

# AIRCRAFT OCCURRENCIES 2012 - 2022 REPORT

BY: DANIEL LIRA

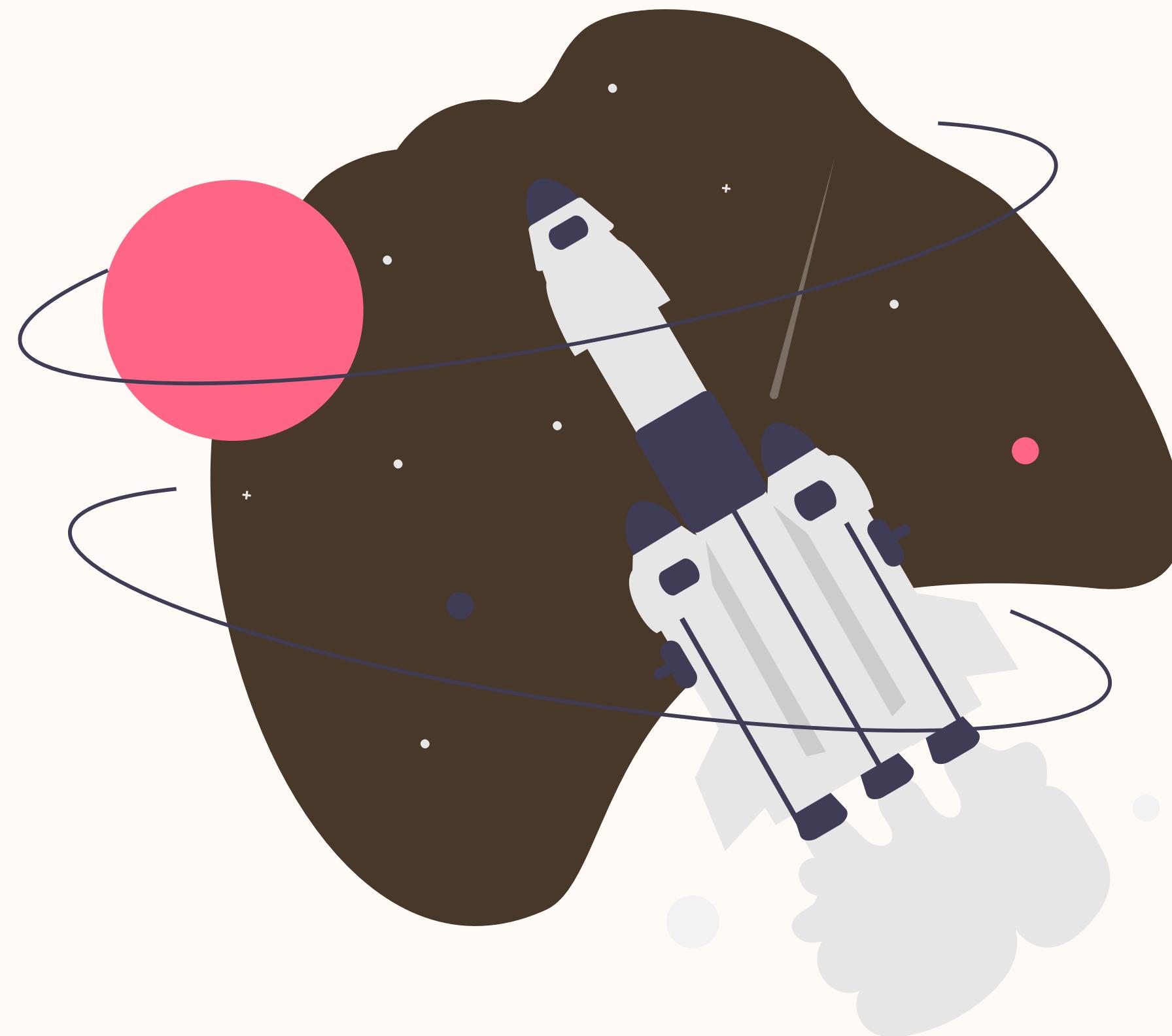
# SUMMARY

This report provides an analysis of aviation incidents from 2012 to 2022, with a specific focus on trends, safety concerns, and recommendations for improvement in the third quarter of 2023. My goal is to enhance aviation safety by identifying patterns and areas of concern.

# KEY FINDINGS

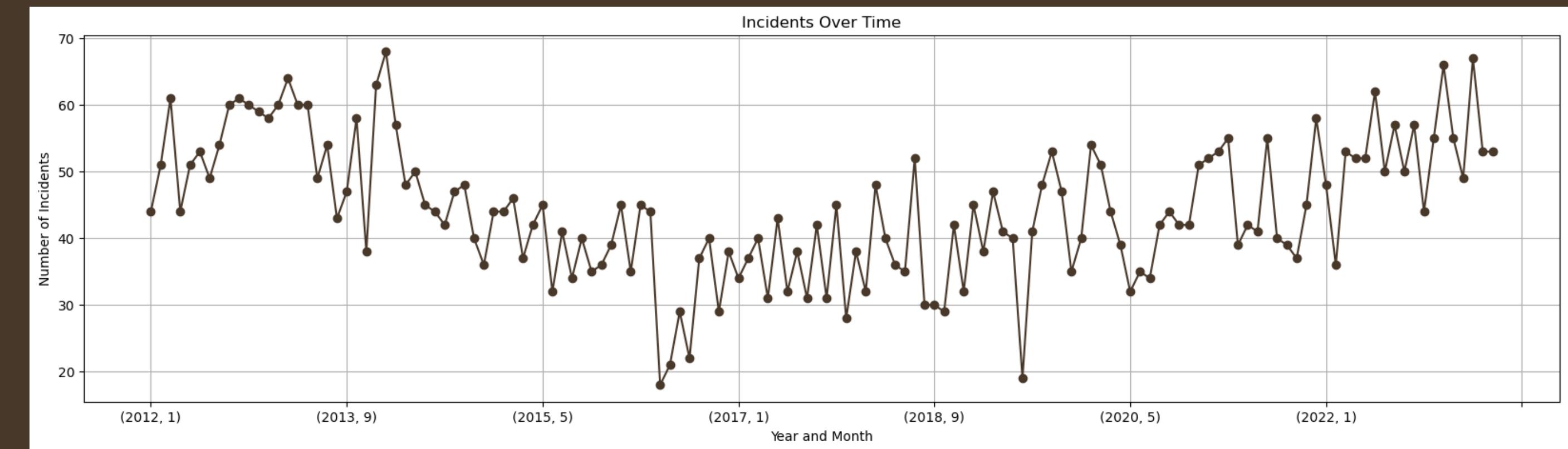
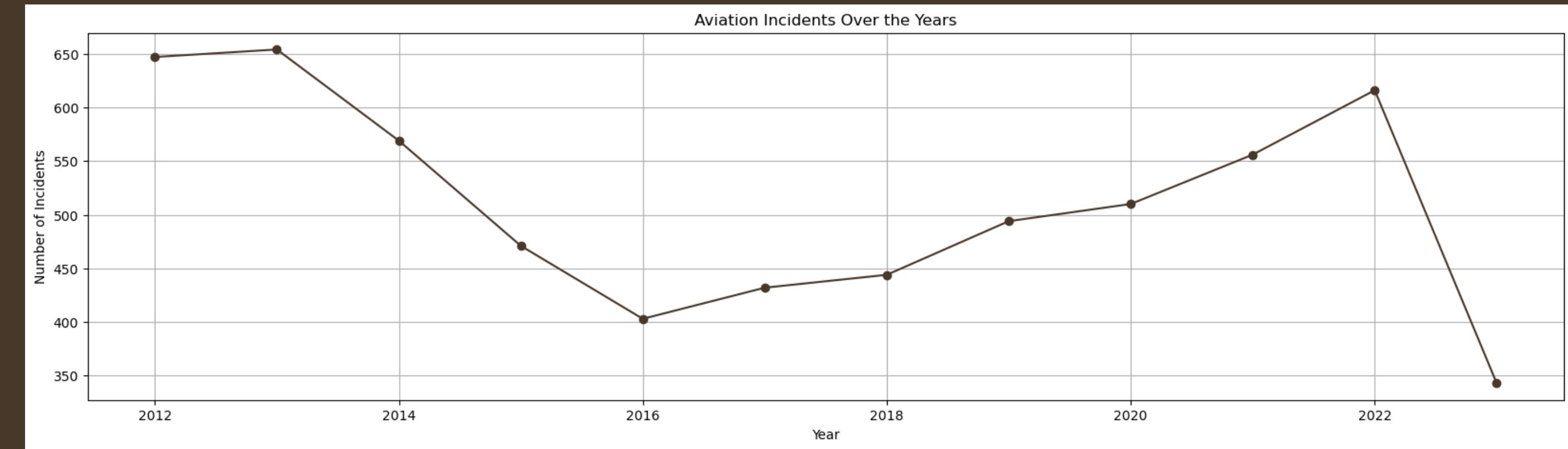
- Over the past twelve years, there has been a consistent decline in aviation incidents
- São Paulo (SP) had the highest number of aviation incidents, totaling 1496
- Incidents were categorized into three main classifications. 'INCIDENTE' was the most frequently reported.
- Among aircraft manufacturers, CESSNA AIRCRAFT had the highest incidence
- aircraft model 'ATR-72-212A' had the highest number of reported incidents
- the most frequently reported category was 'FALHA DO MOTOR EM VOO'
- The state of Amapa has the lowest incident rate among all states.

# VISUALIZATIONS



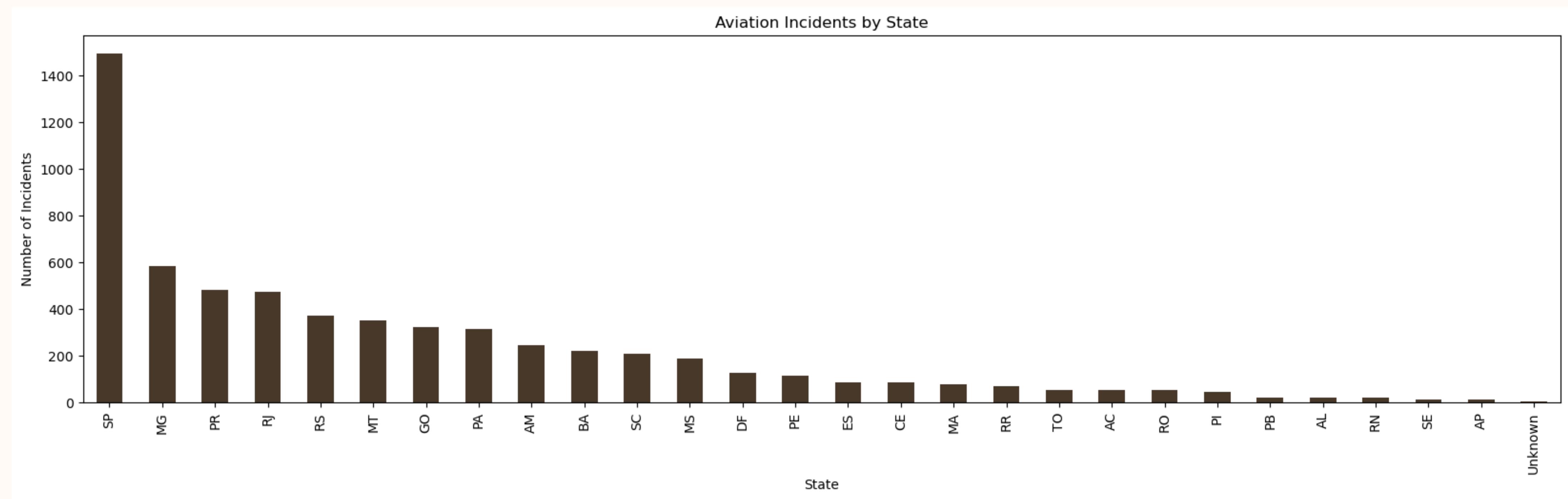
# OCCURRENCES OVER THE YEARS

In the past twelve years, we observed a consistent reduction in aviation incidents, with the number of occurrences gradually decreasing. The lowest point was reached in 2023, indicating an improvement in aviation safety practices and measures.



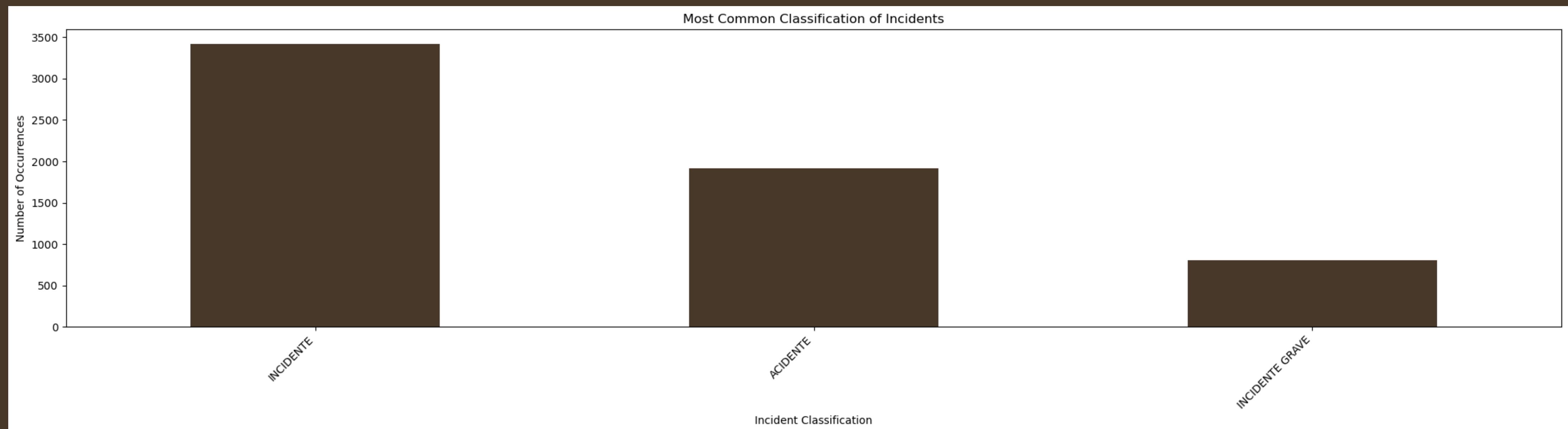
# OCCURRENCES BY STATE

Among the states, São Paulo (SP) recorded the highest number of aviation incidents with 1496, followed by Minas Gerais (MG) at 585, and Paraná (PR) at 482. These figures highlight regional variations in incident frequencies, suggesting the need for state-specific safety strategies.



# OCCURRENCES BY CLASSIFICATION

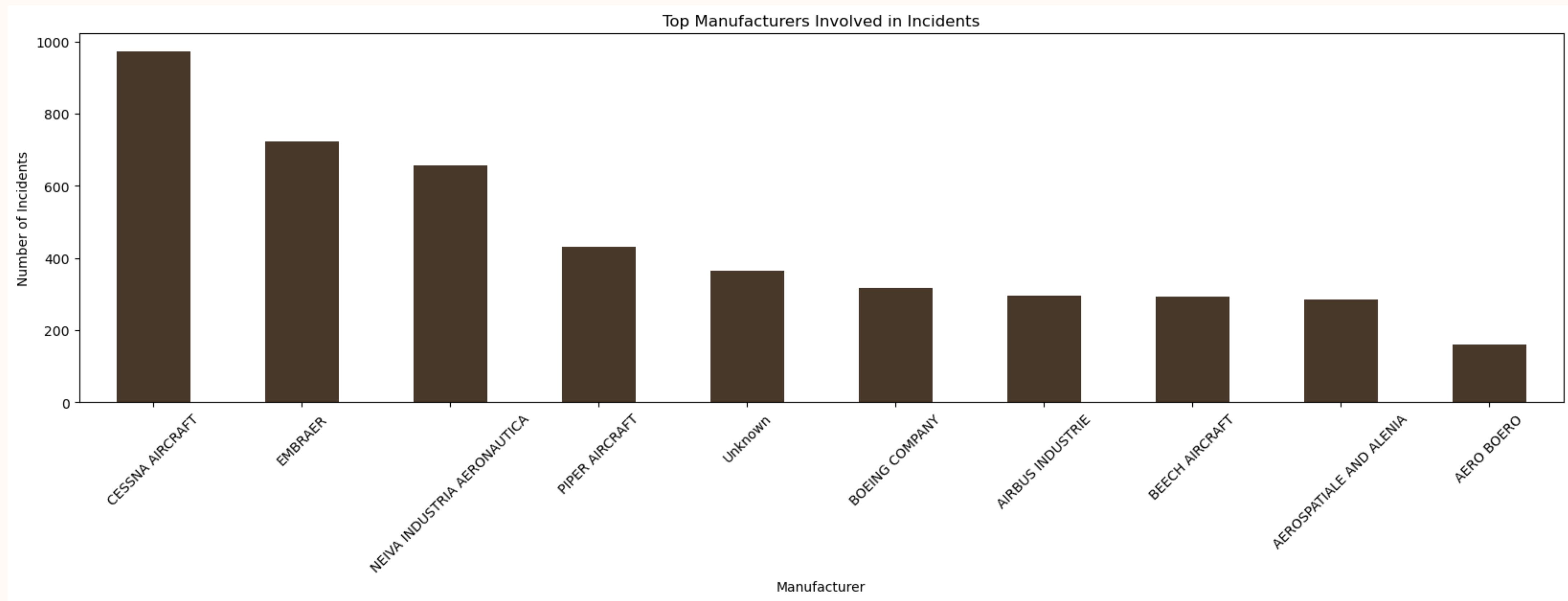
In our analysis, we categorized aviation incidents into three main classifications. 'INCIDENTE' was the most frequently reported, with 3422 occurrences, followed by 'ACIDENTE' at 1912, and 'INCIDENTE GRAVE' at 805.



# TOP MANUFACTURES INVOLVED

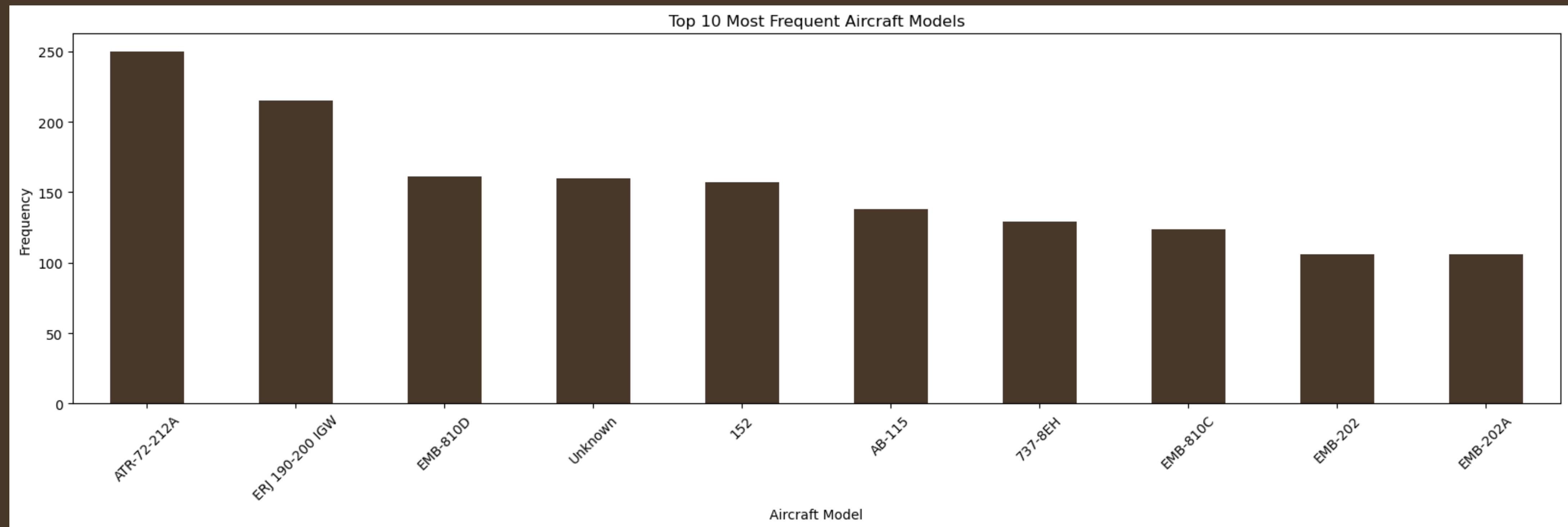
Among the aircraft manufacturers, CESSNA AIRCRAFT had the highest incidence, with 973 recorded incidents.

EMBRAER followed closely with 724 incidents, while NEIVA INDUSTRIA AERONAUTICA reported 657 incidents.



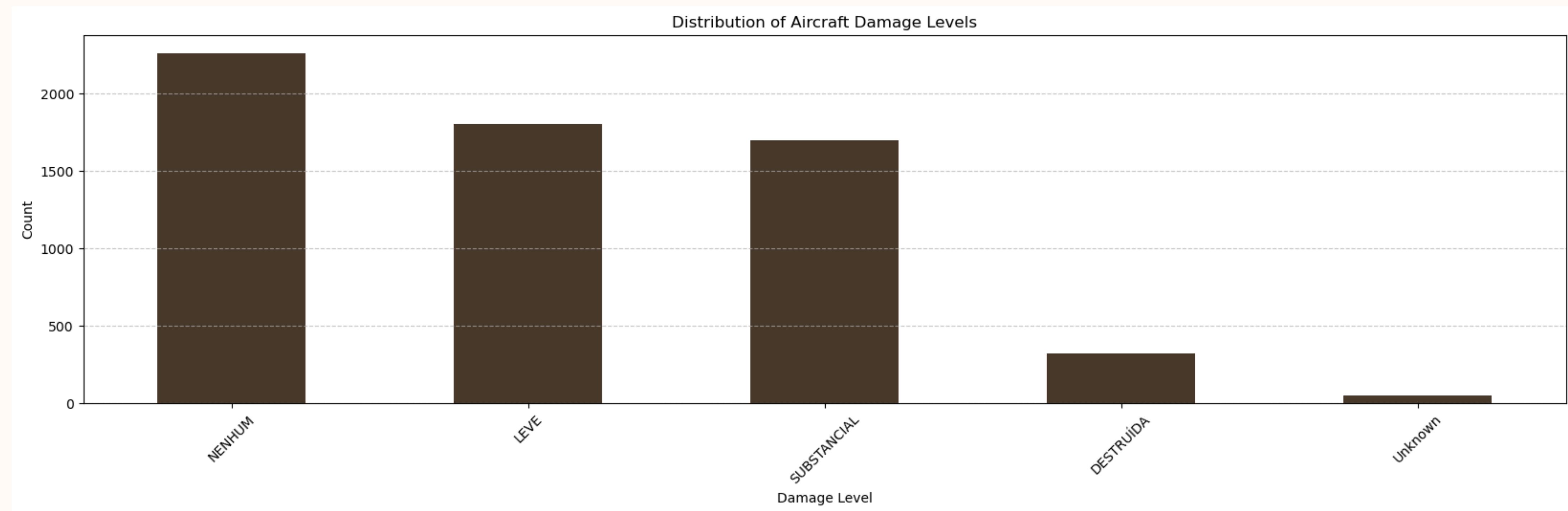
# TOP MODELS INVOLVED

In our analysis, we found that the aircraft model 'ATR-72-212A' had the highest number of reported incidents, with 250 occurrences. The 'ERJ 190-200 IGW' model follows closely with 215 incidents, while 'EMB-810D' reported 161 incidents. These findings highlight the aircraft models most commonly involved in incidents.



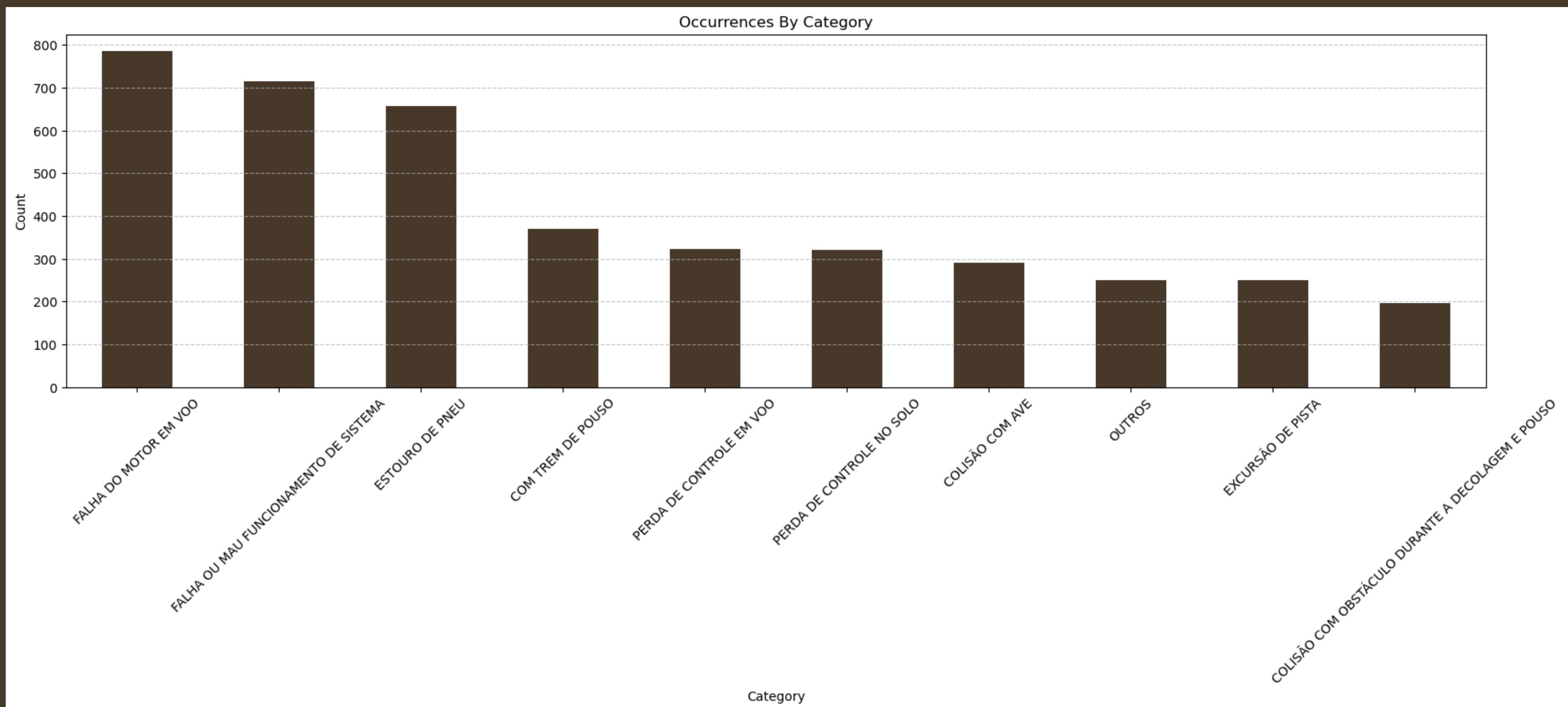
# DISTRIBUTION OF AIRCRAFT DAMAGE LEVELS

In terms of aircraft damage levels, the majority of incidents resulted in 'NENHUM' damage, accounting for 2263 occurrences. 'LEVE' damage was reported in 1802 incidents, while 'SUBSTANCIAL' damage occurred in 1699 cases. 'DESTRUÍDA' damage, the most severe level, was recorded in 322 incidents.



# TOP MODELS INVOLVED

In our analysis of incident types, the most frequently reported category was 'FALHA DO MOTOR EM VOO' with 785 occurrences, followed by 'FALHA OU MAU FUNCIONAMENTO DE SISTEMA' at 715. 'ESTOURO DE PNEU' accounted for 658 incidents.



# RECOMMENDATIONS

1. Boost Safety Training: Keep safety training ongoing, especially in areas with more incidents.
2. Keep Planes in Check: Make sure aircraft maintenance is top-notch, especially for popular models.
3. Team Up on Investigations: Team up for standardized investigations to share what we learn.
4. Safety Tailored to You: Customize safety measures to tackle state-specific challenges.
5. Early Warning, Early Action: Get early warning systems for spotting safety concerns before they become problems.
6. Working Together: Encourage teamwork and info sharing in the aviation community.
7. Classification Check-up: Give our incident categories a regular check-up to keep them useful.
8. Model Upgrades: Check out the aircraft models that get into trouble often for possible improvements.
9. Let's Talk Safety: Start public awareness campaigns to help passengers understand safety.
10. Smart Decisions with Data: Use the info we've got to make better decisions and change policies as needed.

# THANK YOU

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