

Data Visualization of Bird Strikes between 2000 – 2011

Transportation and Communication

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Second Project

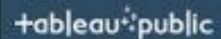
The Tableau Public logo, featuring a blue square with the text "tableau public" in white.

TABLEAU WORKBOOK LINK

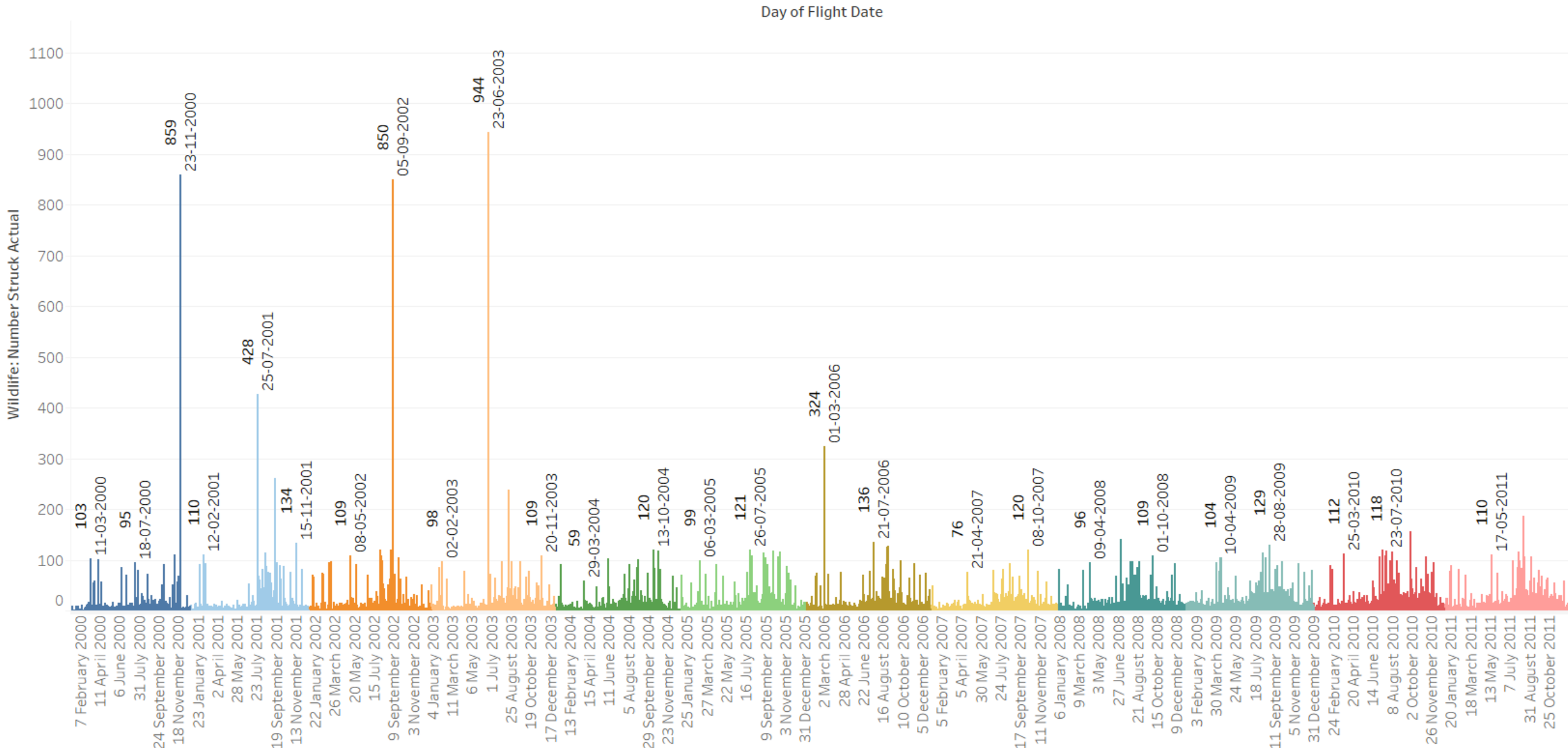
INTRODUCTION

A bird strike is strictly defined as a collision between a bird and an aircraft which is in flight or on a take-off or landing roll. The term is often expanded to cover other wildlife strikes - with bats or ground animals.

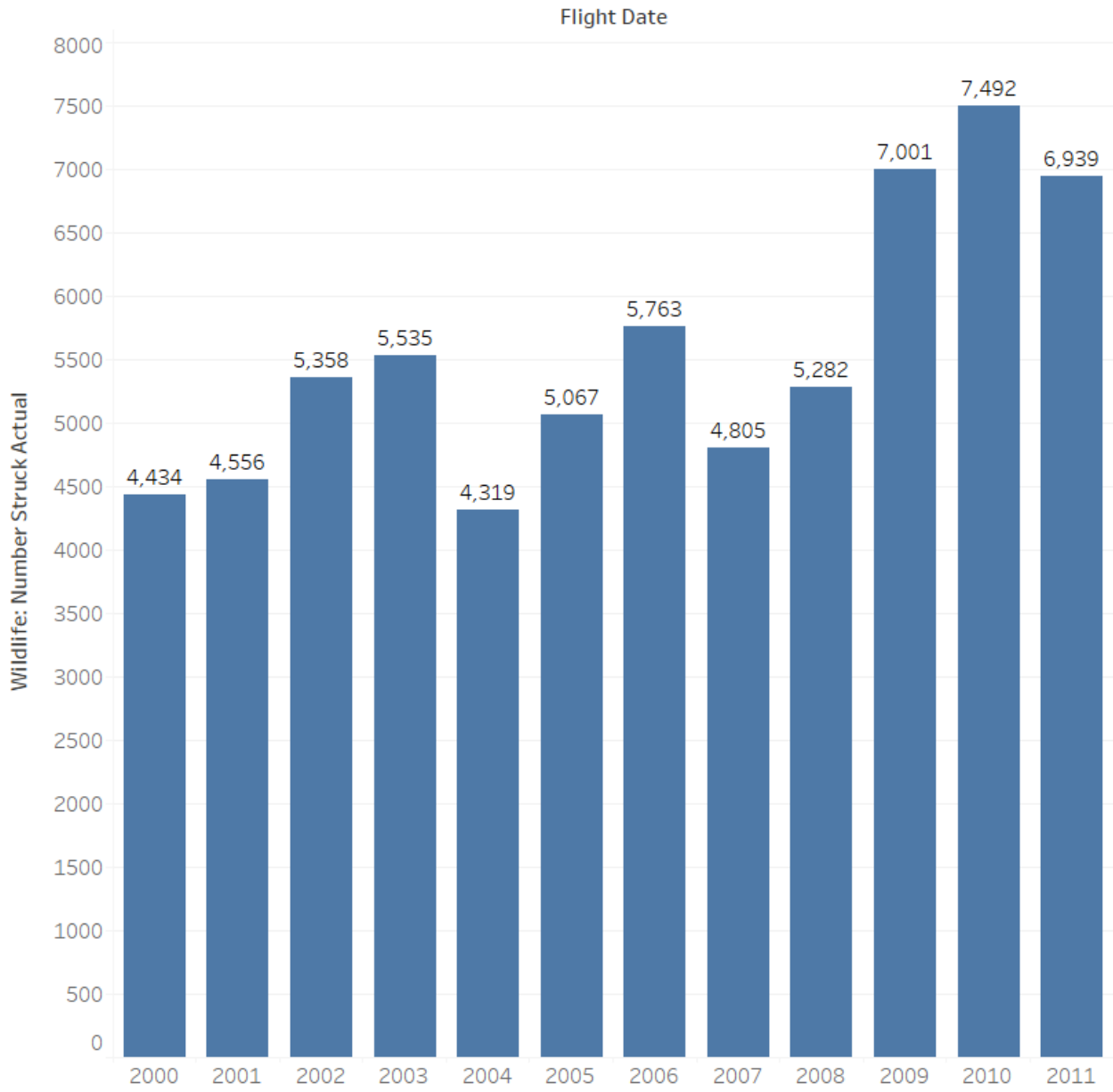
Bird Strike is common and can be a significant threat to aircraft safety. For smaller aircraft, significant damage may be caused to the aircraft structure and all aircraft, especially jet-engine ones, are vulnerable to the loss of thrust which can follow the ingestion of birds into engine air intakes. This has resulted in a number of fatal accidents.

Bird strikes may occur during any phase of flight but are most likely during the take-off, initial climb, approach and landing phases due to the greater numbers of birds in flight at lower levels. Since most birds fly mainly during the day, most bird strikes occur in daylight hours as well.

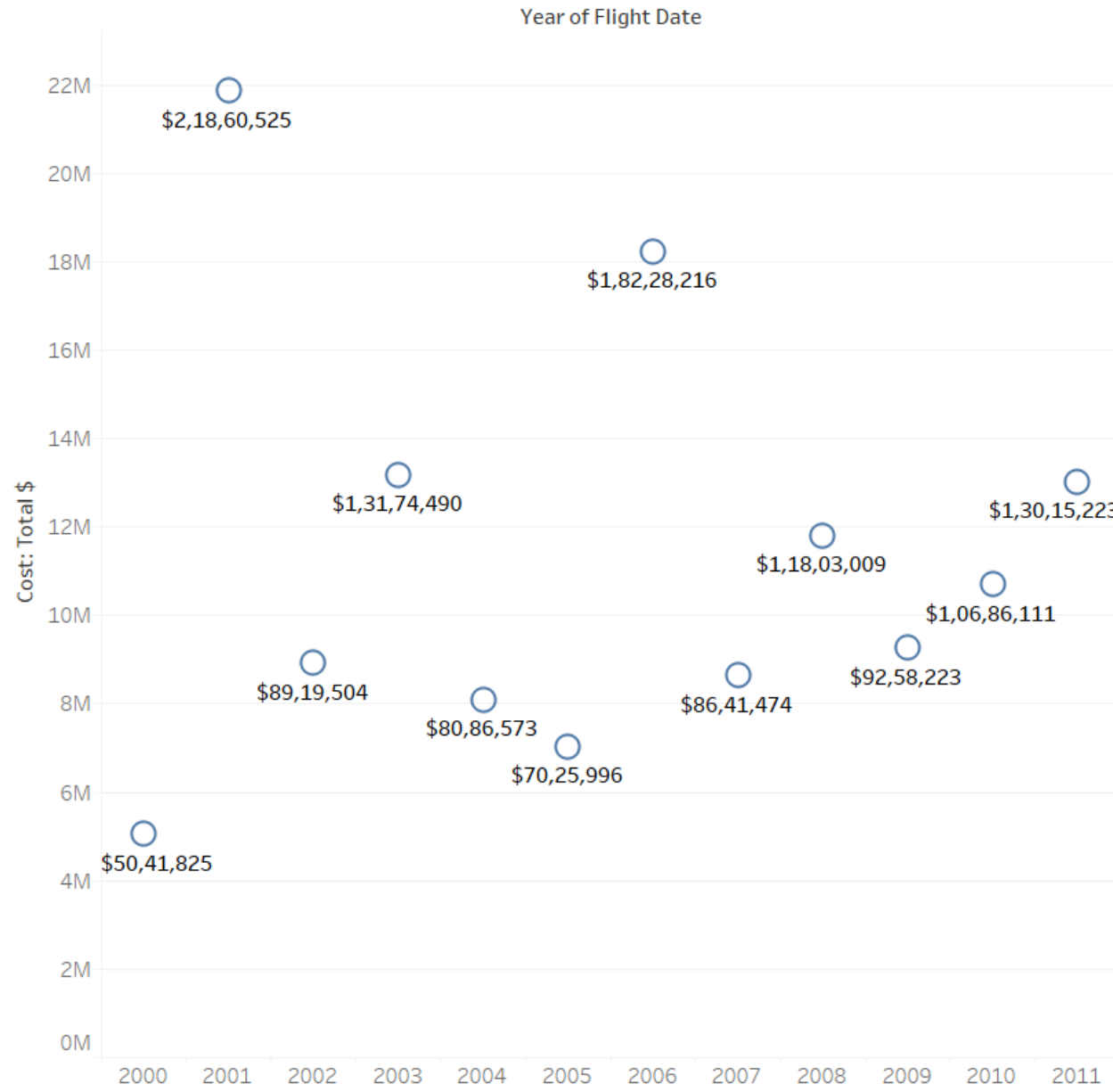
Actual Number Struck - Day of Flight



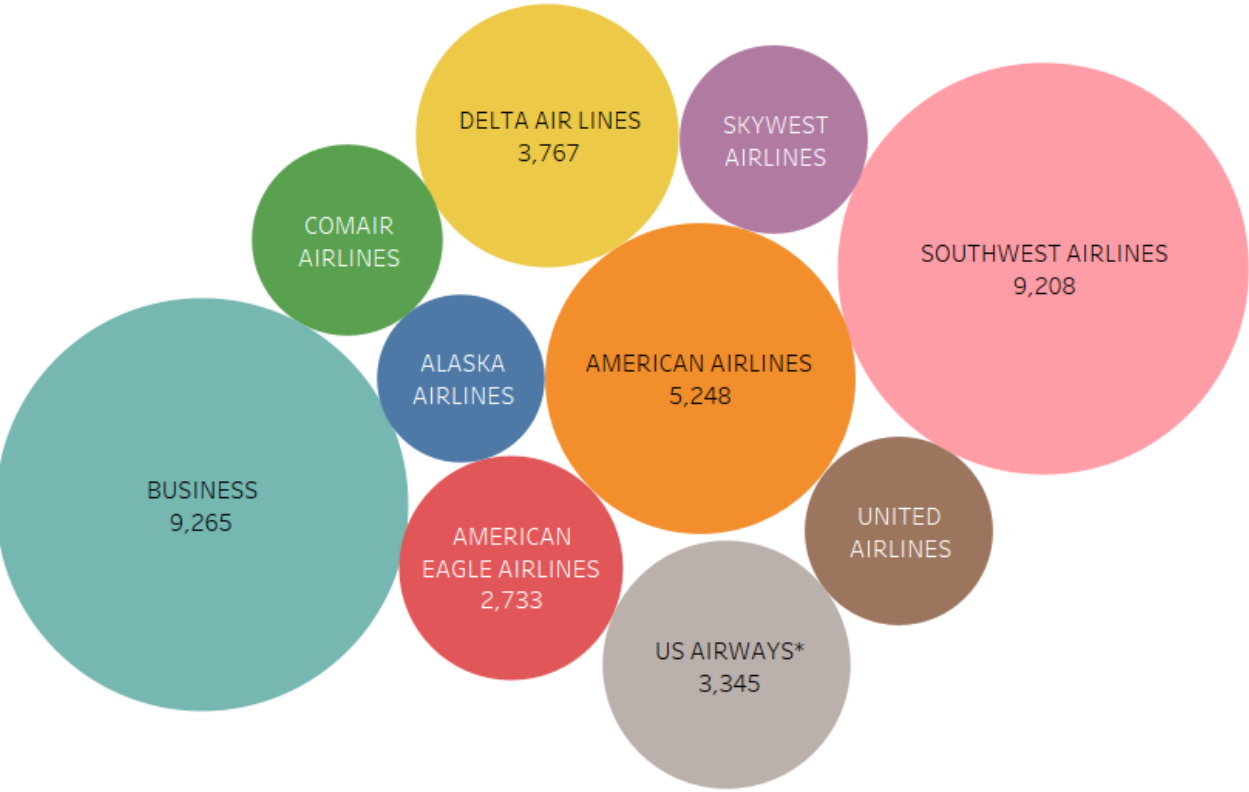
Actual Number Struck over Years



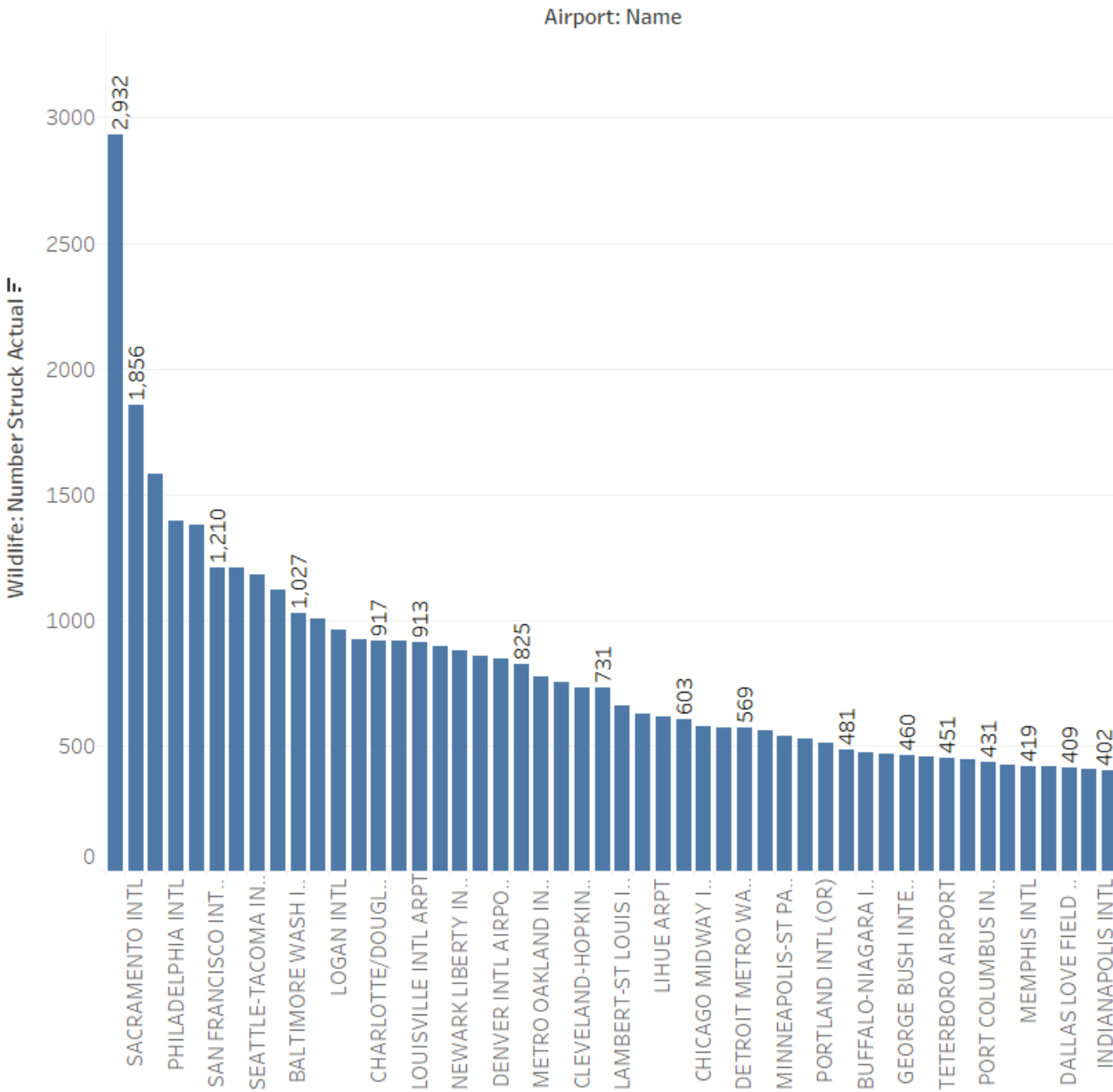
Yearly Cost



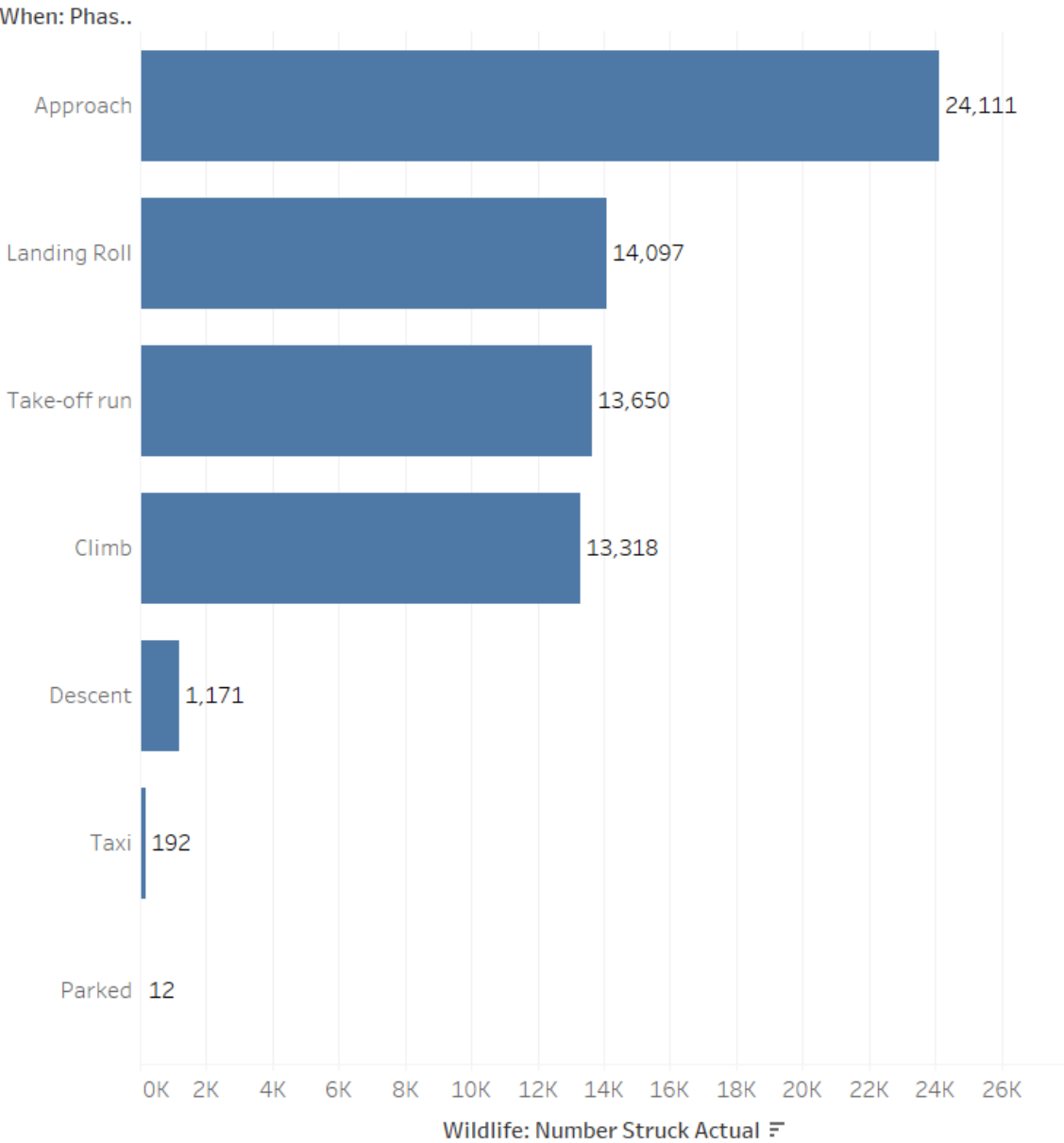
Top 10 Airlines in terms of having encountered bird strikes



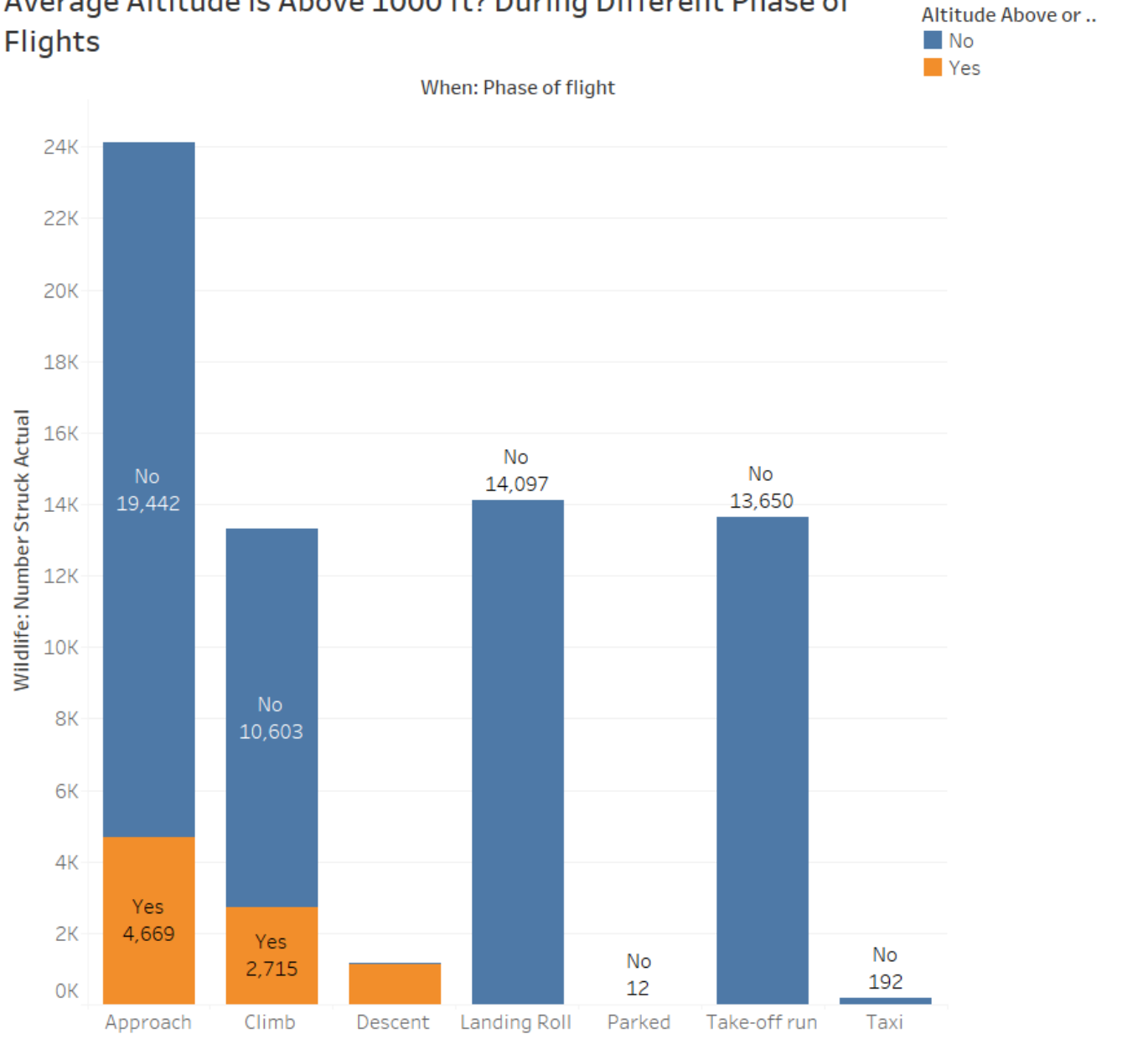
Top 50 Airports in terms of having encountered bird strikes



Bird Strikes During Different Phase of Flight

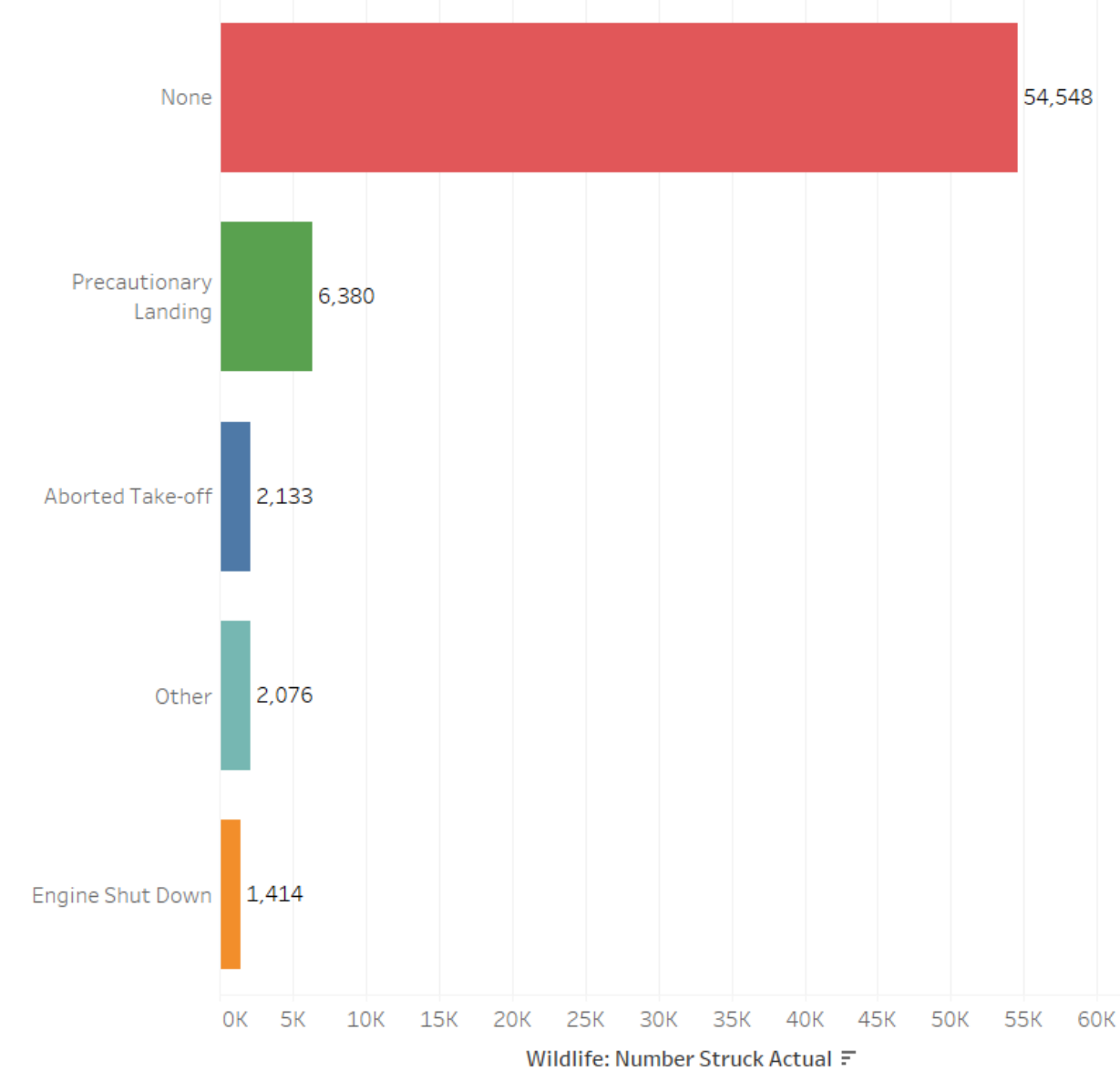


Average Altitude is Above 1000 ft? During Different Phase of Flights

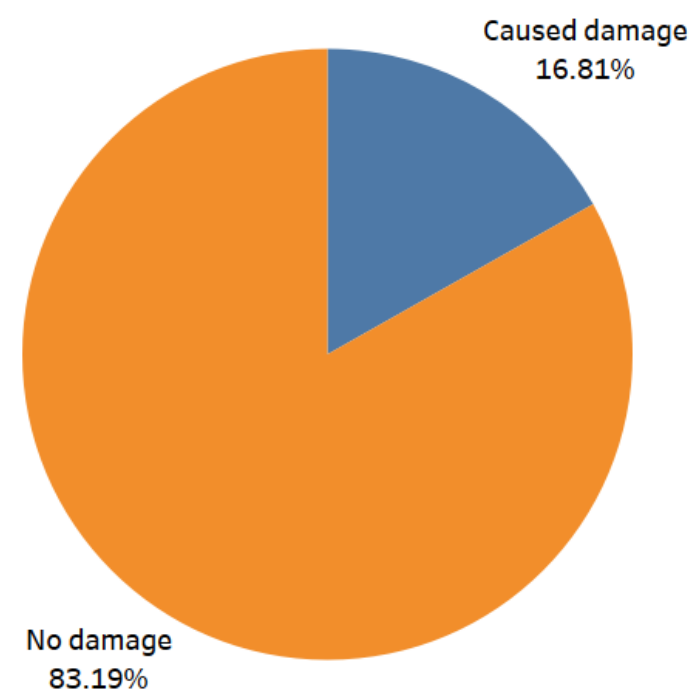


Impact to Flight

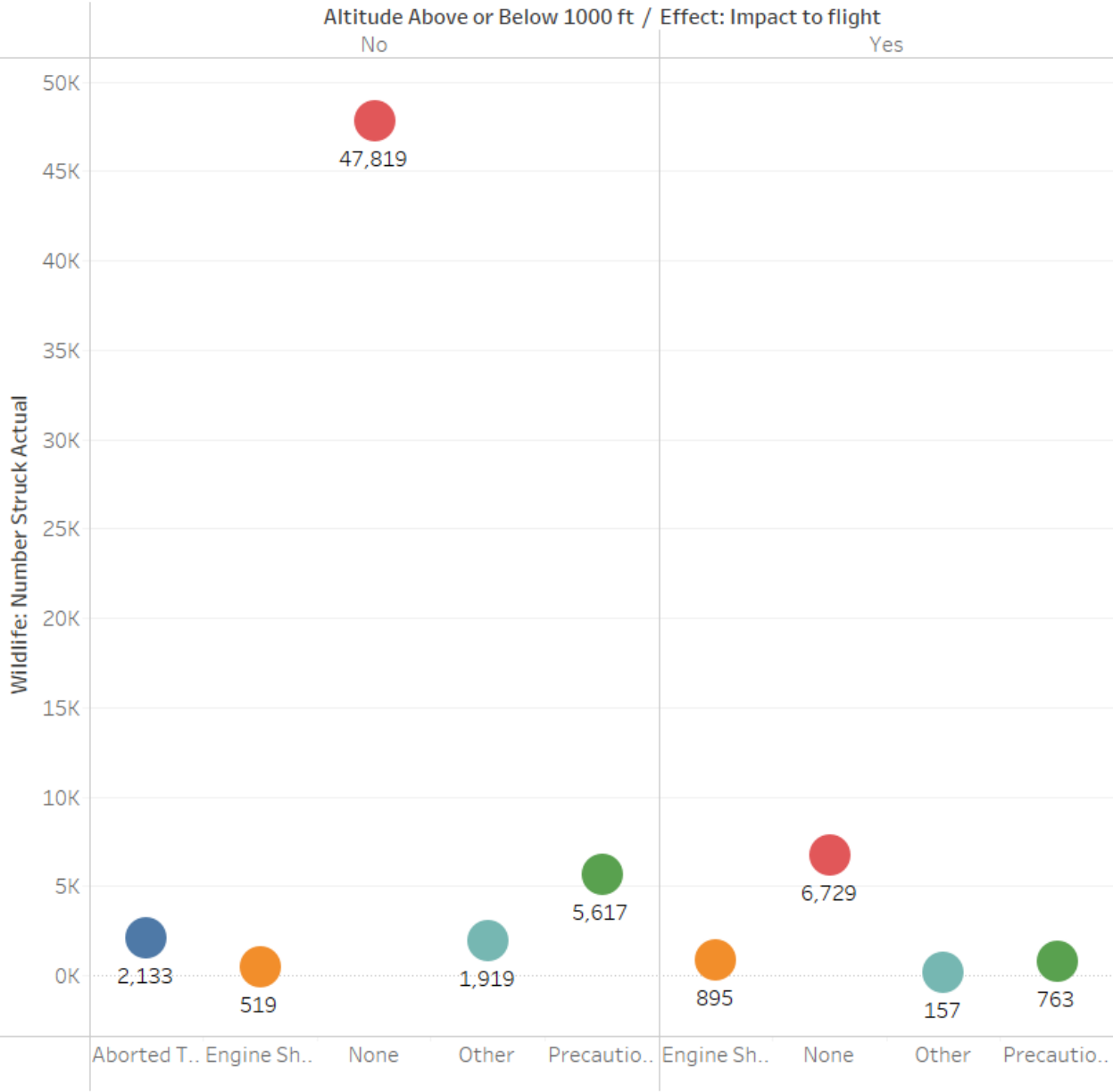
Effect: Impact to flight..



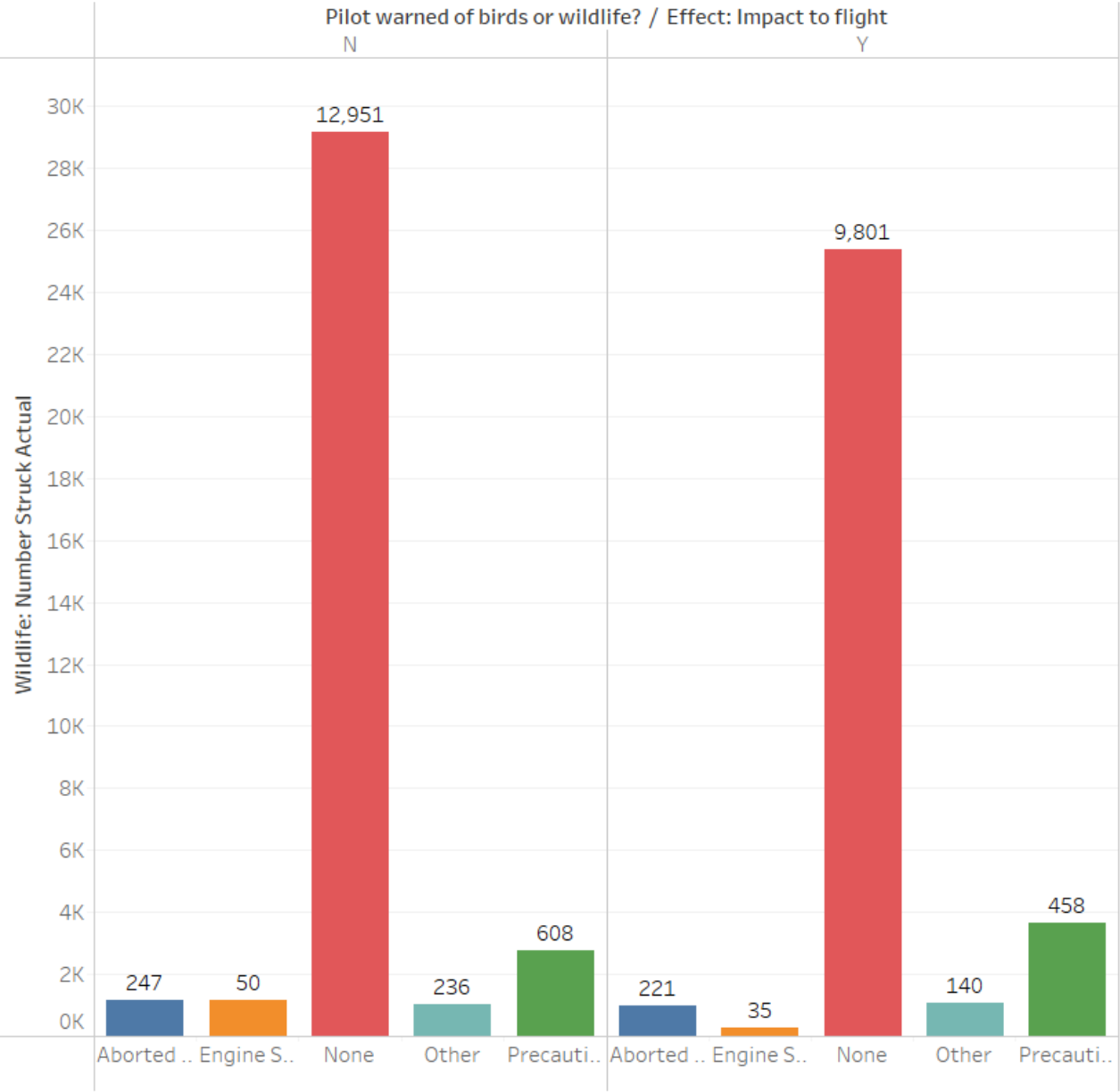
Damage to Flight



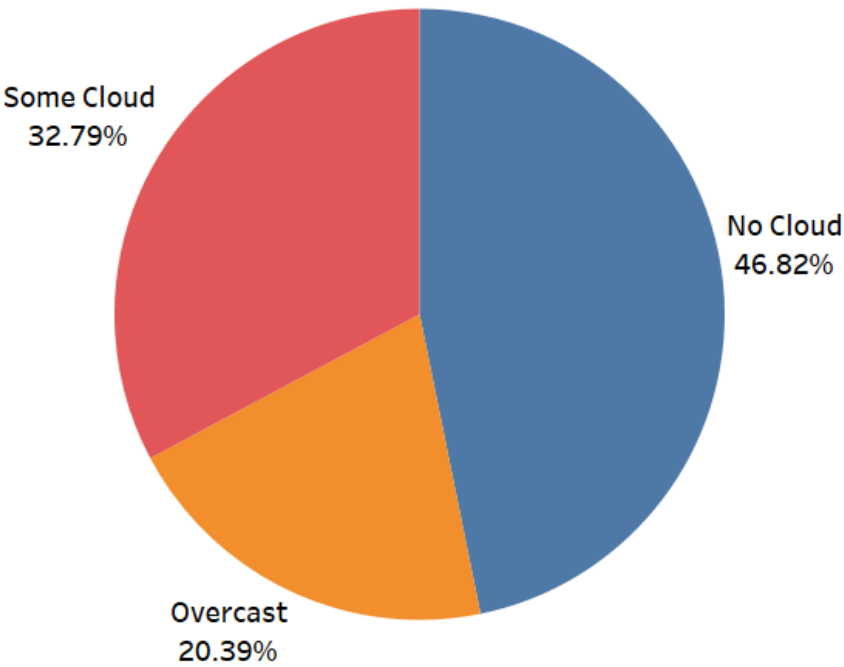
Average Altitude for Different Flight Impacts



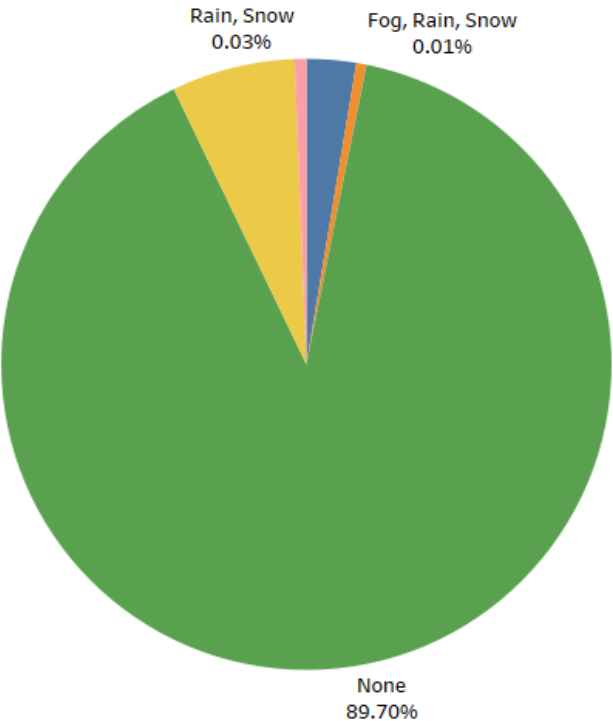
Pilot Warned and Effect to Flight



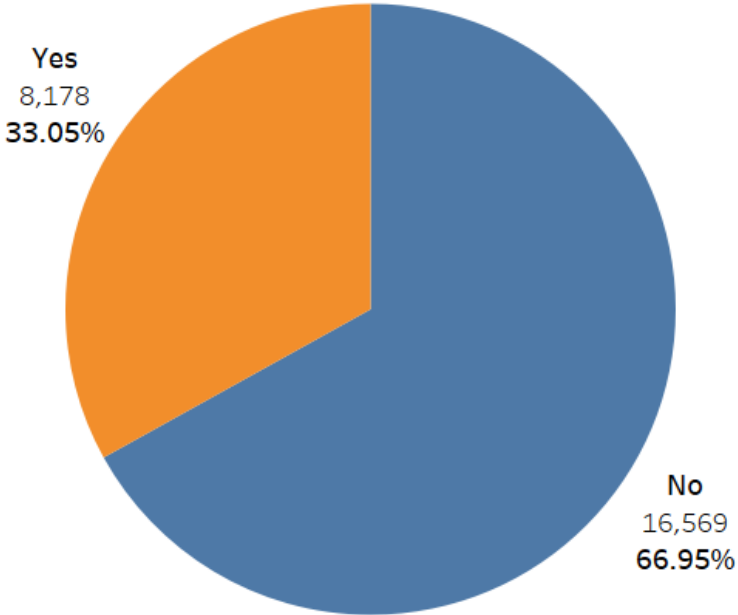
Bird Strike in Different Sky Condition



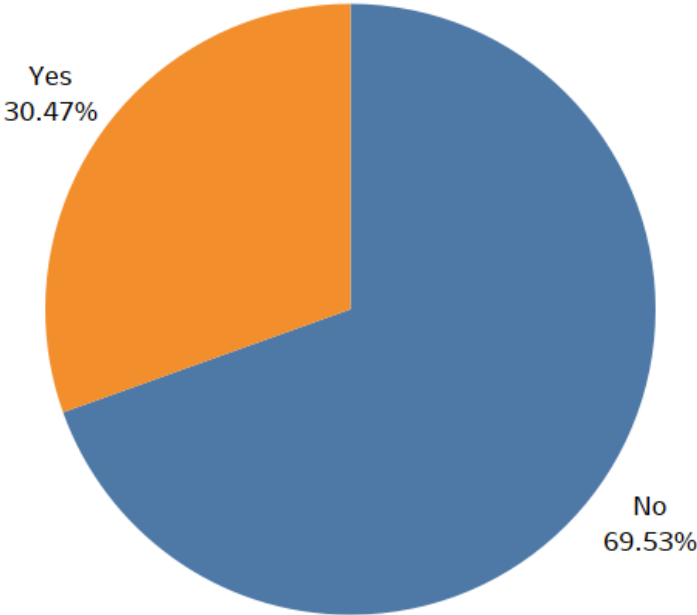
Bird Strike in Different Precipitation Condition



Is Aircraft Large?



Is Altitude above 1000 ft?



Conclusion

- ❑ Most bird strike happened on 23, June 2003 (944 strikes) - Day wise
- ❑ Most bird strike happened in 2010 (7492 strikes) - Year wise
- ❑ The maximum total cost is for year 2001 (\$2,18,60,525)
- ❑ 46.82% strikes happened when there was no cloud which is maximum
- ❑ 89.70% strikes happened when precipitation condition was normal (none)
- ❑ 24111 strikes took place during the approach phase of flight which is maximum
- ❑ Most strikes took place below 1000 ft – 69.53%
- ❑ There was no damage to the aircraft in 83.19% strike cases
- ❑ Pilot warned – 9801 Strike Cases
Pilot not warned – 12951 Strike Cases
- ❑ 66.95% Aircraft was Large in size



- ❑ Most people injured in 2003 (8)
- ❑ Business Airline / Operator is at the top with 9265 Cases of Bird Strike
- ❑ Sacramento INTL Airport is at the top in airport list with 2932 Cases of Bird Strike

END

