

Wildlife Strike Risk Analytics Dashboard

Engine Ingestion Rate (%)

9.00%

Rolling probability of catastrophic engine ingestion

High-Risk Flight Phase

20.38%

EN ROUTE Most damage-prone

Based on damage probability >=50

Migration Season Peak

September

Peak migration months substantially amplify wildlife strike risk

Engine Type Vulnerability Index

3.70

Relative damage susceptibility by engine design

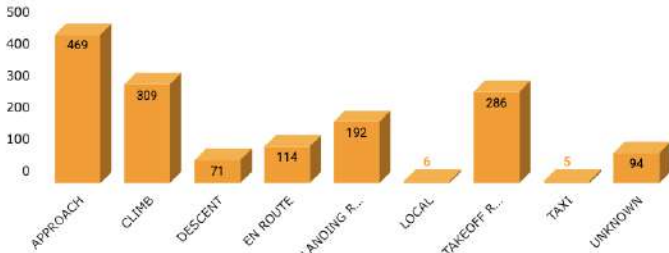
Monthly Strike Trend (Rolling 12 Months)

Strikes



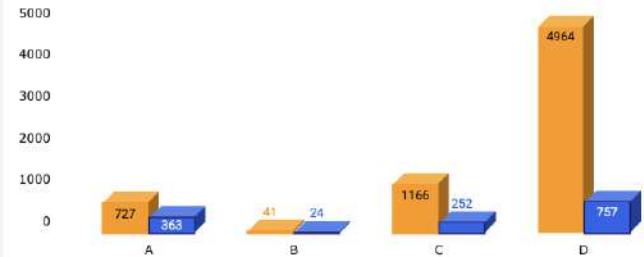
Strike frequency rises steadily from early months and reaches its highest level in September (1,490 cases), highlighting significant seasonal exposure in Q3

Aircraft Damage vs Flight Phase



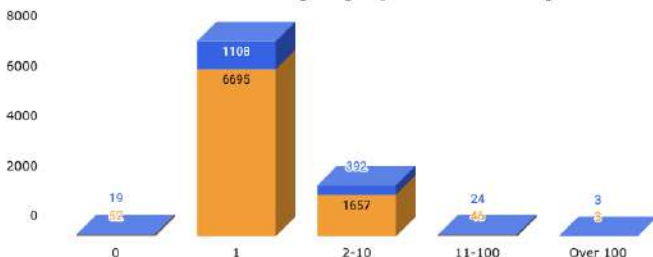
Aircraft damage incidents are most frequent during the Approach (469 cases) and Climb (309 cases) phases, indicating critical risk exposure during transitional flight stages.

Aircraft Damage Incidents per Engine Type

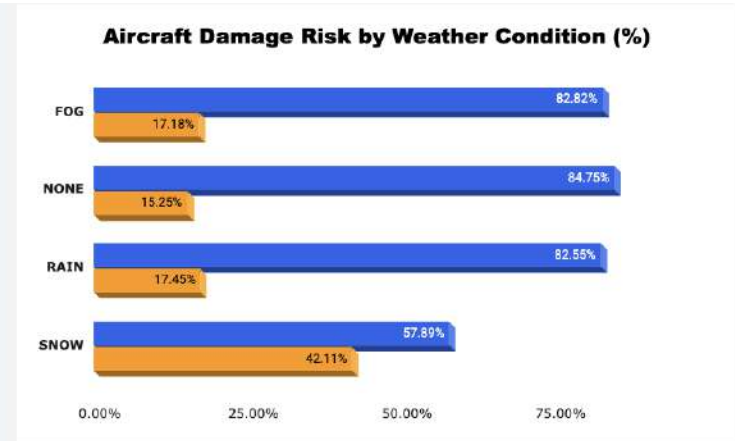


The sharp concentration of damage incidents in Engine Type D suggests potential structural or operational factors influencing higher strike susceptibility.

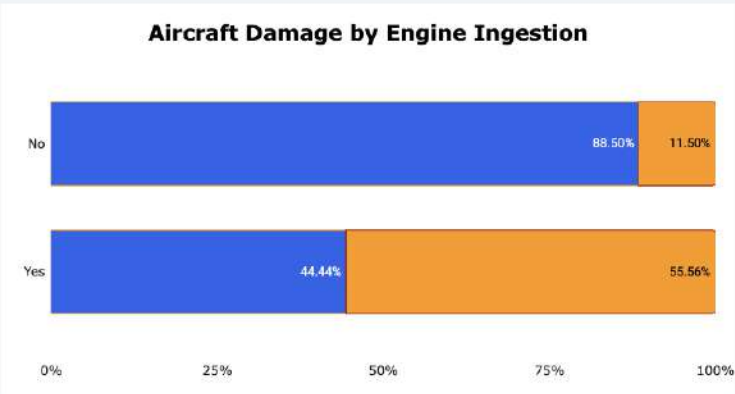
Aircraft Damage by Species Quantity



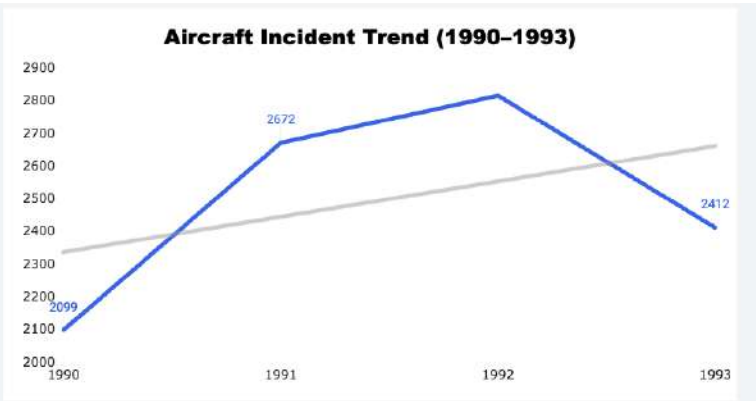
Single-bird strikes dominate overall damage exposure (1,108 cases), while multi-bird strikes in the 2-10 range also contribute substantially (392 cases), highlighting cumulative risk impact.



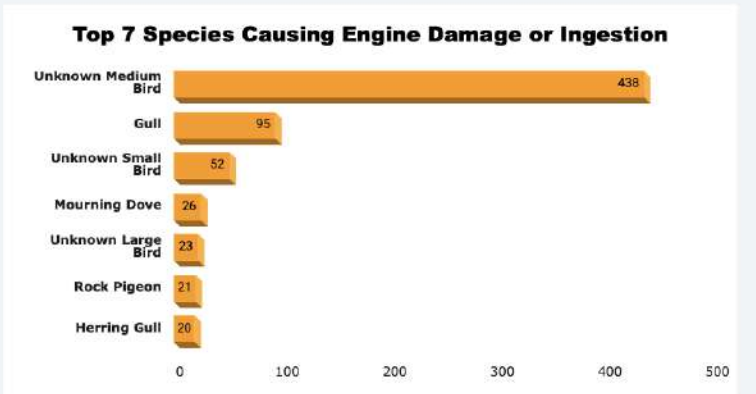
Aircraft damage risk is significantly higher during snow conditions (42.11%) compared to fog (17.18%), rain (17.45%), and clear conditions (15.25%), indicating that snow substantially amplifies strike severity.



More than half of wildlife strikes involving engine ingestion result in aircraft damage (55.56%), highlighting ingestion events as high-severity safety incidents.



Wildlife strike incidents increased significantly from 2,099 in 1990 to a peak of 2,816 in 1992 before declining in 1993. The trend indicates a short-term rise in wildlife interaction risk followed by stabilization.



Engine damage incidents are heavily concentrated in the “Unknown Medium Bird” category (438 cases), followed by Gulls (95 cases), highlighting species-specific risk concentration.