



very strong income performance well ahead of prior year

# MINIMIZING RISK, MAXIMIZING RETURNS: ANALYZING AVIATION TRENDS

Investor Opportunity



# BUSINESS UNDERSTANDING

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As the company diversifies, aviation offers a strong growth opportunity but comes with significant risks. Data-driven decisions are essential for long-term success.

By analyzing historical aviation accident data, I will identify aircraft models with the highest survivability rates. Evaluating accident trends, critical flight phases, and injury patterns will provide actionable insights, ensuring a well-informed and strategic entry into the aviation sector.

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# DATA UNDERSTANDING

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## Why Are We Using This Dataset?

To make informed investment decisions, we need reliable data on aviation safety. The NTSB aviation accident database provides detailed records of aircraft incidents over decades, allowing us to identify patterns in safety and determine which aircraft models have the best survivability.



## How Will The Data Help Us Minimize Risk?

This dataset helps us assess which aircraft have historically been the safest by analyzing accident trends and survivability rates. It also reveals common risk factors, enabling us to anticipate potential issues and make better-informed choices.



## How Does This Data Support Our Business Strategy?

Expanding into aviation requires a strong safety foundation. By relying on historical accident data, we ensure our decisions are fact-based, helping us choose aircraft that align with both safety and long-term business success.

# DATA ANALYSIS



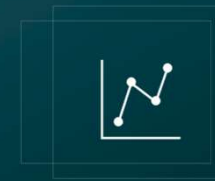
## Survivability Trends

- Identifying aircraft with higher survivability rates helps reduce operational risk and enhances confidence in long-term business viability.
- Aircraft with better safety records can lead to lower insurance costs, fewer liabilities, and stronger trust from clients and regulatory bodies.
- Investing in aircraft with a proven track record of survivability positions the company for sustainable growth while prioritizing passenger and crew safety.



## Crash Trends by Phase of Flight

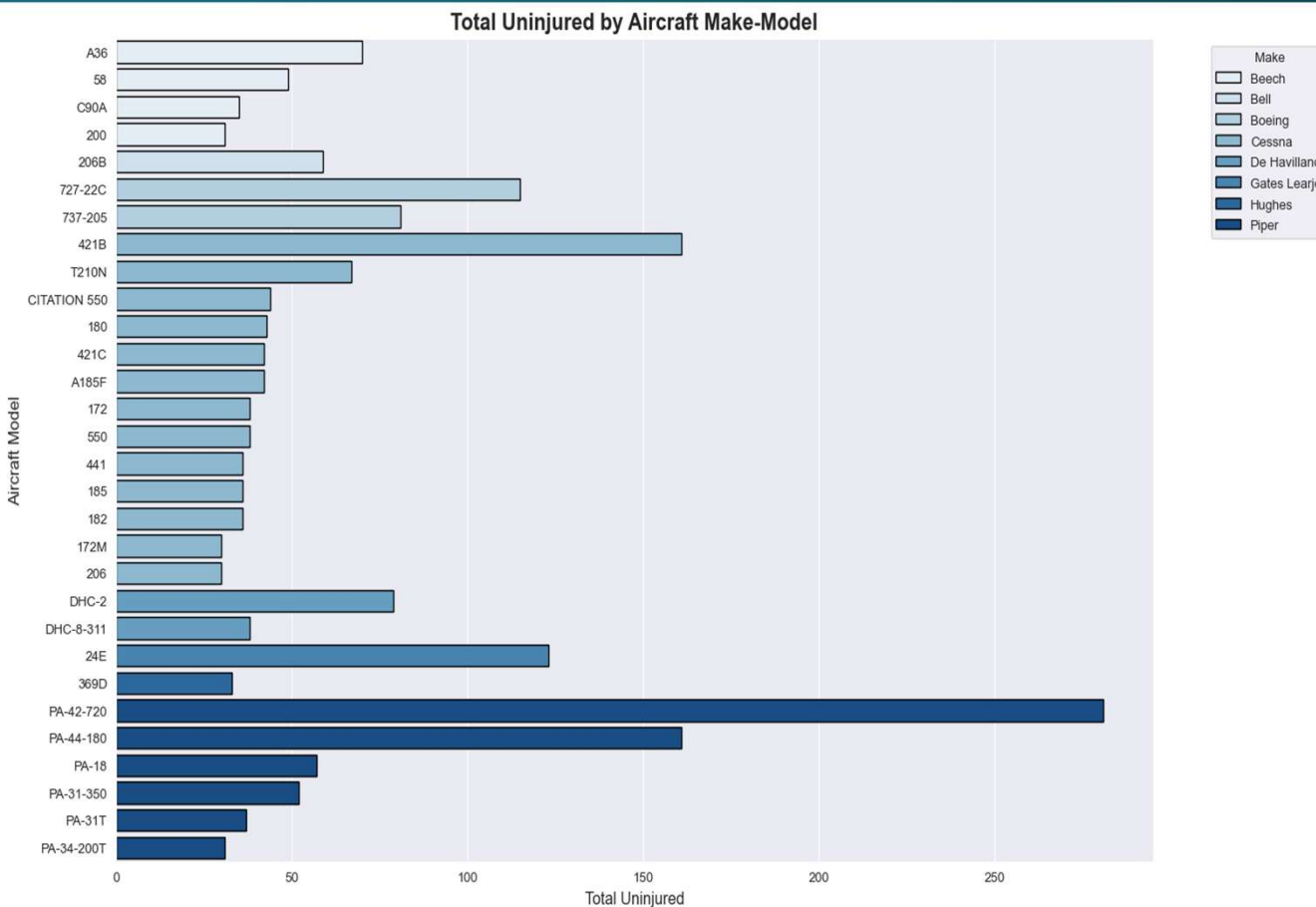
- Exploring crash patterns across different phases of flight helps identify when aircraft are most vulnerable, allowing for better risk assessment.
- Understanding how crash patterns have evolved over time helps identify improvements in aviation safety and areas that still require attention.
- Targeting risk-heavy phases with enhanced protocols and technology can further minimize operational hazards and improve overall flight safety.



## Injury Trends over Time

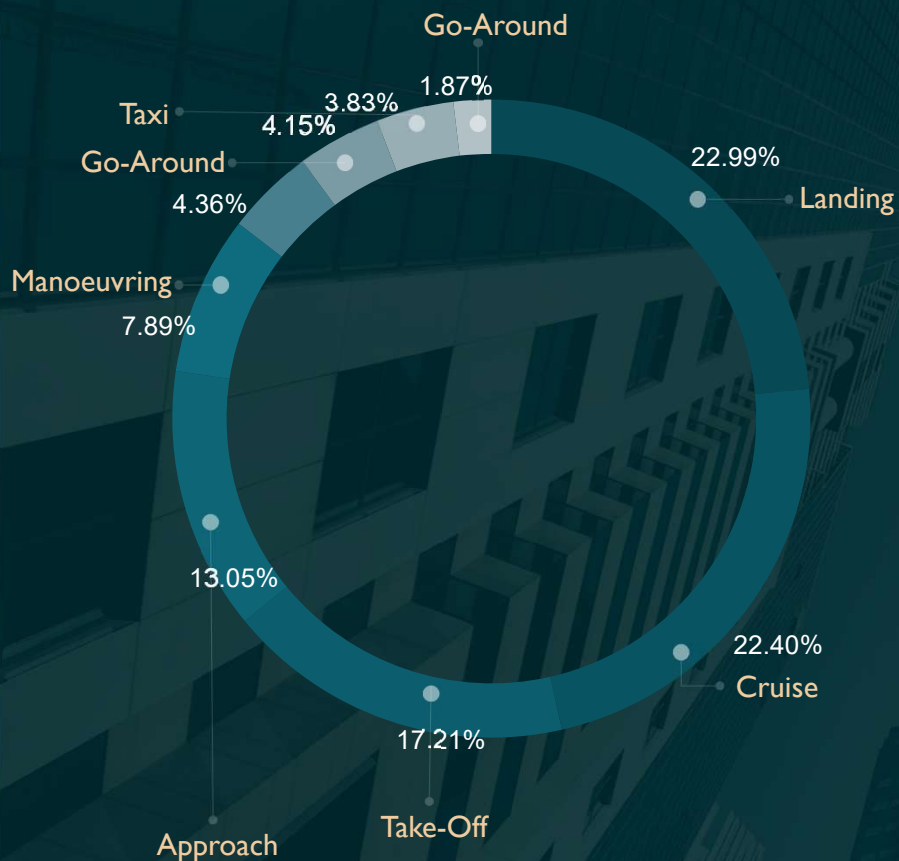
- Analyzing injury trends over time helps determine whether aviation safety has improved and how survivability rates have changed.
- Identifying patterns in injury severity provides insights into which factors contribute to better survival outcomes in accidents.
- Understanding these trends allows the business to make informed decisions on aircraft selection and safety investments to minimize operational risk.

# SURVIVABILITY TRENDS



- Certain aircraft models consistently show higher survivability rates, indicating stronger safety features and operational resilience.
- Identifying aircrafts with better survival outcomes helps in selecting lower-risk options for business operations.
- Survivability trends highlight the importance of choosing models with strong safety records over those with higher severe outcome risks.
- These insights support informed decision-making, focusing on passenger safety rather than just crash frequency.

# CRASH TRENDS BY PHASE OF FLIGHT

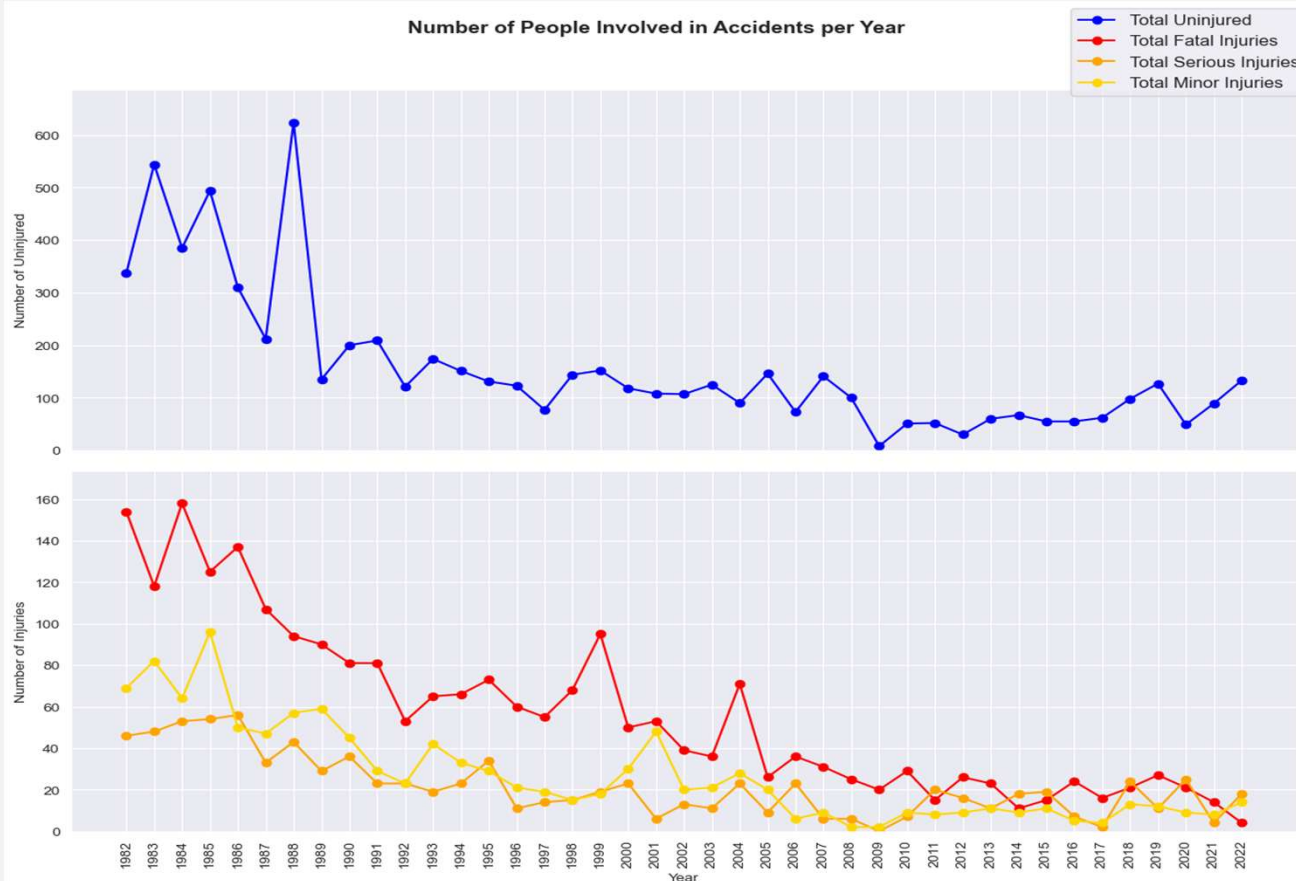


- Landing and takeoff have the highest crash rates, making them key focus areas for safety improvements.
- Cruise flight, while generally safer, still carries risks from system failures and in-flight emergencies.
- Less frequent crash phases like taxiing and go-around still require attention to maintain overall safety.
- Identifying high-risk phases helps prioritize safety measures and enhance operational efficiency.



# INJURY TRENDS OVERTIME

Number of People Involved in Accidents per Year



- A steady decline in injuries and fatalities shows significant improvements in aviation safety.
- Advances in aircraft design, regulations, and emergency response have increased survivability.
- Occasional injury spikes stem from isolated incidents rather than a reversing trend.
- Investing in aviation today carries far lower risks than in previous decades.



# BUSINESS RECOMMENDATION

Our analysis provides clear insights to guide investment decisions in aviation.

## 1. Aircraft Selection

The **Piper PA-42-720**, **Piper PA-44-180**, and **Cessna 421** have shown the highest survivability in recorded incidents, indicating strong safety performance. While this supports their selection, further evaluation of maintenance trends and operational conditions is recommended to ensure long-term reliability.

## 2. Operational Risks

Takeoff, landing, and cruise are the most critical phases of flight, with takeoff and landing posing the highest risks. While accidents have declined over time, these phases still require heightened safety measures, including real-time monitoring and strict operational protocols.

## 3. Industry Safety Trends

Accident rates and injury severity have steadily declined, reflecting advancements in technology and stricter regulations. This trend highlights that entering the aviation industry today carries lower risk than in the past, making it a more viable and secure investment opportunity.

By considering these insights, we can make informed decisions on aircraft selection, safety protocols, and operational strategies, ensuring both risk mitigation and long-term success in aviation.



# NEXT STEPS



## CONDUCT COST-BENEFIT ANALYSIS

Evaluate potential returns against acquisition and operational costs to ensure a profitable investment



## PROJECT INVESTMENT RECOVERY TIMELINE

Estimate how long it will take to recoup the initial investment based on expected revenue and expenses



## ACQUIRE AIRCRAFT FLEET

Finalize the purchase of selected aircraft models based on safety, operational viability, and financial feasibility.



## RECRUIT SKILLED PILOTS

Identify and onboard experienced pilots with proven track records of reliability and adherence to safety protocols.



## IMPLEMENT SAFETY PROCEDURES

Develop and enforce safety protocols to minimize operational risks and enhance long-term sustainability.

# SUCCESS



# THANK YOU

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Any Questions?



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