Report: Examination of Bird Attacks in the United States, 2000-2011 -Kushagra Tandon

Overview: A thorough examination of bird strikes that happened in the US between 2000 and 2011 is provided by the dashboard. It sheds light on a number of factors, including the size of the wildlife involved, the most affected airports and airlines, the overall amount spent, the number of casualties, the flight phase when the bird strikes happened, the sky conditions at the time, and the state from which the flights originated.

1. Size of Wildlife Associated with Bird Strikes:-

<u>Breakdown</u>: The events are divided into groups according to the size of the wildlife that was impacted. The sizes are classified as Large, Medium, and Small.

Distribution: Large: 33.33% Medium: 33.33% Small: 33.33%

<u>Insight</u>:-It appears that bird strikes are not limited to a particular size of bird or animal because the distribution of bird strikes is uniformly distributed among large, medium, and small-sized animals.

2. The Top 5 Affected Airports: Airports:-

- Denver International (DEN)
- Salt Lake City International (SLC)
- Dallas/Fort Worth International (DFW)
- Sacramento International (SMF)
- Kansas City International (MCI)

Insight: The airports most impacted are DFW, SMF, and SLC; this suggests that there may be bird activity hotspots in these areas.

3. The Whole Price of Bird Attacks:-

Price Range: It is projected that bird strikes will cost between \$142 million and \$283 million overall over this time.

<u>Insight</u>-Because bird strikes have a large cost impact, airports must implement efficient wildlife management plans.

4. The total number of victims: Count:-

During this time, bird strikes were recorded to have harmed 21 people. *Insight*:-: Despite the very low frequency of injuries, the occurrences that do result in injuries demonstrate the potential seriousness of bird impacts.

5. Phase of Flight During Bird Strikes:

Phases:

Approach: 41%Take-off Run: 20%Landing Roll: 19%

Climb: 17%Taxi: 3%Parked: <1%

<u>Insight</u>-After the takeoff and landing roll stages of flight, the approach phase of flight accounts for the bulk of bird hits. This implies that there are crucial times when pilots and airport staff must exercise extra caution.

6. Timeline of Flight (2000-2011):-

Between 2000 and 2011, there was a steady rise in the number of bird strikes.

<u>Insight</u>: The increasing trend suggests that people are becoming more concerned about bird strikes, which could be brought on by an increase in air travel or bird populations near airports.

7. Top 5 Affected Airlines/Operators:-

- Airlines:
- Southwest Airlines
- Business Aviation
- American Airlines
- Delta Air Lines
- US Airways

<u>Insight</u>-Based on the number of flights or the routes they fly, Southwest Airlines seems to be the most impacted. 8. Sky Conditions at the Time of Bird Attacks: Conditions: 49% without a cloud A Few Clouds: 34% 16% overcast Observation: Since clear skies account for over half of all bird strikes, it appears that weather may not be a major factor in reducing bird activity around airports. 9. Flight Origin State of Bird Strike Involved Flights: Geographical Spread: The map identifies a number of states, including Florida, California, and Nevada, as frequent starting points for flights that result in bird strikes. Observation: States with large airports or states with special migratory patterns are more likely to have bird strikes.

Conclusion

In summary, the dashboard illustrates the complex relationship between bird strikes in the US and their effects on airport operations, airline safety, and financial expenses. Stakeholders can design focused initiatives to reduce the danger of bird strikes and improve aviation safety by knowing the critical aspects, such as the quantity of the wildlife, the impacted airports, and the flight phases most likely to result in strikes.