

# Data Visualisation Project

# Project Flow Structure

- ▶ Step 1: Exploratory Data Analysis
  - ▶ Explore Dataset, Identify datatypes
  - ▶ Understand column data
  - ▶ Create Hieararchies in Tableau
  - ▶ Create basic visualizations and explore data
- ▶ Step 2: Come up with questions
  - ▶ Identify aspects of data you want to work with
  - ▶ Come up with questions

# Project flow structure

- ▶ Step 3: Plan out Dashboard
  - ▶ Identify what kind of visualisations are needed to answer questions
  - ▶ Plan out how you want to organise the dashboard
- ▶ Step 4: Create Dashboard

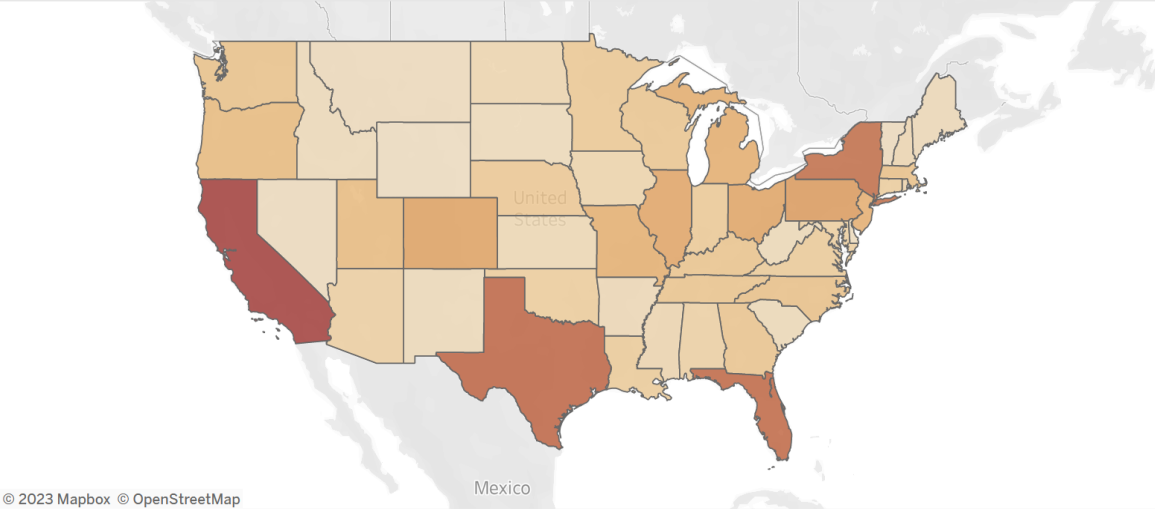
# Data Questions

- ▶ General Information
  - ▶ Distribution of number of strikes?
  - ▶ Breakdown of types of animals struck?
- ▶ Date/Time Information
  - ▶ Trend for strikes over time?
  - ▶ Which Month had the most amounts of strikes?
- ▶ Damage causing strike Information
  - ▶ Which Phase of flight?
  - ▶ What time of day?
  - ▶ Amount of damage caused vs Impact on flight?

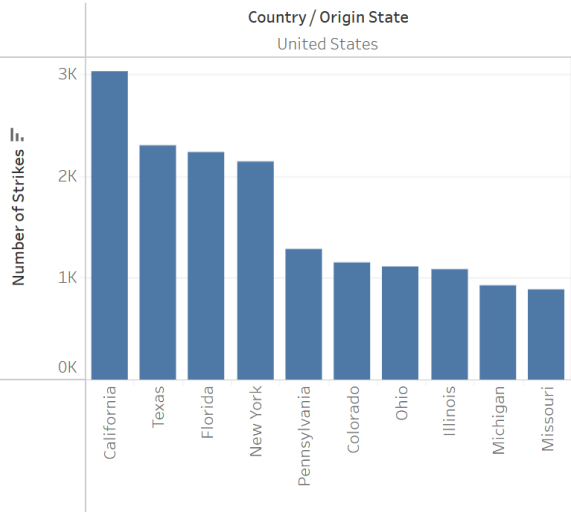
# Results

## FAA Strike Data Overview

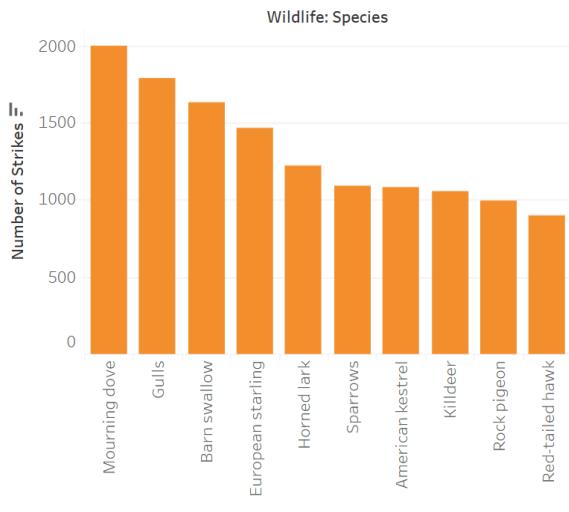
Num Strikes Map



Top 10 States by number of strikes

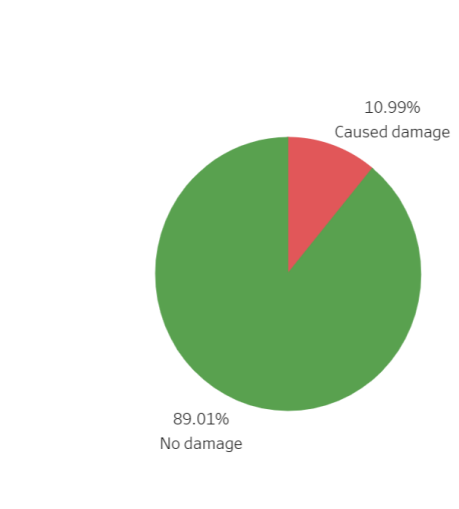


Top 10 Animals Struck

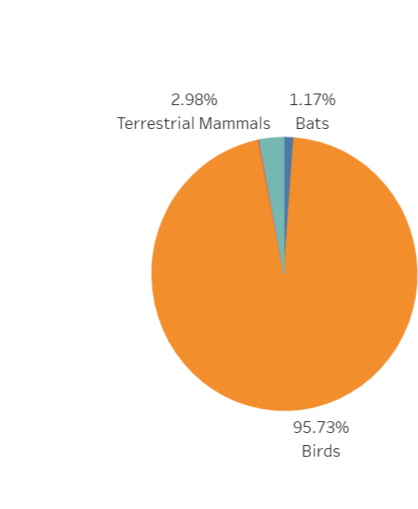


Total Number of Strikes: 28,298

Percent Damage caused



Breakdown of animals struck



Number of Strikes

50 3,026

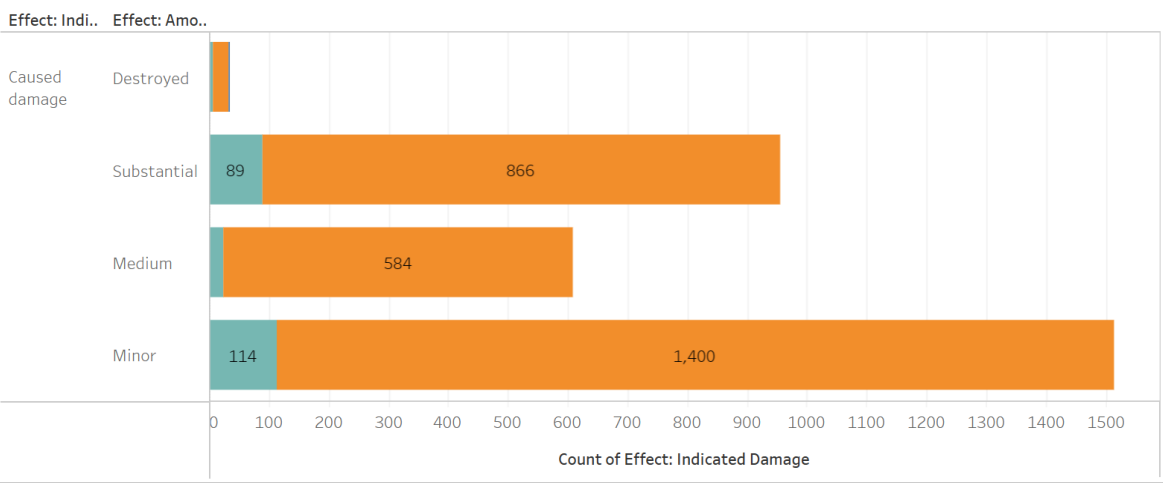
Wildlife: Animal Category

- Bats
- Birds
- Reptiles
- Terrestrial Mammals

Year of Collision Date an...

- ☒ (All)
- ☒ 2000
- ☒ 2001
- ☒ 2002
- ☒ 2003
- ☒ 2004
- ☒ 2005
- ☒ 2006
- ☒ 2007
- ☒ 2008
- ☒ 2009
- ☒ 2010
- ☒ 2011
- ☒ 2012
- ☒ 2013
- ☒ 2014
- ☒ 2015

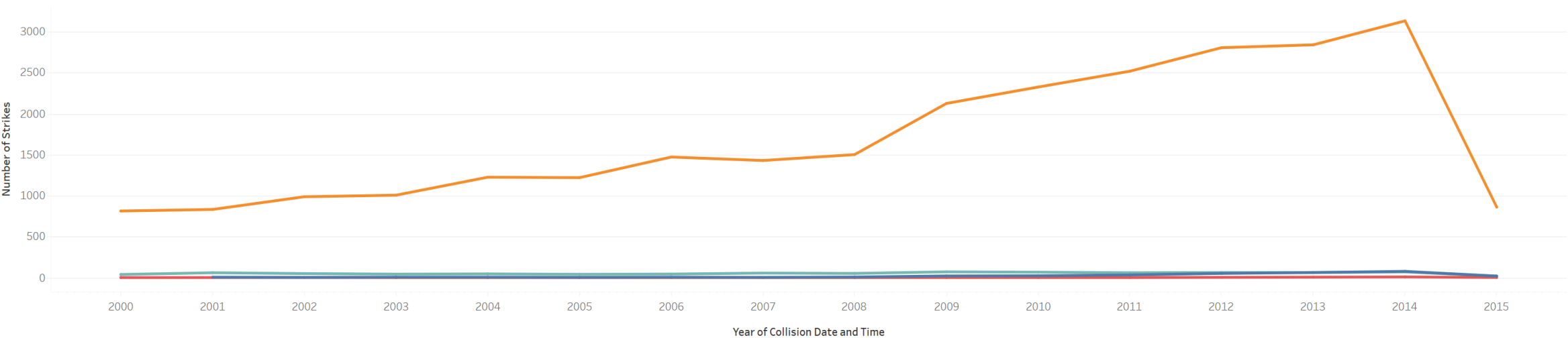
### Count of Damage Caused



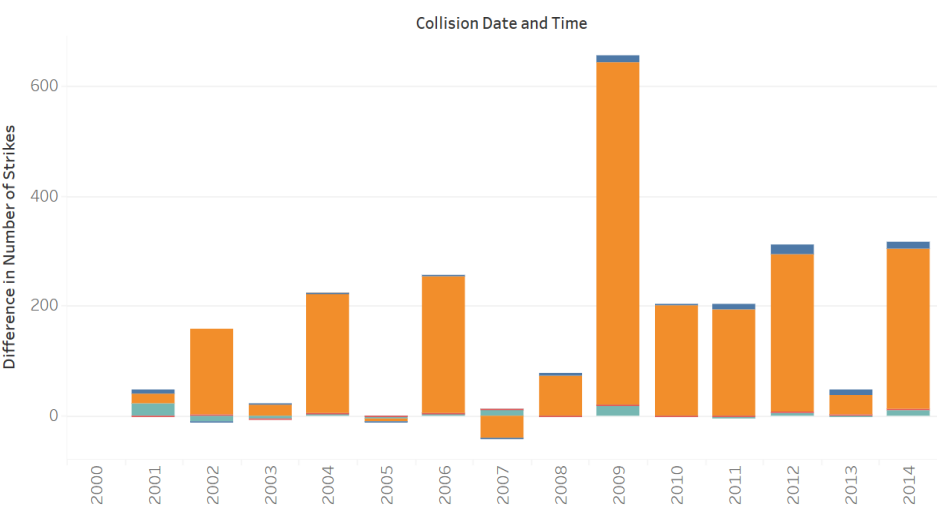
# Results

## Strikes Over Time

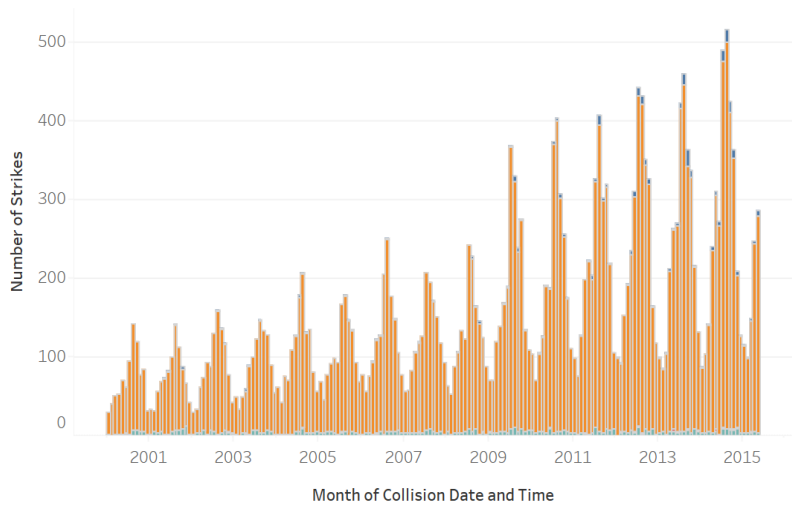
Number of Strikes Per Year



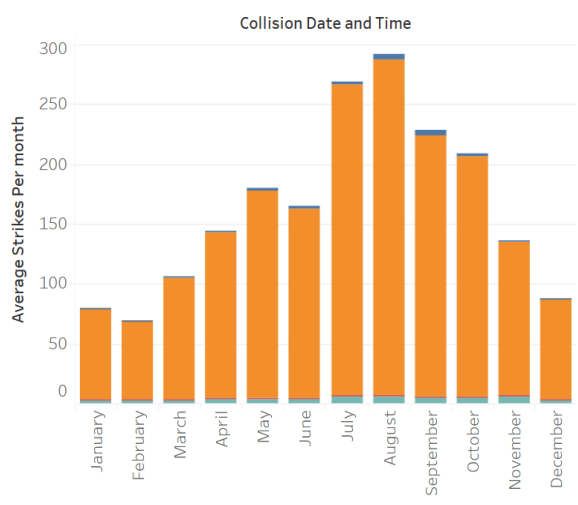
Difference from previous year



Strikes Over Months



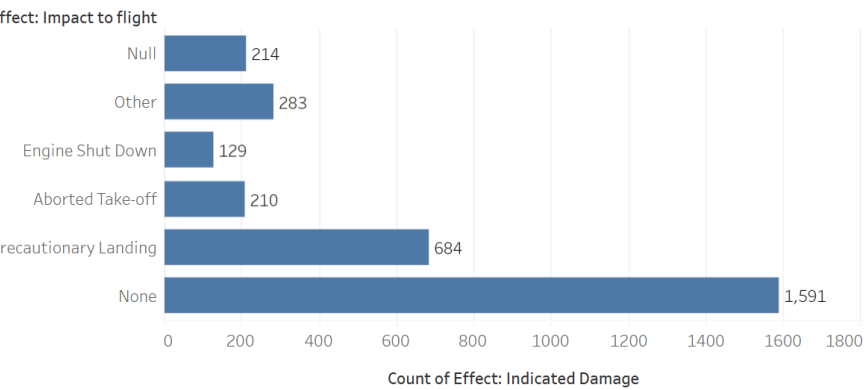
Avg Strikes Per Month



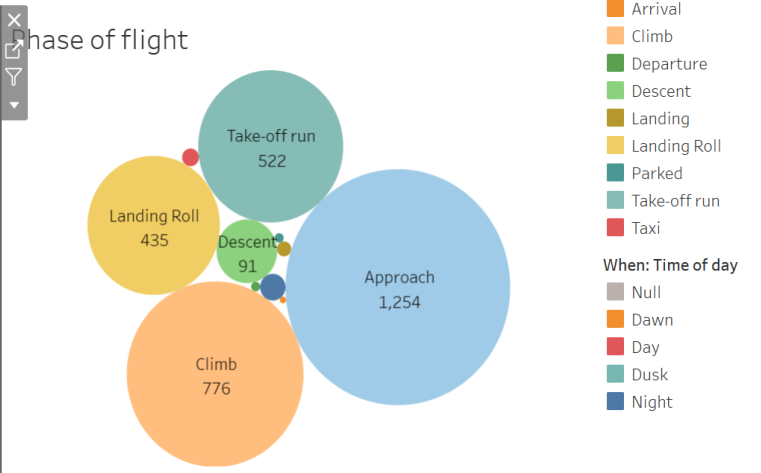
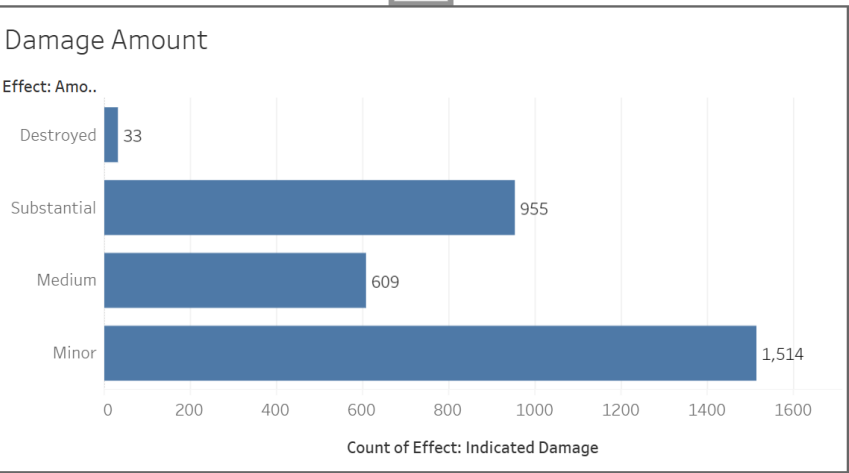
# Results

## Damage Causing Strikes

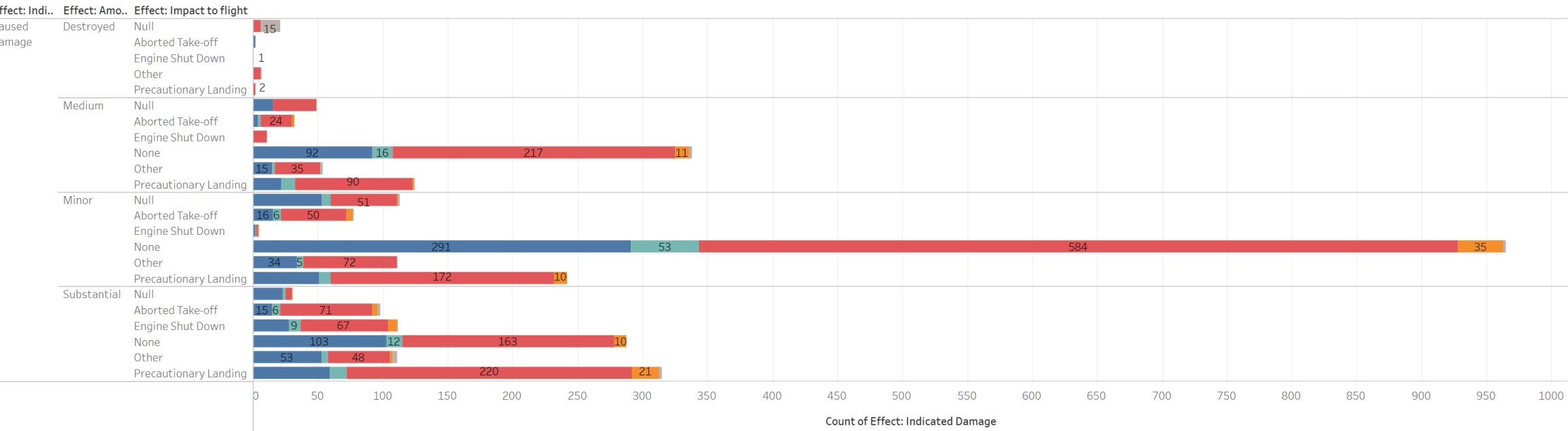
### Impact on Flight



Number of Damage Causing strikes: 3,111



### Time of Day



# Challenges + Future Goals

- ▶ Tableau Web was missing some features compared to desktop version
- ▶ Would have liked to add a forecast
- ▶ Make the visualizations prettier by exploring more customization options



Thanks for  
listening!

Questions?