

# Minimize the Risk of Injuries and Fatalities

How StellarSkies Should Enter the Domestic Flight Market

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# The Team



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# Agenda

- ▶ Safety is the Problem
- ▶ Which Planes Should You Buy
- ▶ Implement a Safety Plan
- ▶ Conclusion

**Safety is the Problem**

# Safety Lapses Can Wreck an Airplane, and an Airline



- January 5: Boeing 787 Max 9 flown by Alaska Airlines lost a door in mid-flight
- Passengers have sued Boeing and Alaska Air for \$1 billion, with more lawsuits to come

Boeing and Alaska Air Share Price, January 5th = index of 100



# Data Can Help Prevent Accidents

- Reciprocating engines and single-engine planes are dangerous.  
**Avoid them.**
- Boeing, Cessna and Bombardier have worse safety records.  
**Choose someone else.**
- Summers and weekends are more dangerous.  
**Plan for that.**

# NTSB Records Show What to Avoid

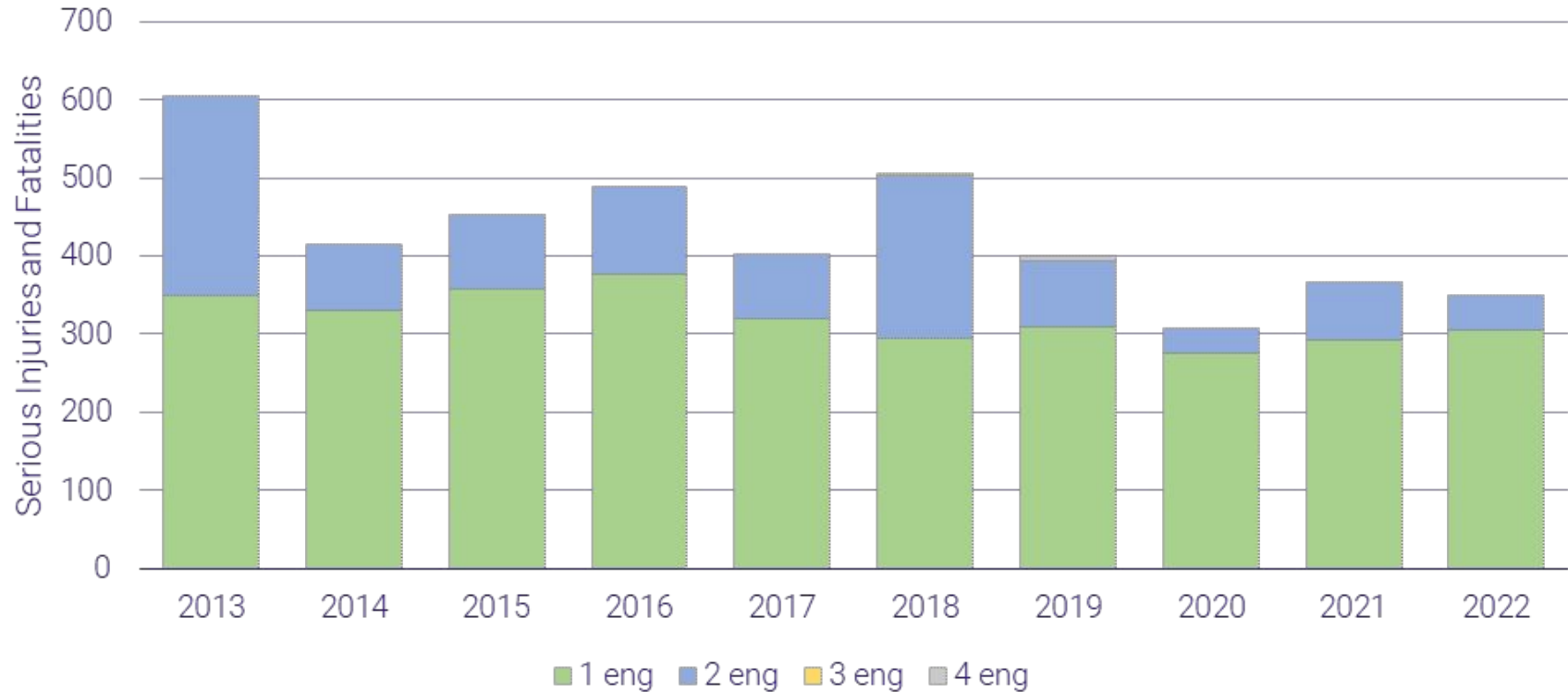
- We focused on the ~7,300 incidents most relevant to a new airline
- Our safety metric is a combination of fatalities and serious injuries
- The database is good, but not perfect
  - It only shows planes in accidents; we do not know how many flights took place overall, so we cannot normalize our data
  - It does not differentiate between hardware failures and pilot error



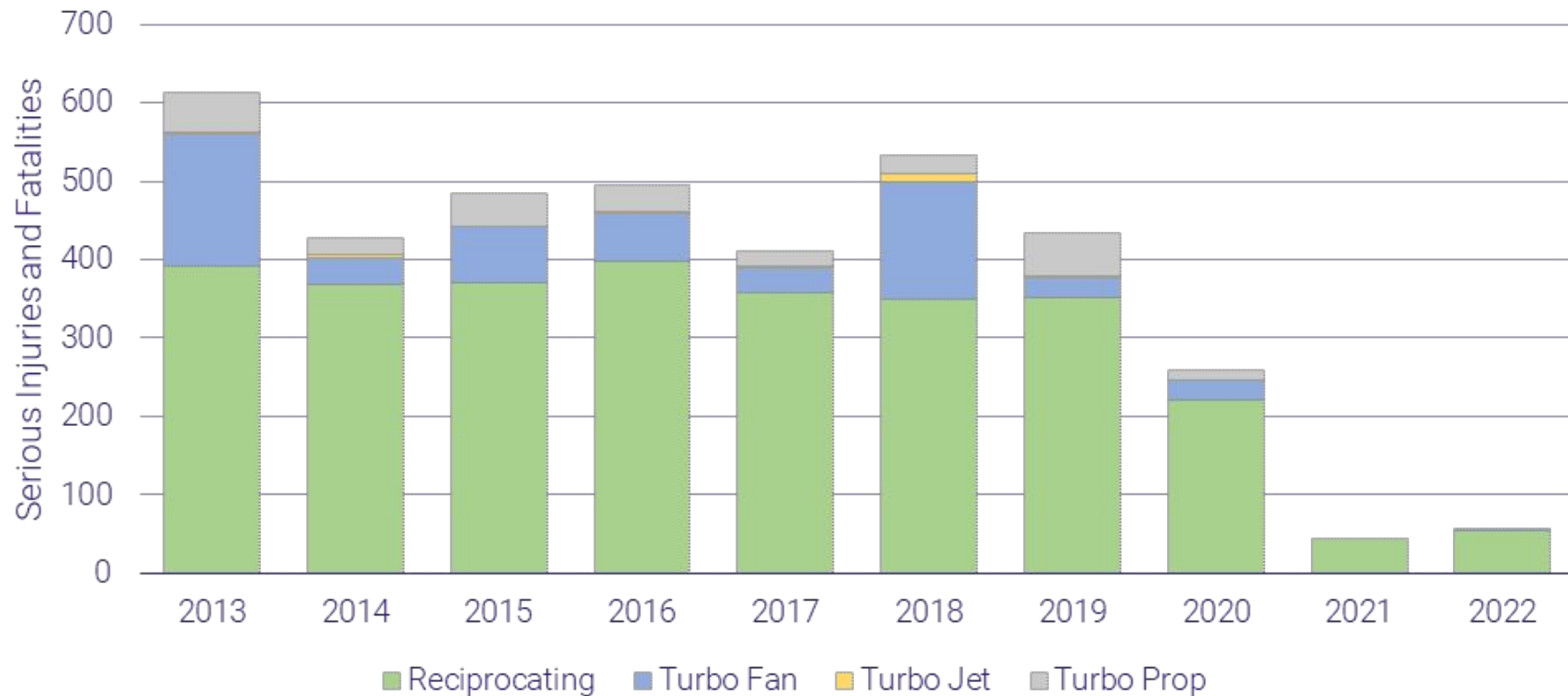
# **Which Planes Should You Buy**



# Single Engine Planes are a Problem



# Reciprocating Engines are Too



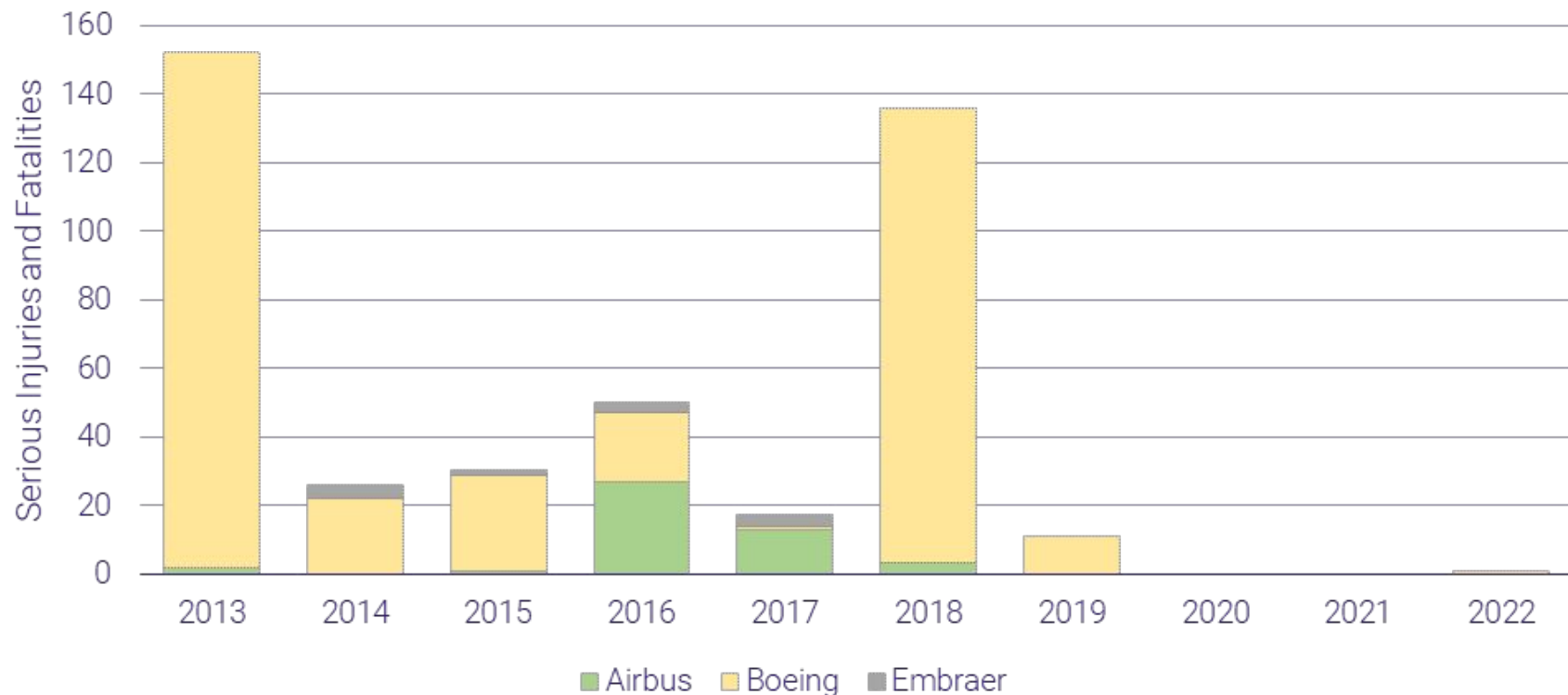
# Two or More Non-Reciprocating Engines Are Better

- Excluding single and reciprocating engine planes will boost your safety profile
- Even with safer designs, different manufacturers have different safety records

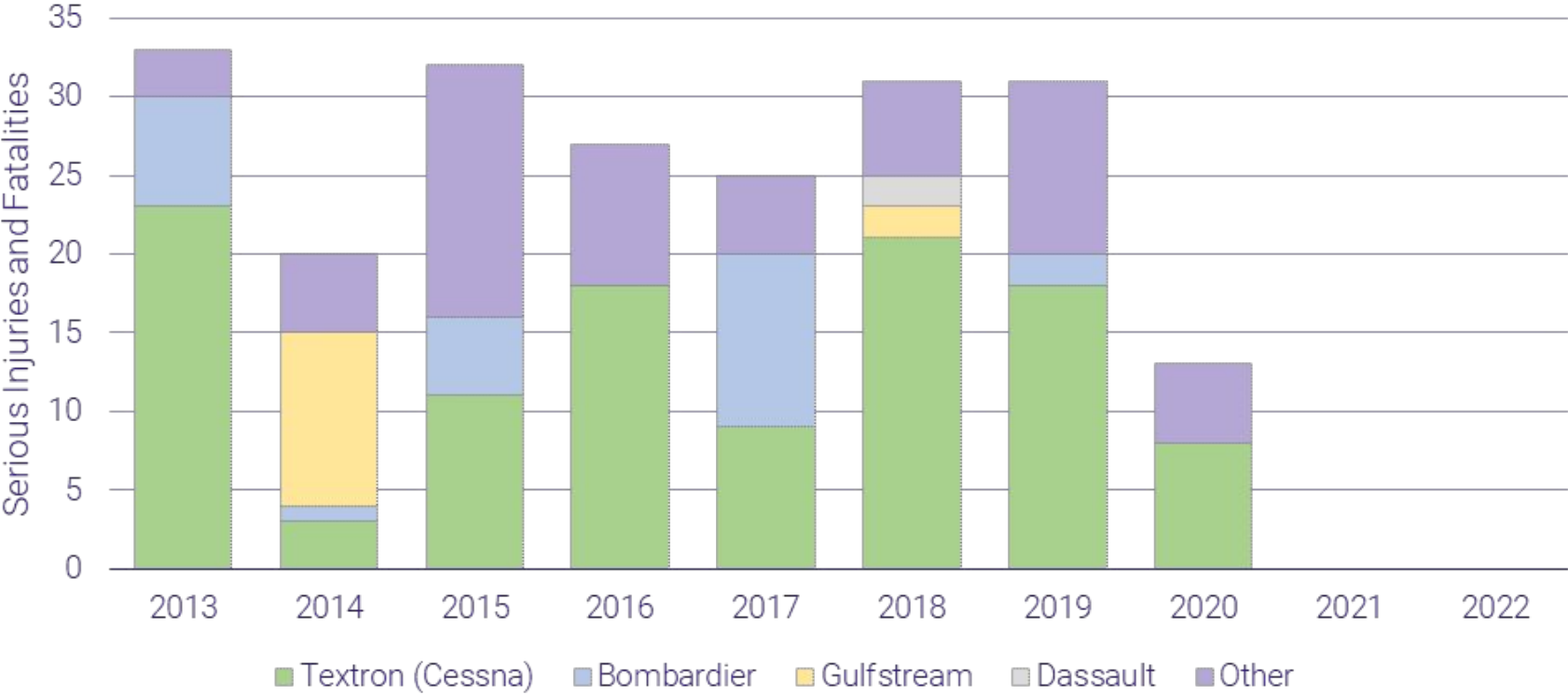
A single, reciprocating engine



# Boeing Has Had Lots of Difficulty...



# ...As Have Cessna and Bombardier



# Four Good Options

- Two price points in each market that can travel BOS-LAX

## COMMERCIAL

- Airbus A220
  - Established operator
  - Est .Cost: \$91.5mm
- Embraer E190–E2
  - New entrant
  - Est. Cost: ~\$60mm



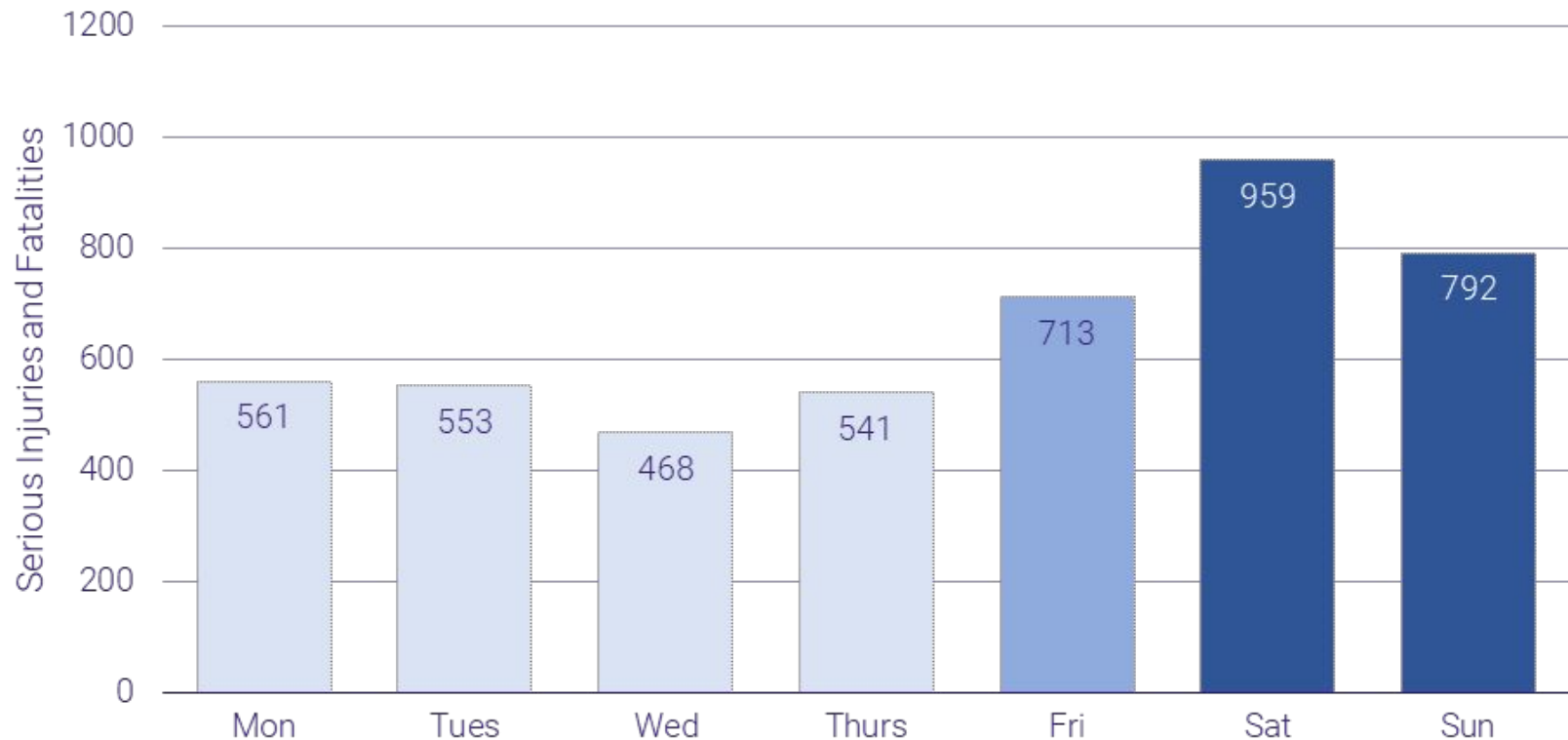
## BUSINESS

- Dassault Falcon 2000LXS
  - Spacious luxury
  - Est. Cost: ~\$34mm
- Gulfstream G280
  - Smaller and lighter
  - Est .Cost: \$25mm



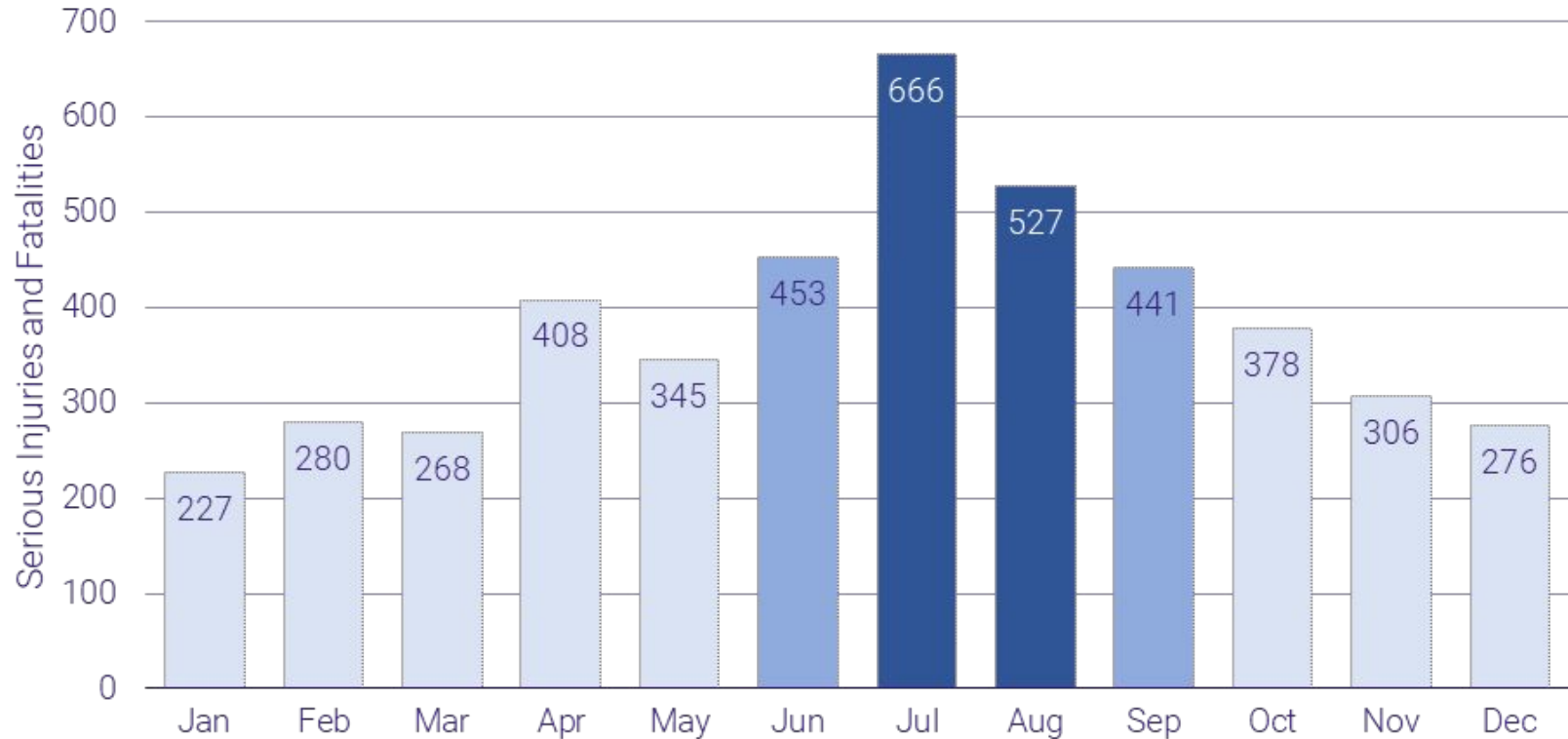
# **Implement a Safety Plan**

# Weekends Are More Accident Prone





# Summers Are As Well



# Safe Planes Can Only Take You So Far

- The data show that **summers** and **weekends** in particular lead to more accidents
- **Develop your safety and training protocols and staffing patterns with these patterns in mind!**



# Conclusion

# Conclusions

- Buy planes with **two or more jet engines**
- Buy planes from **Airbus or Embraer** for commercial and **Dassault or Gulfstream** for business
- Tailor your staffing, training and safety plan to account for **more dangerous weekends and summer months**

## Future Lines of Inquiry

- Most accidents occur in good weather. Why?
- Accidents that do occur in bad weather are deadlier. Why?
- Could Natural Language Processing extract more useful information from the reports?

# Questions?



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