

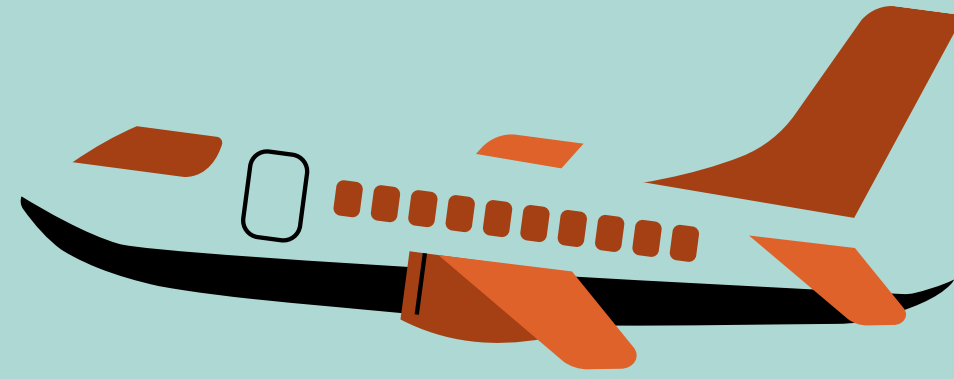
ANALYZING AIRCRAFT ACCIDENTS TO GUIDE PURCHASE DECISIONS

by Charity Agutu .

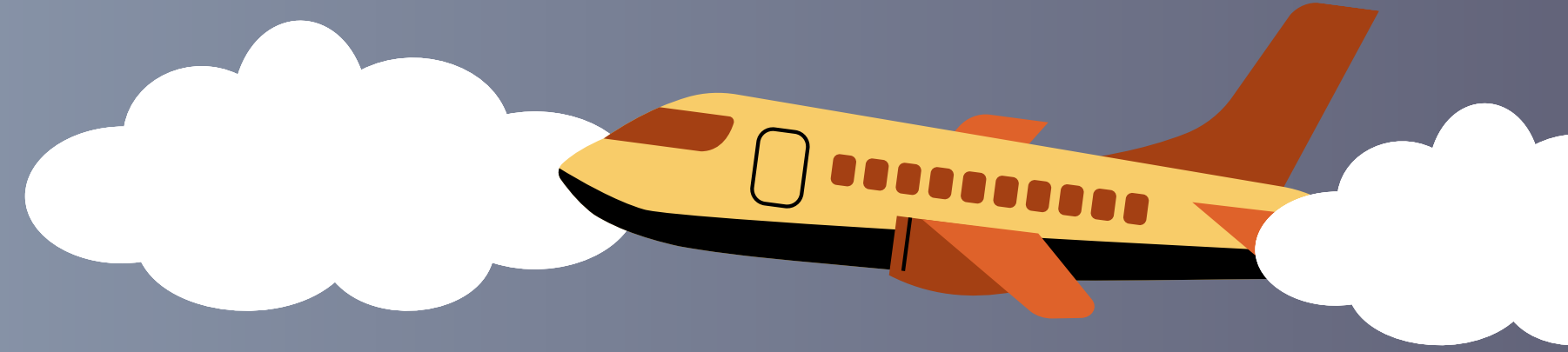


Project Overview

- Analyse aircrafts for a company's new aviation business, and translate these findings into actionable insights to guide the head of the new aviation division in purchase decisions.



OBJECTIVES



1.

Identify the aircraft with high risk and low risk of accidents

2.

Identify the manufacturers and models of the aircrafts mostly involved in accidents.

3.

Identify the Engine types of the aircrafts that are mostly and least involved in accidents .

4.

Identify the Phase of Flight the aircrafts were in when the accidents took place

AIRCRAFT ANALYSIS

aircraft Damage

Event Date

airport name

Engine type by Count of accidents

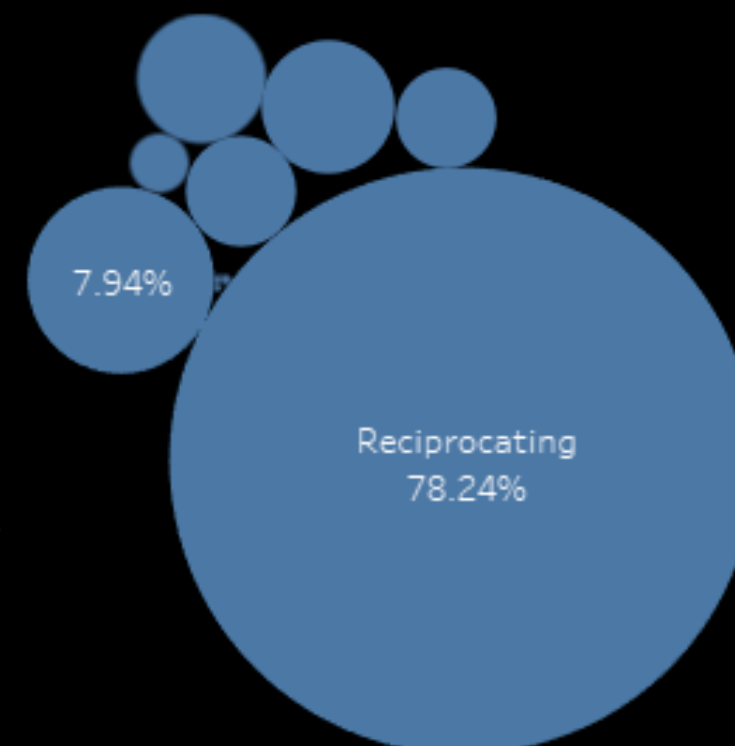
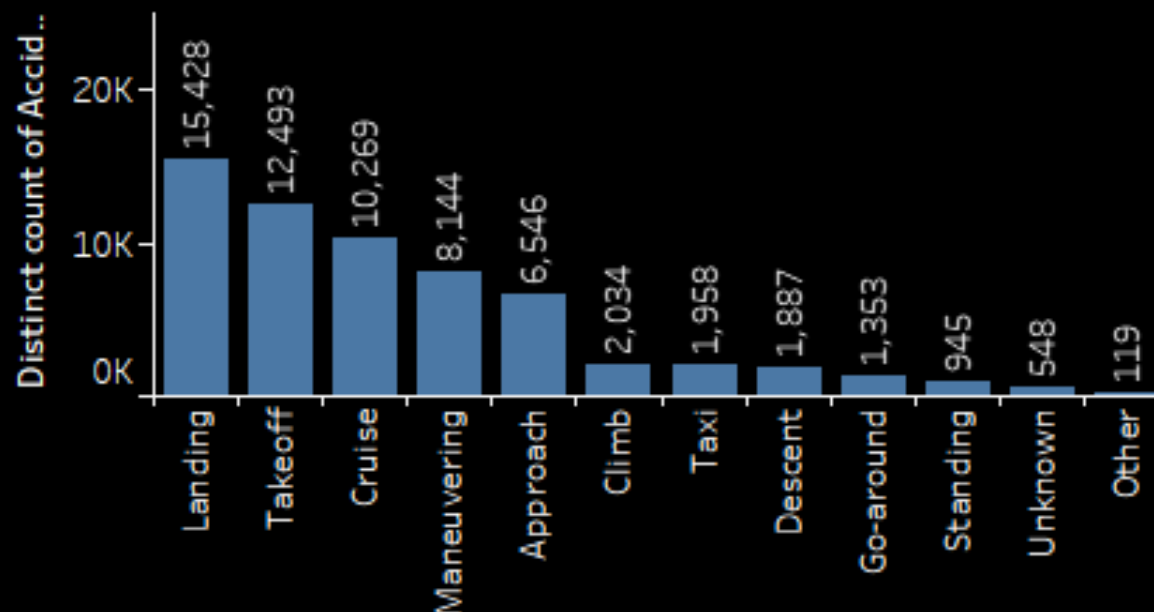
Accident.Number
ANC07CA089

Substantial

2007

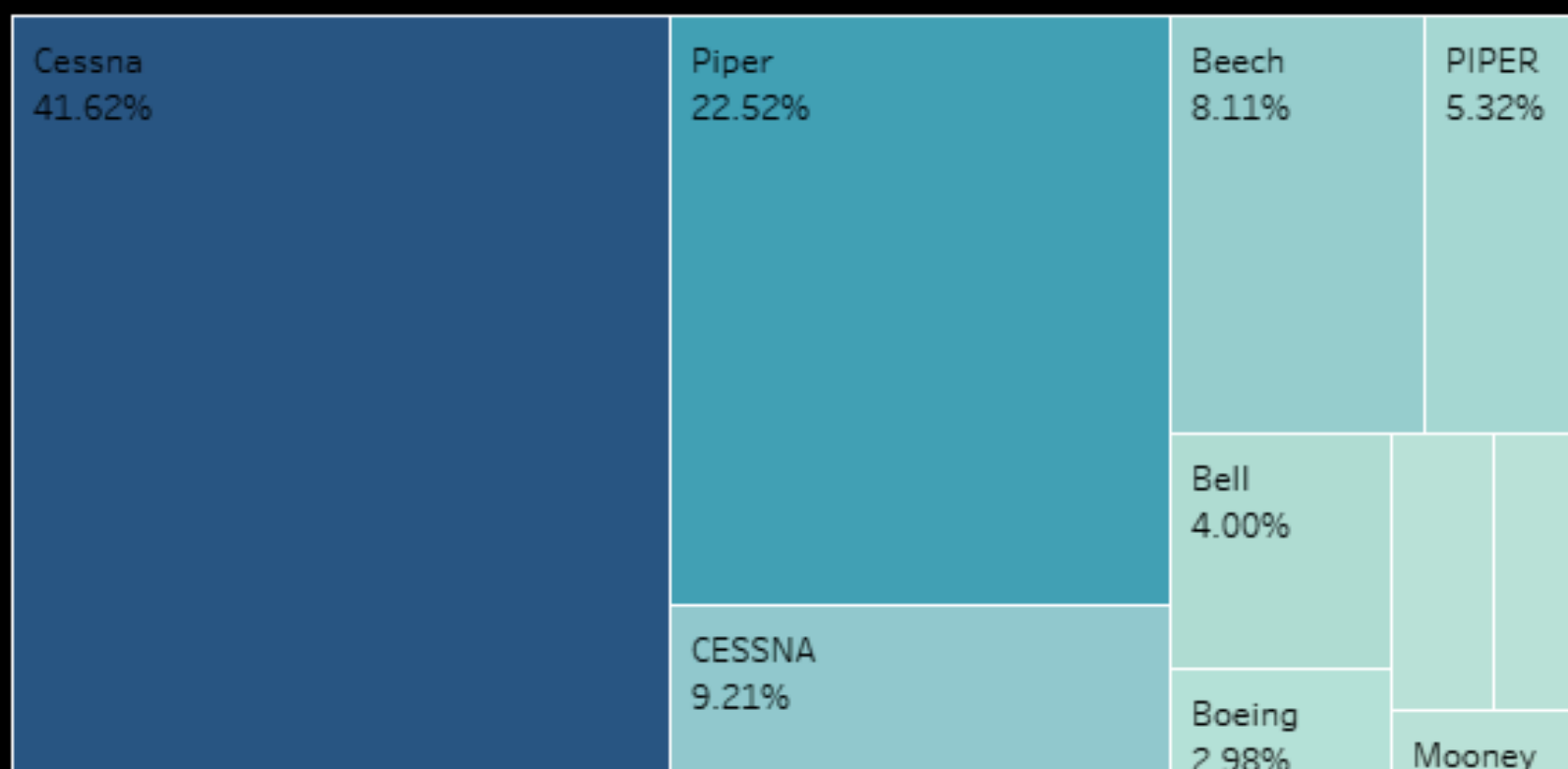
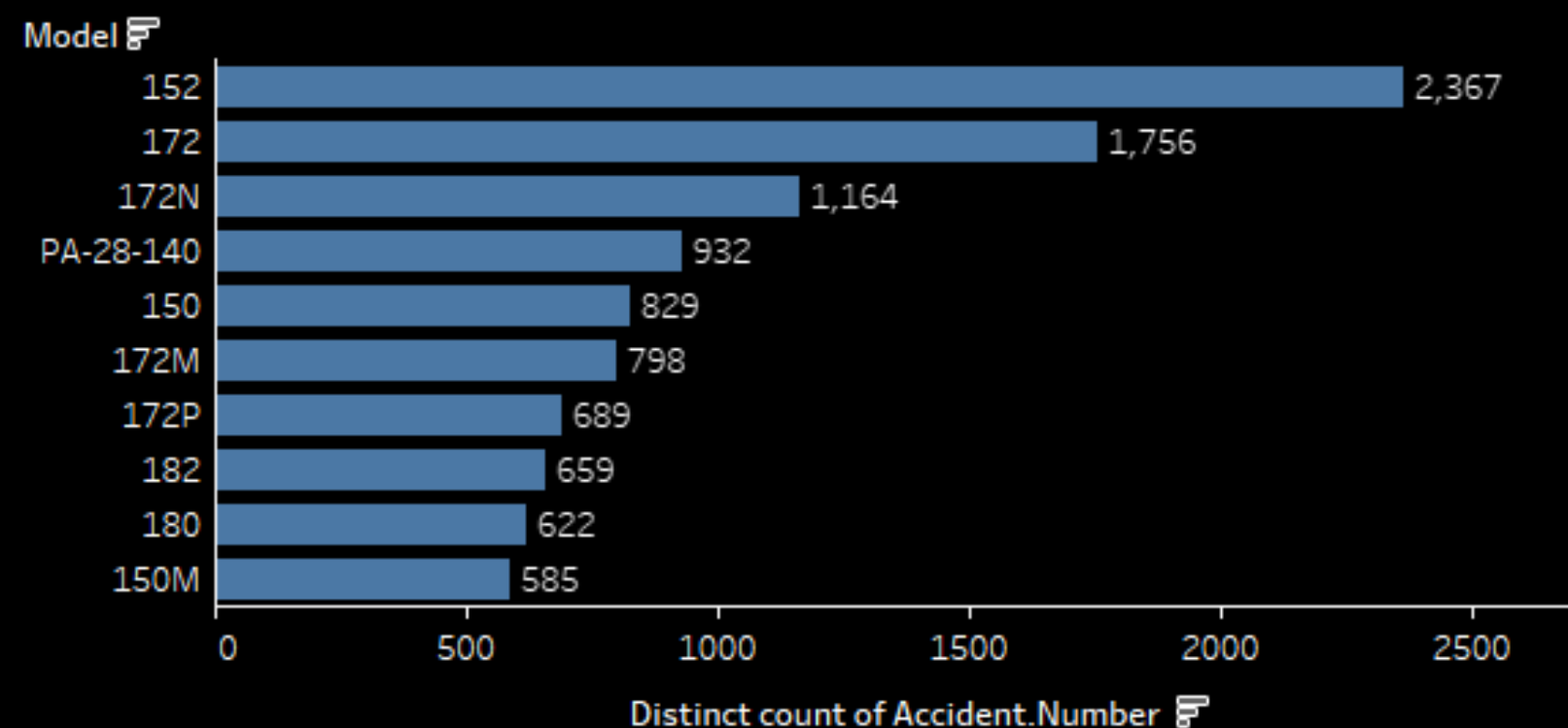
Distribution of accidents by country

Phase of flight by count of accidents



Top 10 models by Count of Accidents

Top 10 Makes by Count of Accidents



Conclusions



- 1. Aircraft Involvement*:** High accident rates for airplanes and helicopters. WSFT has lower
- 2. Location*:** Most accidents in the United States.
- 3. Manufacturers*:** CESSNA and PIPER frequently involved.
- 4. Risky Models*:** 152, 172, and 172N models. 150M is less involved
- 5. Flight Phases*:** Takeoff and landing are critical.
- 6. Engine Types*:** Reciprocating engines often involved. Electric is least involved.
- 7. Damage*:** Mostly complete or substantial destruction.
- 8. Weather*:** Most accidents occurred in VMC. Accidents occurred in IMC.





RECOMMENDATIONS.



1. Avoid High-Risk Manufacturers*:

- Steer clear of CESSNA and PIPER; choose manufacturers with lower accident rates.
- ***Benefit***: Decreases maintenance issues, reduces downtime, and improves operational reliability.



2. ***Enhance Pilot Training***

Focus training on takeoff and landing phases.

- ***Benefit***: Reduces accident rates, lowers related costs, and improves safety.



3. ***Invest in Technology***:

- Use advanced avionics, weather monitoring systems, and landing assistance technologies, especially for IMC conditions.



THANKYOU!

