Aviation Accident Analysis

Identifying the Safest Aircraft Makes and Models for Business Expansion

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Date: 30/03/2025

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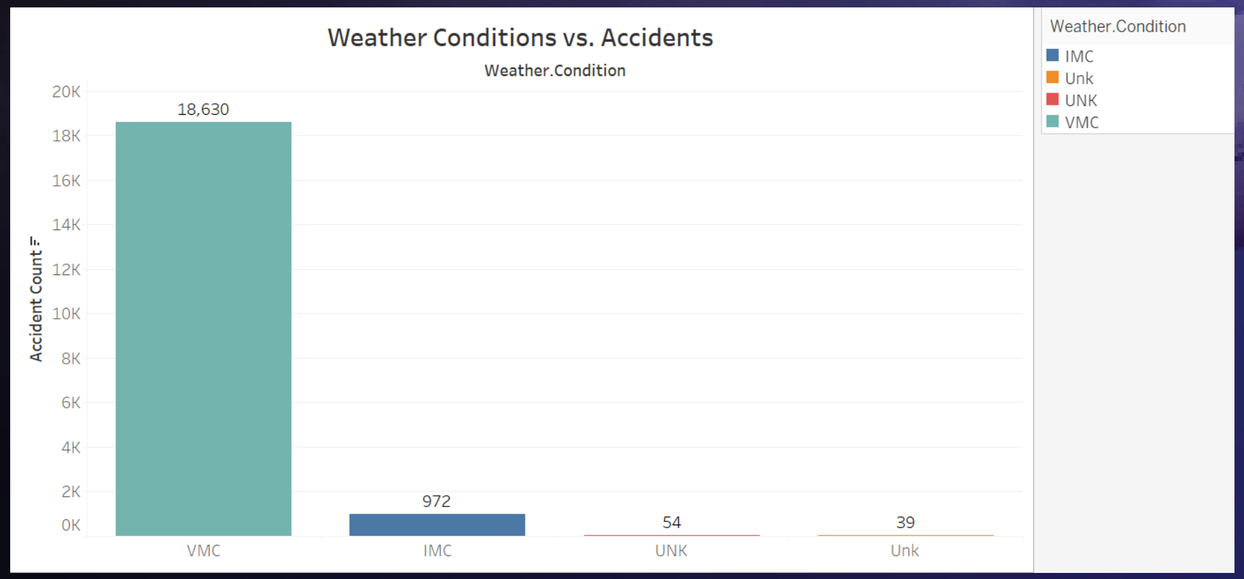
Project Overview & Business Understanding

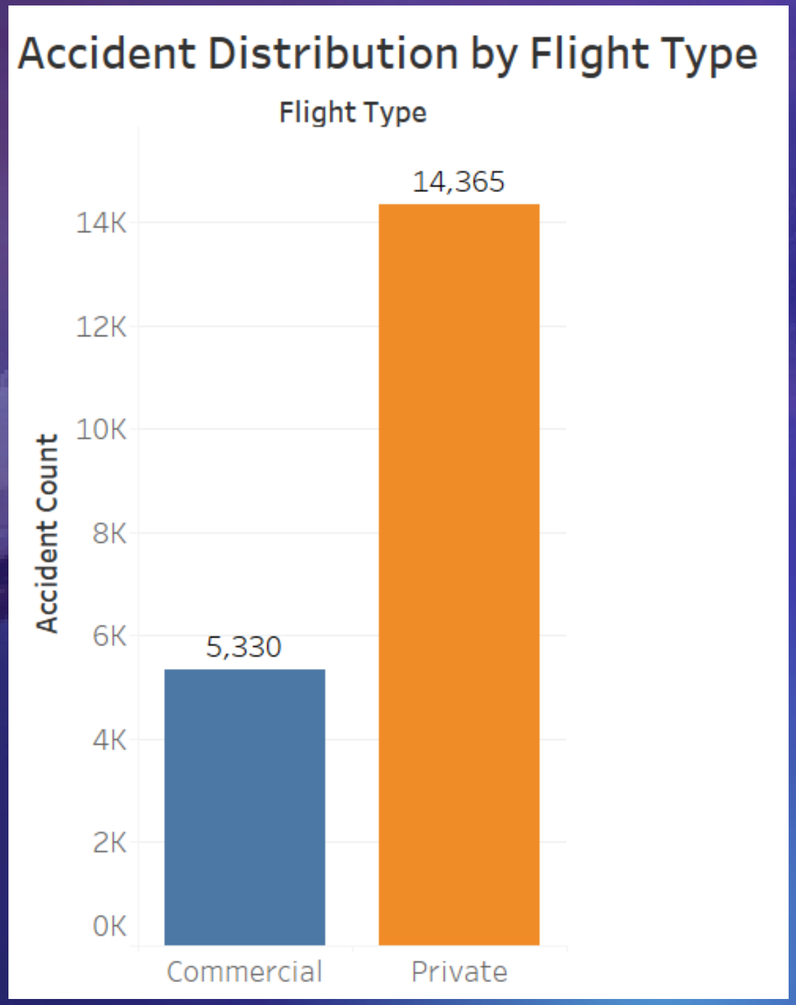
- Goal is to analyze aviation accident data to identify the safest aircraft models for business expansion.
- Problem Statement: Accidents impact airline safety, profitability, and operational efficiency.
- Objective: Compare accident risks across aircraft makes and models, flight types, weather conditions and other causes of aviation accident to make informed business decisions.
- Target Audience: Business stakeholders evaluating expansion opportunities.

Key Insights & Data Analysis

Data Insights:

- Most accidents occur under Visual Meteorological Conditions (VMC), particularly in private flights.
- Private aircraft have a higher accident rate than commercial aircraft under similar weather conditions.
- Risk factors beyond weather, such as aircraft damage, and purpose of flight, impact flight safety.



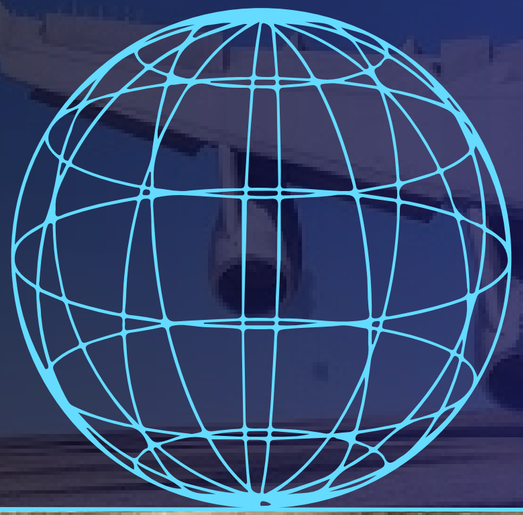


Business Recommendations & Next Steps

✅ Prioritize commercial aircraft over private ones due to their lower accident rates.

✅ Implement stricter safety protocols for private aircraft, including enhanced pilot training and rigorous maintenance checks.

✅ Invest in aircraft models with historically lower accident rates and operate primarily in favorable weather conditions to minimize risk.



Next Steps:

- Expand analysis to include regional and global aviation data.
- Develop predictive models for accident probabilities.
- Leverage data-driven insights to optimize operational procedures and risk management.

CONCLUSION

Strategic selection of safer aircraft models will enhance cost efficiency, regulatory compliance, and long-term business sustainability.

Thank You!

❓ Open for questions

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