

Estimating Aircraft Risk for Aviation Expansion

...

September 12, 2024

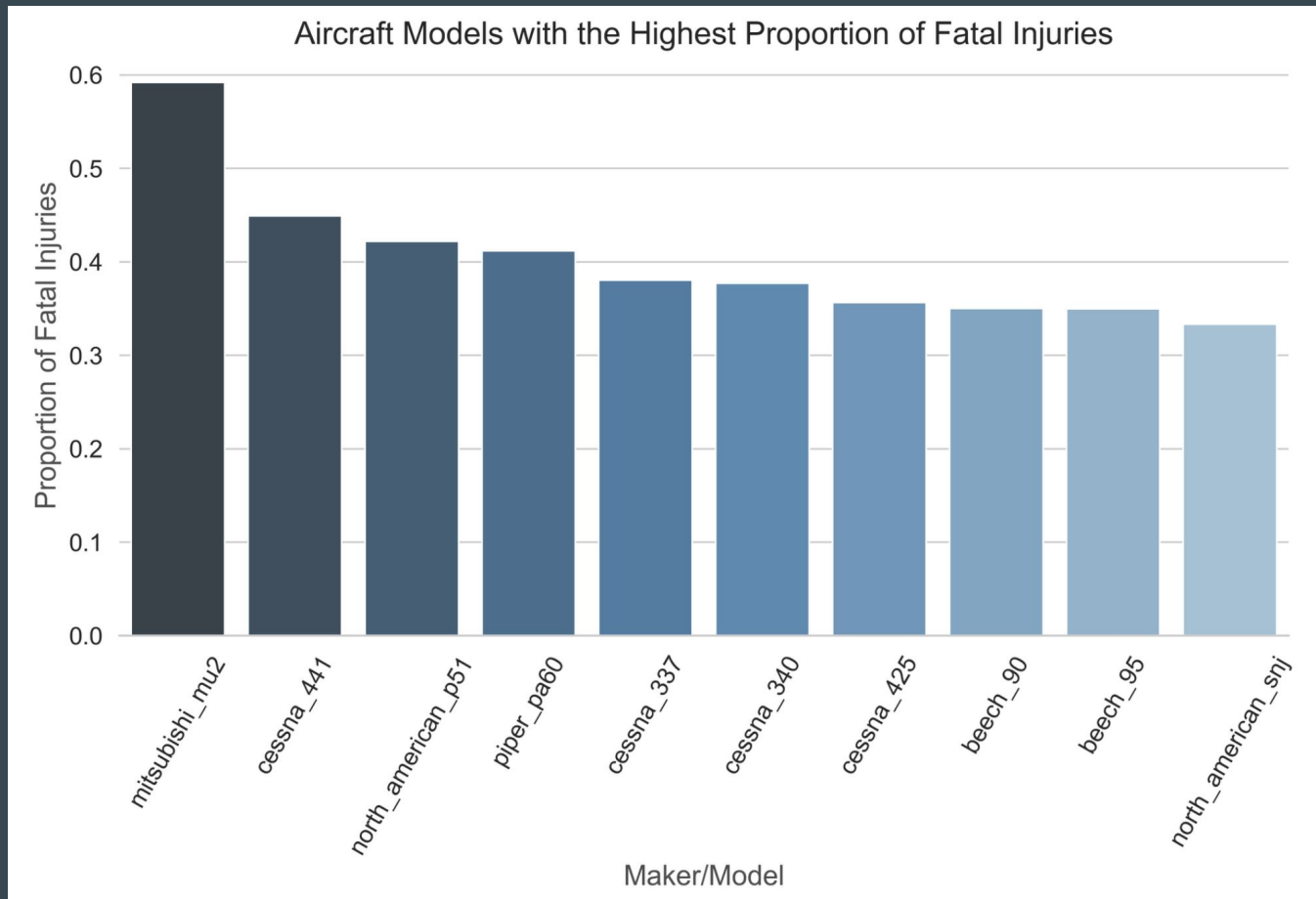
Overview

- Minimizing operational and financial risks is key for successful aviation operations;
 - Goal: Identifying high-risk aircraft models to guide purchasing decisions.
-
- Focus on aircraft safety to reduce costs and improve brand reputation;
 - Explore weather conditions and their impact on accidents.

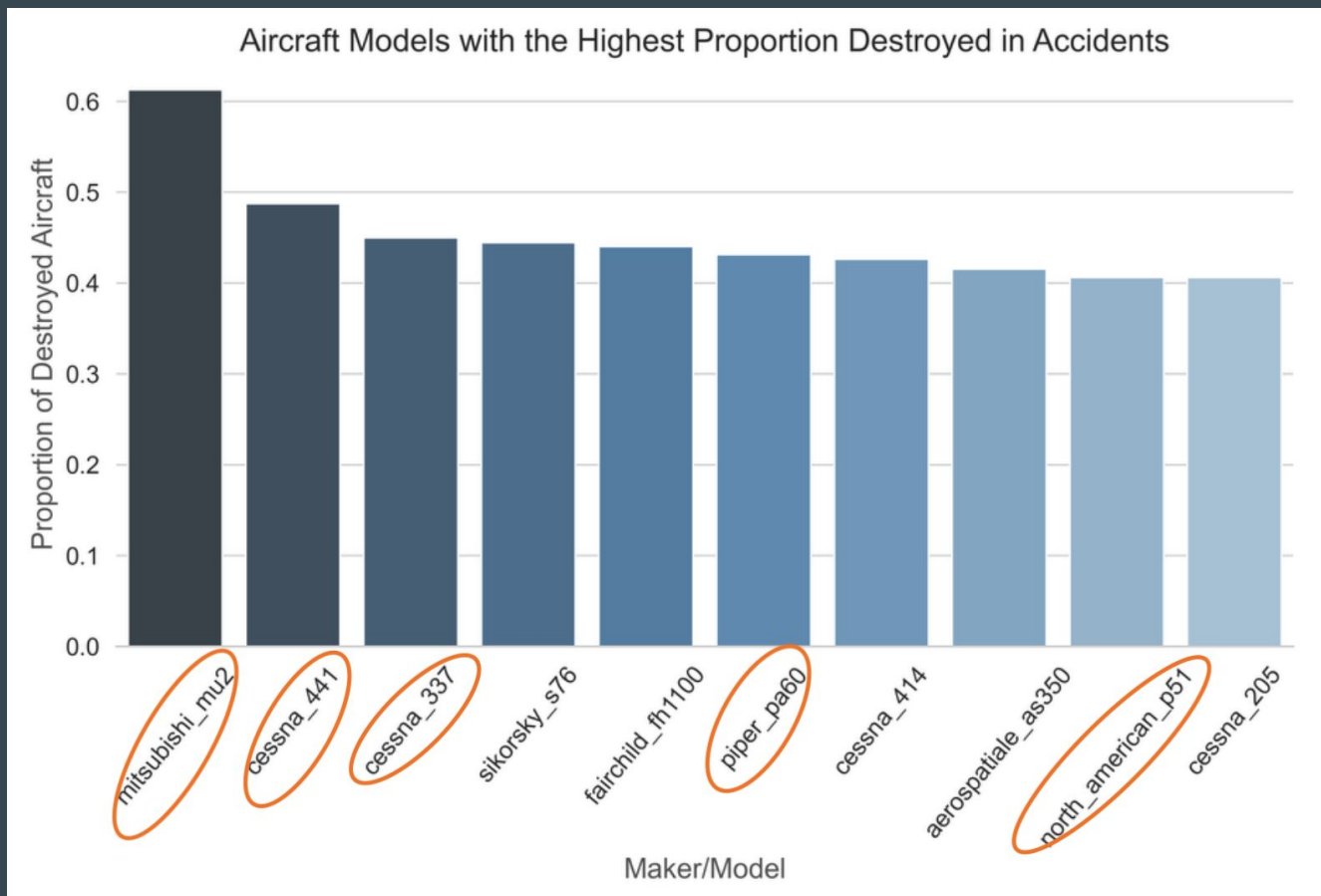
Dataset

- Variables analyzed: Aircraft damage, Maker, Model, Number of Fatal Injuries, and Weather Conditions;
-
- Data source: NTSB aviation accident database.

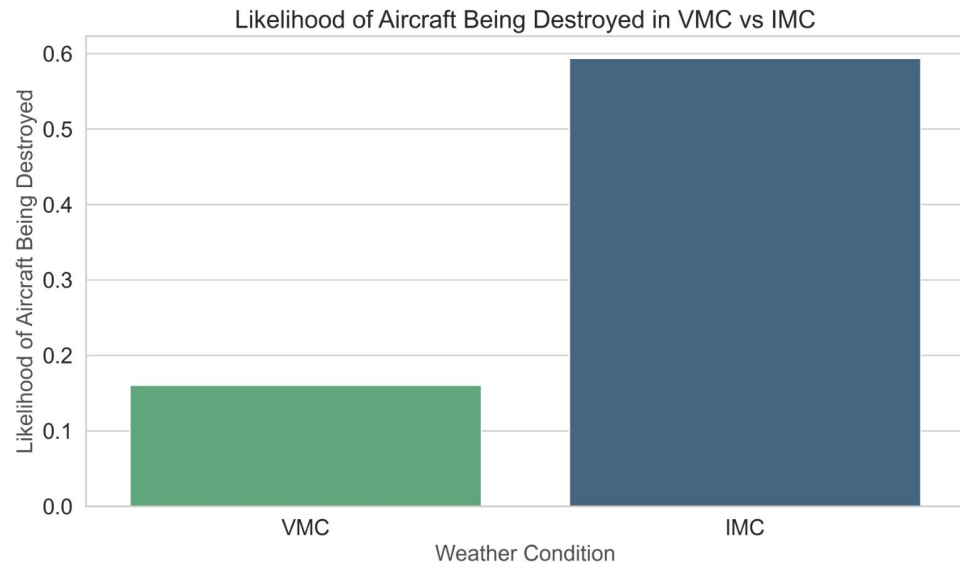
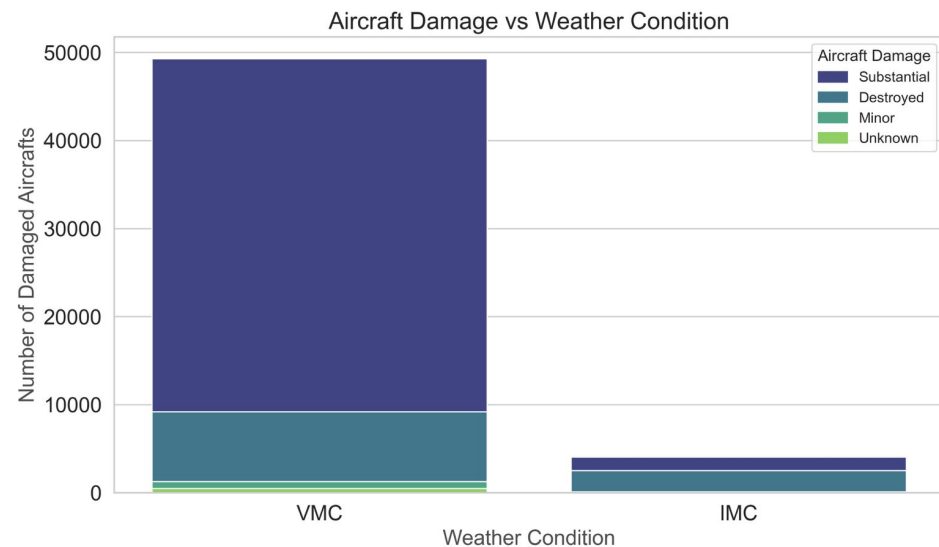
Aircraft Models to Avoid



More Aircraft Models to Avoid



Higher Risk in Poor Weather



Recommendations & Next Steps

- Avoid purchasing aircraft models with high fatality and destruction rates;
- Invest in pilot training and maintenance for operations in IMC to mitigate risk;
- Expand the analysis to include data on flights with no accidents or incidents to compare safety across aircraft models;
- Determine aircraft models with better performance in poor weather.

Thank You