



NEW JET AIR:

SAFETY UPDATE

Kristie Kookan, Data Science

[Photo](#) by San Diego Air & Space Museum Archives / Public domain

HEADLINES

Fox News, NY Times, Washington Post



Air is no
longer a
safe way to
travel



Do Airlines have a
poor safety record?
How do we compare
to competitors?
What is our message?

Airline Safety: Proven Record of Success

1995-2020

Available Seats Miles

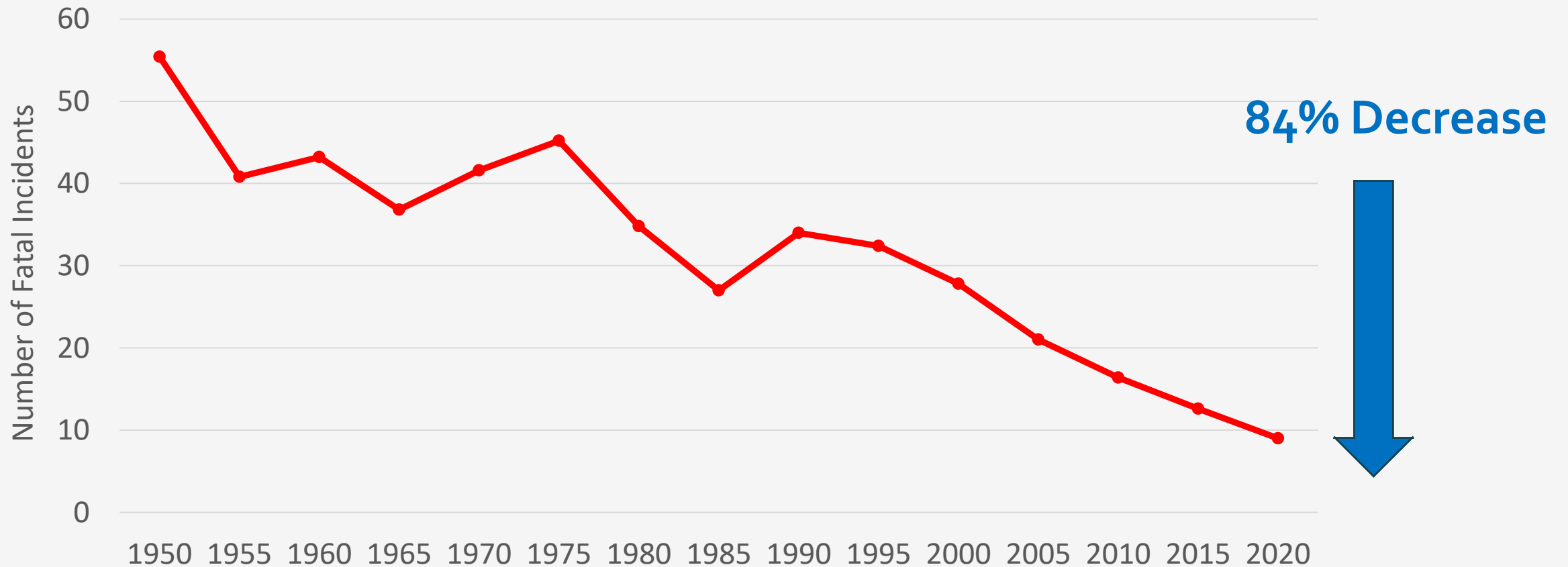
881,381,000,000

Average number of
fatal incidents

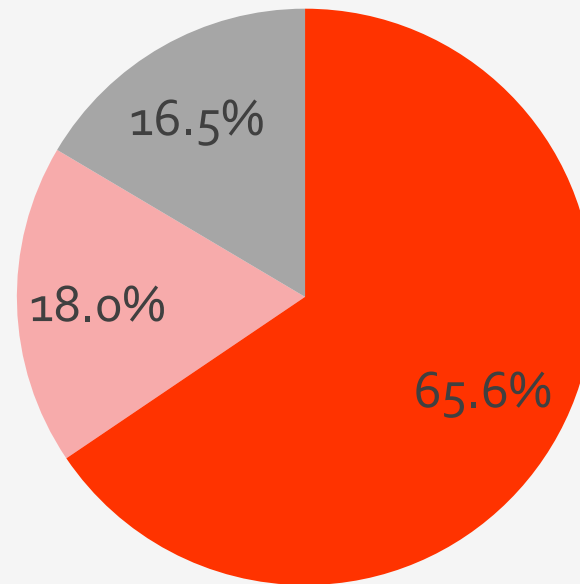
16.85



Airline Safety: Fatal Accidents 1950 to 2020

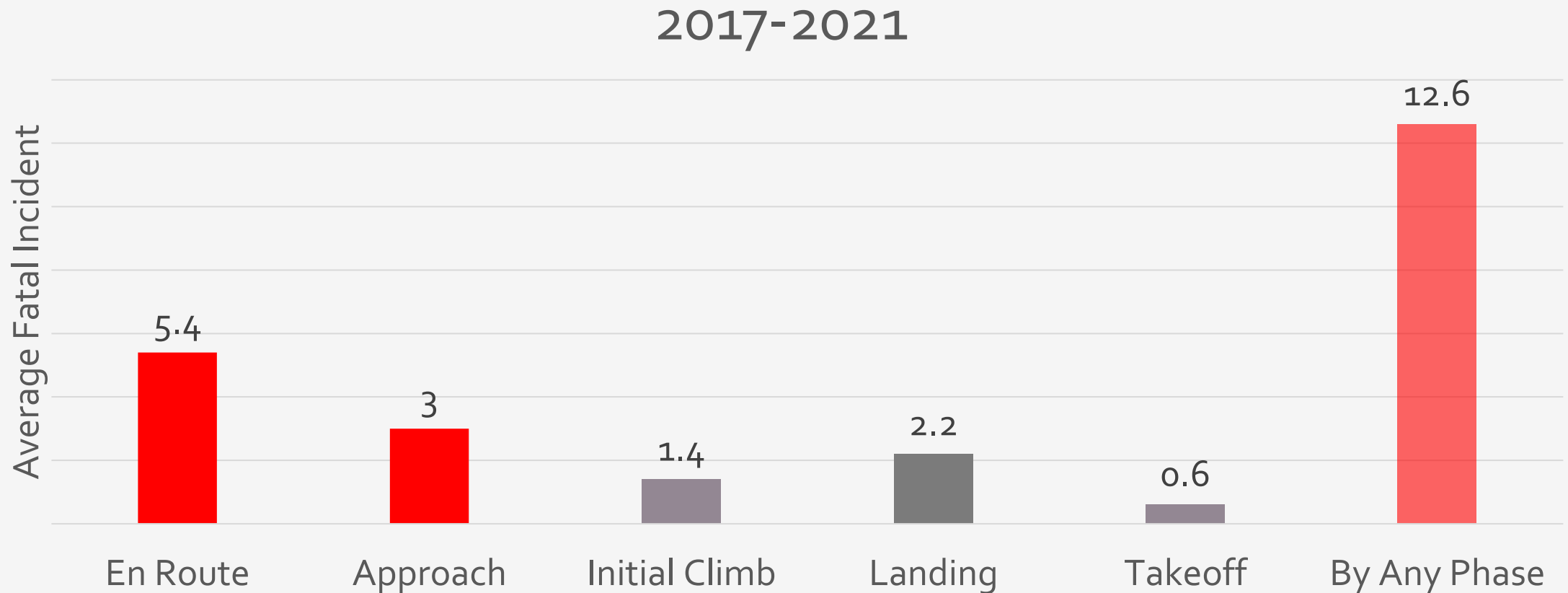


Airline Safety: Major Causes



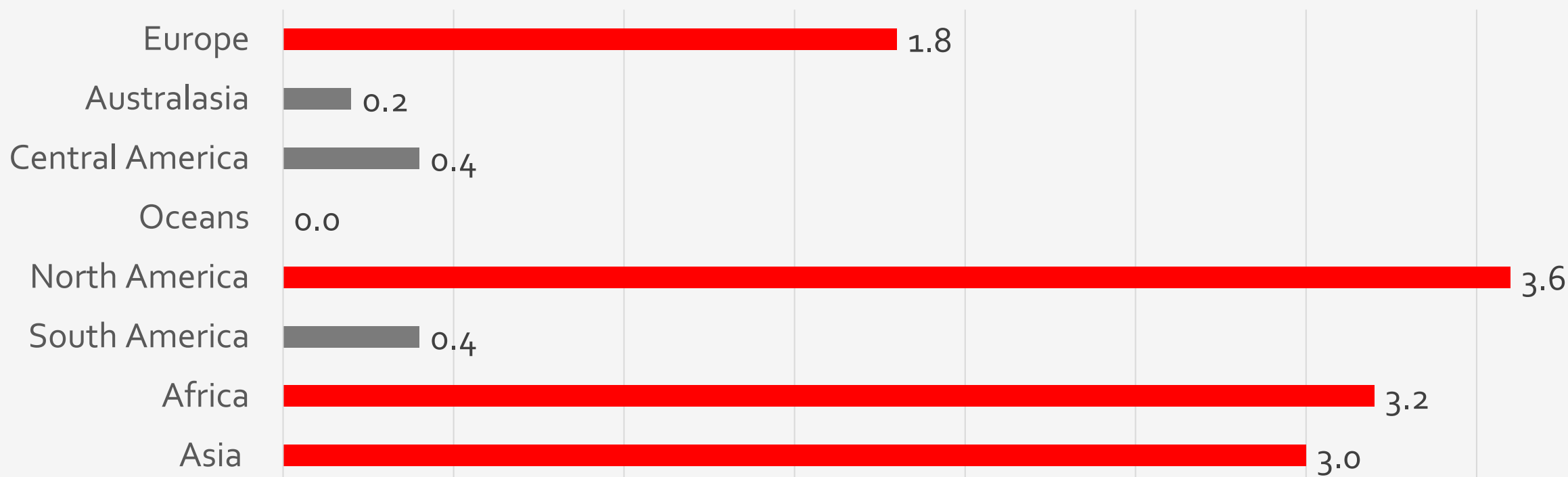
■ Pilot ■ Mechanical ■ Other/unknown

Airline Safety: Pilot Phase



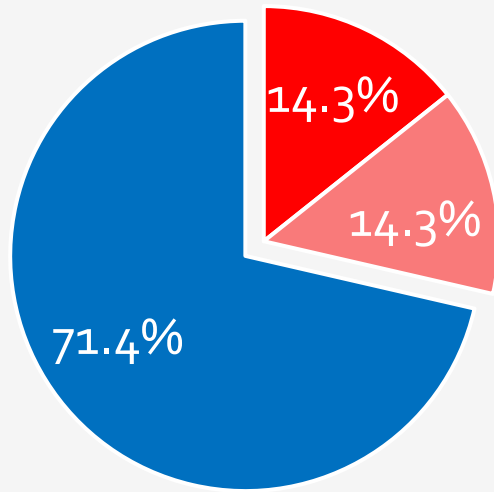
Airline Safety: By Region

Average Fatal Incidents: 2017-2021



How do we compare?

Fatal Incident, 1985-2014



■ High, >5 ■ Medium, 4-5 ■ Low, <=3

Our safety record stands out

- Comparing to 56 airlines, maintaining a **LOW** incident rate

Our message

NewJet Air is a trusted, safe, airline

- Proven track record in Safety & Compliance
- Maintaining this record is our purpose
 - Continued rigorous training of our pilots and a “Safety never rests” value is embedded in our corporate culture



QUESTIONS?

Milestone 2

Kristie Kooken

DSC 640-T301

October 8, 2023

The executive summary utilized the same information as the dashboard though I reformatted the visuals in Power Point, and remade plots and charts using Excel. For this audience, I kept the data at a higher-level than the dashboard in order to stick to overall message but still remain factual. For the first data slide, I chose to display the full number rather than using units of millions as I wanted to make it more impactful between the number of available seat miles and fatal incidents. The slide design is very simple in order to allow the message to dominate as the visual.

For subsequent slides, in order to convey negative and positive information, I used red for negative or stand-out information and blue for positive information. For example, an 84% decrease is a positive statistic where I used a large downward arrow and same blue font for the text alongside the plot that showed fatal accidents across time as a red line. I used a line plot as well as showing only the end year for the interval on the x-axis in order to make the visual more readable and more impact, and to allow for space to include the arrow (otherwise the plot would have had too much information, and the eye wouldn't know what to look at first and dart around trying to figure out what is being conveyed).

New information was included regarding the proportion of major causes for fatal incidents, I used a pie chart because it is simple and impactful, allowing the executive team to understand where they can focus prevention. For the two bar charts, the charts are very similar to the dashboard presentation. For the 'how do we compare' slide, I took the detailed slider information table from the dashboard and categorized this into high, medium, and low and derived a percentage. This allowed for a higher level of information and then created a pie chart.

When presenting to the executive committee, I will go through the deck and answer any questions as they come up. I kept the deck short as typically, this audience wants very basic

information but will make very impactful decisions based on it. It really brings the point home to me, both on a personal work-experience level as well as for this assignment, the importance of understanding the balance between simplicity, telling the executive team what they want to hear, and the accuracy of the data. If you can't be accurate, there can be real consequences. I believe some may find it challenging to tell an executive committee what they do not want to hear (especially because there can be negative consequences) however, it is part of being a data scientist to learn this aspect and tell them anyway.

The overall findings for this data are that air travel is safe, and that it is very important to ensure that pilots are properly trained as well as ensuring mechanical safety is never overlooked.

Ethical concerns that came up were around the way we process data. When I created the high, medium, and low groups for the 'how do we compare' slide, I noted that we manipulate data at one level (collection and definition), then at an entirely different level (analysis) and then the presentation level – it is essential to understand the many times we are 'making the data more understandable' and keep in mind potential short comings from using this approach.