UMD Wildlife Airport Strike StoryMap and Interactive Map

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UNIVERSITY OF MARYLAND
ENVIRONMENTAL SCIENCE AND POLICY PROGRAM

1. Project Goal
2. Methods
3. Findings
4. Limitations
5. Recommendations

Our Goal: To assist United States Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS), and Airport Wildlife Hazards Program (AWHP) to tell their story to the public; efforts mitigating wildlife hazards to aircraft for civilian and military airfields.

Task 1: Pinpoint locations of non-listed airports

Task 2: Collect/ analyze wildlife strike data

Task 3: Compile strike data in an interactive map

Task 4: Create dashboard enable interaction

Task 1

Conduct Background Research on Wildlife Strikes and work being done to address them

Task 2

Design and Create StoryMap presenting research

Task 3

Incorporate GIS Dashboard into StoryMap

Methods: GIS Map and Dashboard

1. Primarily accomplished through ESRI's ArcGIS online (AGOL) and Dashboards applications

1. Created map displaying all airports associated with Airport Wildlife Hazards Program

1. Filtered by airport name, use

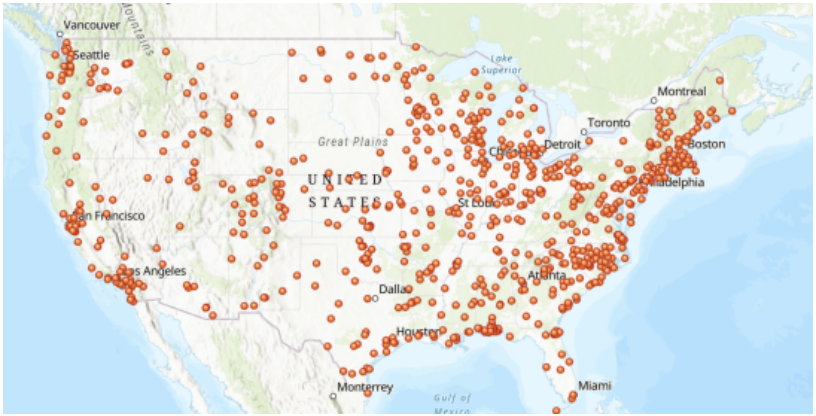
Methods: Dashboard

Filtering Data

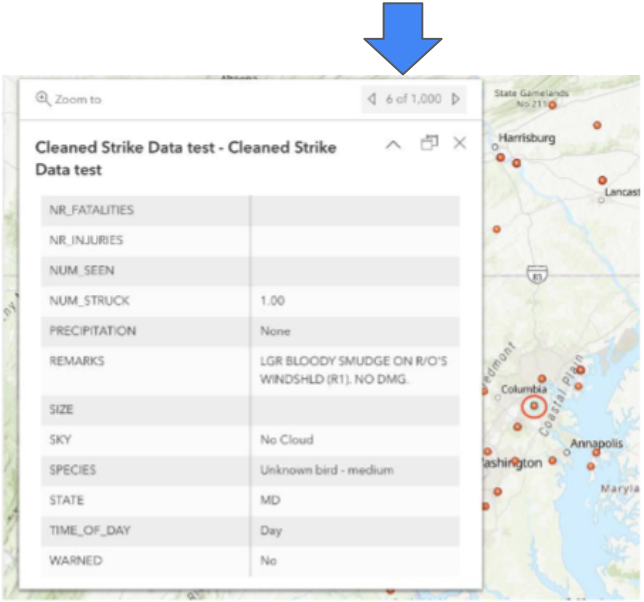
From *Table 2* of the written report

Index Number	Repair Costs
Incident Date	Other Costs
Incident Month	Inflation Adjusted Repair Costs
Incident Year	Inflation Adjusted Other Costs
Time of Day	Indicated Damage
Airport ID	Damage Level
Airport Longitude	Effect
Airport Latitude	Species
Airport Name	Remarks
State	Warned
FAA Region	Number Seen
Aircraft Type	Number Struck
Sky	Size
Precipitation	Number of Injuries
AOS	Number of Fatalities

Methods: Interactive Map



The interactive map zoomed in to highlight the US



From Figure 1 in the written report

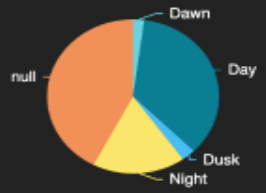
total damages

Total In Damages

861.85M

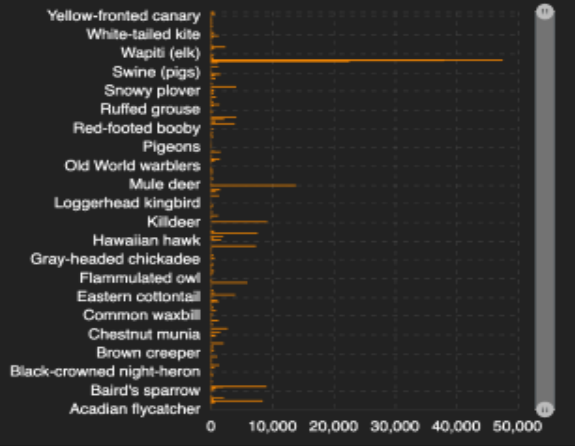
time of strike

Time of Strike



Species

Species Involved



Precipitation

Precipitation

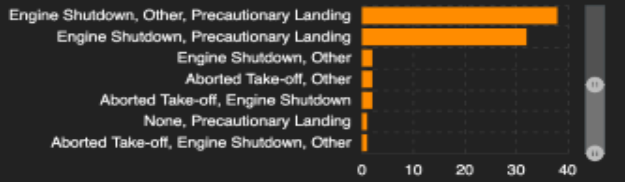
injuries

Injuries

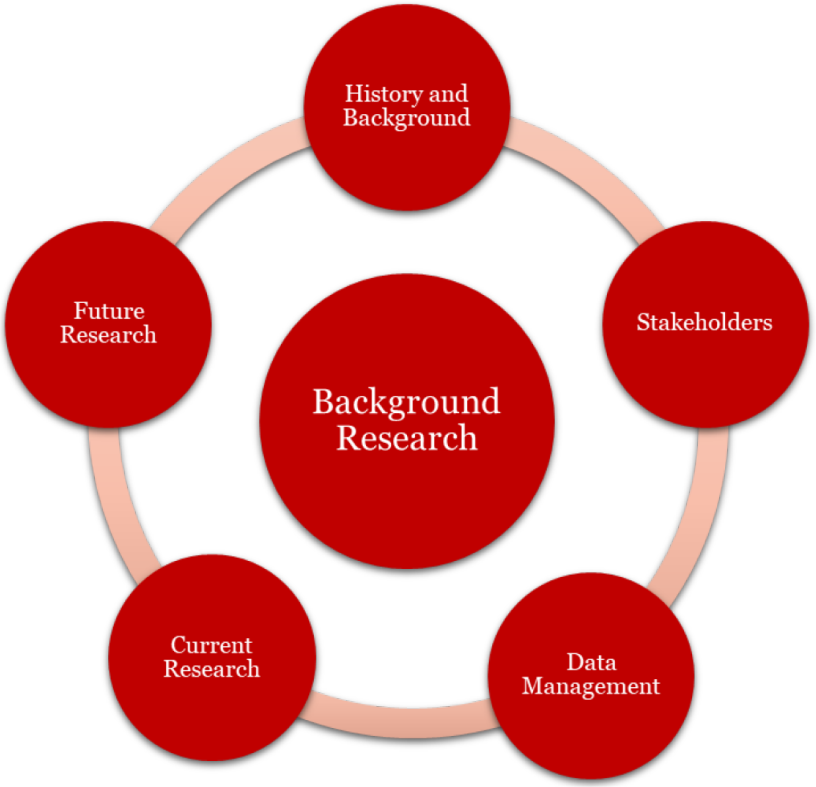
345

Effect

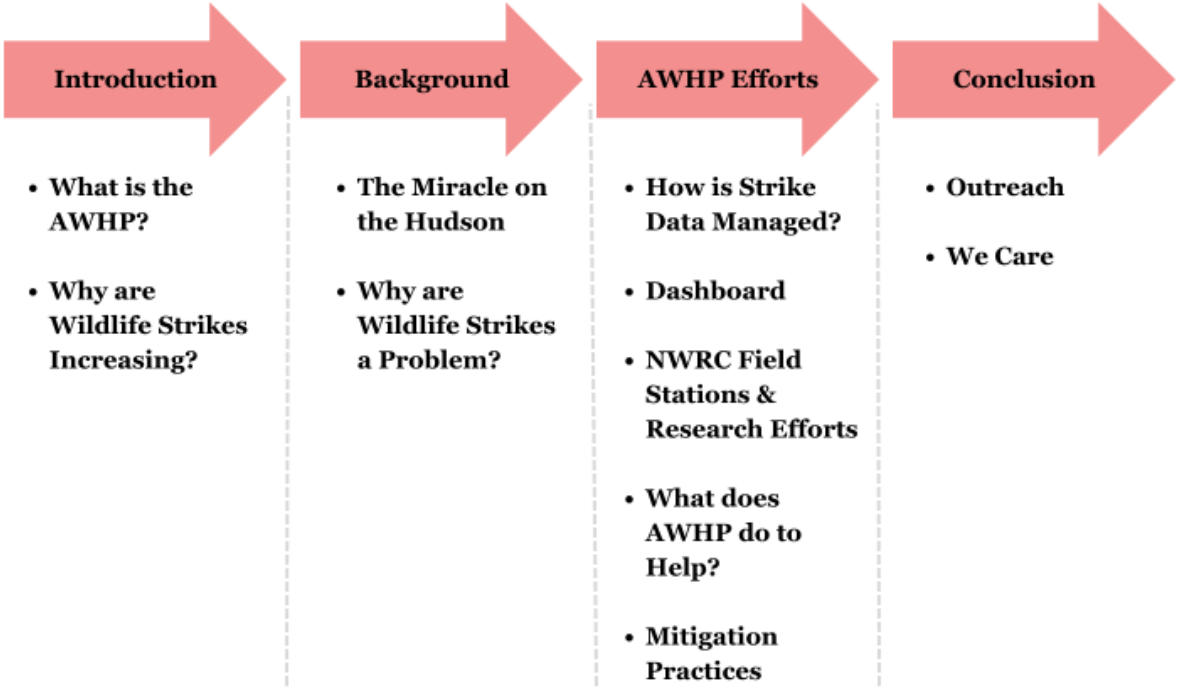
Effect of Strike



Methods StoryMap



StoryMap Methods



BWI DULLES INTERNATIONAL REAGAN NATIONAL

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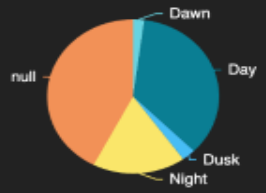
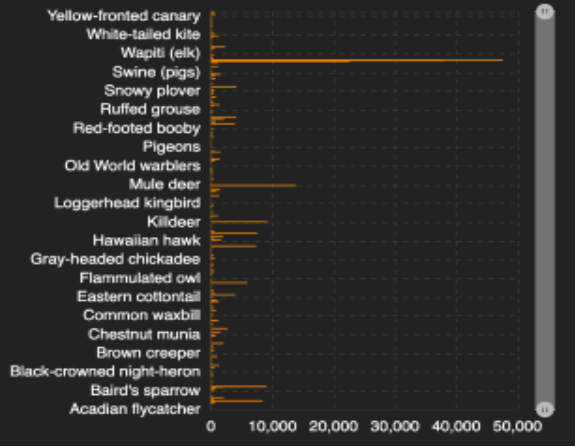
time of strike

Time of Strike



Species

Species Involved



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injuries

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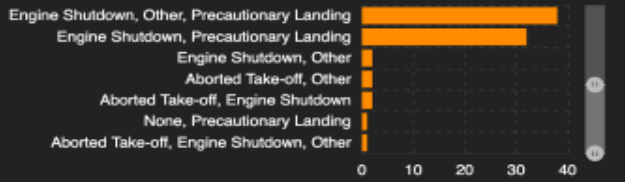
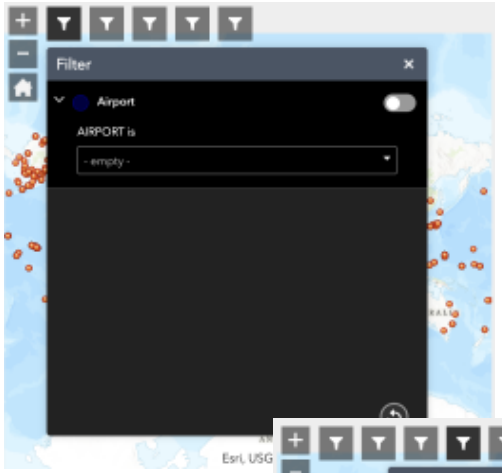
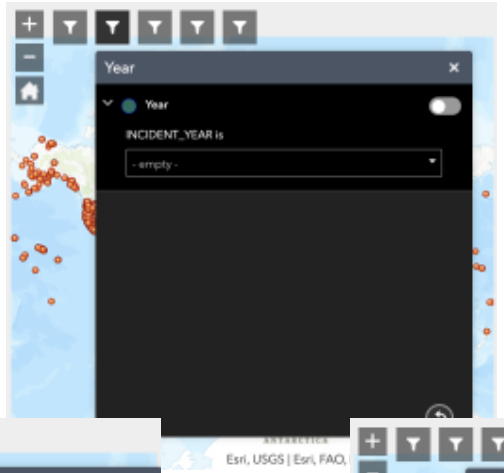
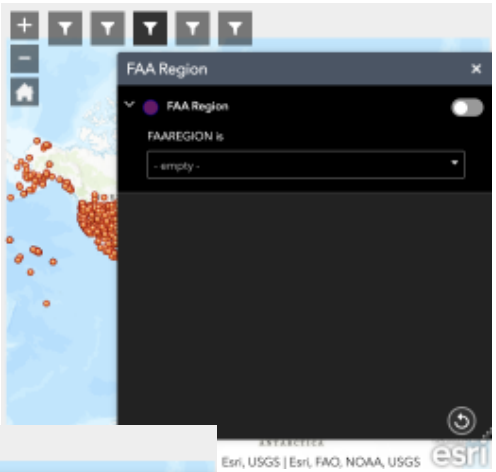
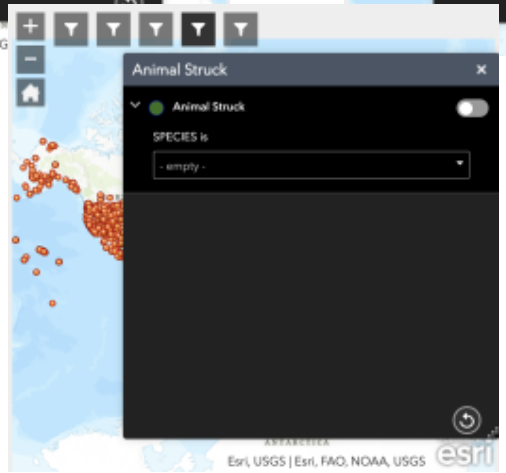



Filter
Airport
AIRPORT is
- empty -


Year
Year
INCIDENT_YEAR is
- empty -
Esri, USGS | Esri, FAO,


FAA Region
FAA Region
FAAREGION is
- empty -
Esri, USGS | Esri, FAO, NOAA, USGS
esri


Animal Struck
Animal Struck
SPECIES is
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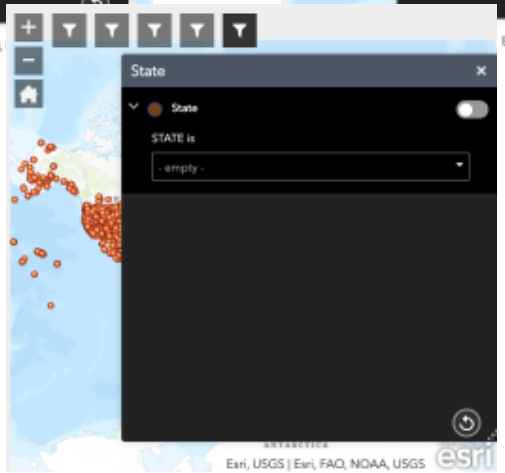
Esri, USGS | Esri, FAO, NOAA, USGS
esri


State
State
STATE is
- empty -
Esri, USGS | Esri, FAO, NOAA, USGS
esri

Dulles International Airport (IAD)

1990-2023, Data Credit FAA Strike Database: https://wildlife.faa.gov/home

Costs of Repairs

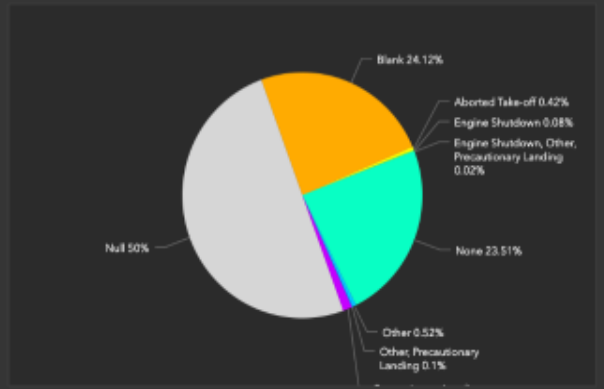
17.2M

Costs of Strikes (Other)

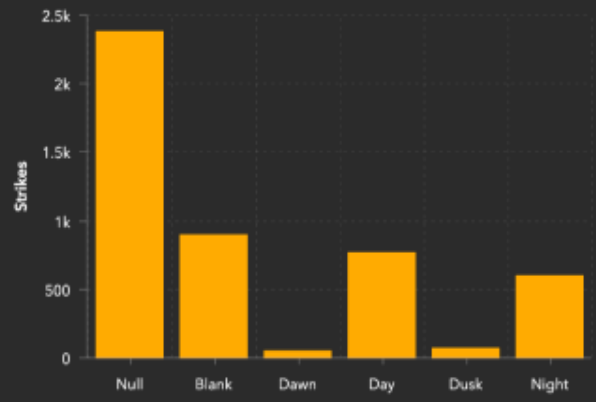
313.2k

Strikes

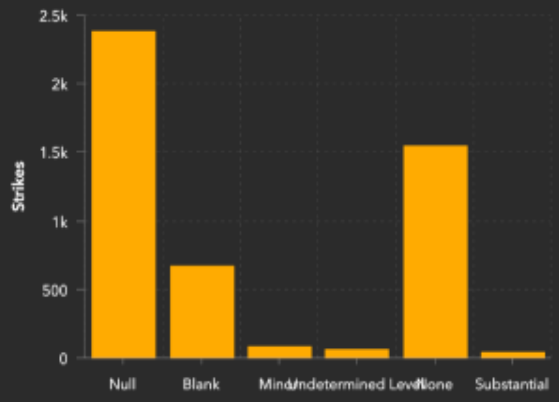
4.8k



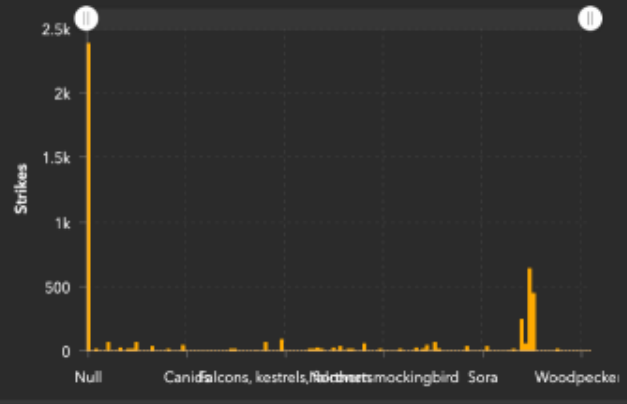
Time of Day



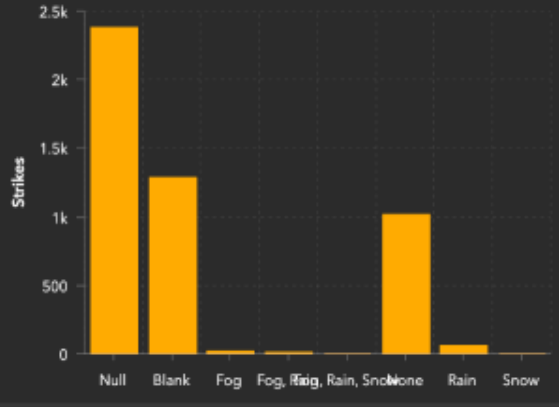
Damage Level



Species



Weather



Baltimore/Washington International Thurgood Marshall Airport (BWI)

1990-2023, Data Credit FAA Strike Database: https://wildlife.faa.gov/home

Costs of Repairs

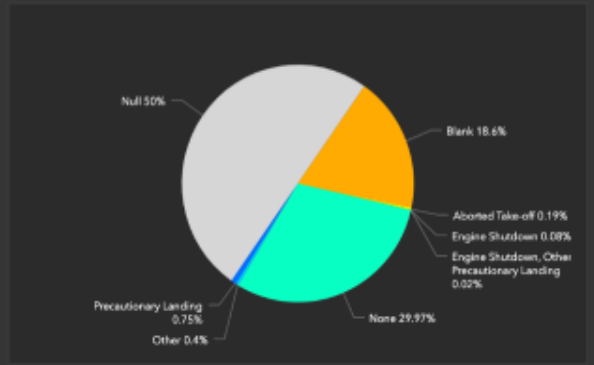
3.1M

Costs from Strikes (Other)

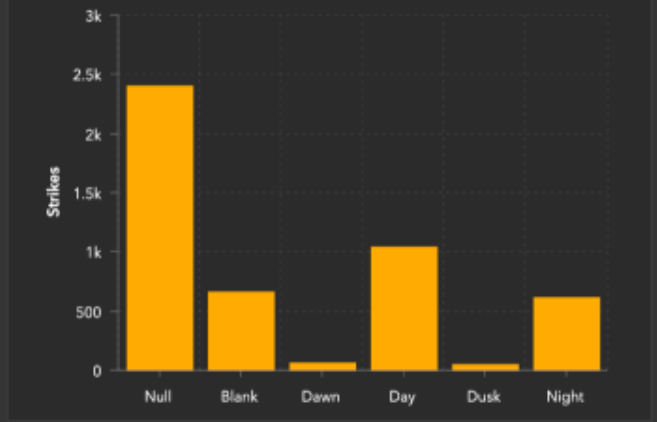
842.2k

Strikes

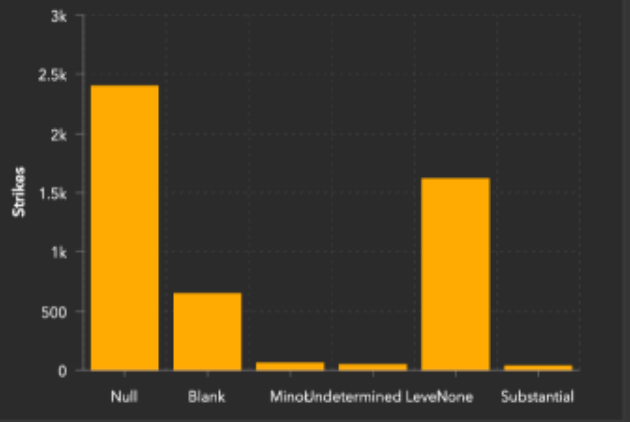
4.8k



Time of Day

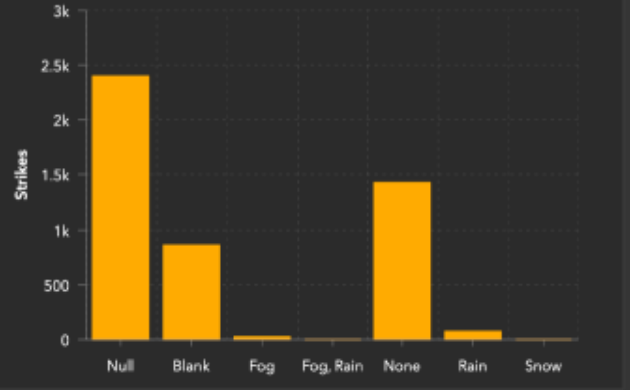


Damage Level



Species

Weather



Ronald Reagan Washington National Airport (DCA)

1990-2023, Data Credit FAA Strike Database: https://wildlife.faa.gov/home

Costs of Repairs

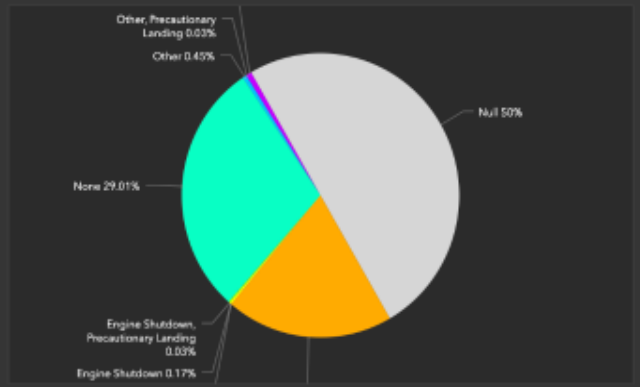
7.1M

Costs from Strikes (Other)

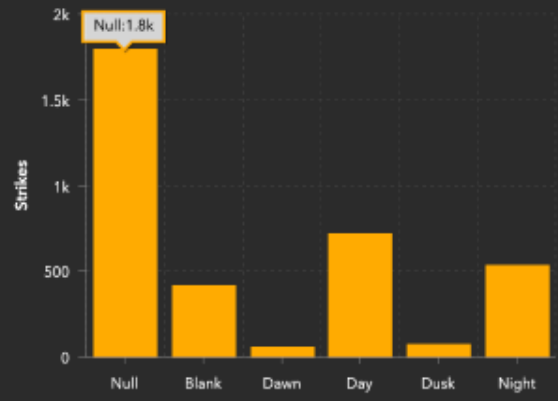
1.7M

Strikes

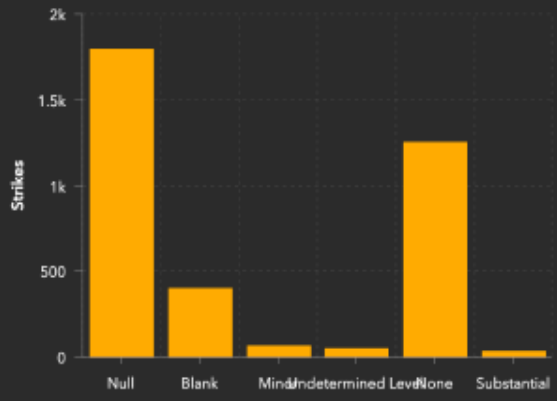
3.6k



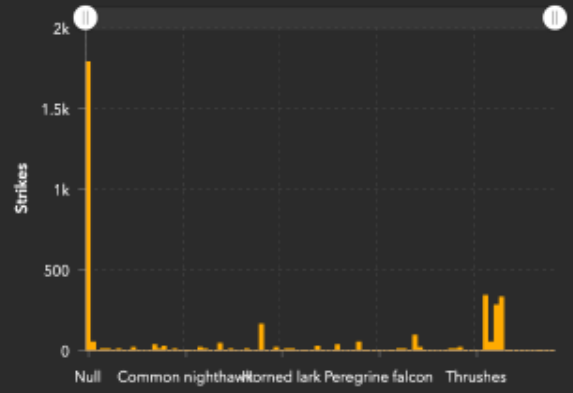
Time of Day



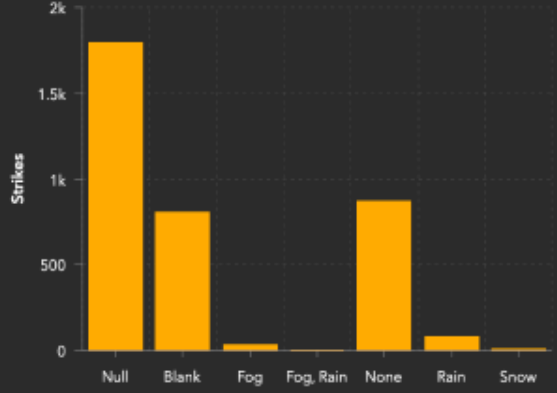
Damage Level



Species



Weather



Limitations

Recommendations

Questions?