

4/19/2023

Wireframe Documentation

Data Visualization of Bird Strikes between 2000 – 2011



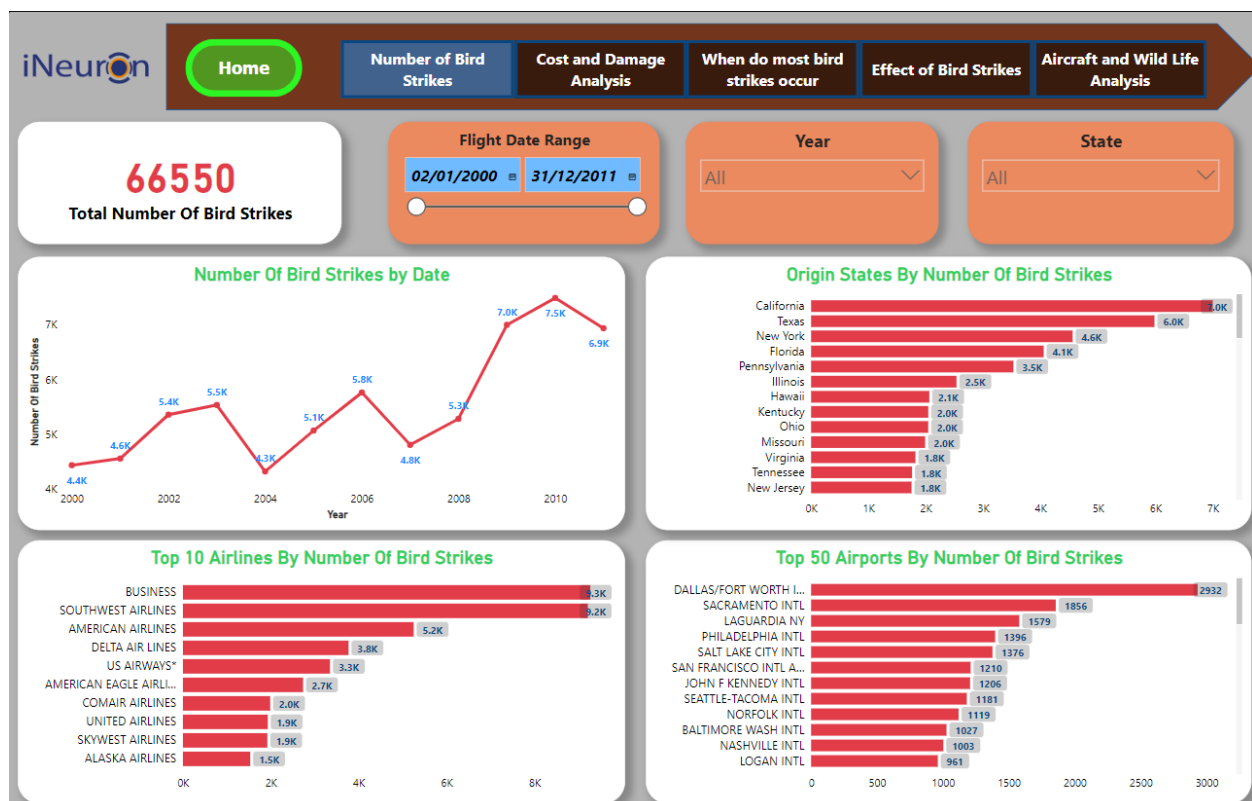
Prepared by: MD SAHIL

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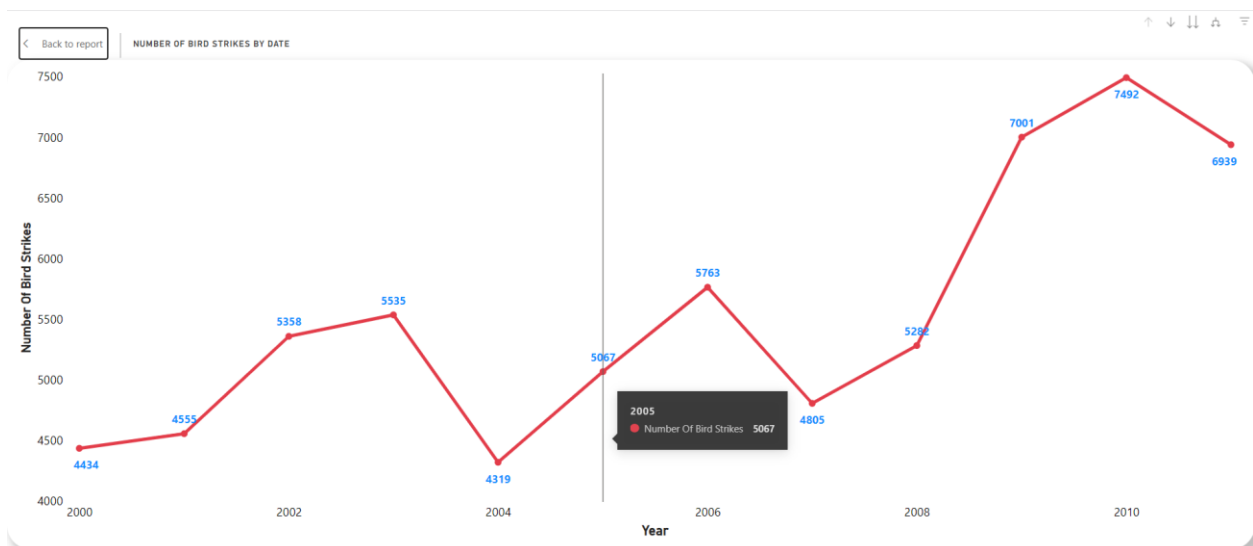


Visualization report pages

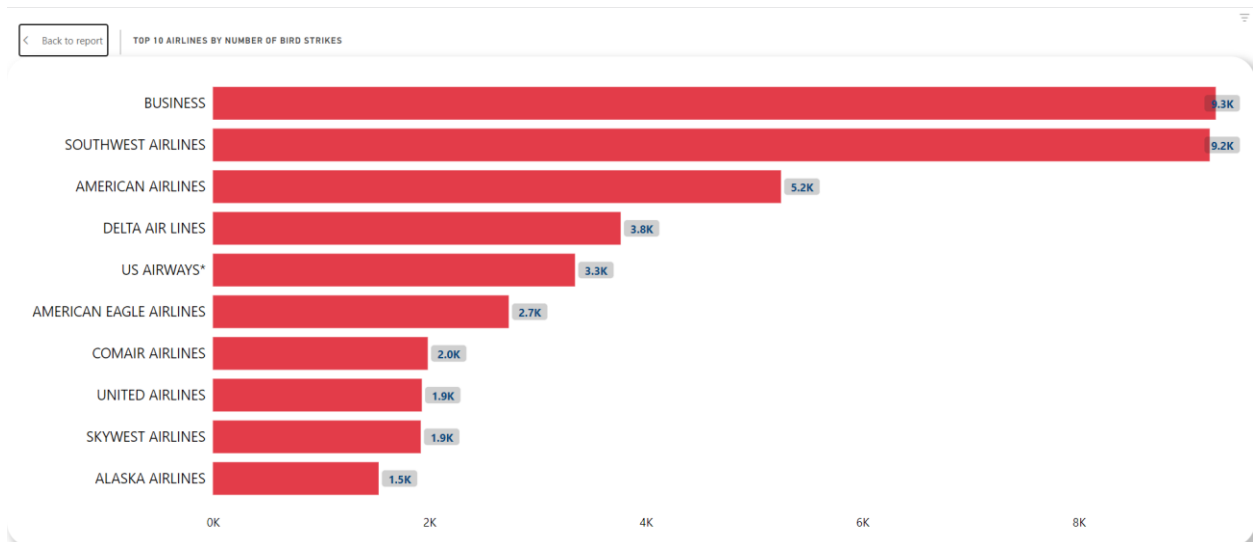
1. Number of bird strikes



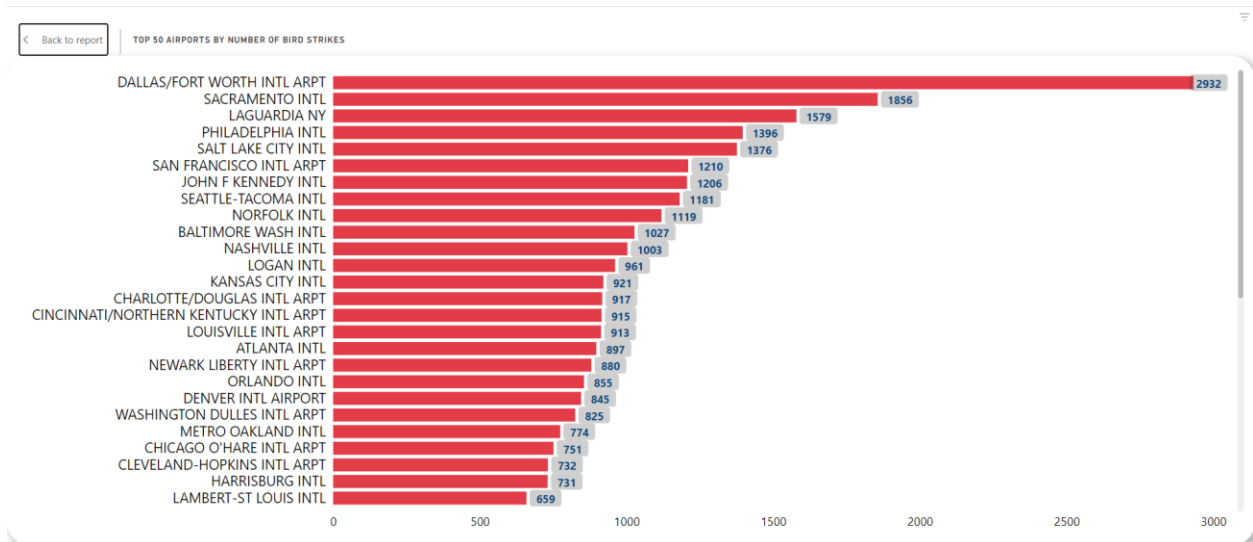
1.1 Yearly Strike Analysis



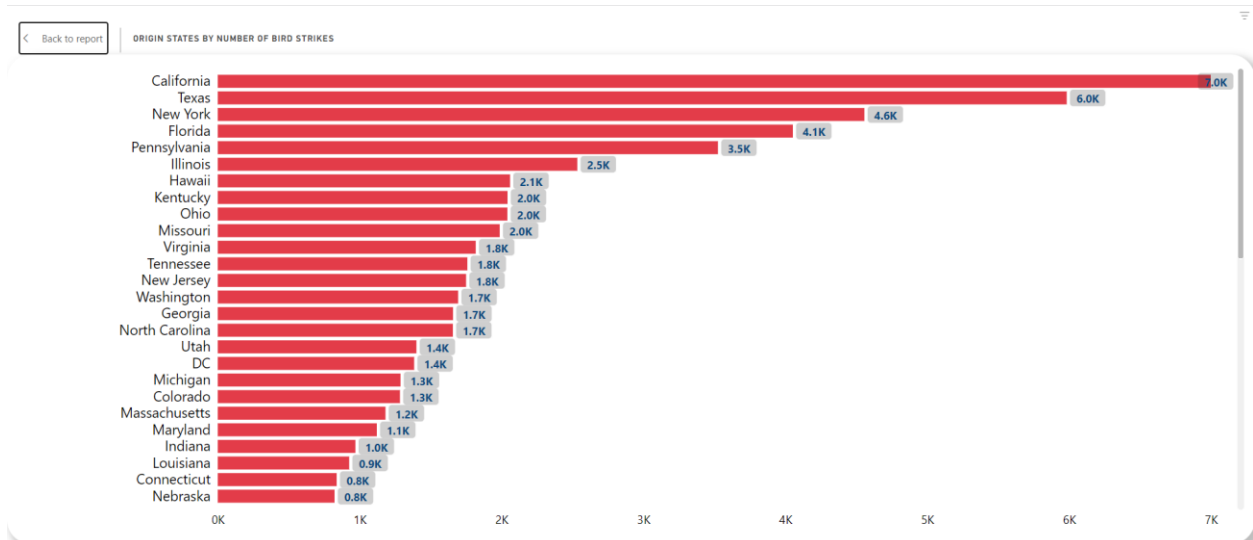
1.2 Top 10 US Airlines in terms of having encountered bird strikes



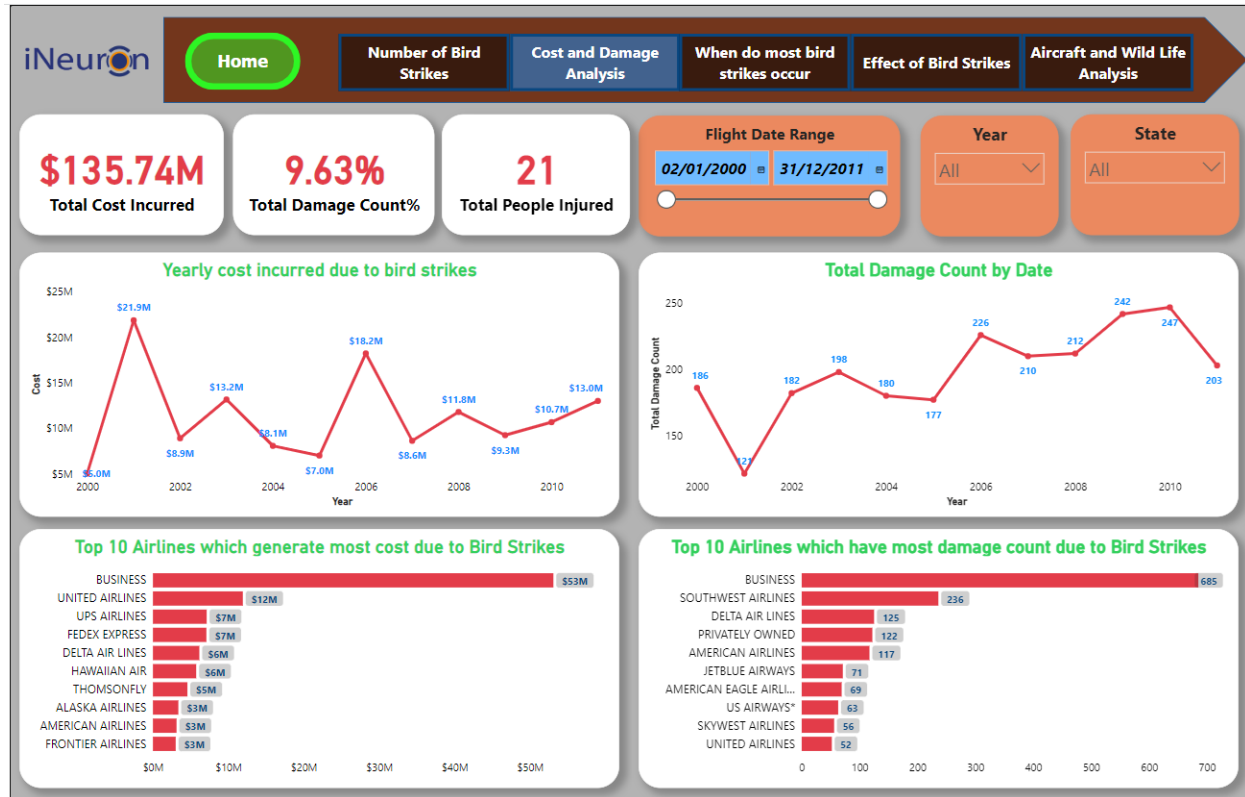
1.3 Top 50 Airports with most encountered of bird strikes



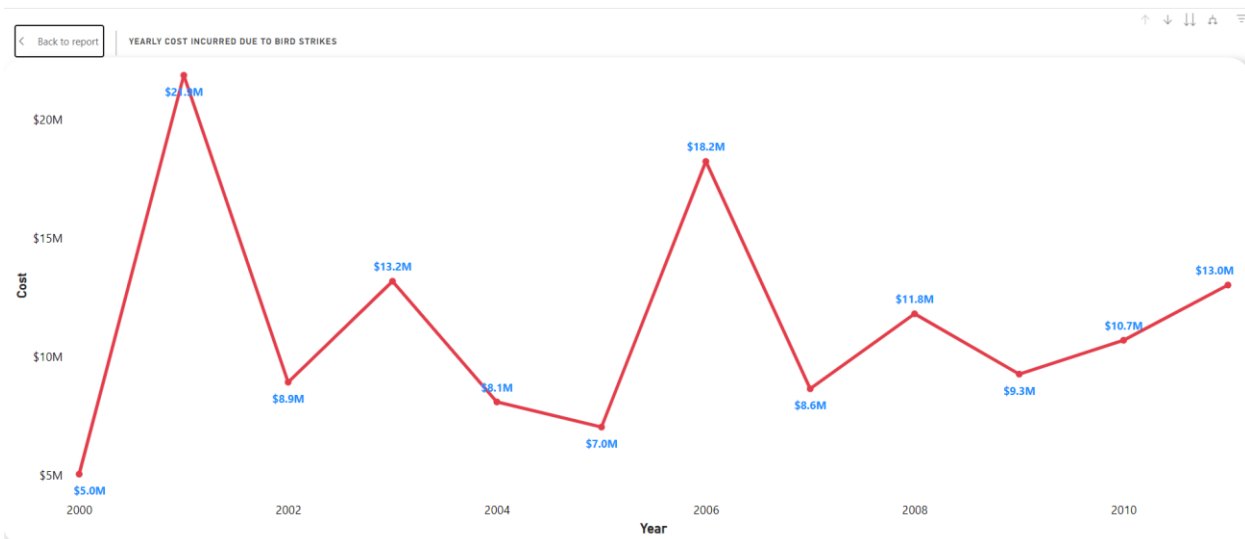
1.4 Origin states with total encountered of bird strikes



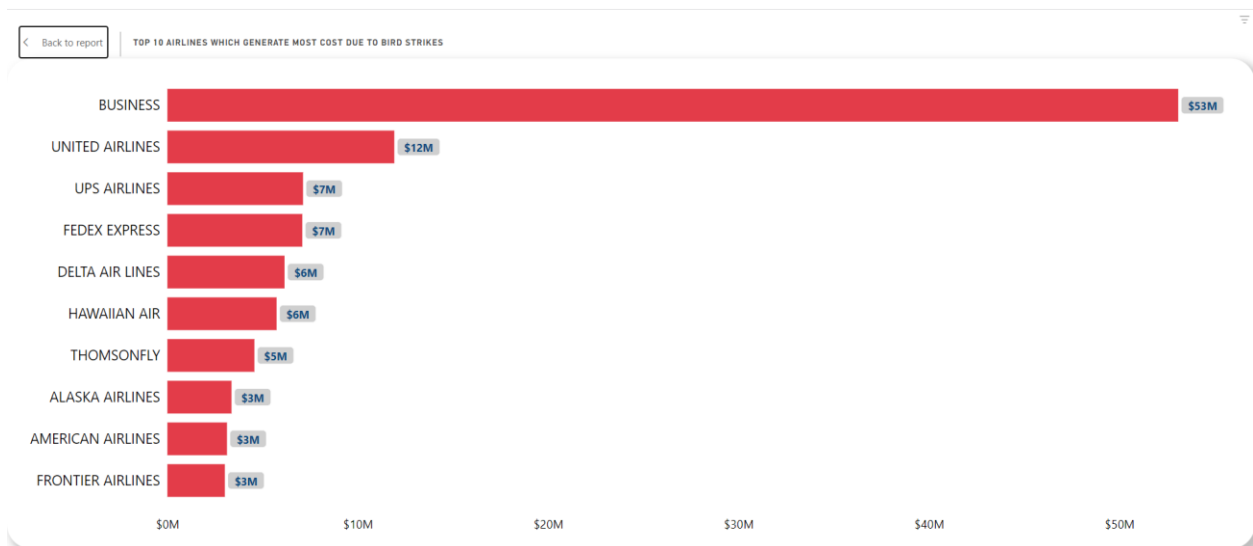
2. Cost and Damage Analysis



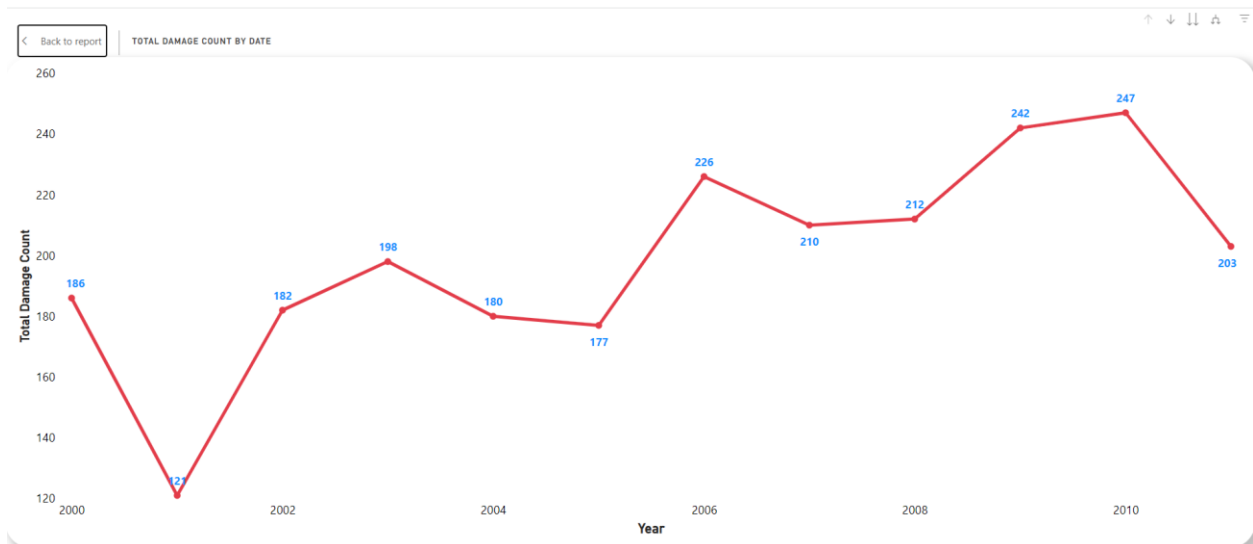
2.1 Yearly Cost Incurred due to Bird Strikes



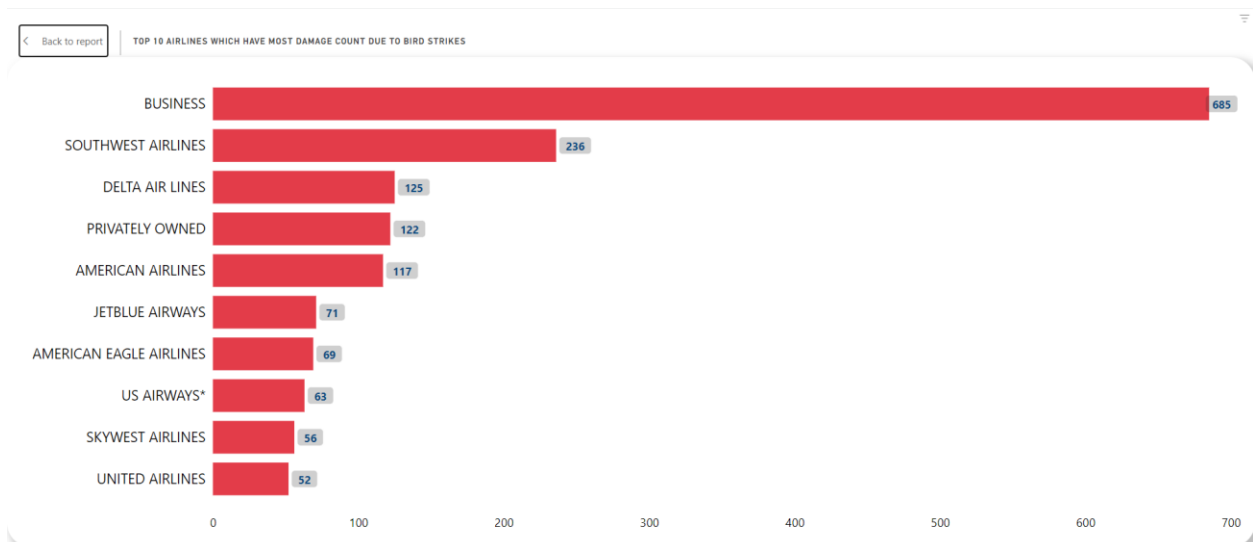
2.2 Top 10 US Airlines in terms of having total cost



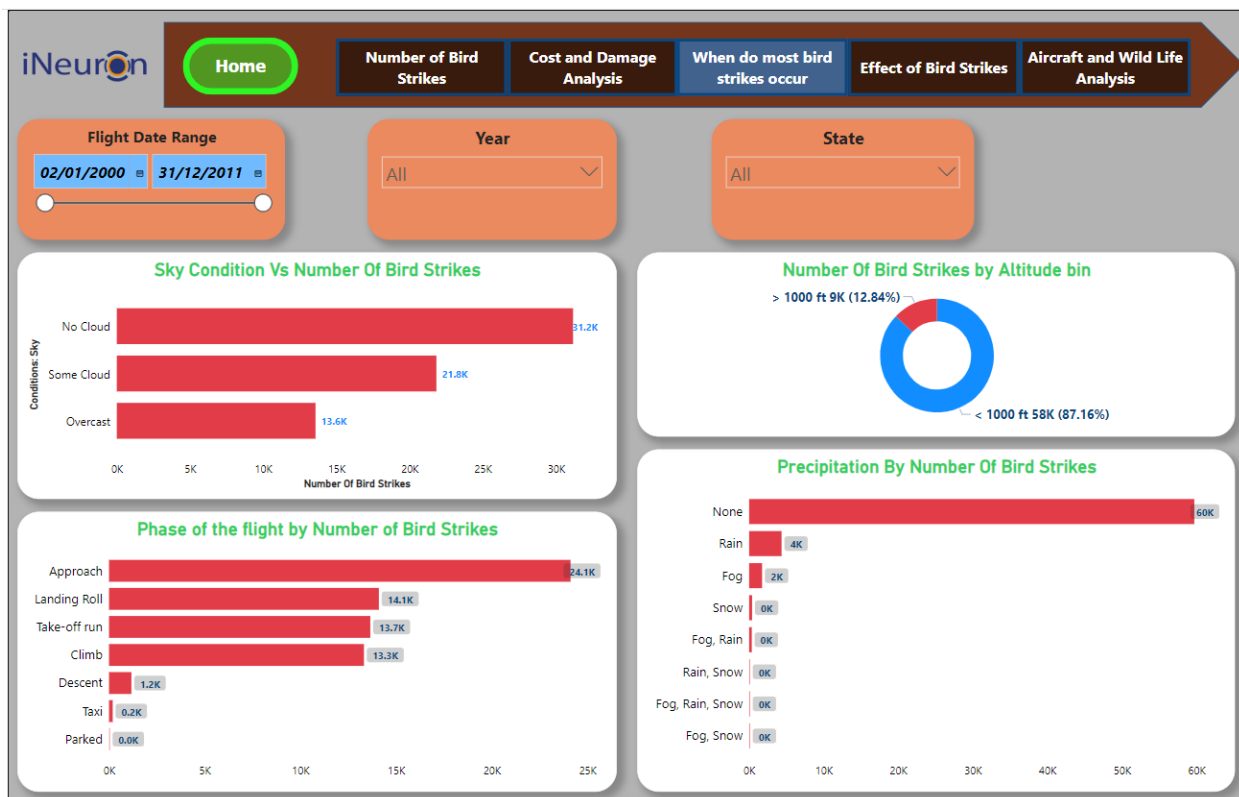
2.3 Yearly Total damage count due to Bird Strikes



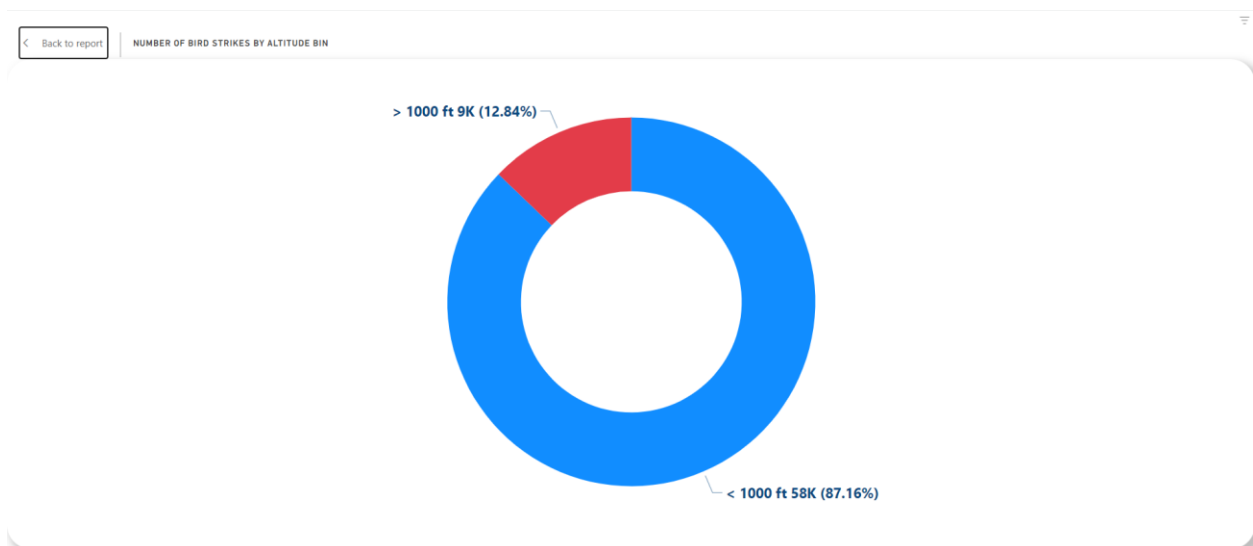
2.4 Top 10 US Airlines in terms of having total damage count



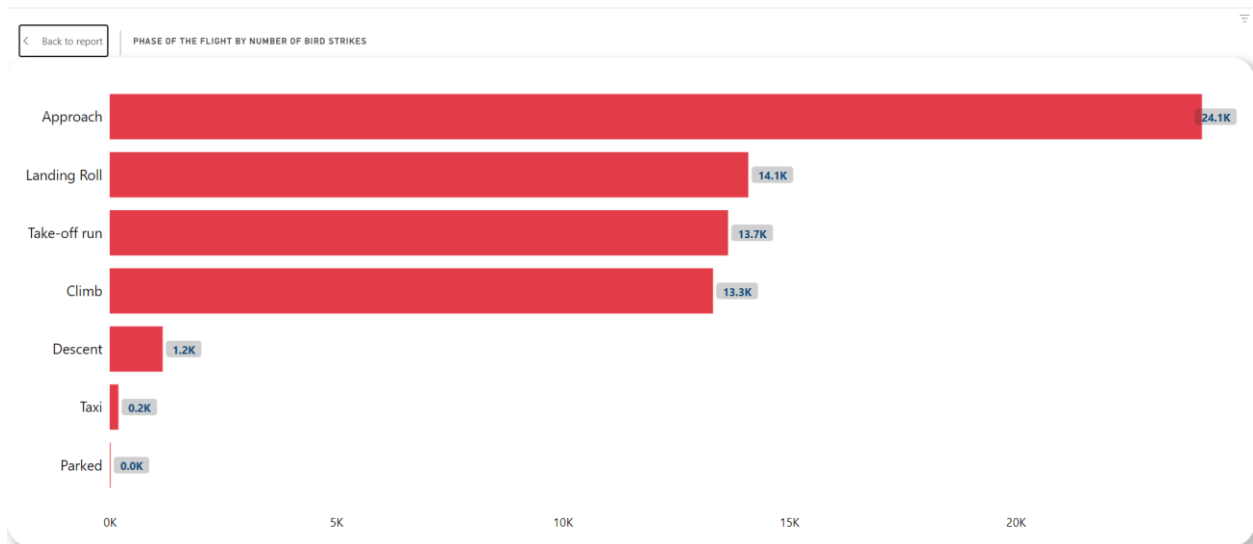
3. When do most bird strikes occur



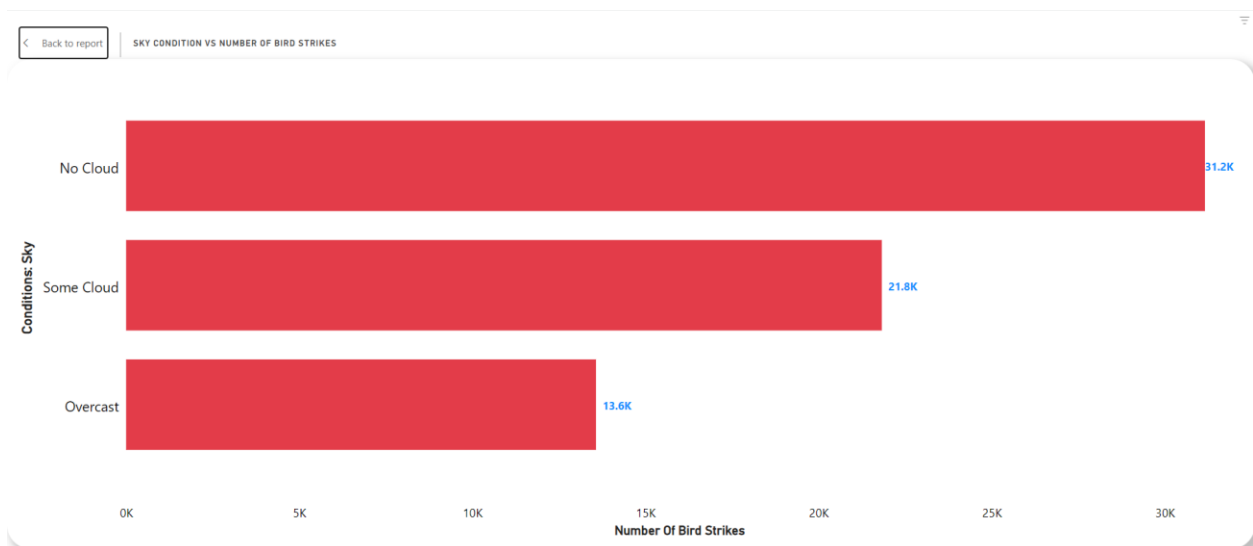
3.1 Altitude of airplanes at the time of strike



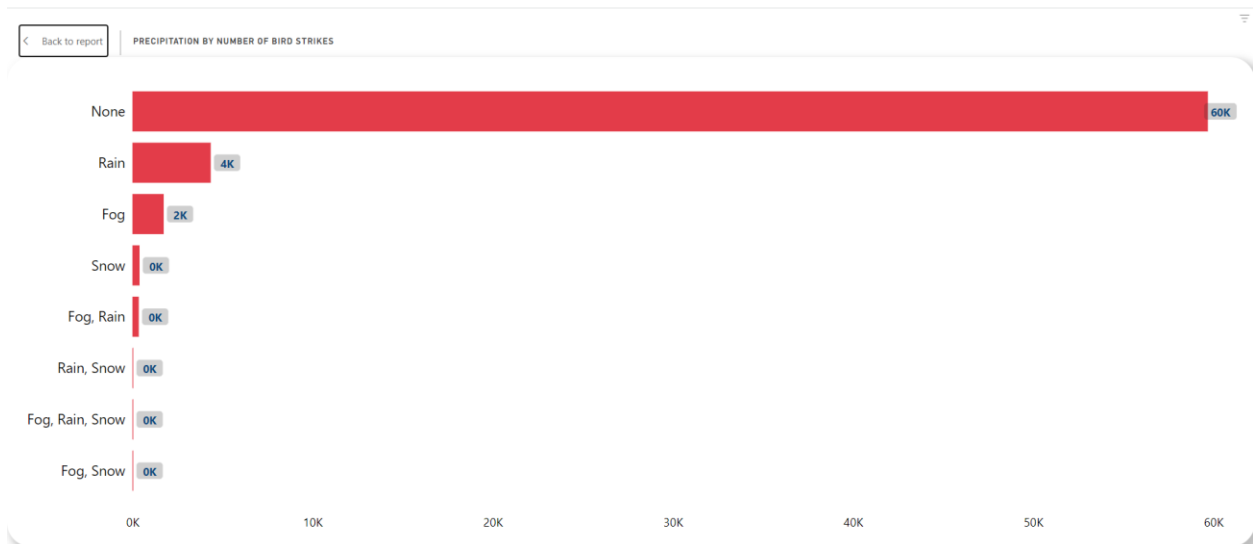
3.2 Phase of flight at the time of strike



3.3 Sky condition at the time of strike



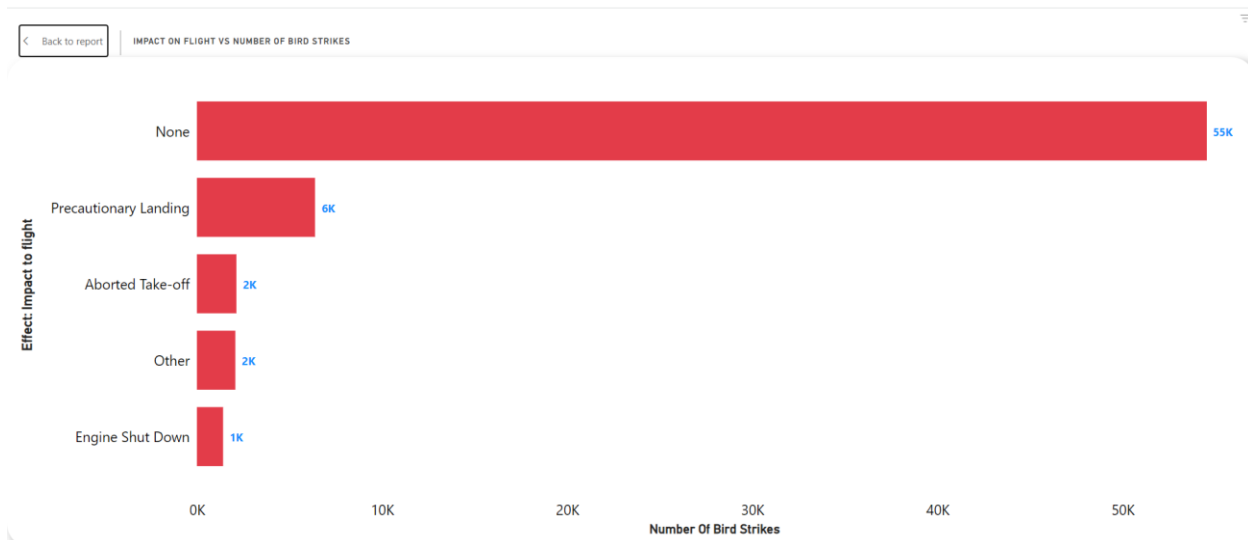
3.4 Precipitation at the time of strike



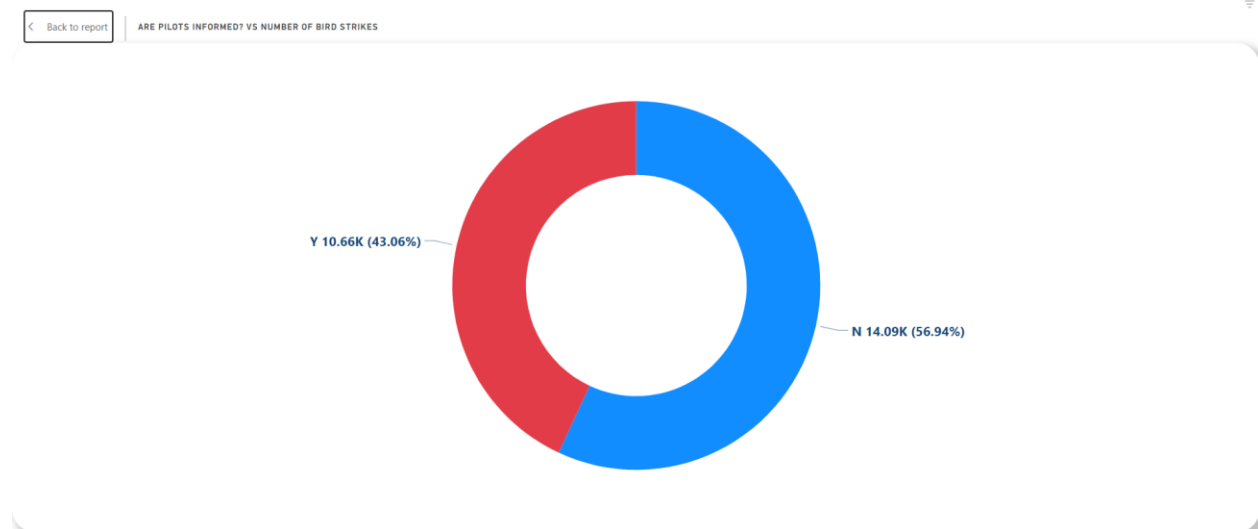
4. Effect of Bird Strikes



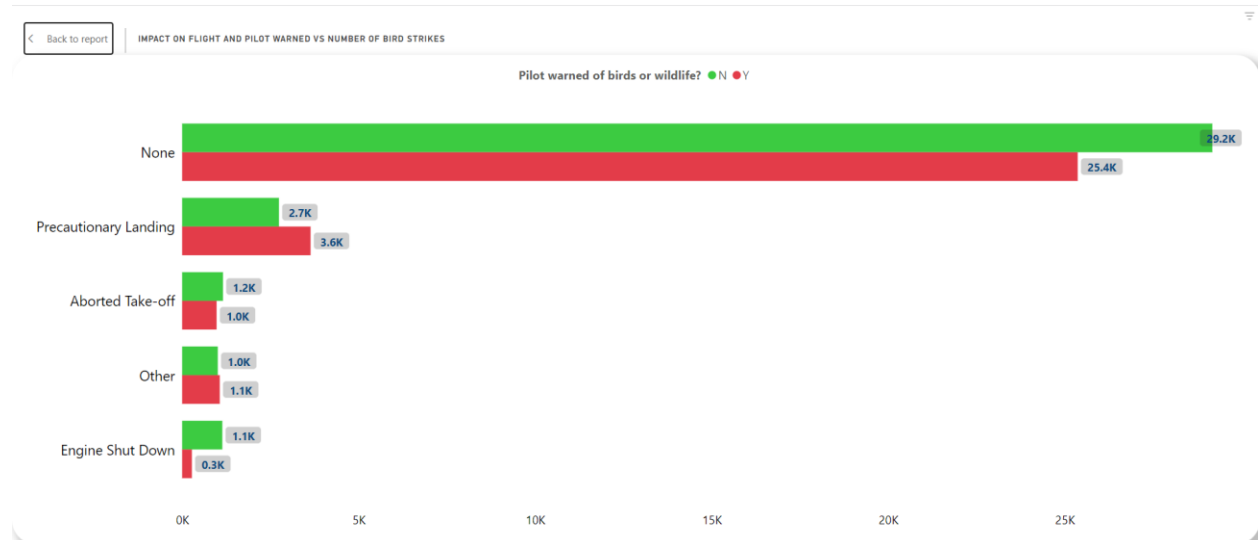
4.1 Impact on Flight



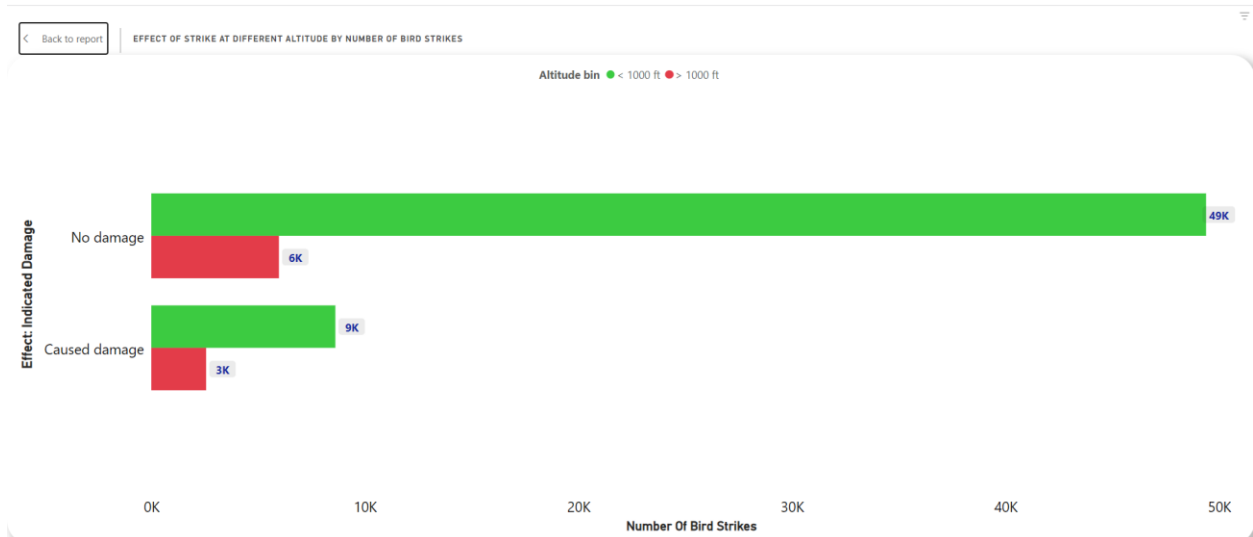
4.2 Were Pilots Informed?



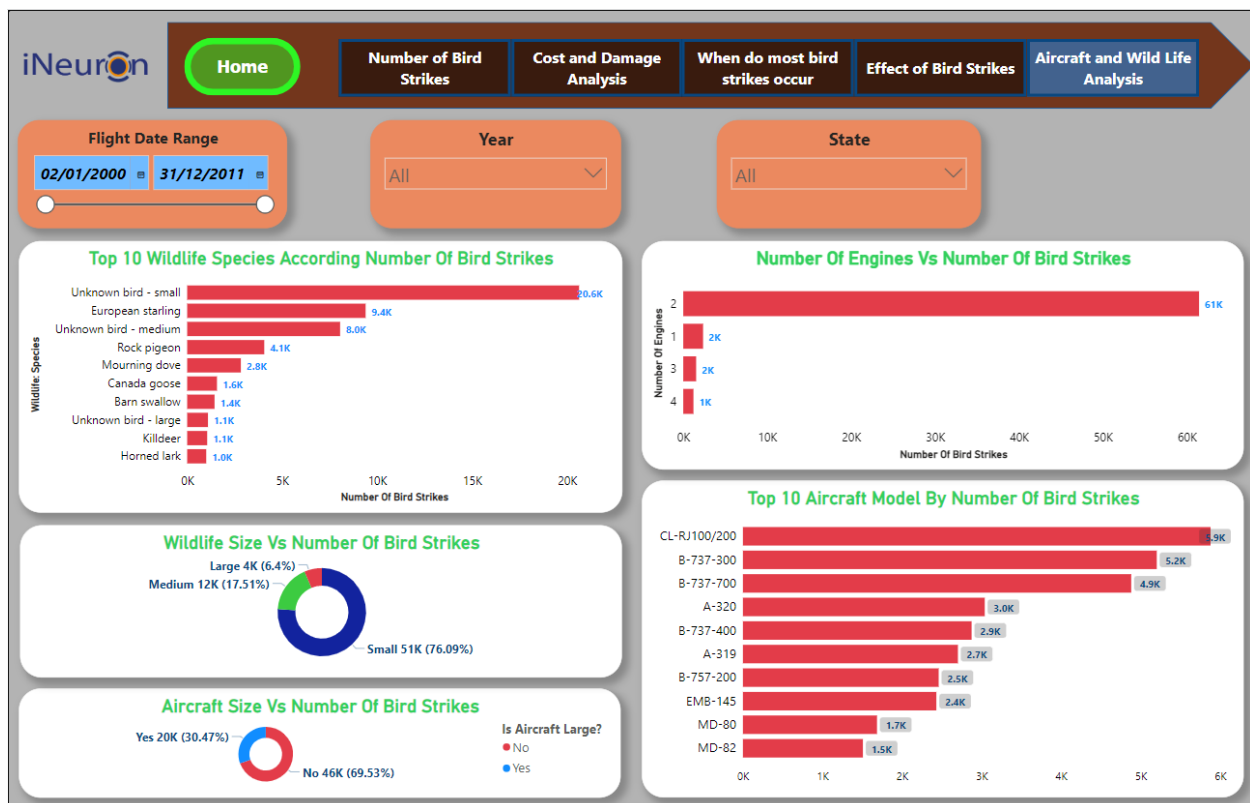
4.3 Prior Warning and Effect of Strike Relation



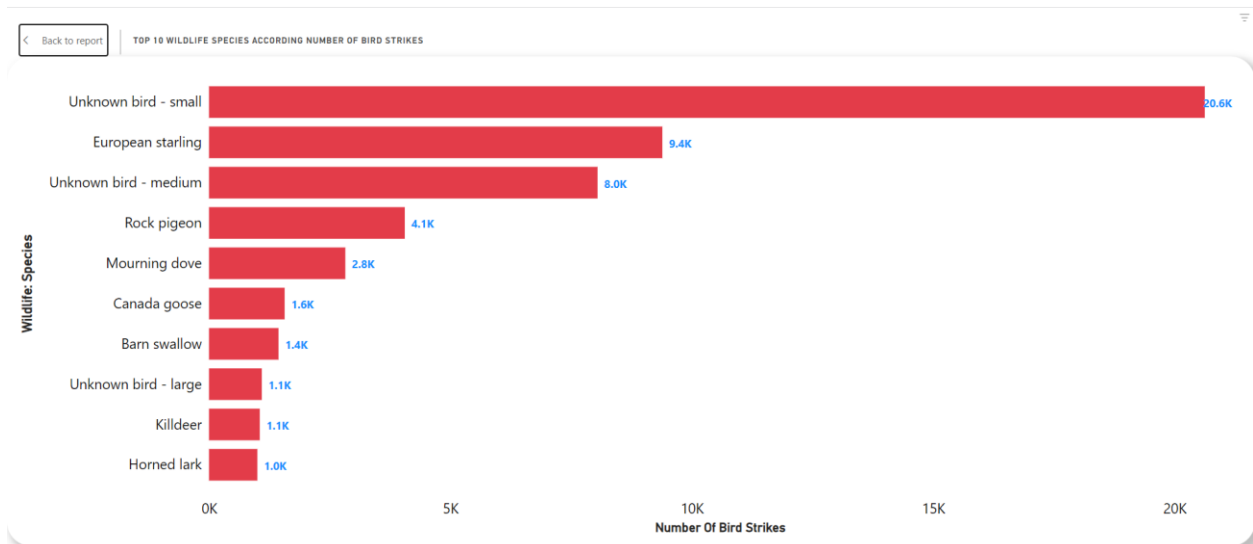
4.4 Effect of Strike at Different Altitude by Number of Bird Strikes



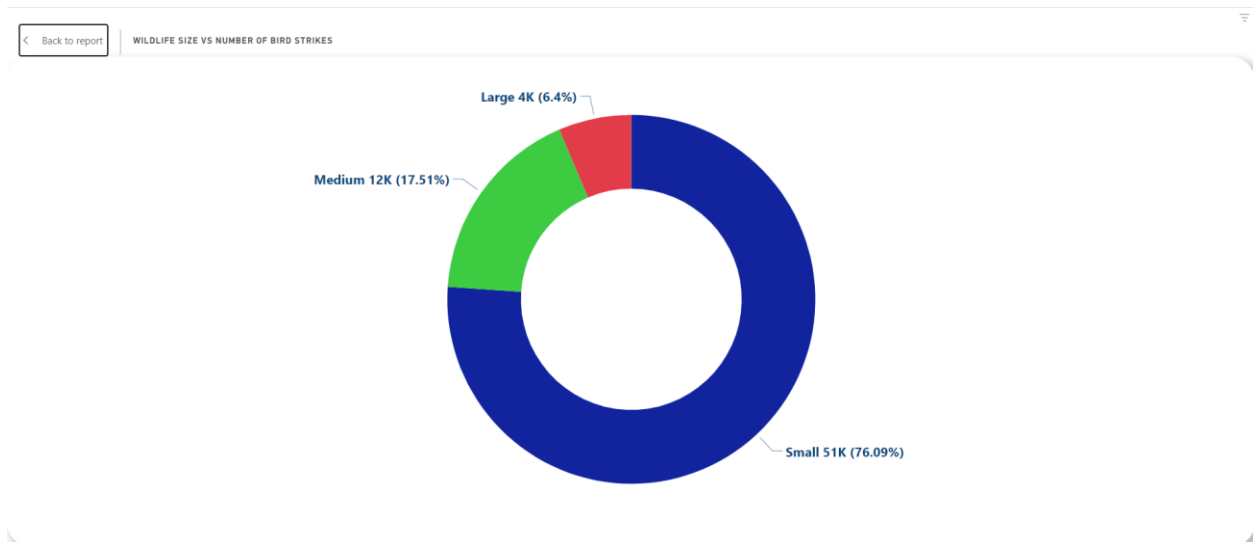
5. Aircraft and Wildlife Analysis



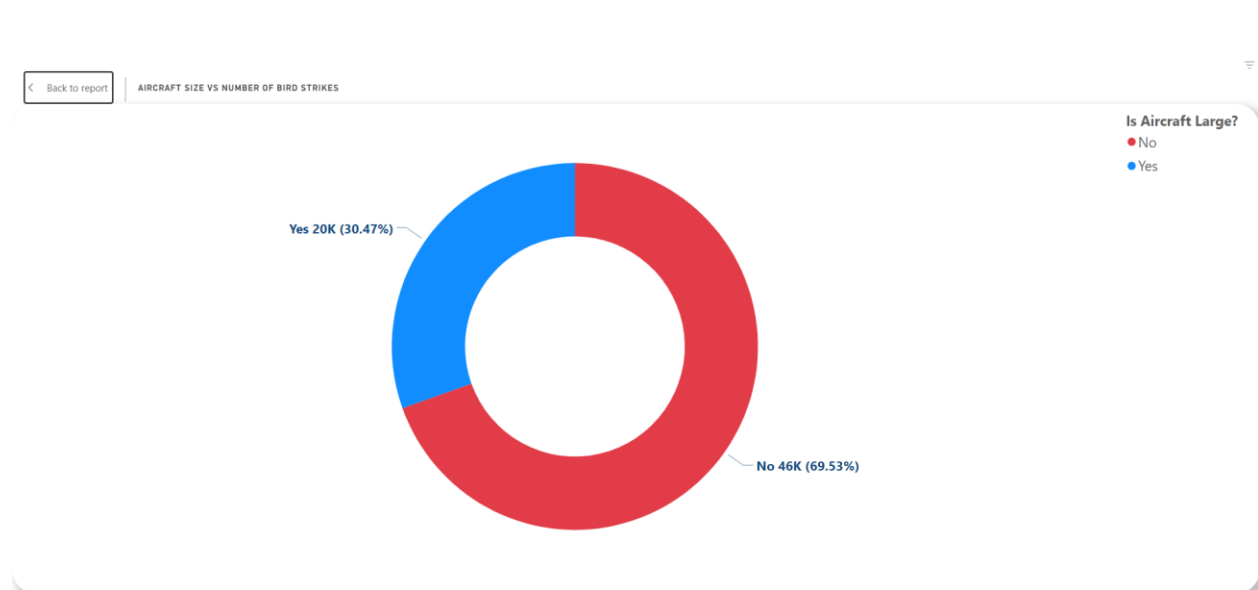
5.1 Top 10 most strike wildlife species



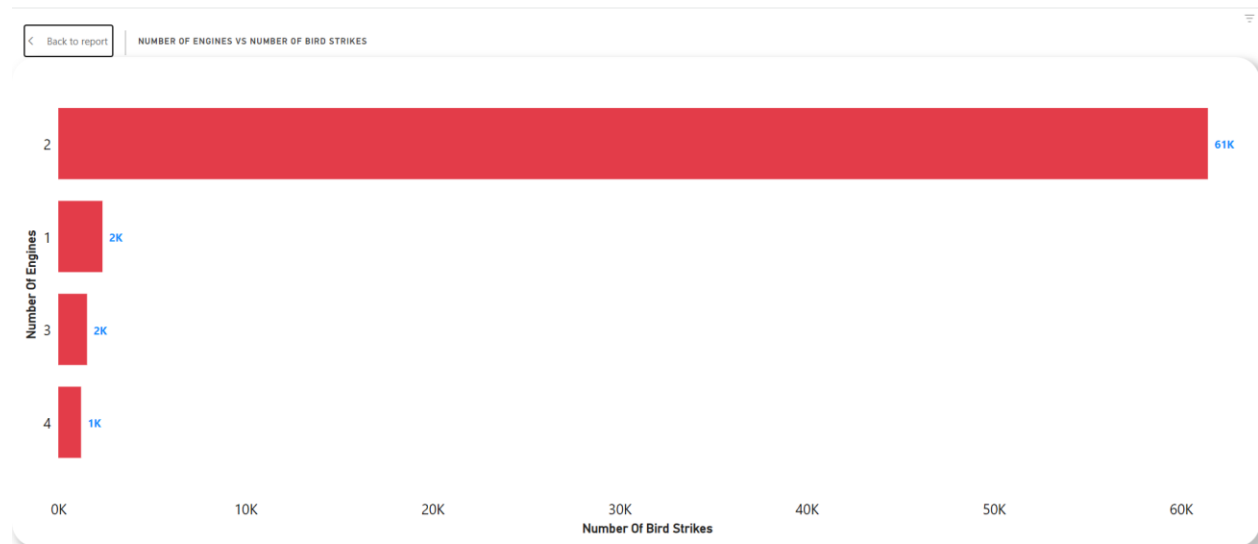
5.2 Wildlife Size with Total Number of Bird Strikes



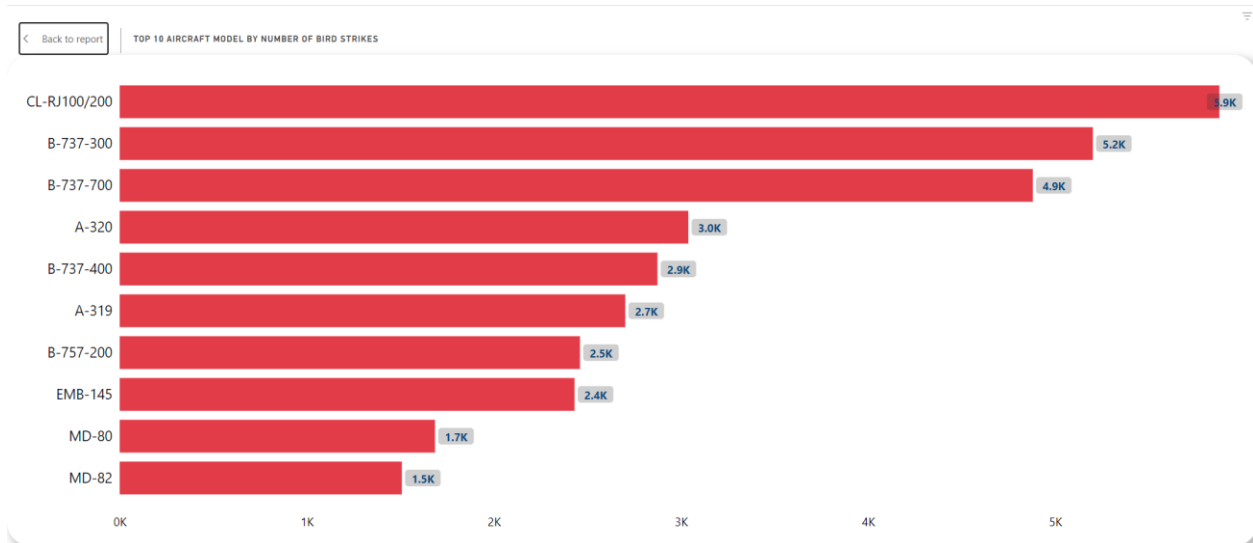
5.3 Aircraft Size with Total Number of Bird Strikes




5.4 Number Of Engines with Number of Bird Strikes



5.5 Top 10 Aircraft Model with Number of Bird Strikes



Key Findings Page



Key Findings

- Business Airlines and Southwest Airlines caused more Bird Strikes and also top in total damage count. Whereas most repair costs are incurred by Business Airlines and then United Airlines.
- The top 3 states where most bird strikes happen are California, Texas, and New York respectively.
- In total bird strike cases, only 9.63% of times damage happened due to bird strikes.
- In most of the year except some years in time from July to October, most bird strikes happened.
- 87.16% of the total number of bird strikes happened at the altitude <1000 ft.
- Most of the bird strikes happen during the Approach, Landing roll, Take-off run, and Climb flight phases respectively.
- Precipitation does not affect that much in Bird Strikes.
- Most of the Bird Strikes happened with no clouds.
- 43.06% of the time pilots were informed about wildlife.
- In most cases, there are no impacts in flight due to Bird Strikes. In some cases, precautionary landing and others impacts were observed.
- Most of the Bird Strikes happened with small size wildlife. Most of the species which caused strikes are the unknown small birds, European Starlings, and Unknown medium birds respectively.
- 69.53% Aircraft size is not large. Most of cases bird strikes happened with 2-engine aircraft.