Aircraft Analysis

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Vision

Objectives & Goals

Generating insights for a company by analyzing the Aviation_data.csv datasets for various Aircraft Make companies.

Definitions

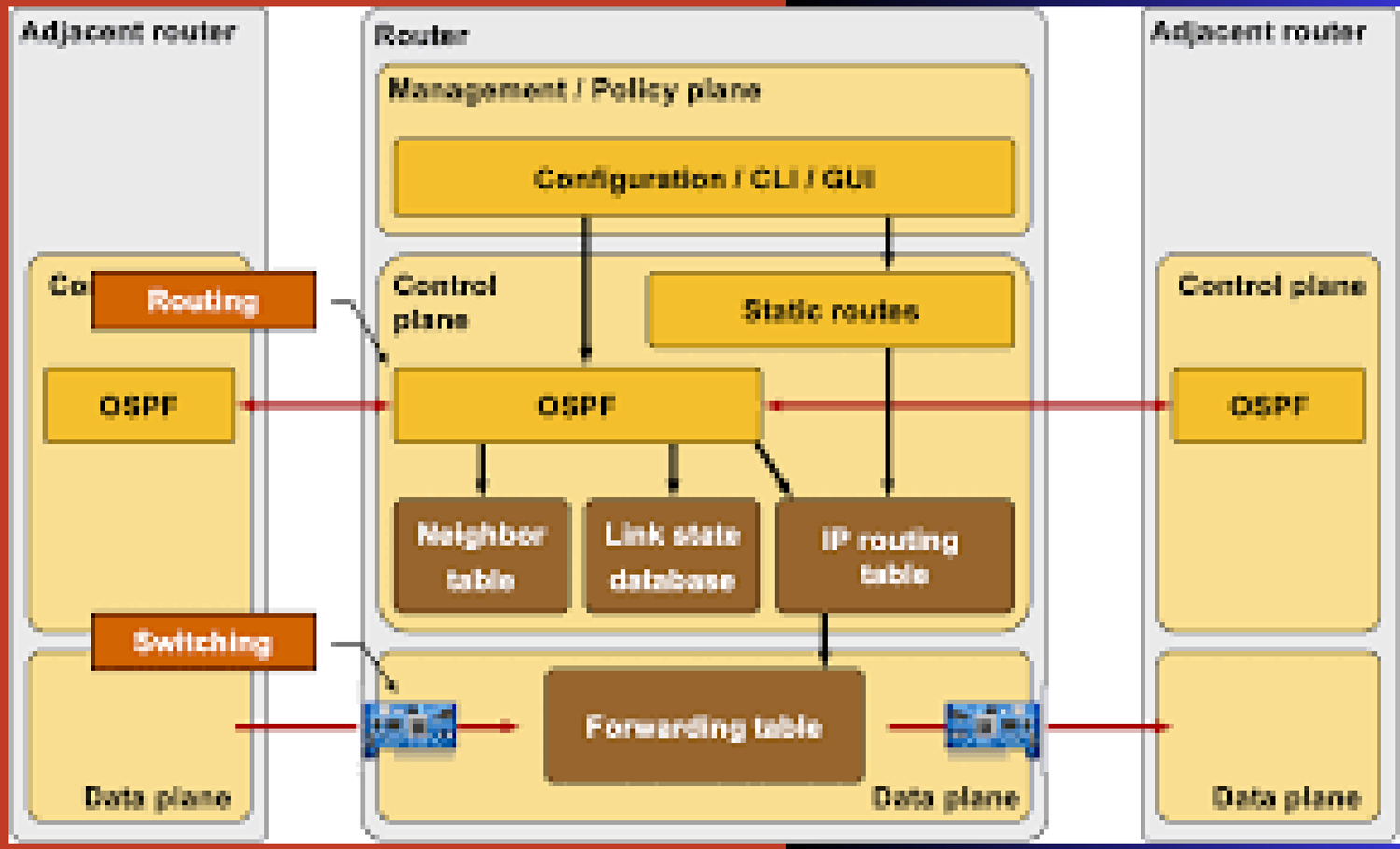
Understanding and translating the findings into actionable insights that the company can use to decide which aircraft make to use based on Aircraft Damage rate and Total Fatal Injury rate per Aircraft Make

Genaral overview

- Conclusion
- recommendation

The Data

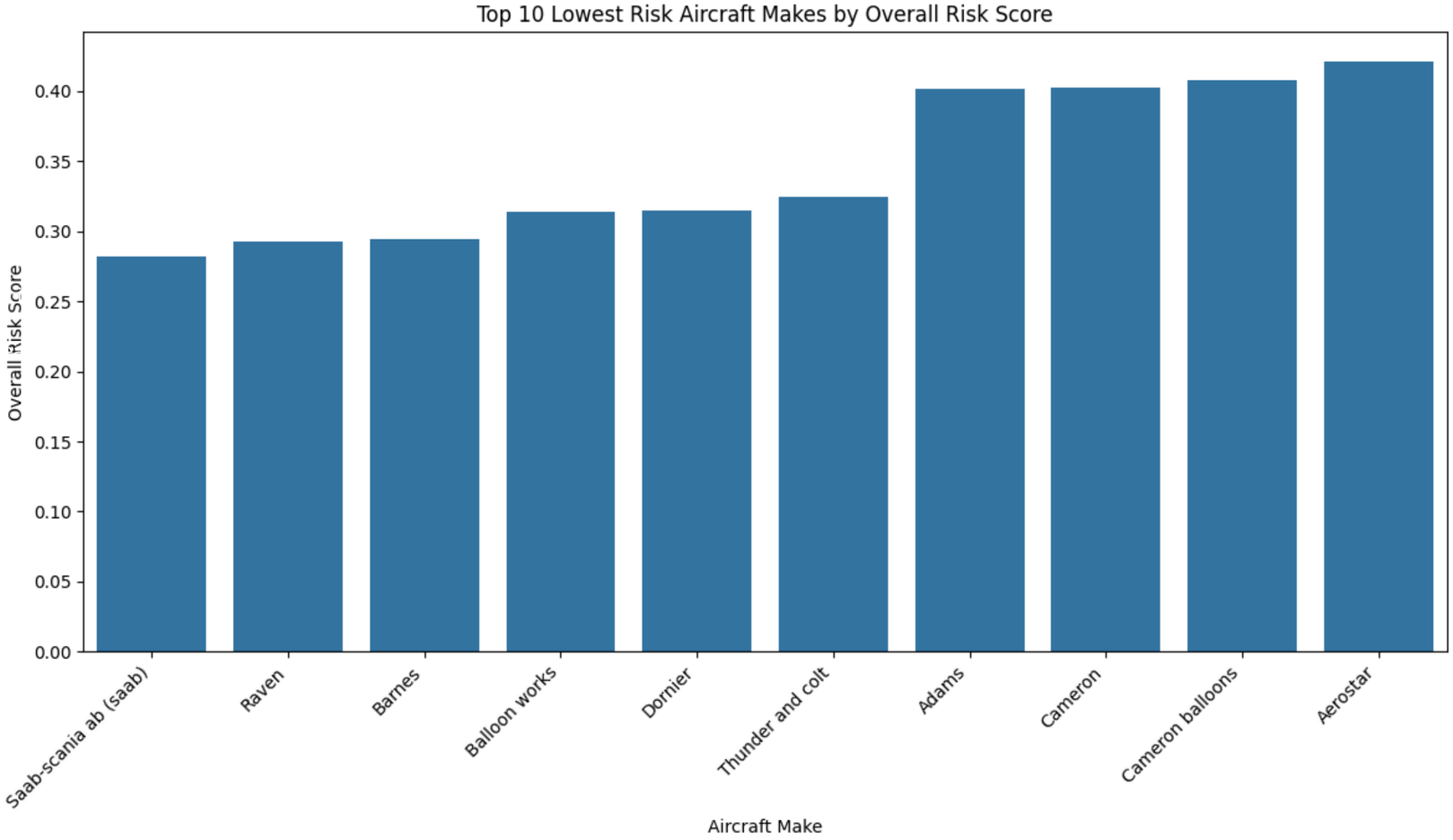
The data set being used is obtained from the aviation data. CSV



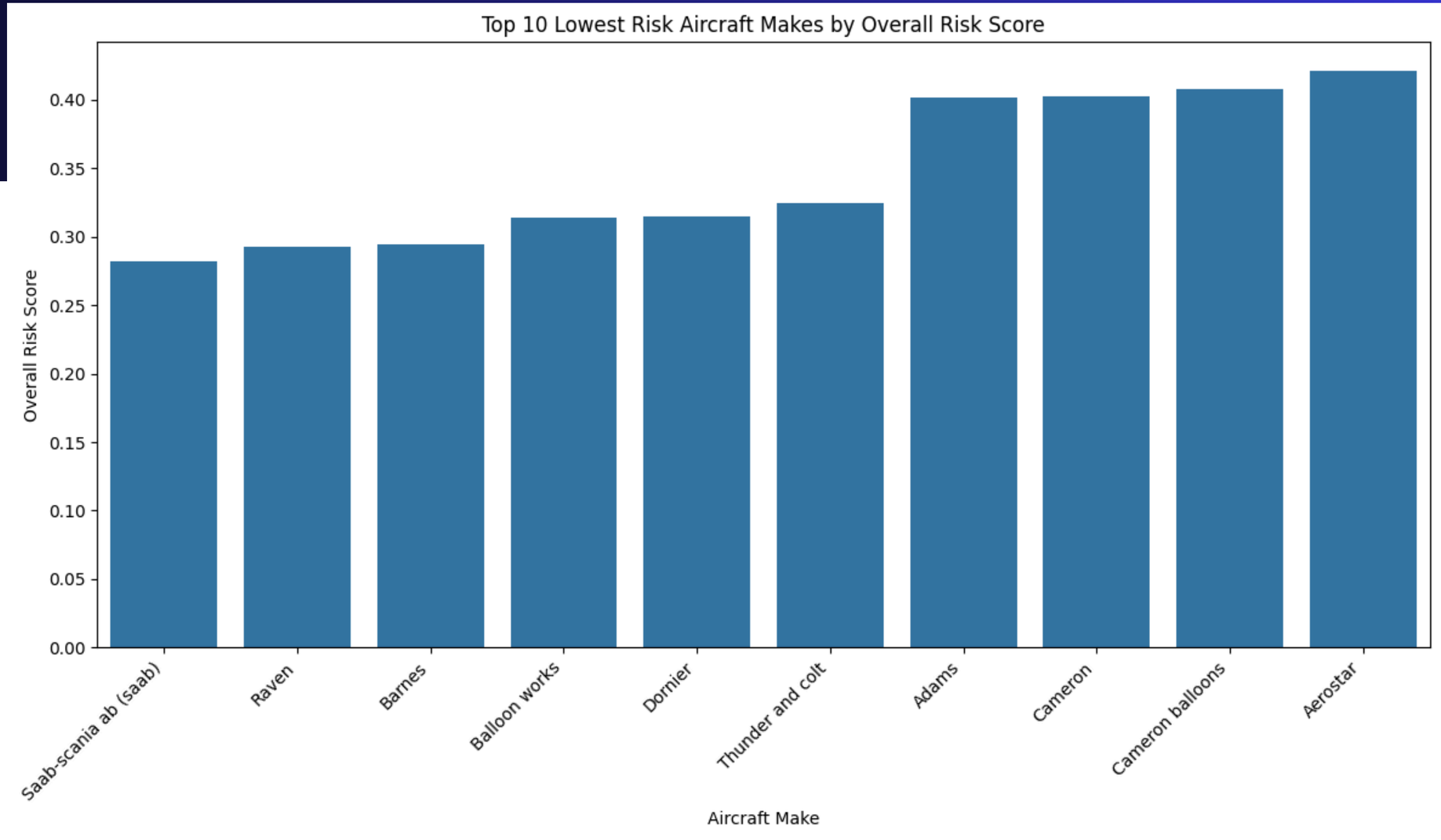
TOP TEN AIRCRAFT MAKES WITH THE LOWEST RISK RATE

LOWEST RISKED MAKES

- These top ten lowest aircraft makes are based on the severe damage rate of the plane and the total fatal injury rate
- The aircraft makes with the lowest severe damage rate and low total fatal injury rates are considered as the top reccommendable

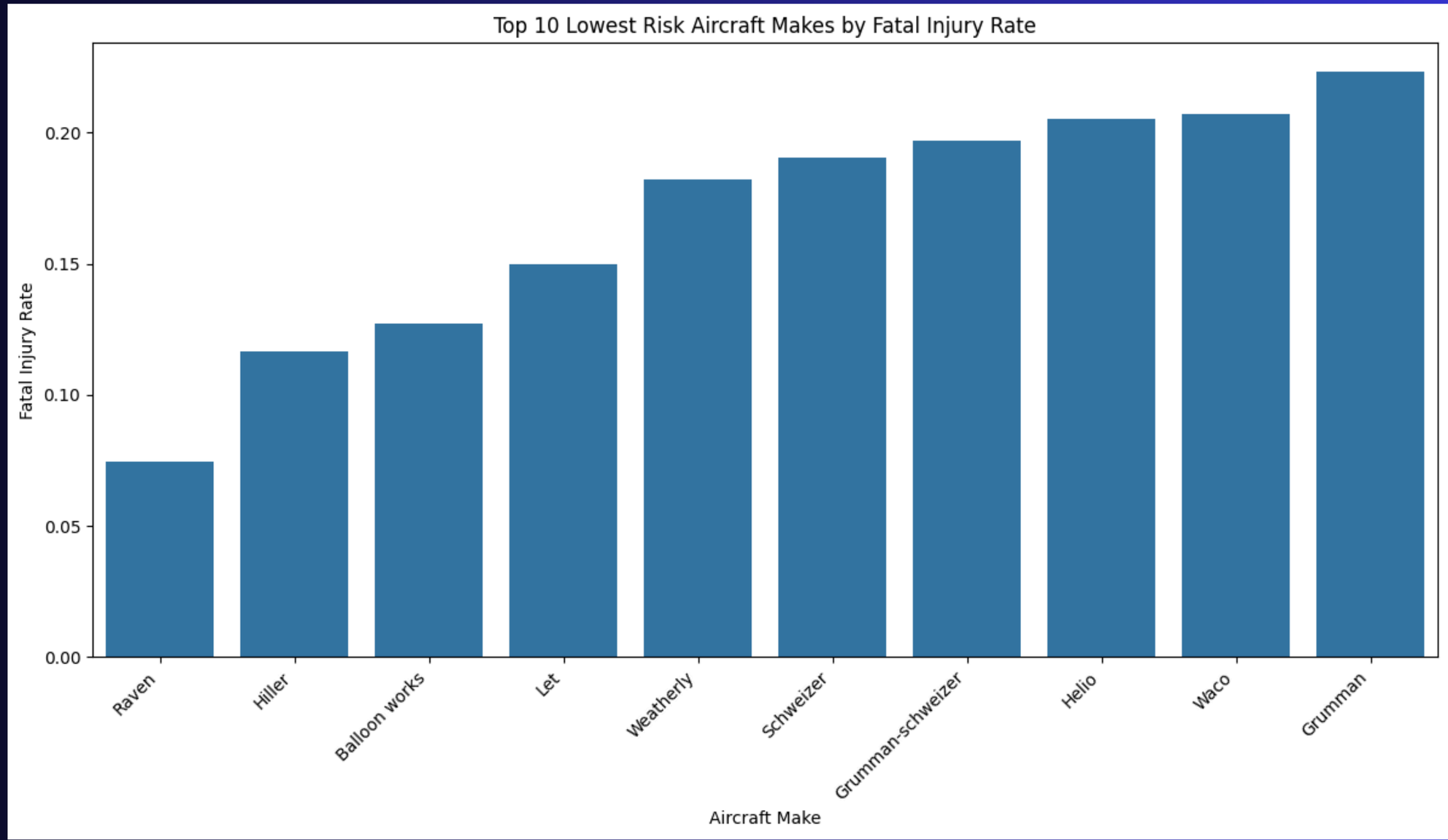


The overall top 10 lowest-risk aircraft makes



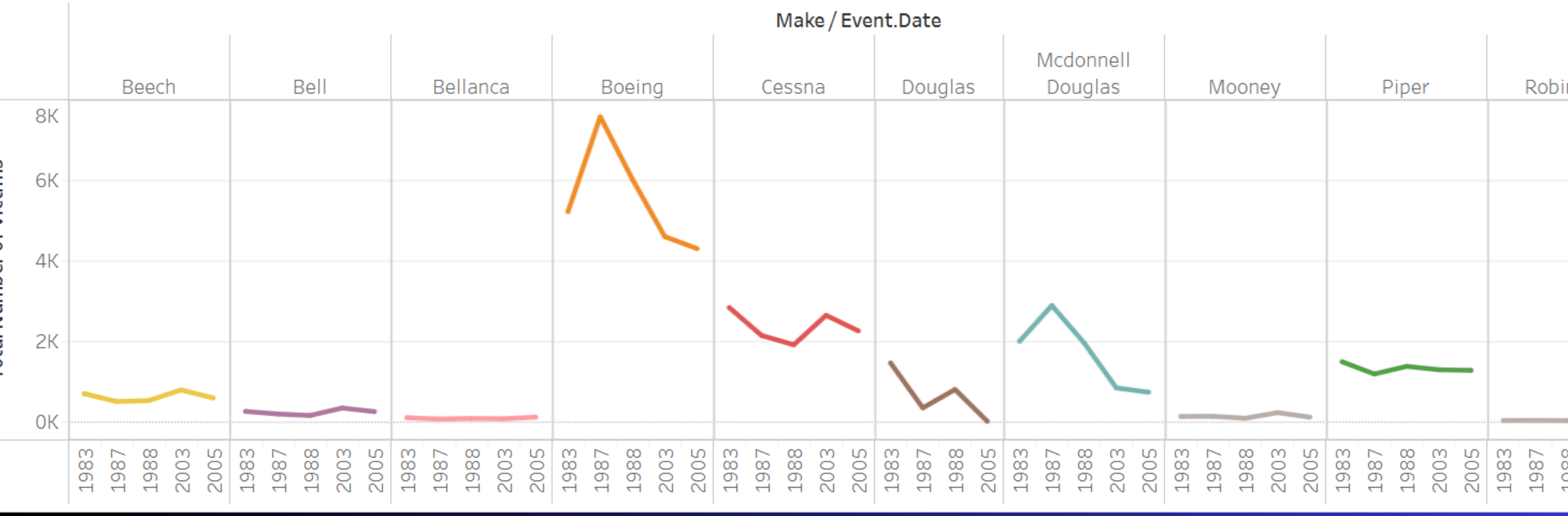
TOP 10 AIRCRAFT MAKES

Based on Total Fatal Injury Rate

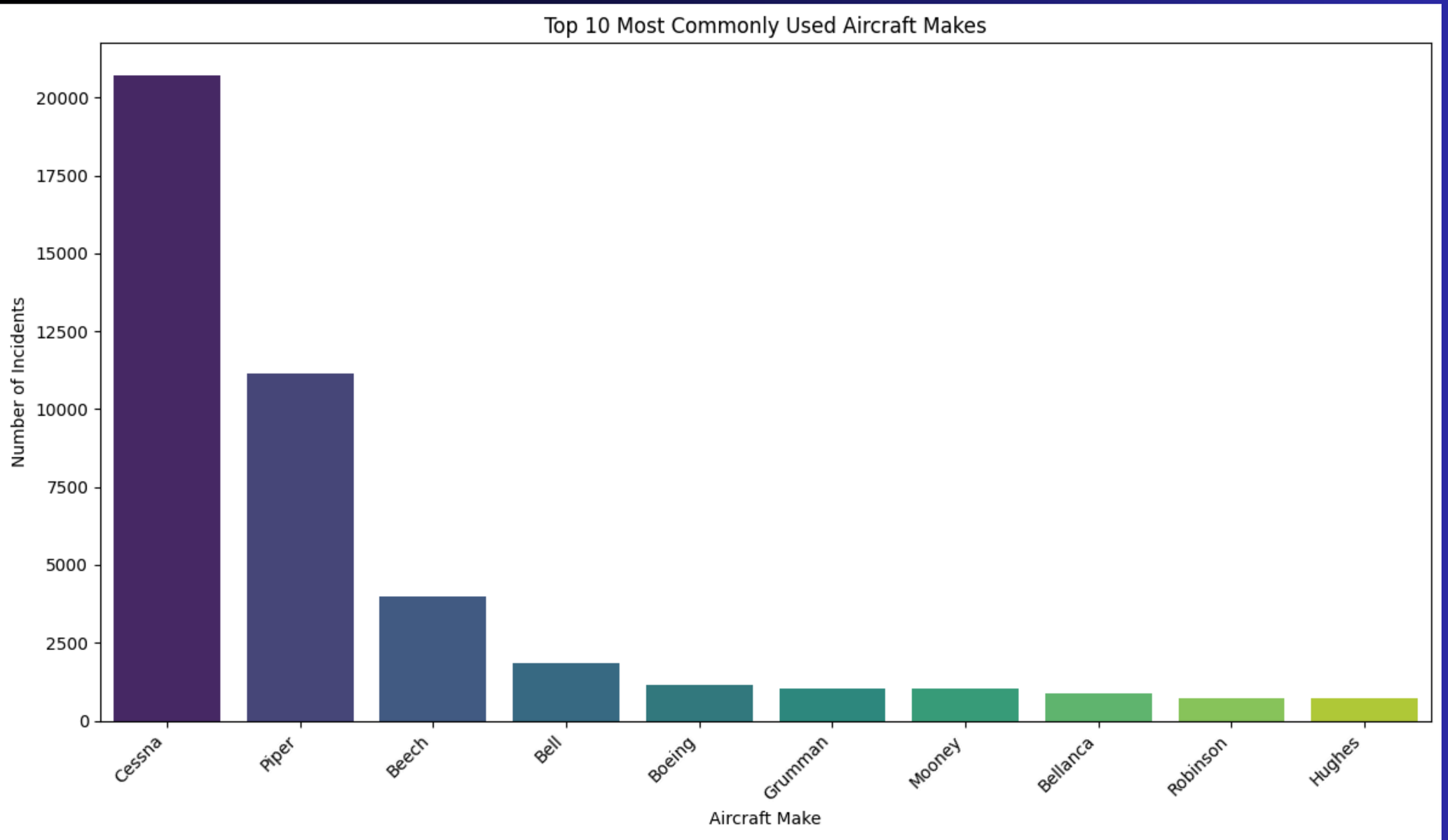


TOP 5 Aircraft Makes

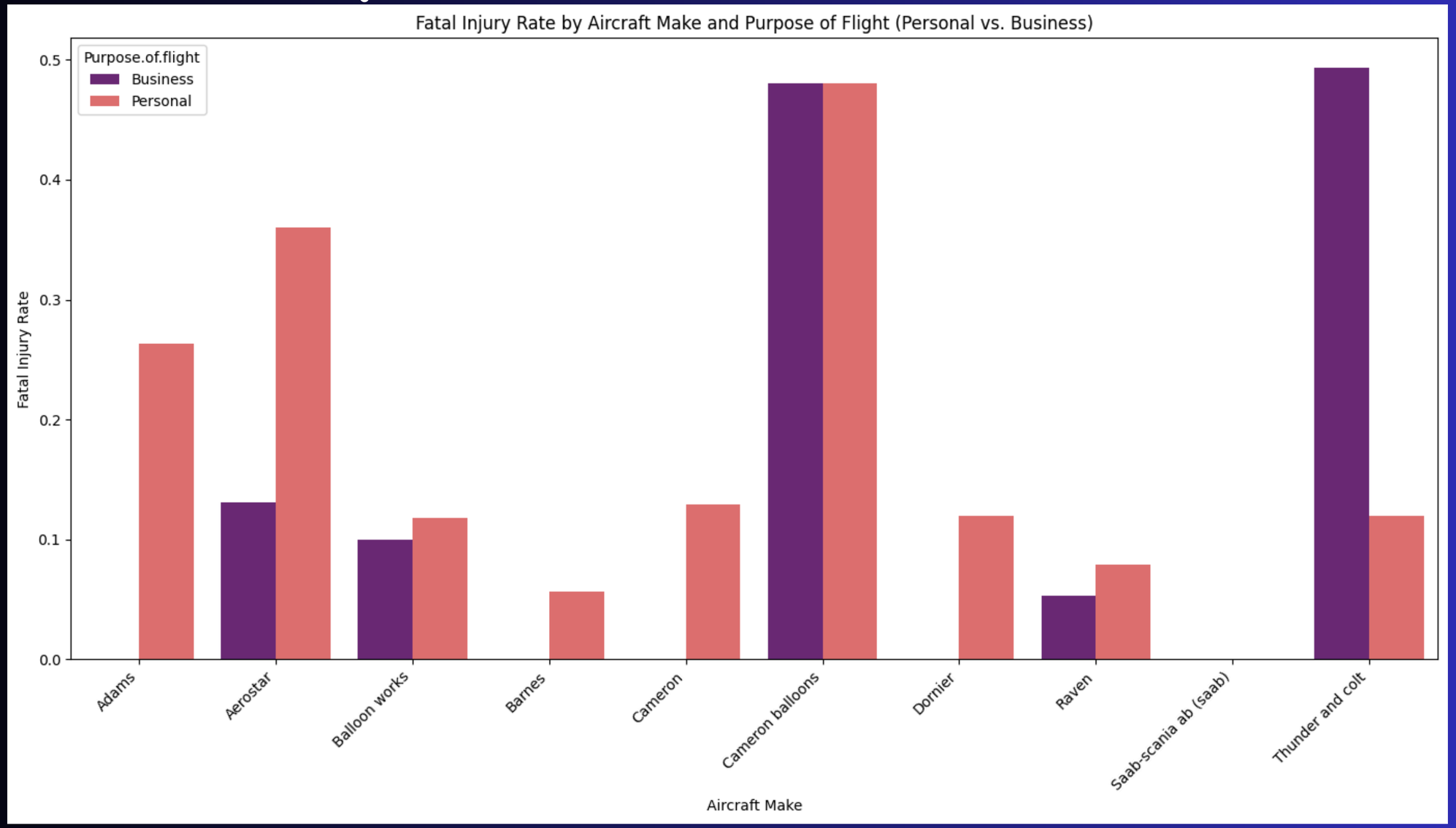
Based on the Highest Number of Victims



Top 10 Most Commonly Used Aircraft Makes



Fatal Injury Rate by Aircraft Make and Purpose of Flight (Personal vs. Business



RCCOMMENDATIONS ON WHICH AIRCRAFT MAKES TO BUY FOR

Reccommended Aircraft Makes for Private / Personal Enterprises
The Lowest Risk Aircraft Makes For Personal/Private Enterprises

Summary of Findings:

1. **Top 10 Lowest Risk Aircraft Makes**: The analysis identified the following aircraft makes as having the lowest overall risk scores (a composite of fatal injury rate and severe damage rate) based on a threshold of at least 10 incidents:
    * Saab-scania ab (saab)
    * Raven
    * Barnes
    * Balloon works
    * Dornier
    * Thunder and colt
    * Adams
    * Cameron

    * Aerostar

3. **'Personal' Flight Risk Profile**: The `personal_flight_metrics` DataFrame shows the fatal injury rates and severe damage rates specifically for 'Personal' flights among these low-risk makes.

Recommendations for personal /private use:

* **For Private/Personal Use**: The makes identified as 'lowest_risk_makes' (e.g., **Saab-scania ab (saab), Raven, Barnes, Balloon works**) demonstrate lower overall risk scores. Companies looking to acquire aircraft for private use (which aligns with the available data for these makes) should consider these manufacturers.

CONCLUSION

Reccommended Aircraft Makes For Commercial Puposes
The Lowest Aircraft Risk Makes For 'Business' / 'Commercial' Enterprises

Summary of the findings:

1. **Top 5 Lowest Aircraft Makes for Based on the severe damage rate and Total Fatal Injury Rates** :The analysis identified the following aircraft makes as having the lowest overall risk

* Adams
* Aerostar
* Cameron
* Raven
* Balloon works

Reccomendations for the Aircaft Makes the company should purchase

1. You can purhase these aircraft makes for either personal or commercial use:
* Adams
* Aerstar
* Raven

These are recommended because they have the lowest severe damage and Fatal injuries