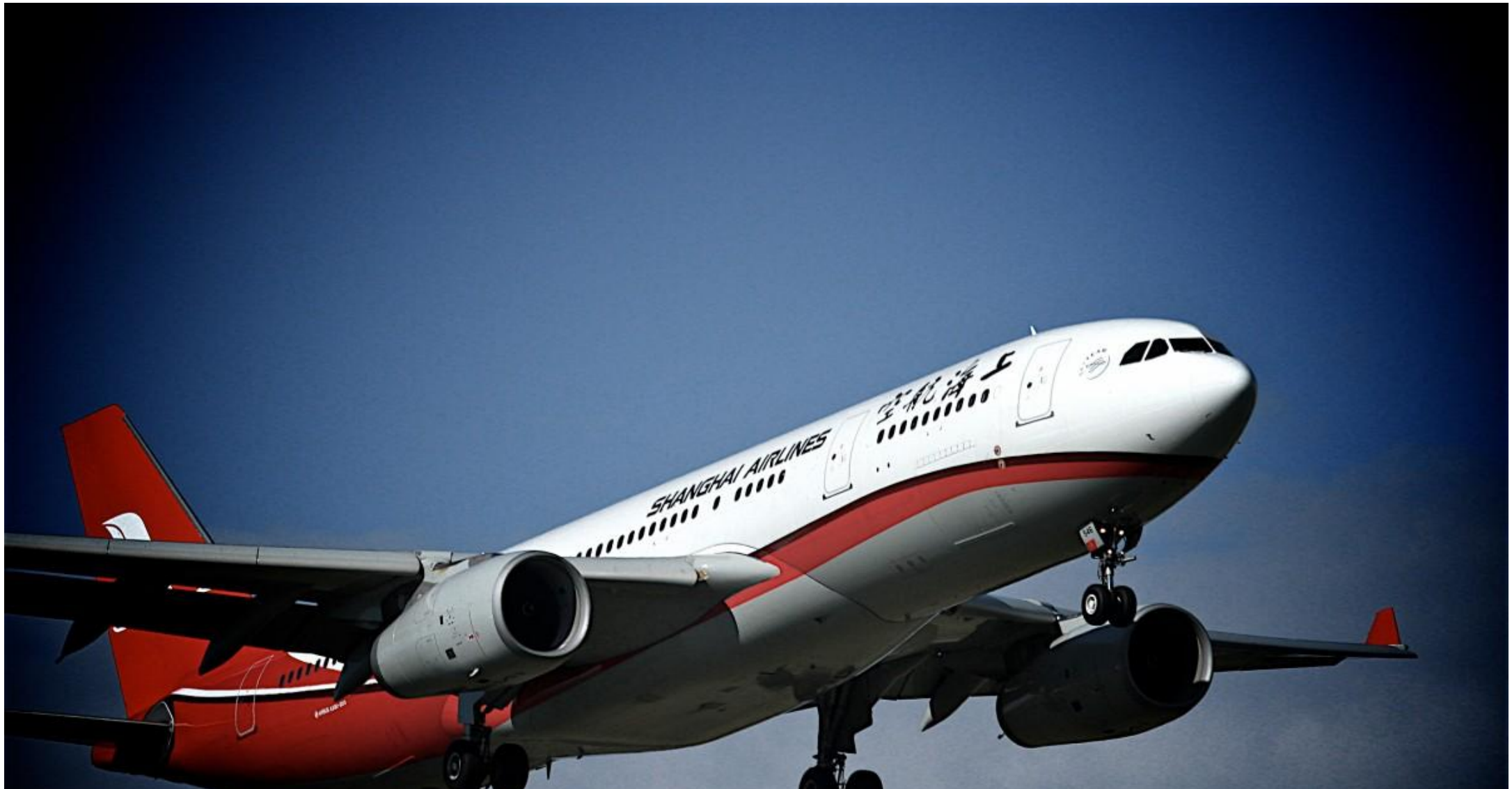
AVIATION ANALYSIS

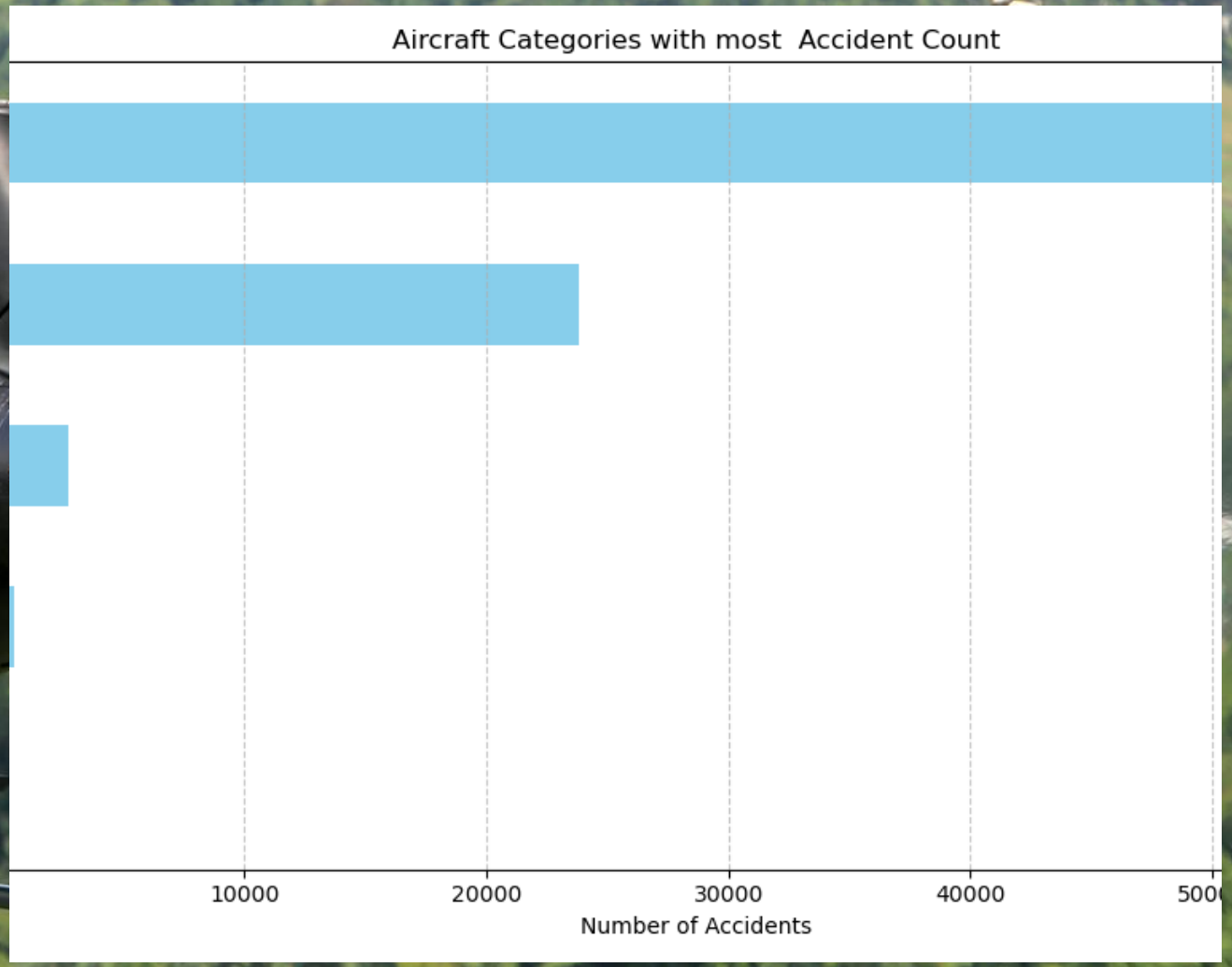


INTRODUCTION

- Aviation is one of the safest forms of transportation today—but that safety is the result of decades of learning, innovation, and improvement. Behind every accident report lies a lesson, a signal, or a preventable risk. This project explores historical aviation accident data to uncover patterns, identify risk factors, and highlight where progress has been made—and where challenges remain.
- By examining trends in weather conditions, flight phases, aircraft categories, and time-based patterns, we gain valuable insights that can inform training, regulation, and aircraft design. This analysis is not just about numbers; it's about making flight safer for everyone onboard.

AIRCRAFT CATEGORIES WITH ACCIDENT COUNTS

AIRPLANE category records high number of aviation accident counts , followed by Helicopter.



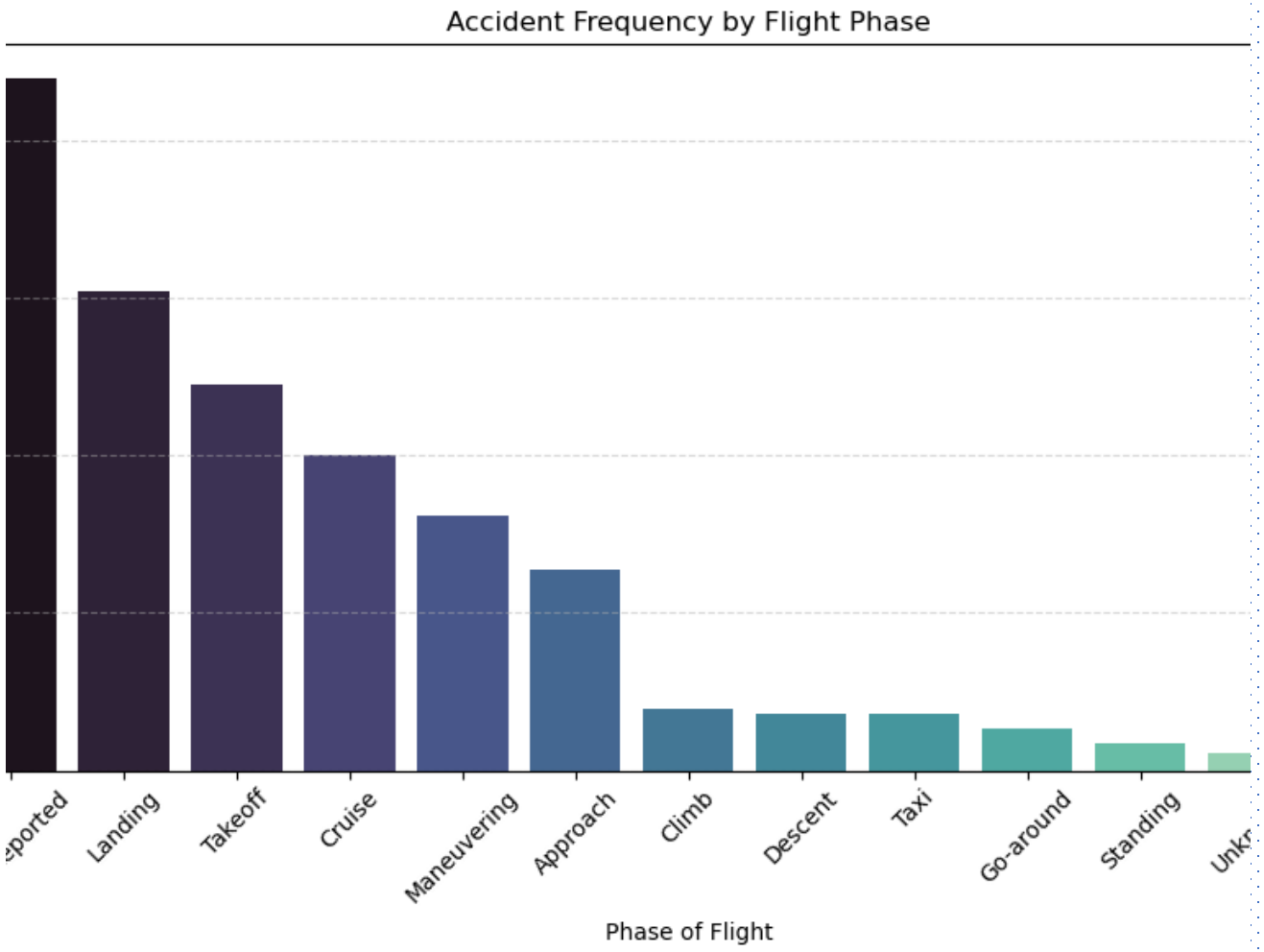
FLIGHT PHASES AND ACCIDENT DISTRIBUTION

Phase of flight shows the phase at which the accident occurred

Landing phase records a high count of accidents . This could be as a result of frequency due to proximity to the ground and human errors

Take-off phase follows below ,

Take off usually requires much power and efficiency from the pilots



Weather and fatality

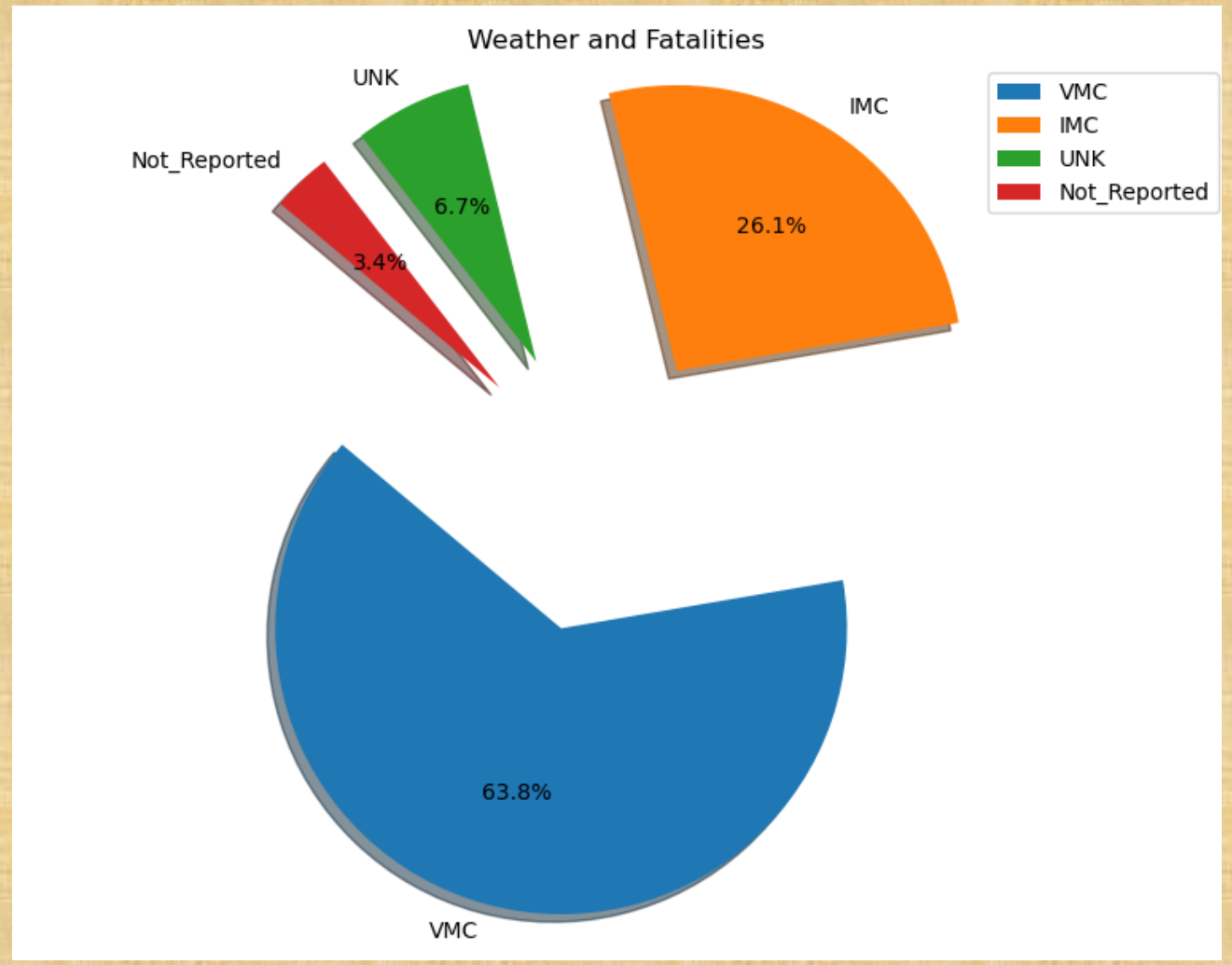
Environmental factors and risks such as adverse weather conditions play a huge role in aviation accidents

From the analysis , VMC weather condition and IMC are the leading weather conditions with high fatality counts reported

Most Accidents usually occur at the VMC weather condition

Vmc - – Visual Meteorological Conditions

Imc -– Instrument Meteorological Conditions



What is the trend of Aviation accidents

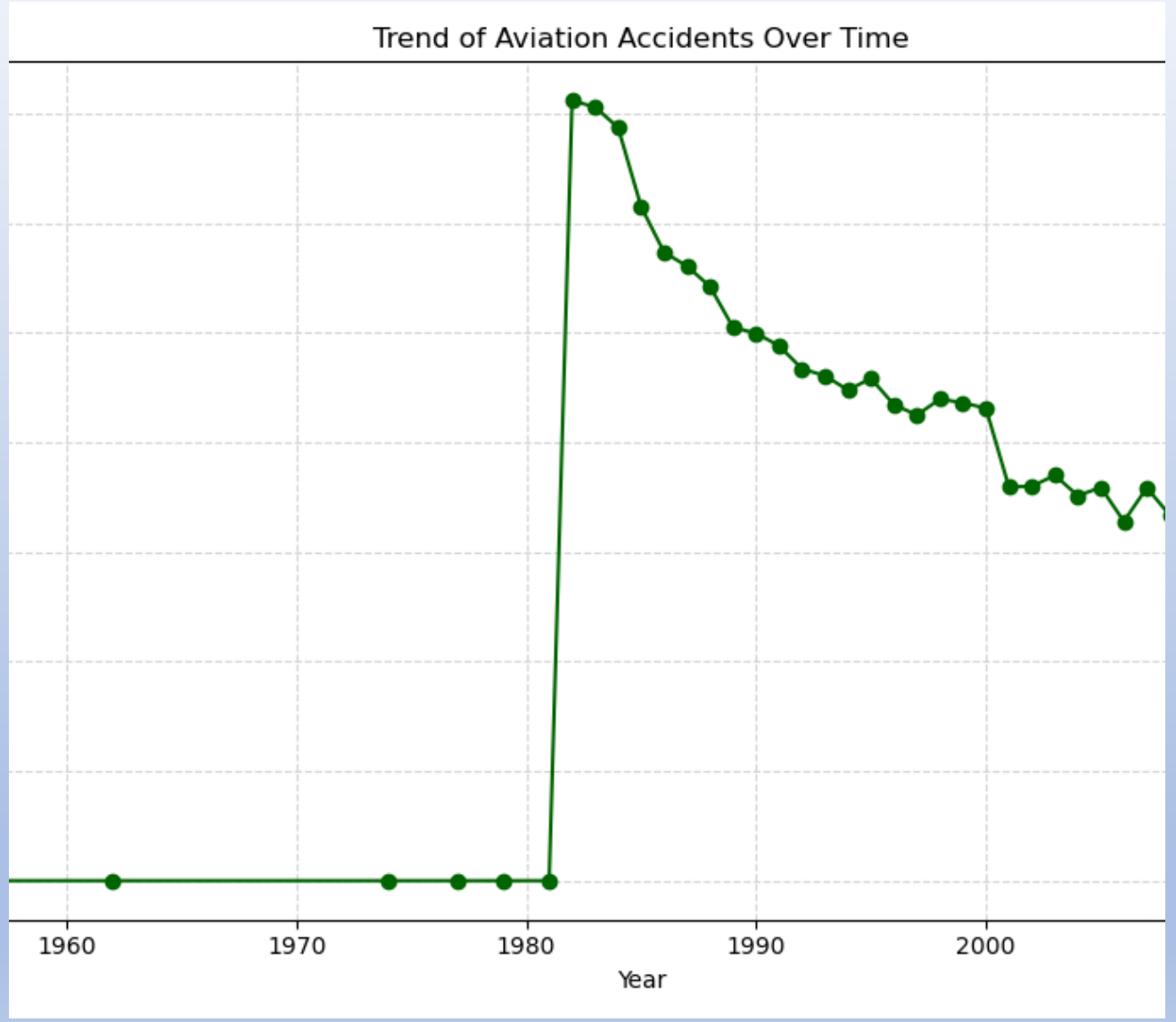
Over the Years , Aviation accidents reported are increasingly declining.

This attributed to the modernization of the industry

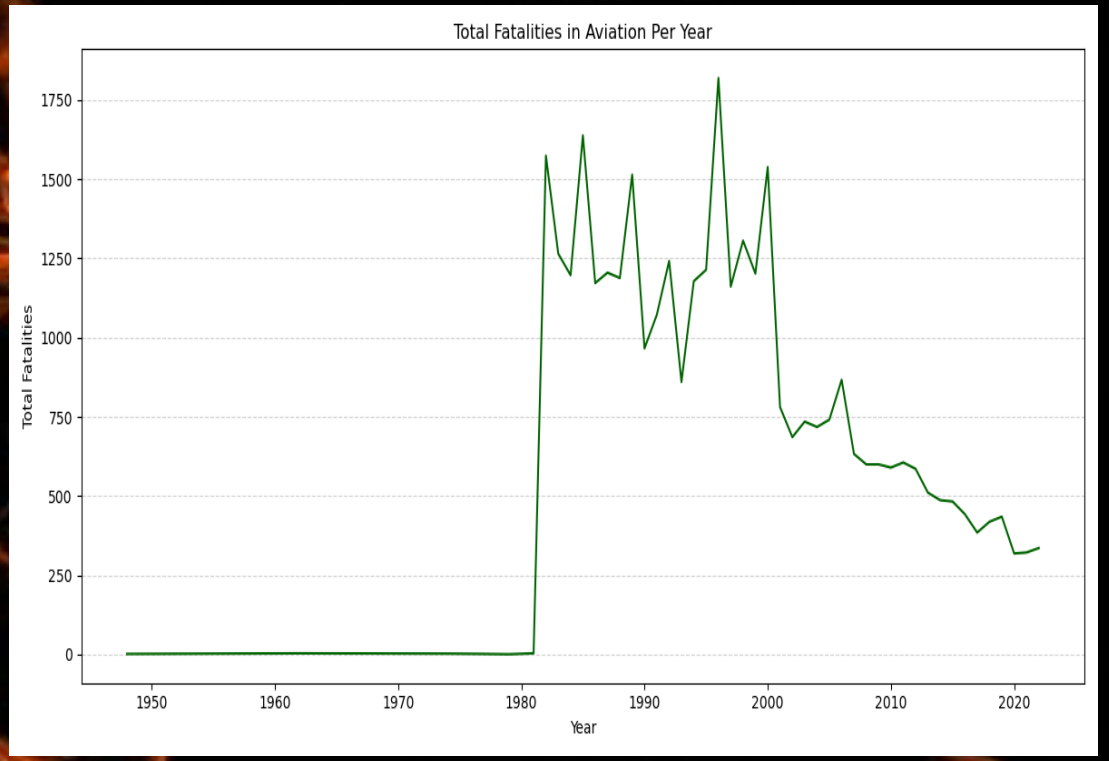
Machines are increasingly become efficient in the process .

Air transport is becoming safe day by day due to minimal human errors and improved technology

The fatality cases are also declining over the years due to improved safety measures in the airplanes



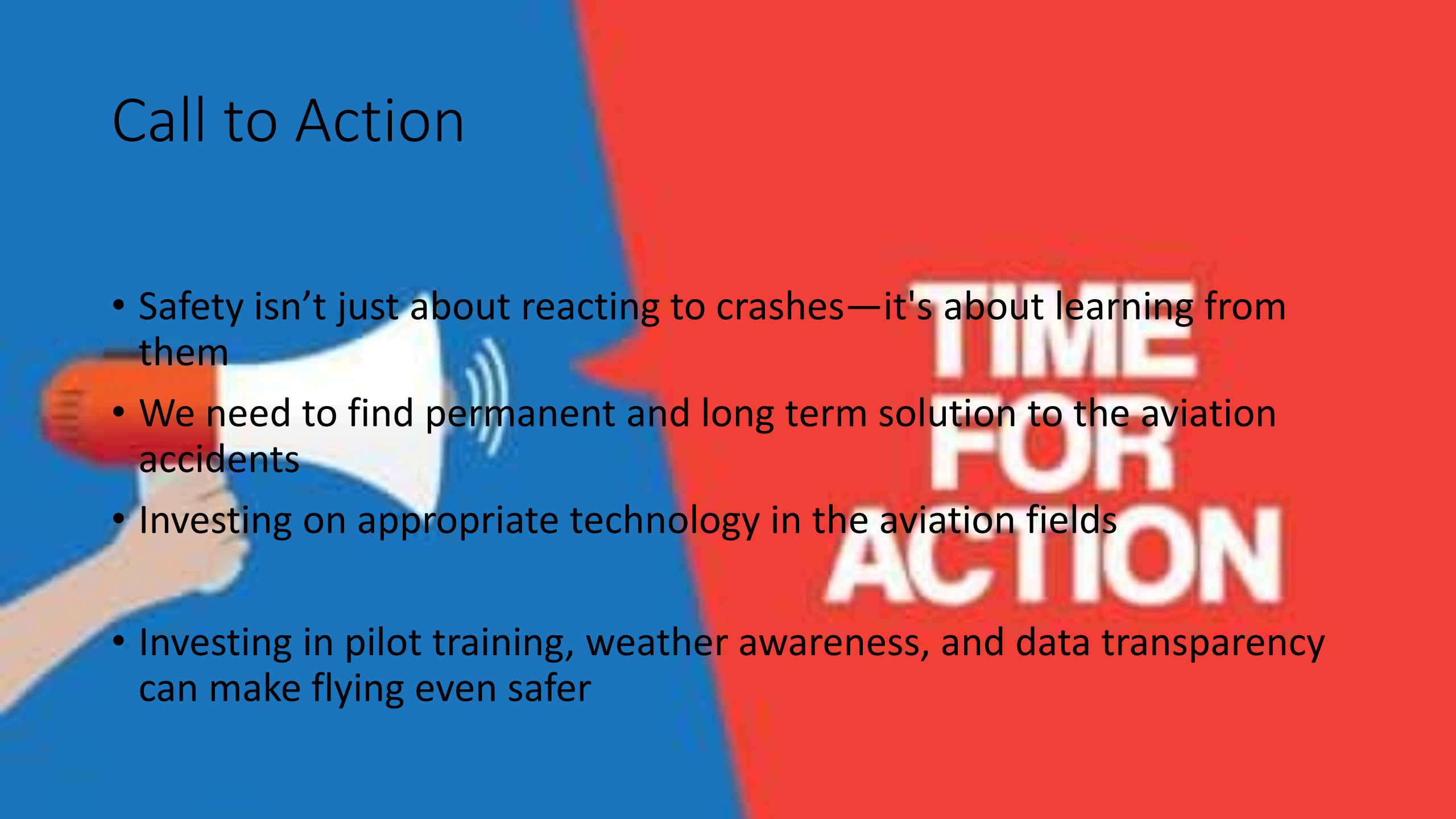
Aviation Fatalities



CONCLUSIONS

- **Key Conclusions**
- Aviation safety has improved over the decades
- Risk is concentrated in specific phases and conditions
- Data quality and reporting continue to play a critical role in future insights

Call to Action



- Safety isn’t just about reacting to crashes—it's about learning from them
- We need to find permanent and long term solution to the aviation accidents
- Investing on appropriate technology in the aviation fields

- Investing in pilot training, weather awareness, and data transparency can make flying even safer

- THE END
- Presentation by : Kamerino Lawrence
- Thank You for your time ……..