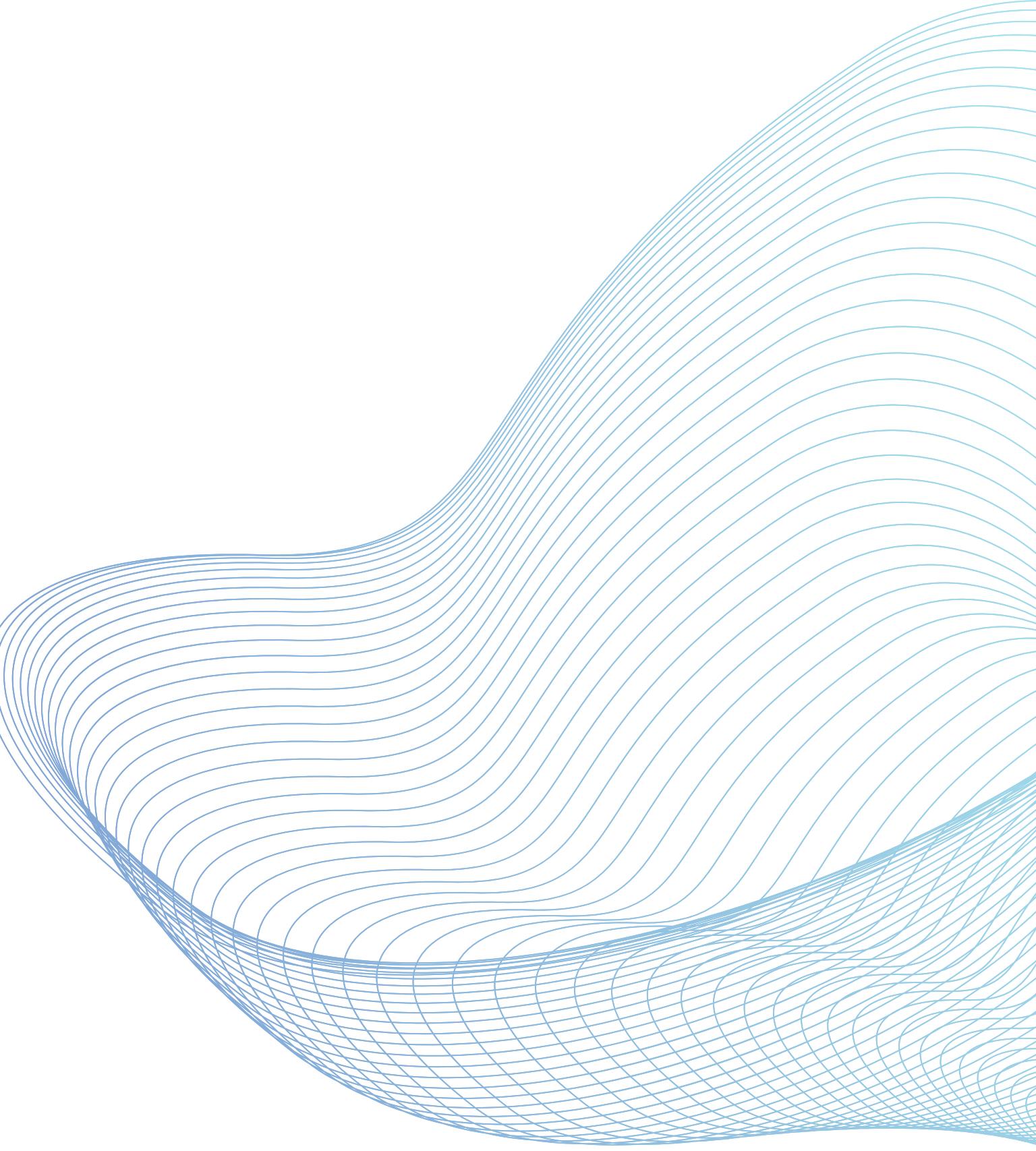


AIRCRAFT RISK ANALYSIS

Data Analysts:
JF Roberts
Nick Tjandra



OVERVIEW

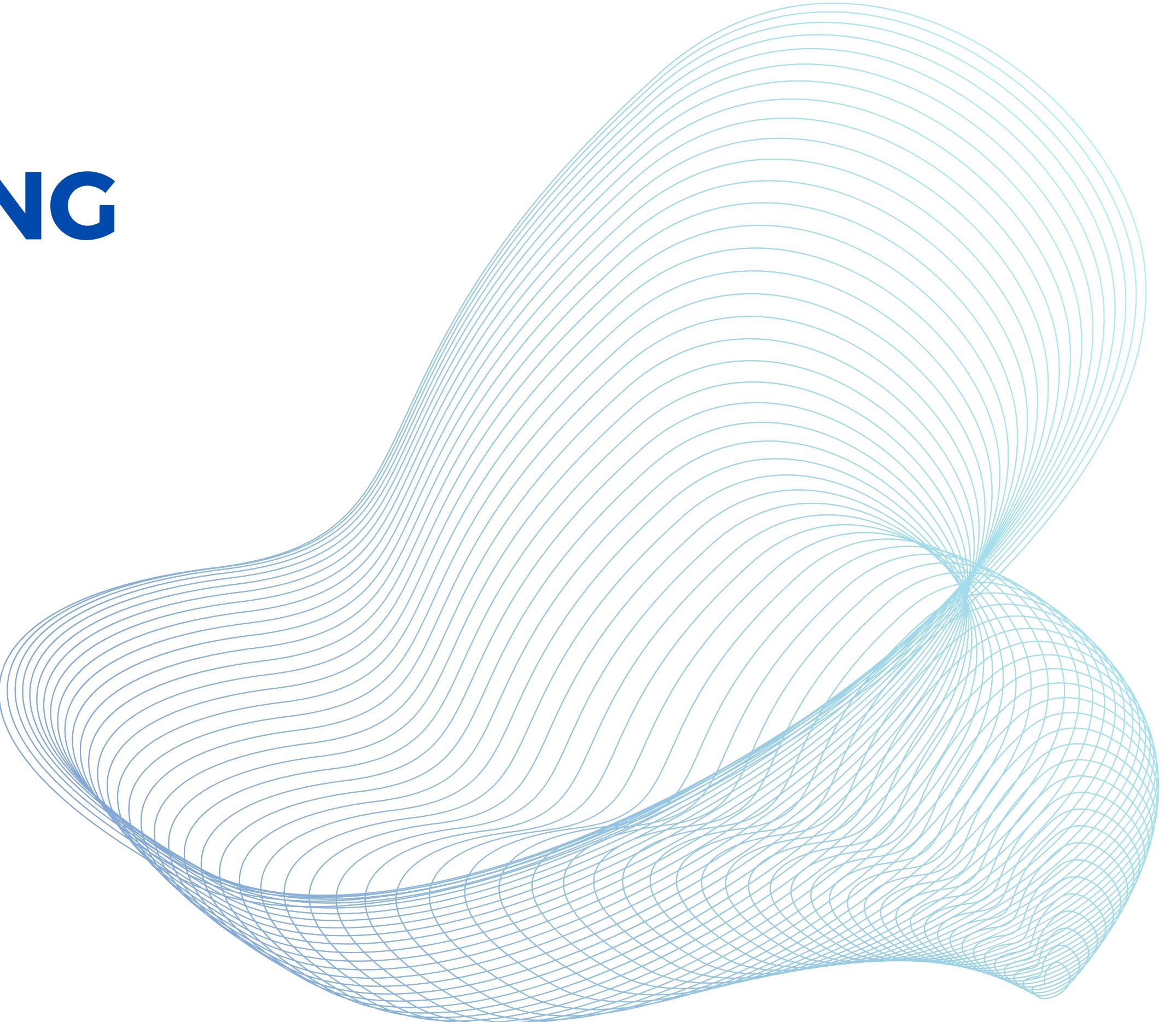
- BUSINESS UNDERSTANDING
- DATA
- KEY STATISTICS
- RECOMMENDATIONS - COMMERCIAL
- RECOMMENDATIONS - PRIVATE
- CONCLUSION & NEXT STEPS



BUSINESS UNDERSTANDING

DETERMINE AIRCRAFTS WITH
LOWEST RISK

- COMMERCIAL USE
- PRIVATE USE
- SPECIFIC MAKE AND MODEL



DATA

CIVIL AVIATION ACCIDENTS FROM NATIONAL
TRANSPORTATION SAFETY BOARD

- 85,000+ INCIDENTS - 1962 TO 2023
- INCLUDES PLANE MAKE AND MODEL OF
EACH INCIDENT



KEY STATISTICS

DEVELOPED A 'SEVERITY SCORE' TO EVALUATE THE SEVERITY OF EACH ACCIDENT

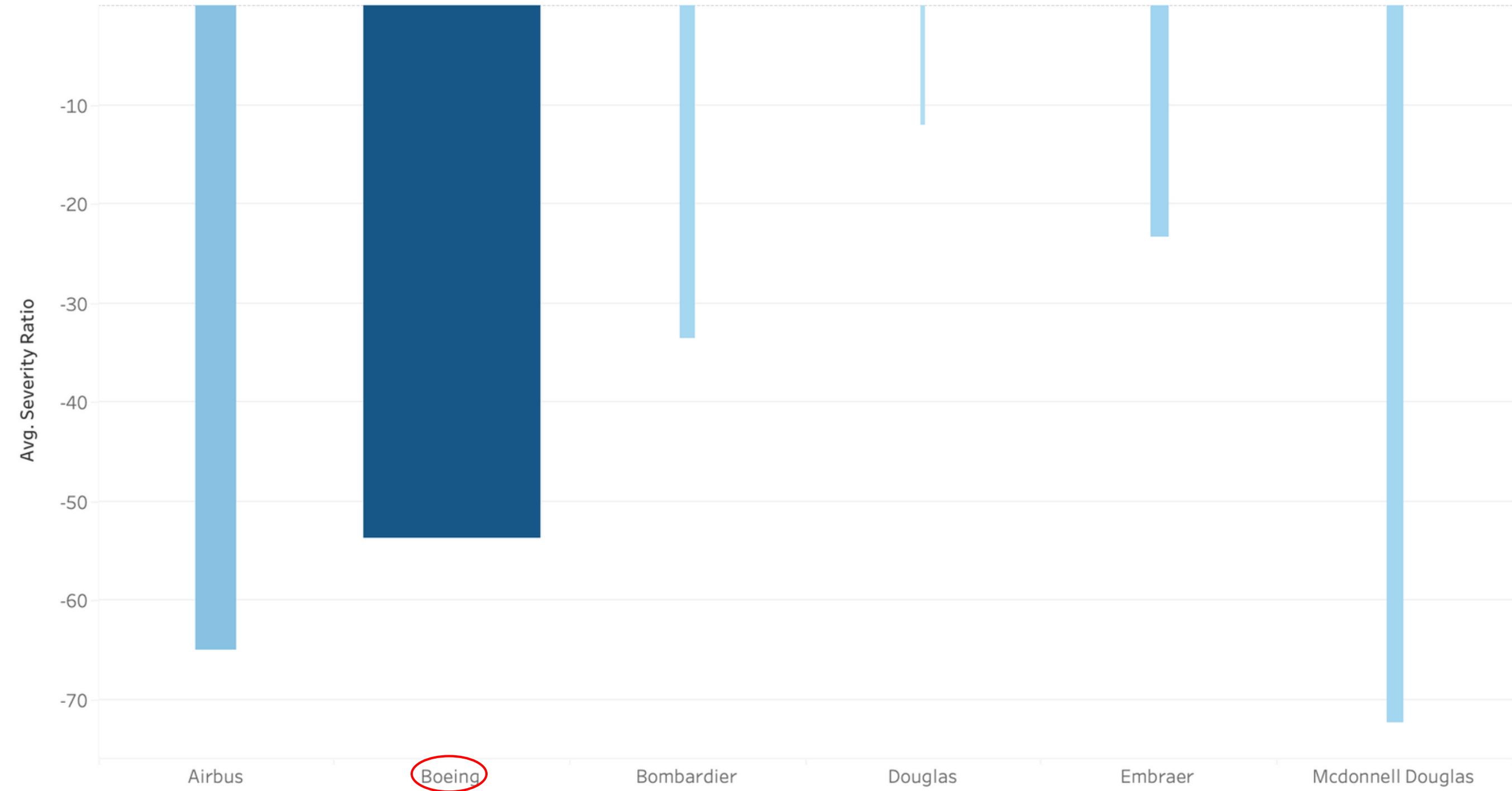
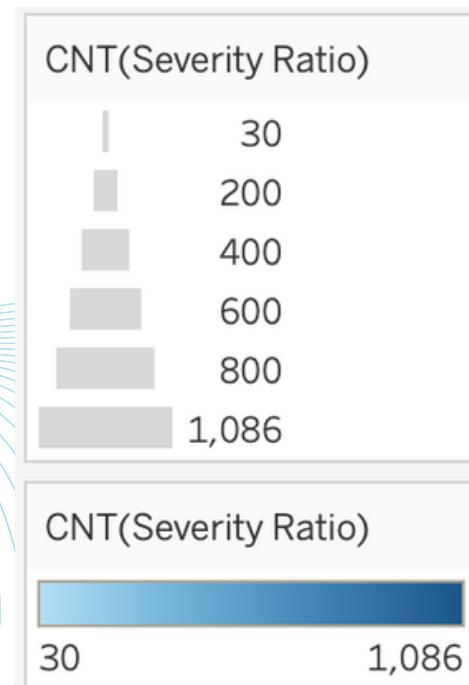
- AGGREGATION OF INJURY CATEGORIES

Total Fatal Injuries	Total Serious Injuries	Total Minor Injuries	Total Uninjured	Severity Ratio	Model And Make
0	0.0	0.0	0.0	2.0	Taylorcraft: BC12D
1	0.0	0.0	0.0	1.0	Globe: SWIFT GCIB
2	1.0	0.0	0.0	0.0	Piper: PA-28-181
3	0.0	0.0	0.0	2.0	Cessna: 170B
4	2.0	0.0	0.0	7.0	Cessna: 172

RECOMMENDATION - COMMERCIAL (MAKE)

COMMERCIAL Severity Score - Averages & Distribution

1. BOEING

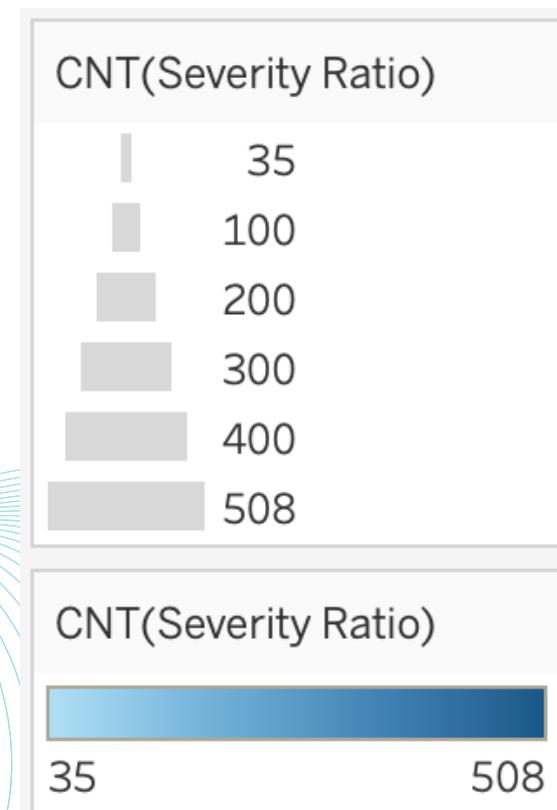


RECOMMENDATION

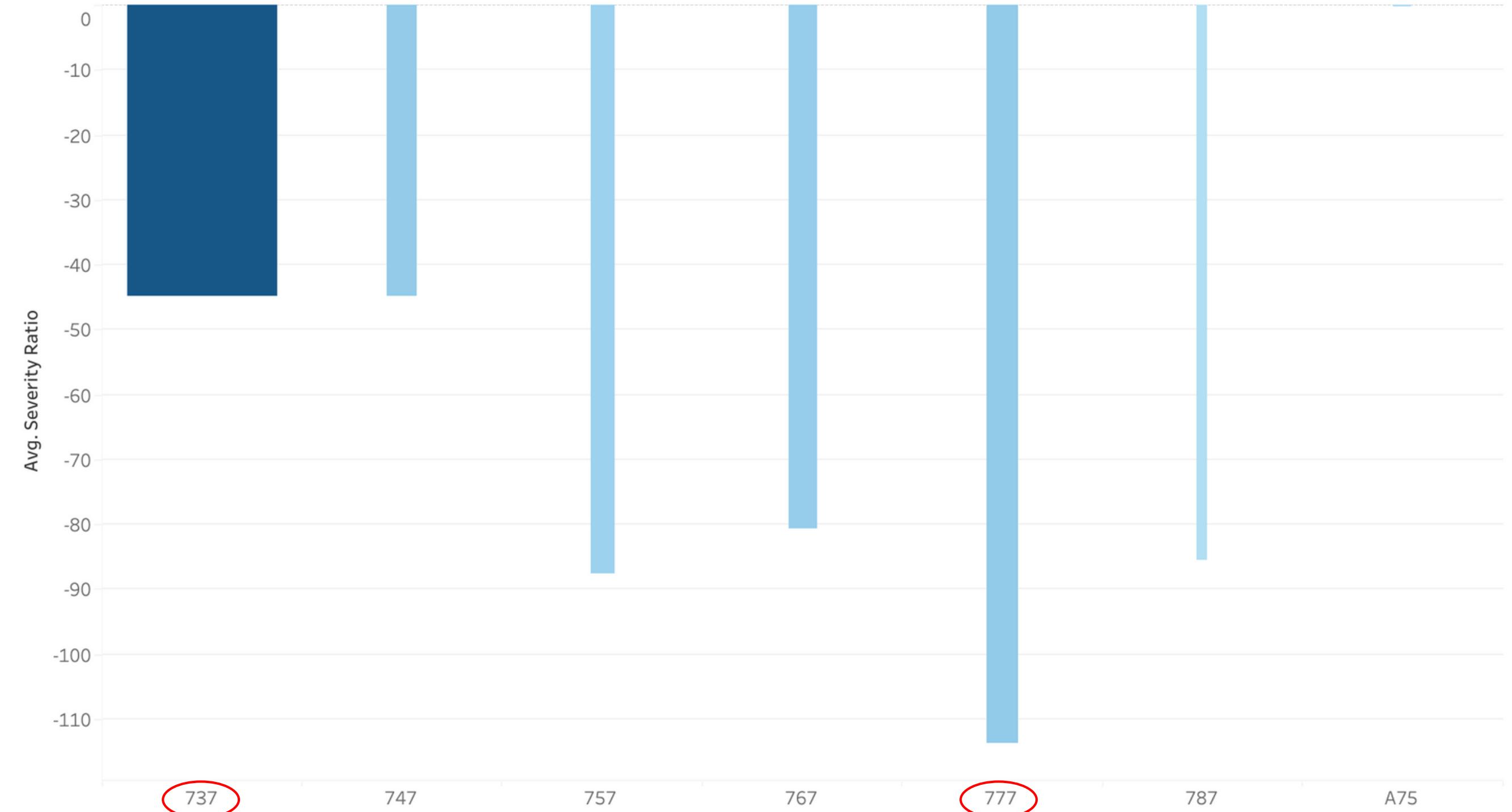
- COMMERCIAL (MODEL)

1. BOEING

- Model B777
- Model B737



BOEING Models Severity Score - Averages & Distribution

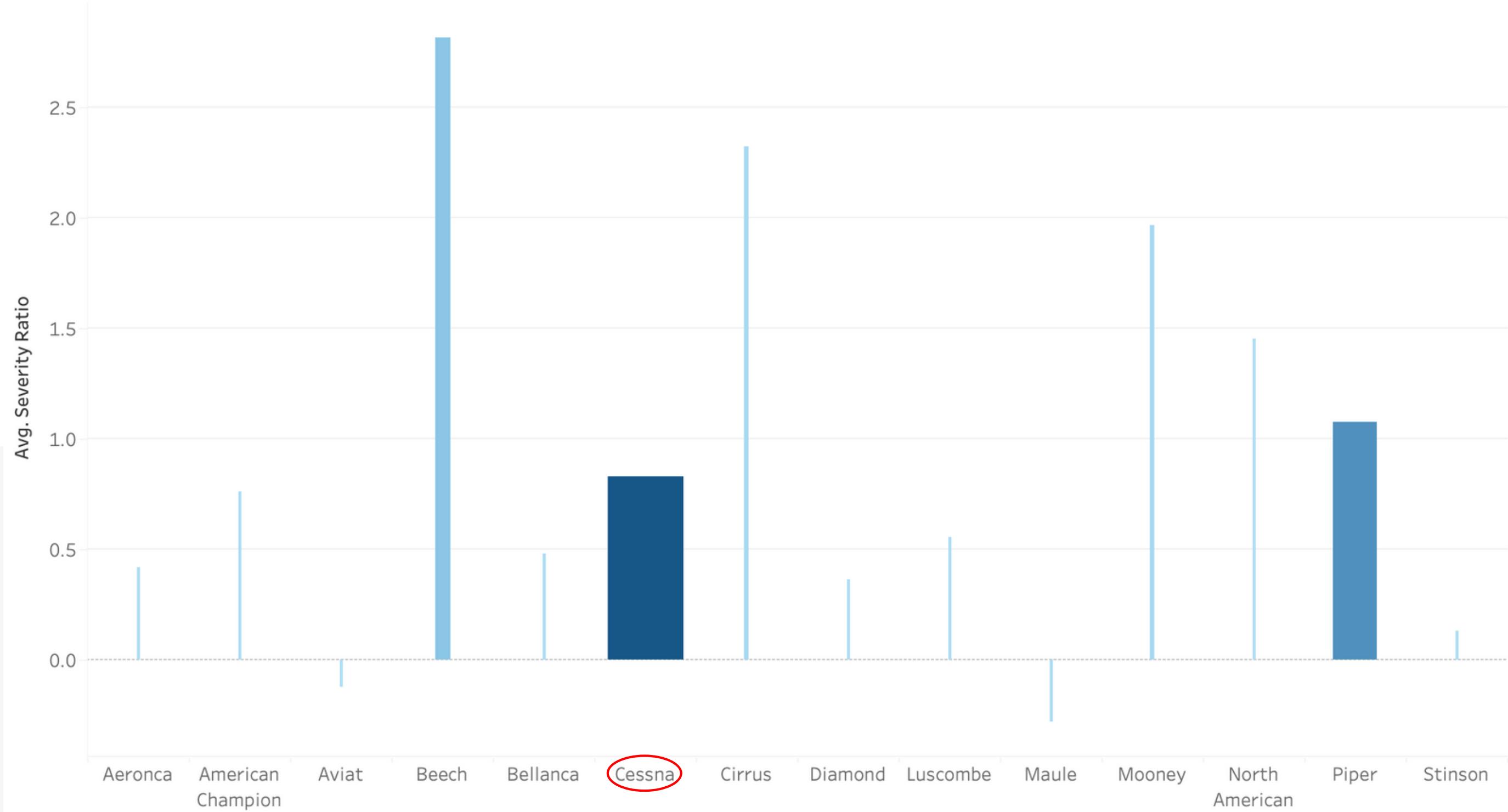
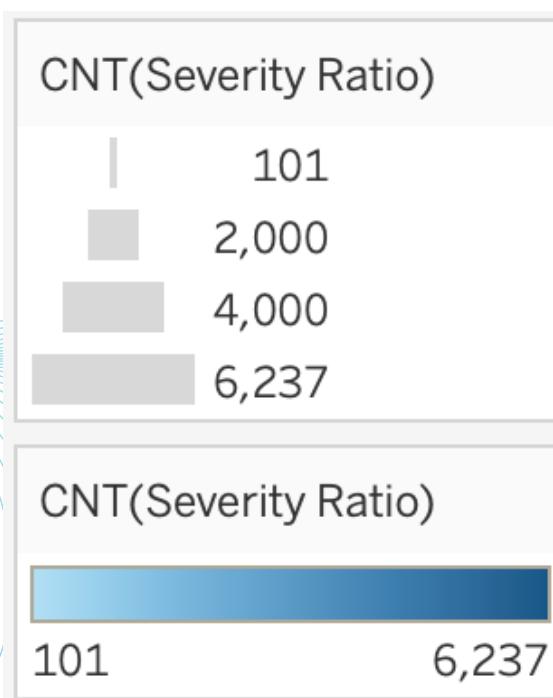


RECOMMENDATION

- PRIVATE (MAKE)

PRIVATE Severity Score - Averages & Distribution

1. CESSNA

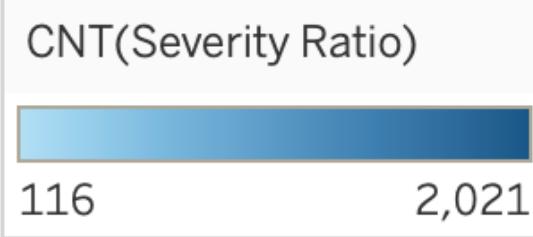
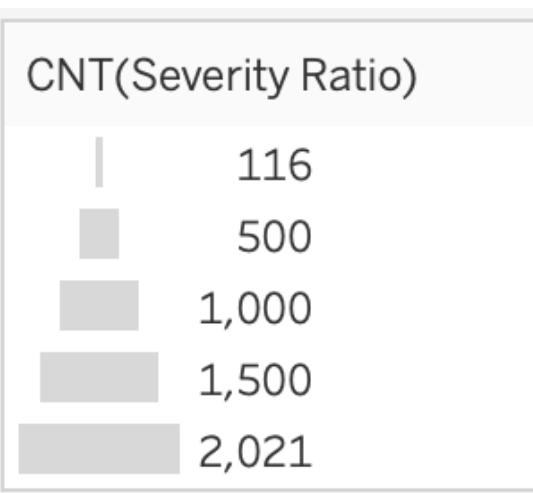


RECOMMENDATION

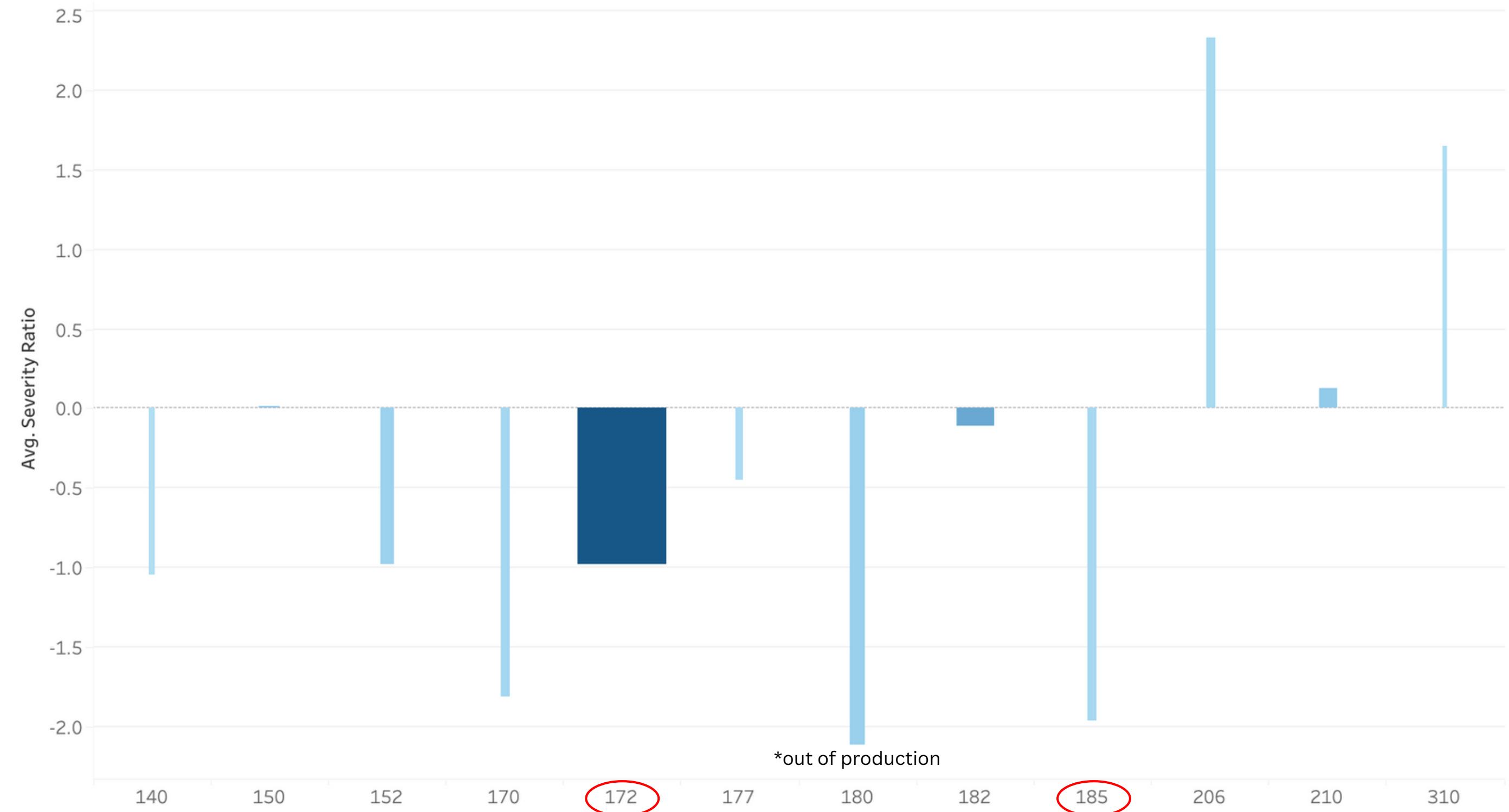
- PRIVATE

1. CESSNA

- Model 185
- Model 172



CESSNA Models Severity Score - Averages & Distribution



CONCLUSIONS

COMMERCIAL AIRPLANE (MAKE & MODEL):

- BOEING Model B777
- BOEING Model B737

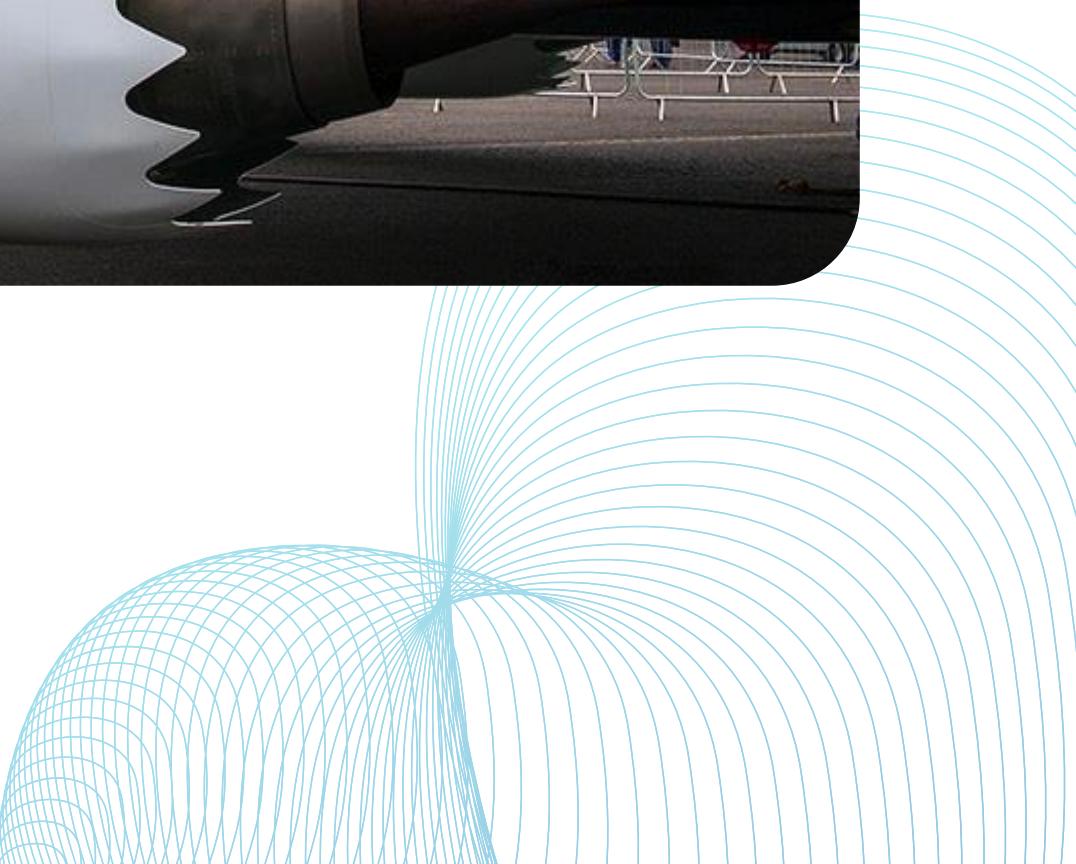
PRIVATE AIRPLANE (MAKE & MODEL):

- CESSNA 185
- CESSNA 172



NEXT STEPS

- ENGINE TYPE SPECIFICITY
- COST ANALYSIS
- REGIONAL RISK ANALYSIS



THANK YOU

Github Repository: <https://github.com/nickthetj/DSC-Phase1-Project1/tree/main>

Githubs: [@nickthetj](#) & [@jfbr1283](#)

