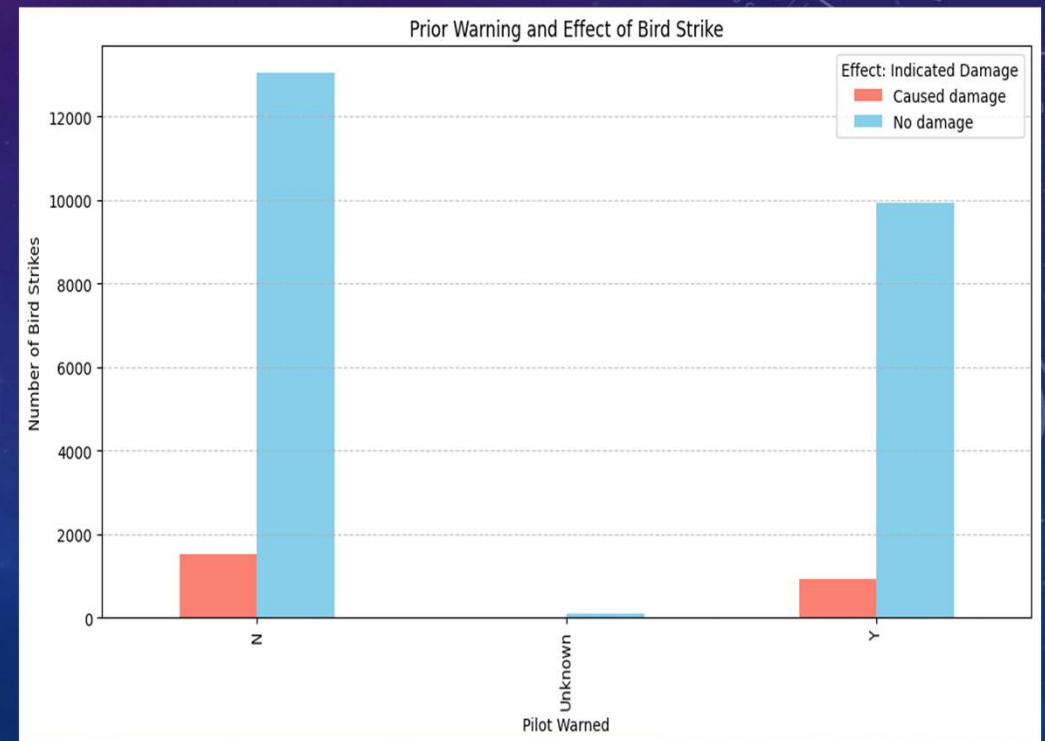
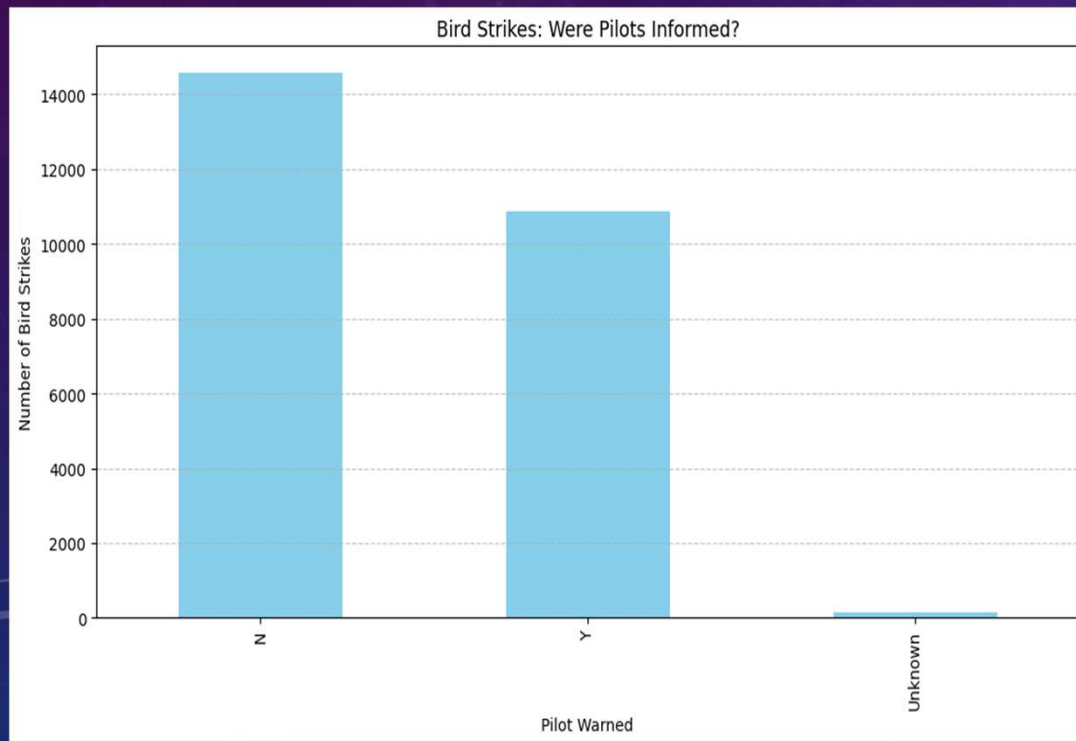
Effect of Strike at Different Altitudes



- < 1000 ft:
- Caused Damage: 1,702 incidents
- No Damage: 18,854 incidents
- 1000 ft:
- Caused Damage: 752 incidents
- No Damage: 4,121 incidents

Pilot Information and Prior Warning

- A larger number of bird strikes occur when pilots are not informed (14,567) compared to when they are informed (10,862).
- When pilots are informed, there are fewer incidents causing damage (922) compared to when they are not informed (1,532).
- In both cases, the majority of bird strikes do not cause damage, but being informed seems to correlate with a lower number of damage-causing incidents.



Conclusion

This report provides a comprehensive analysis of bird strikes involving aircraft, highlighting key patterns and impacts. Understanding these aspects can help in developing better strategies for mitigating bird strike risks and improving aviation safety.

THANK YOU!