

Aviation Company Risk Assessment

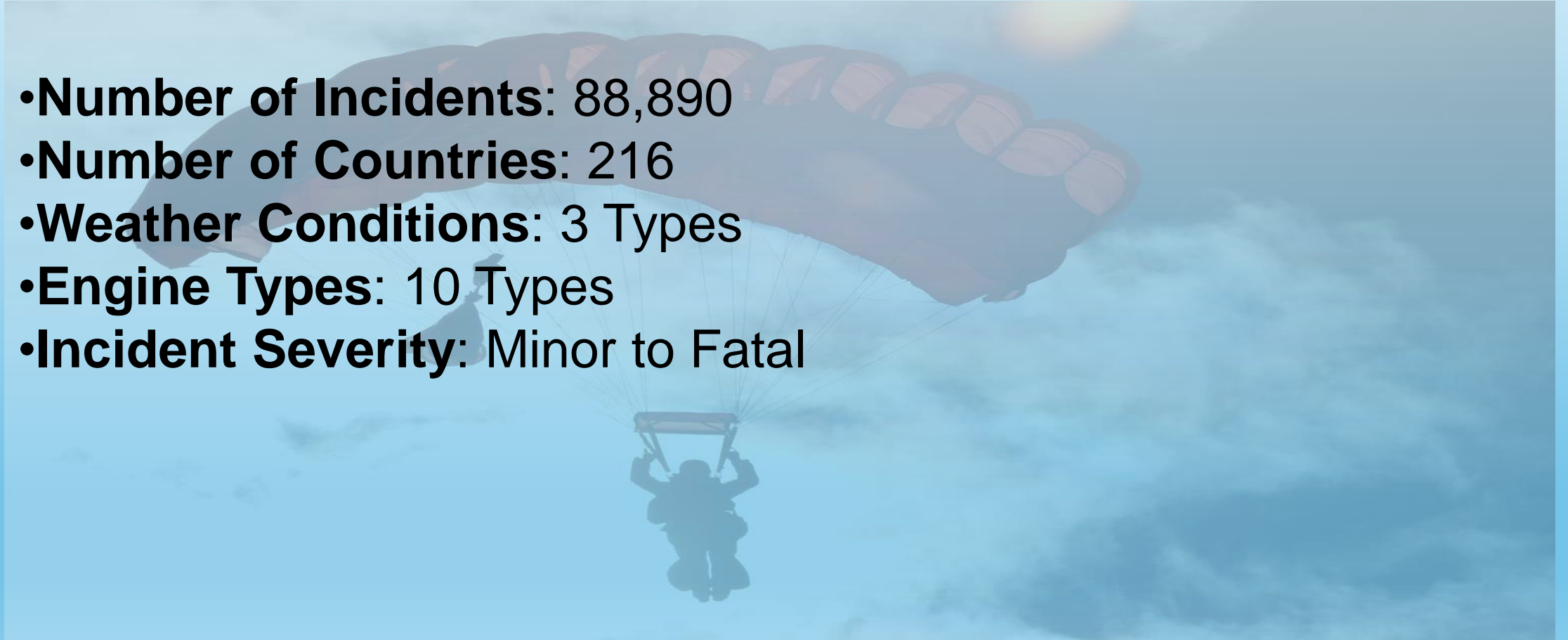


OBJECTIVES

- Investigate the relationship between engine type and the frequency of accidents.
- Examine the correlation between the number of engines per aircraft and the recorded number of accidents.
- Identify and analyze key factors that contribute to aircraft accidents, such as weather conditions and amateur-built aircraft.

Incident Overview and Key Statistics

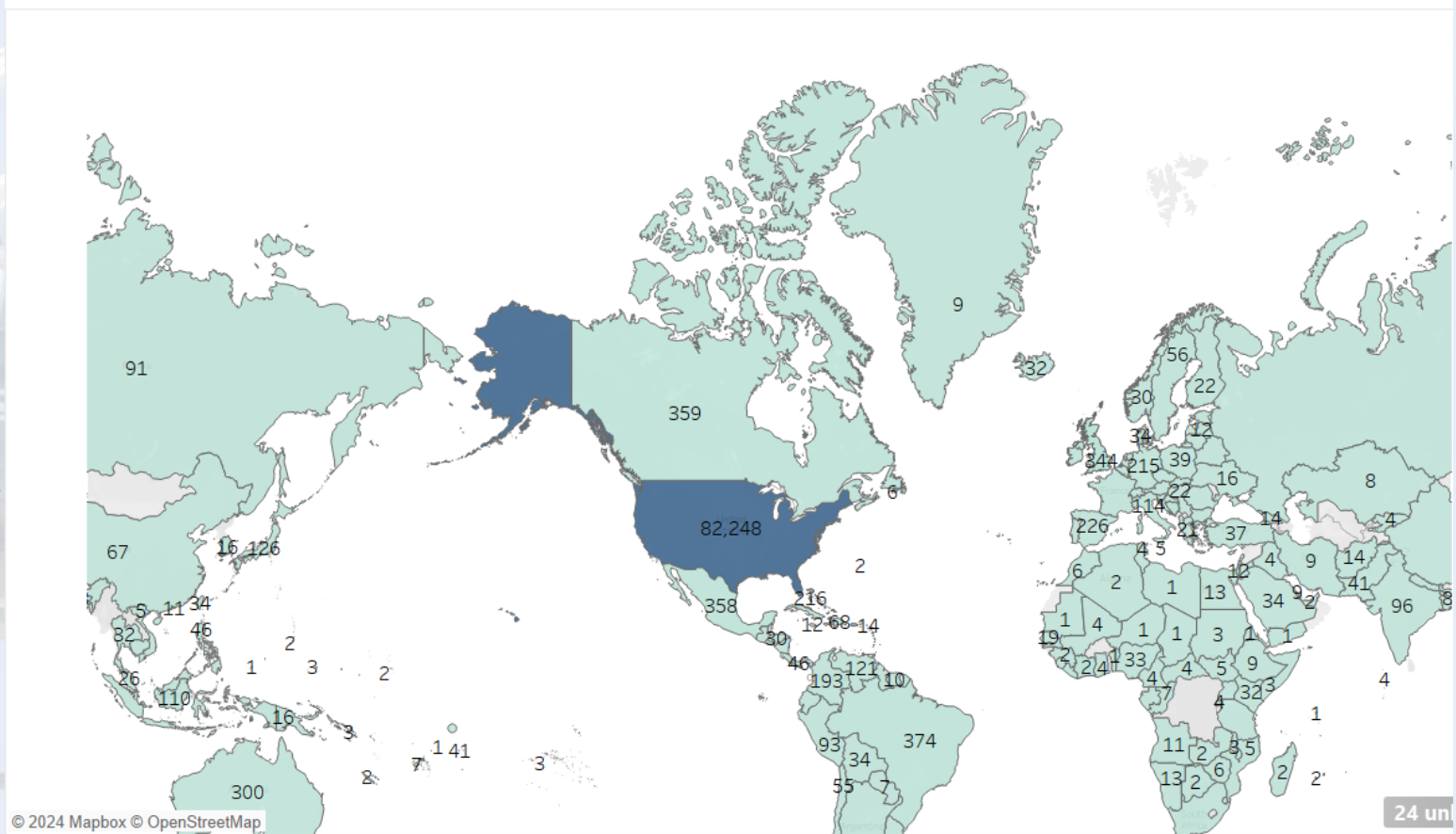
- **Number of Incidents:** 88,890
- **Number of Countries:** 216
- **Weather Conditions:** 3 Types
- **Engine Types:** 10 Types
- **Incident Severity:** Minor to Fatal



Incidents and Countries

- United States accounts for 93 % of the recorded incidents.
- This is due to its high volume of its air traffic and high standards of reporting
- African countries has the least records with South Africa, Nigeria and Kenya taking the lead

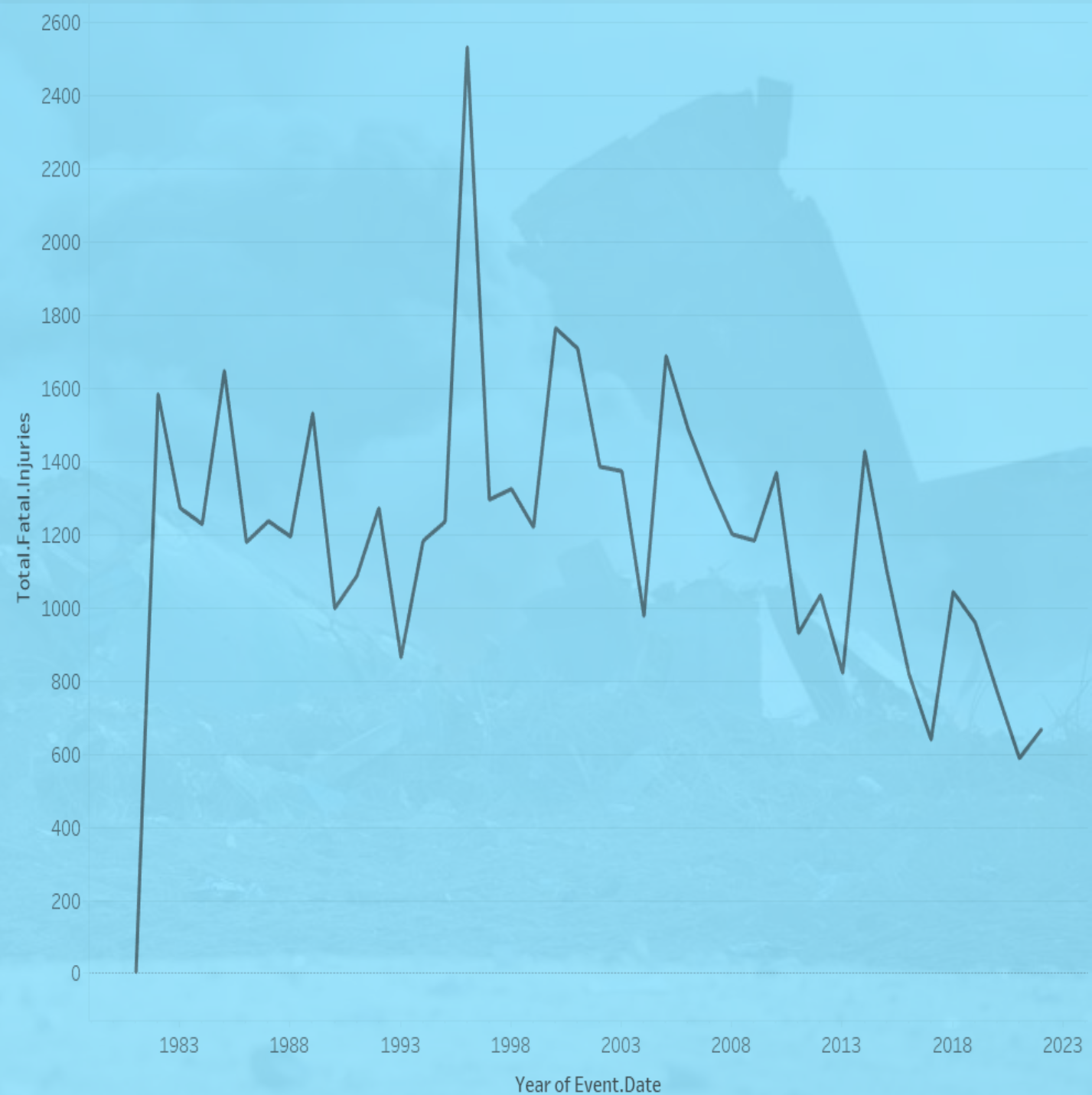
Country Vs Incidents



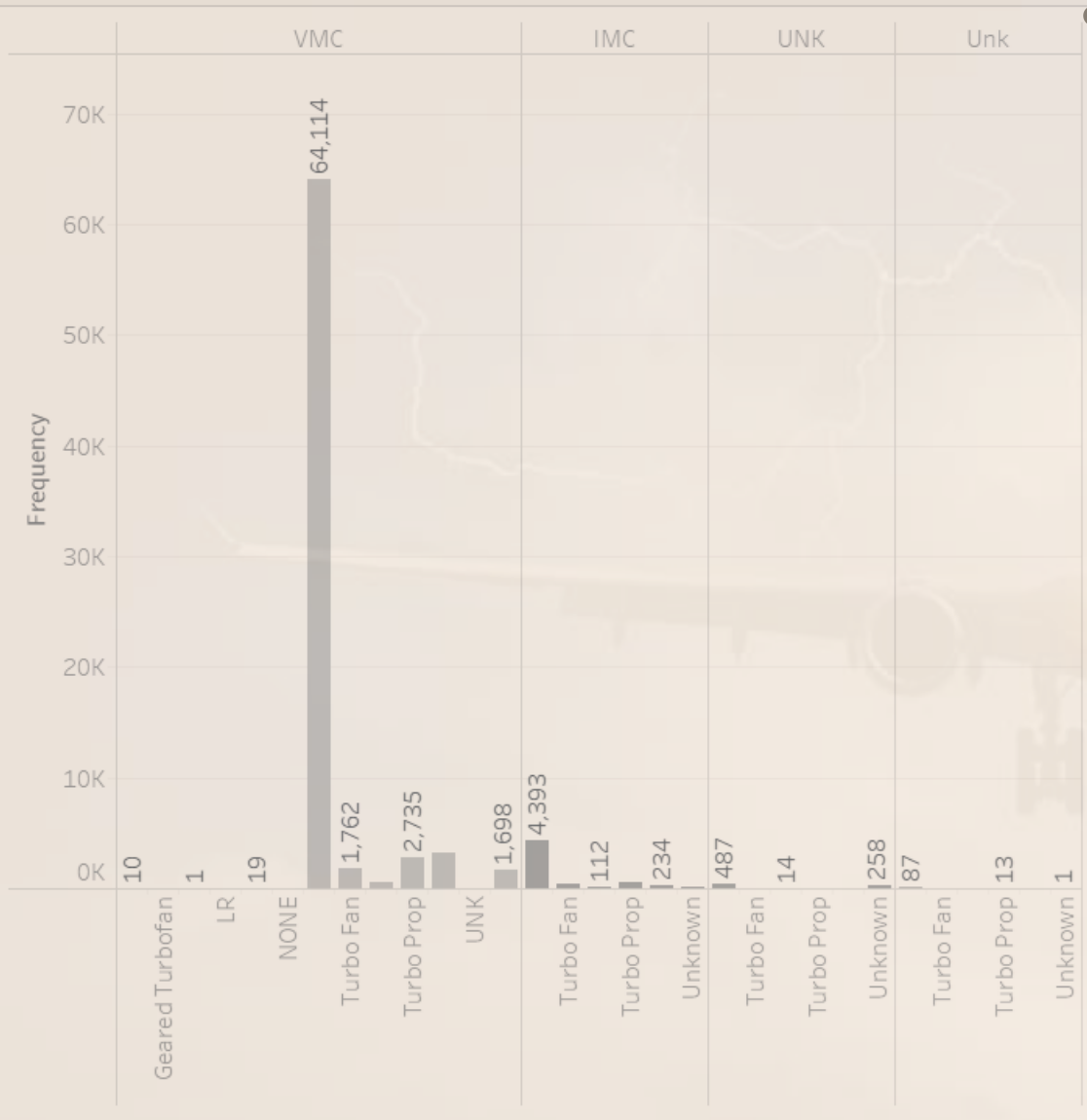
Accidents Trends

Aircraft accidents:

- 1996 Recorded the highest incidents
- United states still registered the highest incidents

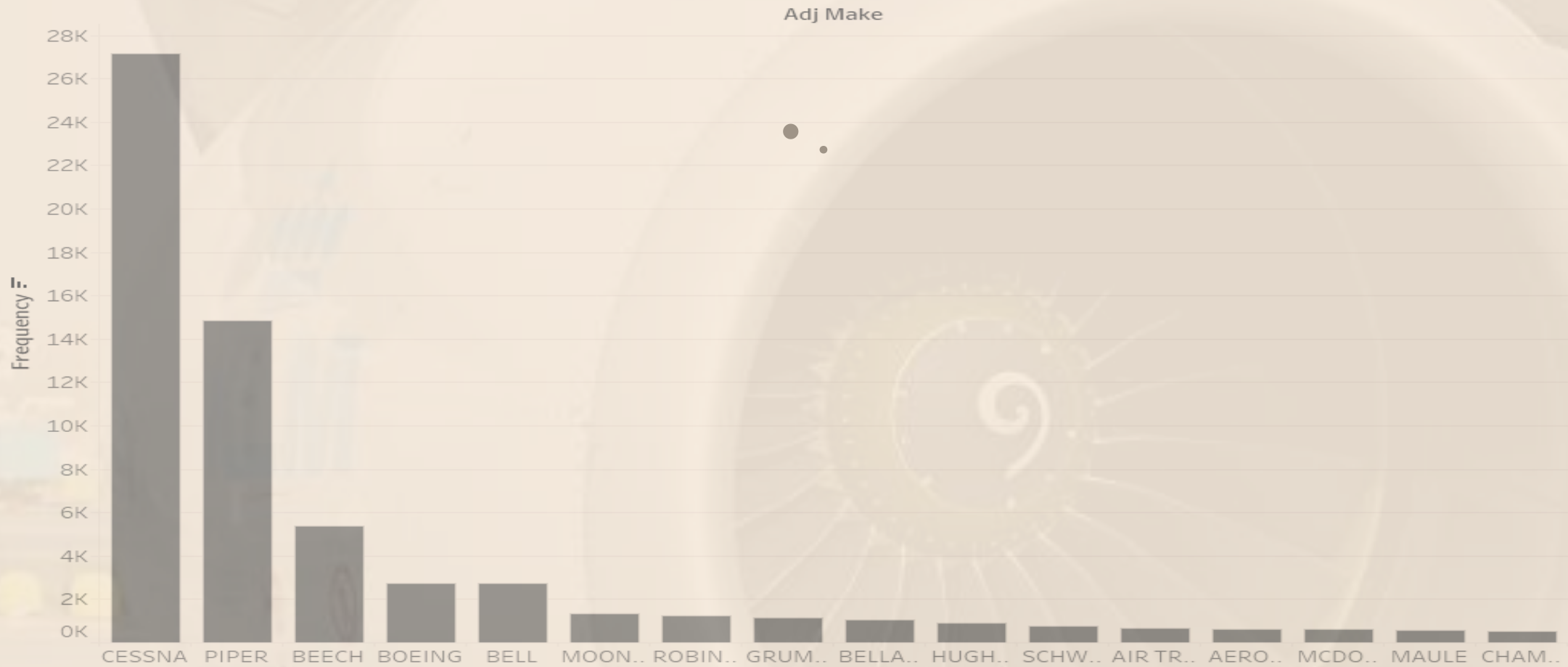


Weather Conditions



- Weather is a significant contributor to the accident's occurrence irrespective of the type of aircraft
- The best time to fly is under the Unk
Weather while the worst time is the VMC Weather Condition

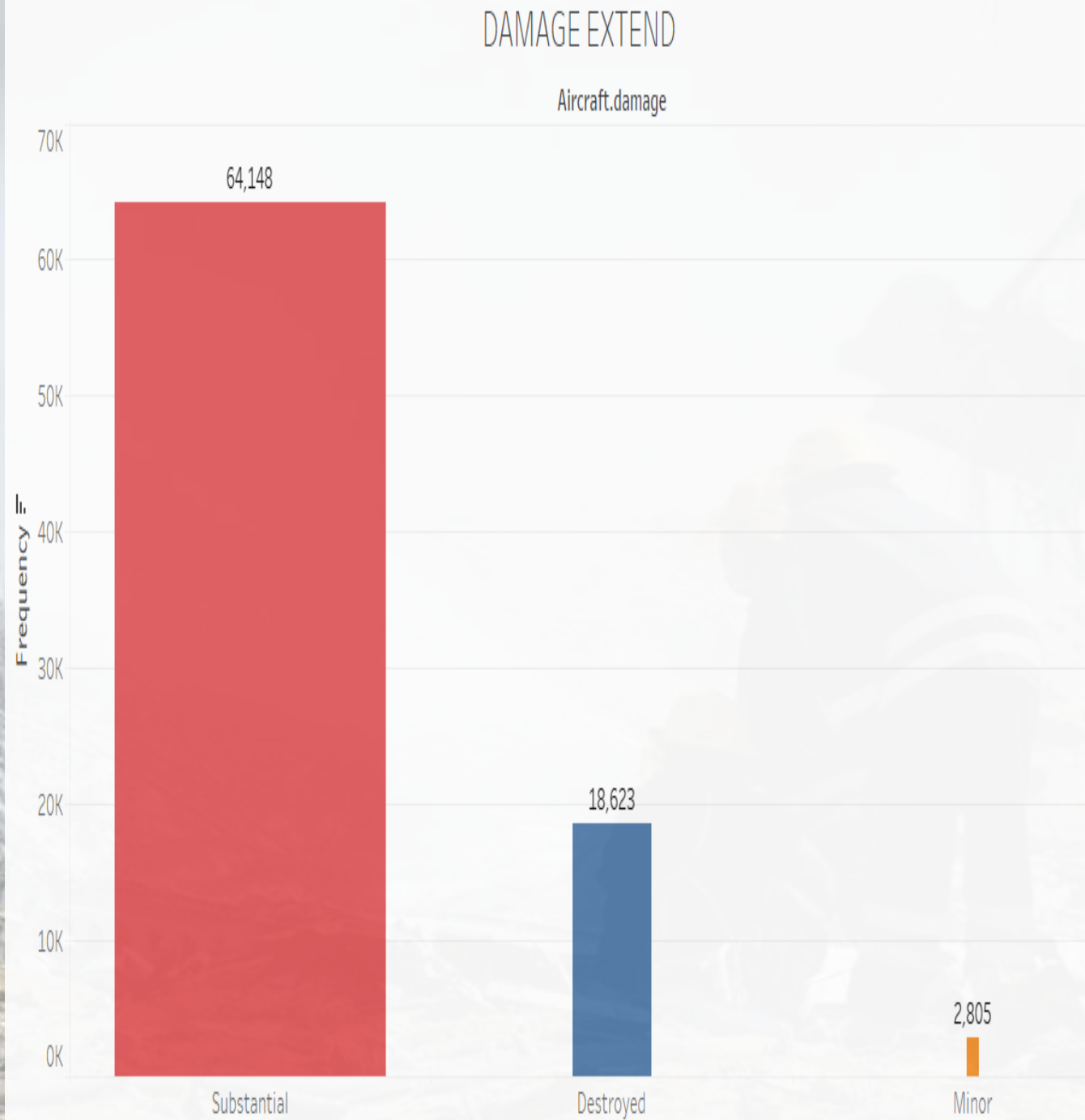
Engine Make Vs Incidents



- Most aircraft involved in incidents uses the Cessna Engines.
- Cessna, Piper and Beech more likely to be involved in an accident under the VMC Weather condition

Damage Extend

97% of all the incidents recorded resulted in either the aircraft being completely or substantially destroyed



KEY FINDINGS SUMMARY

- Accidents are more likely to happen in specific weather conditions compared to others .i.e VMC
- The reciprocation engine type preforms poorly in the VMC weather condition
- There is a 13% Chance of an occurrence of an aviation accident

RECOMENDATIONS

- Reciprocating engines are is not reliable. Makes up 84% of all the recorded incidents
- Address Weather-Related Risks: could be caused by :
 - a) Ineffective weather monitoring systems
 - b) Pilot trainings and prior experience piloting in adverse weather
- Study and Trainings: Countries with many minor or non-fatal accidents to be used for targeted pilot training and enhanced preventive measures.

Thank You!

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