



# PlayerKnown's Battlegrounds

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PUBG is a multiplayer battle royale game where players try and survive against 99 other players

	killed_by	killer_name	killer_placement	killer_position_x	killer_position_y	map	match_id
0	M249	0932313woaini	7.0	529007.7	440035.5	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
1	Kar98k	arunrunrun	6.0	440414.8	285918.1	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
2	Down and Out	Rabbit812	6.0	439923.2	282419.0	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
3	Down and Out	0932313woaini	7.0	530312.4	440969.0	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
4	SCAR-L	sa11y1126	3.0	466609.2	409546.3	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
5	Bluezone	NaN	NaN	NaN	NaN	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
6	Down and Out	AT_maozaomao	7.0	529282.9	437029.2	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
7	S686	ruokuisama	2.0	434772.1	280943.7	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
8	Grenade	LinGend	1.0	325518.5	356314.3	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL
9	Falling	NaN	NaN	NaN	NaN	MIRAMAR	2U4GBNA0YmkBbLEF24GGKL



# Questions Sought to Answer

- What areas should be avoided and oppositely, what areas should be visited?
- What weapons are used most, and what weapons are good for certain scenarios?
- Which map has more clusters?
- Overall, what are the best practices in PUBG in order to survive the longest?



# Data Preparation

- Separating matches based on maps
- Separating matches that included duplicates
- Removing group games
- Removing null values



# List of Tools

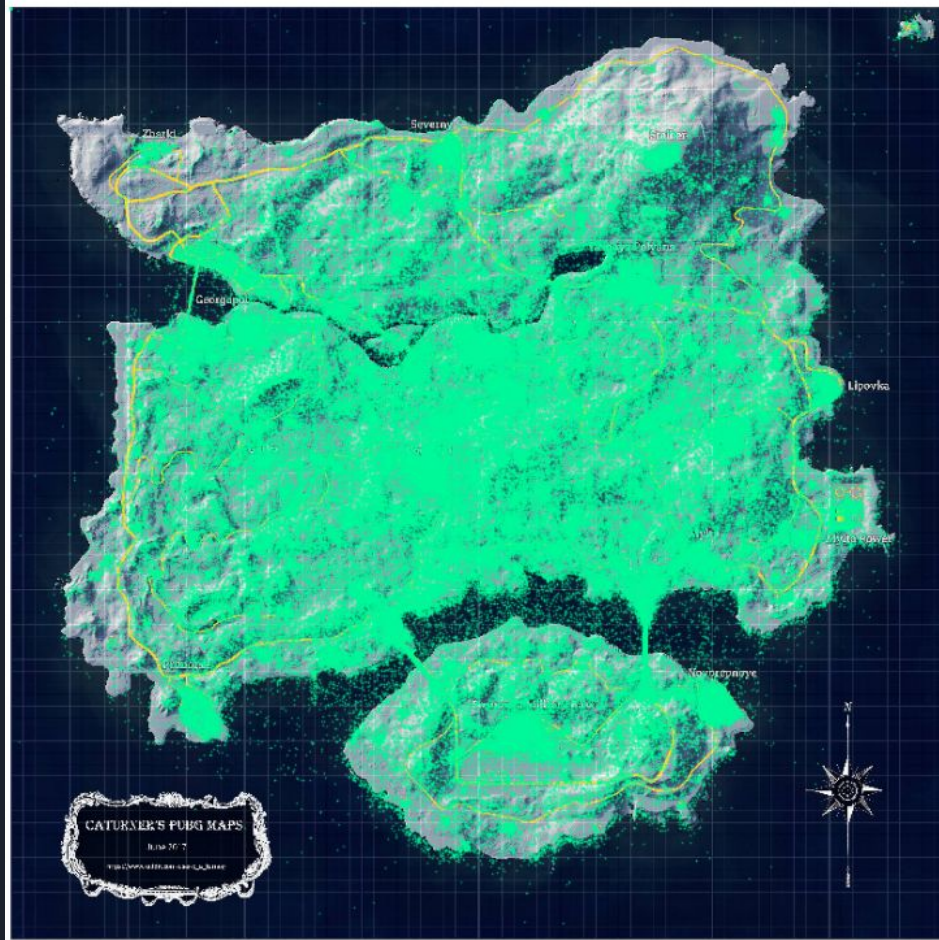
- Anaconda/Python3
- Jupyter Notebook
- Pandas and Numpy
- Matlab Plot



# Knowledge Gained

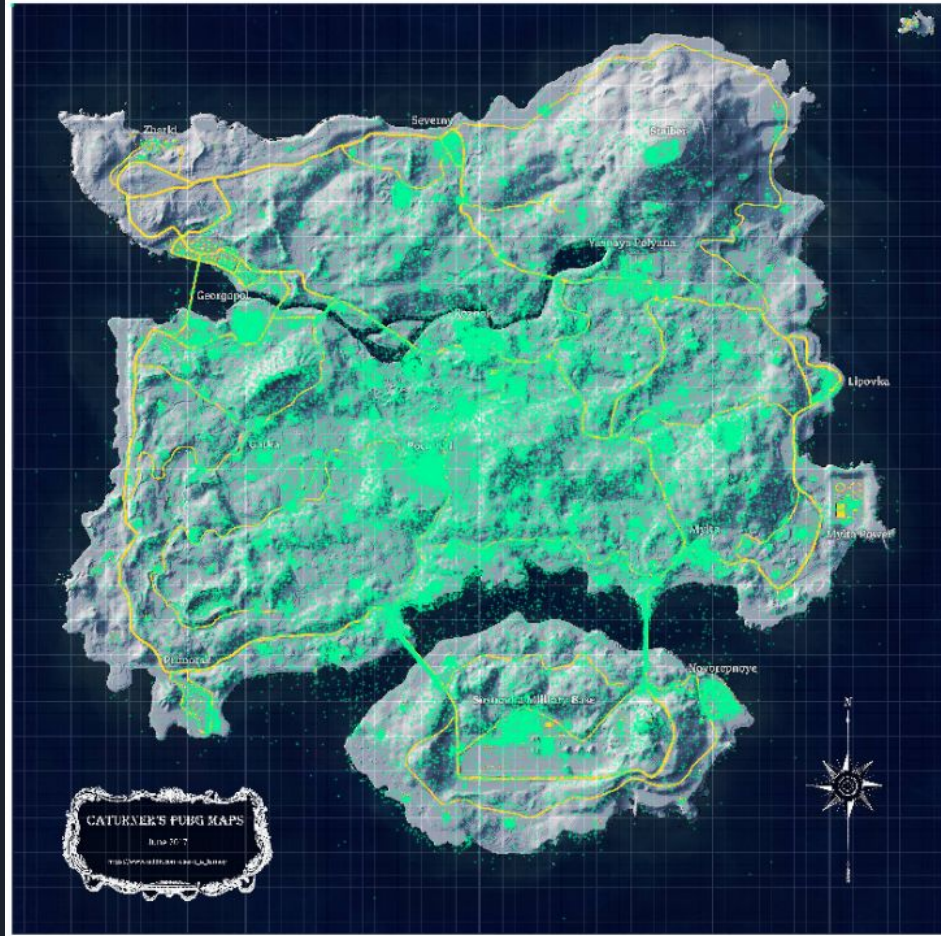
- The main clusters of where people die
- The kill count of each weapon
- The average distance that each weapon kills at
- Boxplot of weapon distances and outliers being sniper rifles
- Areas with high death incidents

## All Erangel Deaths



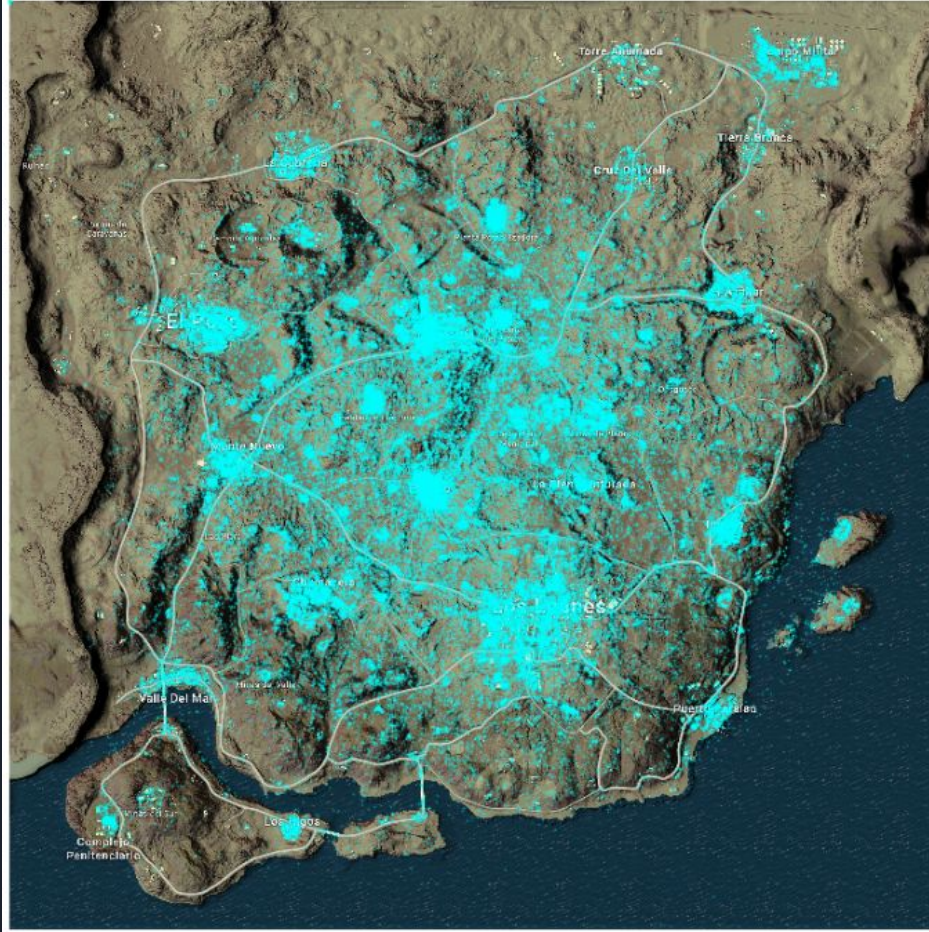


### Erangel Solo Deaths

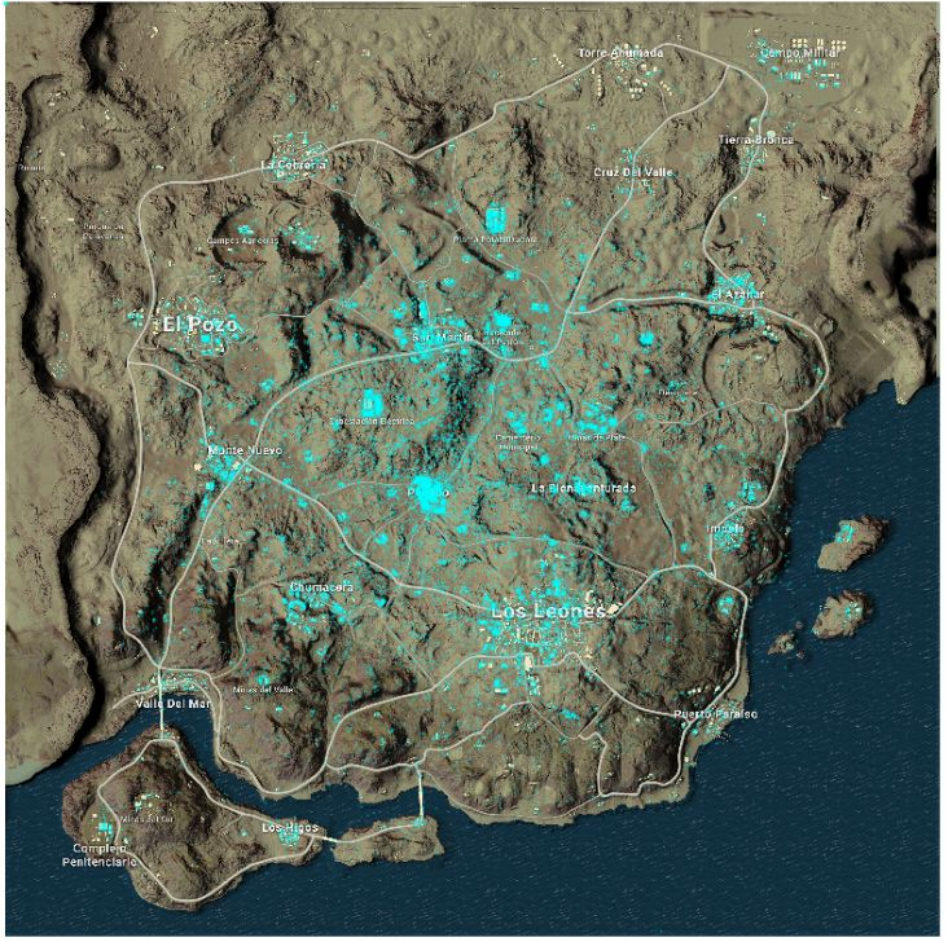


### All Miramar Deaths

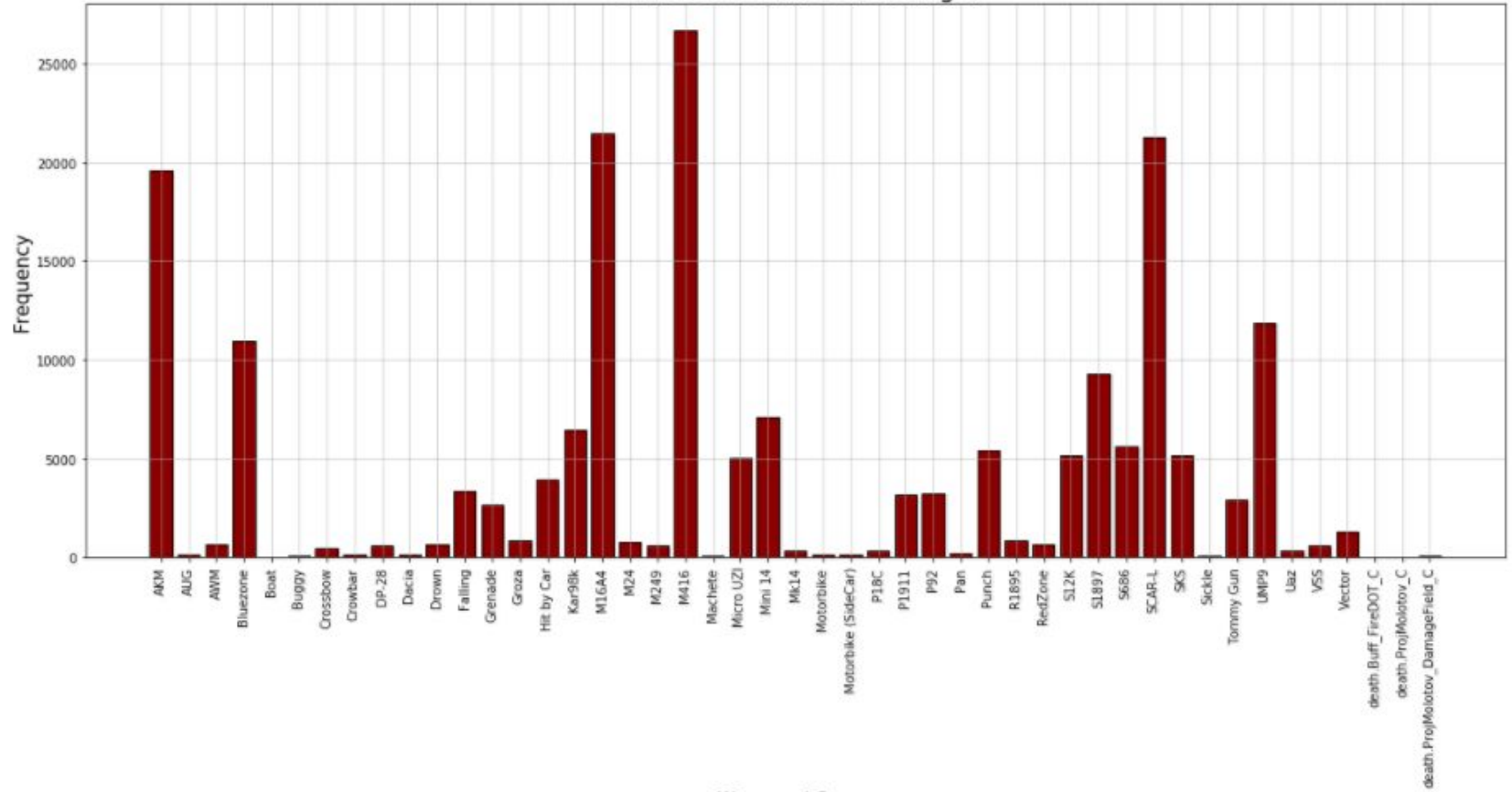
This map displays the distribution of player deaths across the Miramar map. The density of deaths is highest in the central and eastern parts of the map, particularly around the Cruce de Valle and Tierra Branca areas. The map also shows the coastline and surrounding terrain, with labels for various locations such as Torre Alamiada, Cruce de Valle, Tierra Branca, El Pozo, Valle Del Mar, Los Hornos, and Complejo Pantheonario.



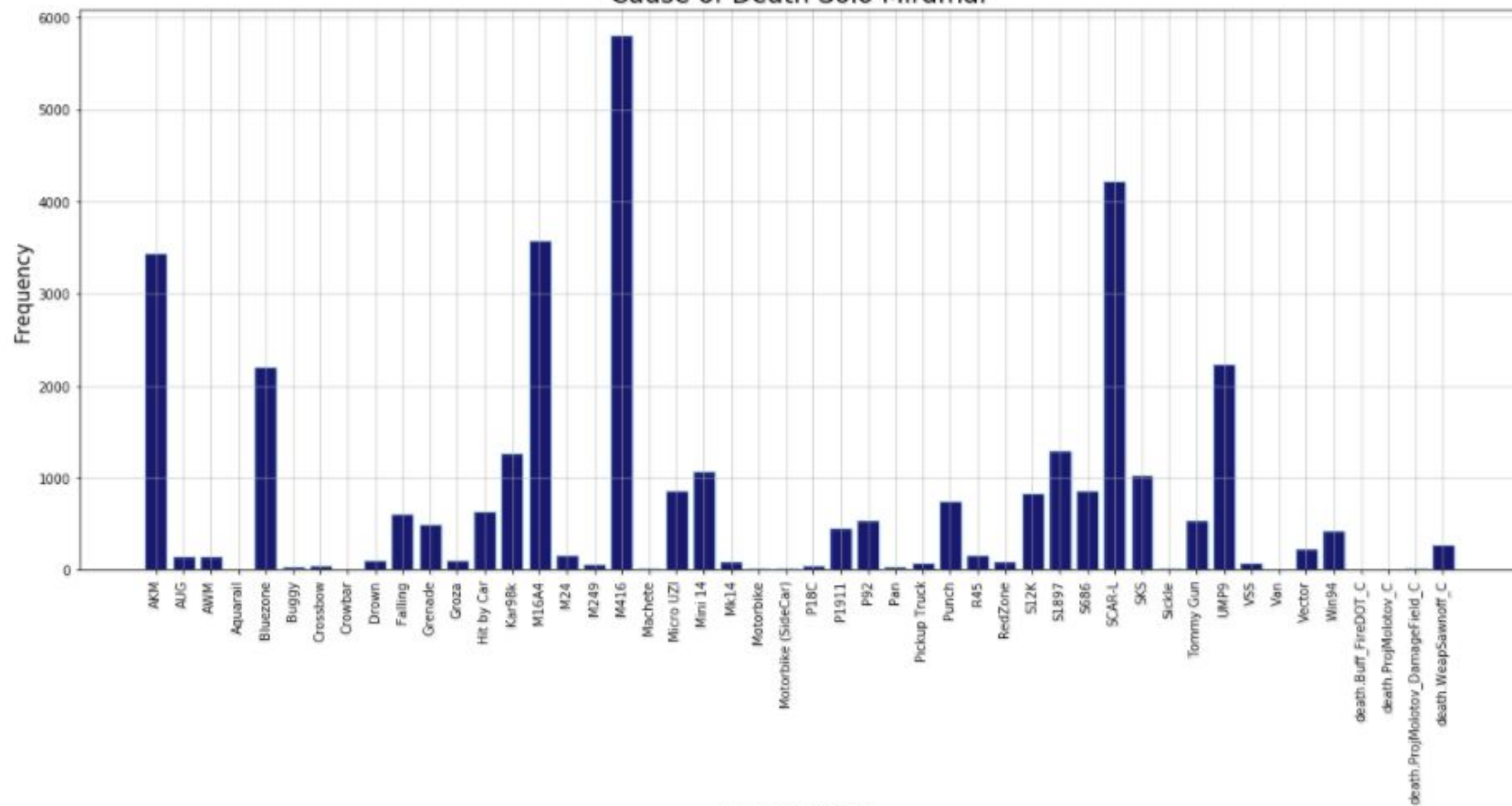




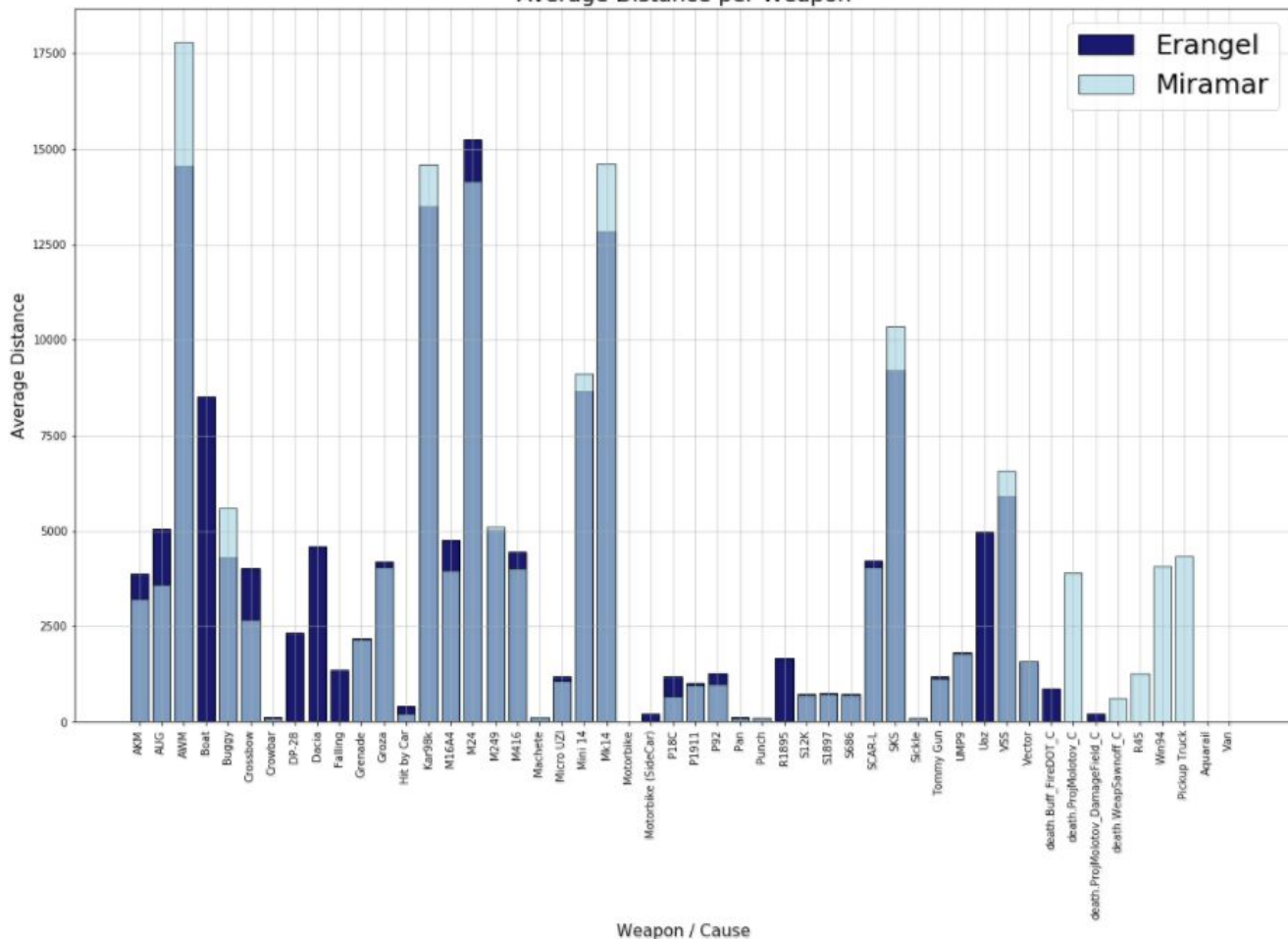
# Cause of Death Solo Erangel



Weapon / Cause  
Cause of Death Solo Miramar

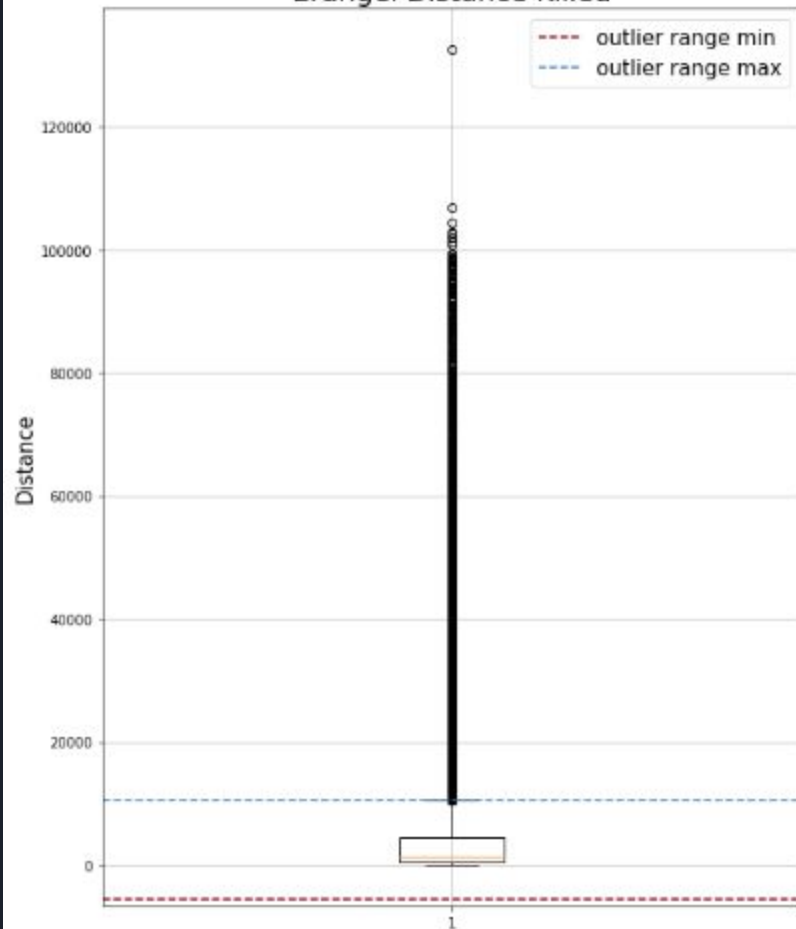


Average Distance per Weapon

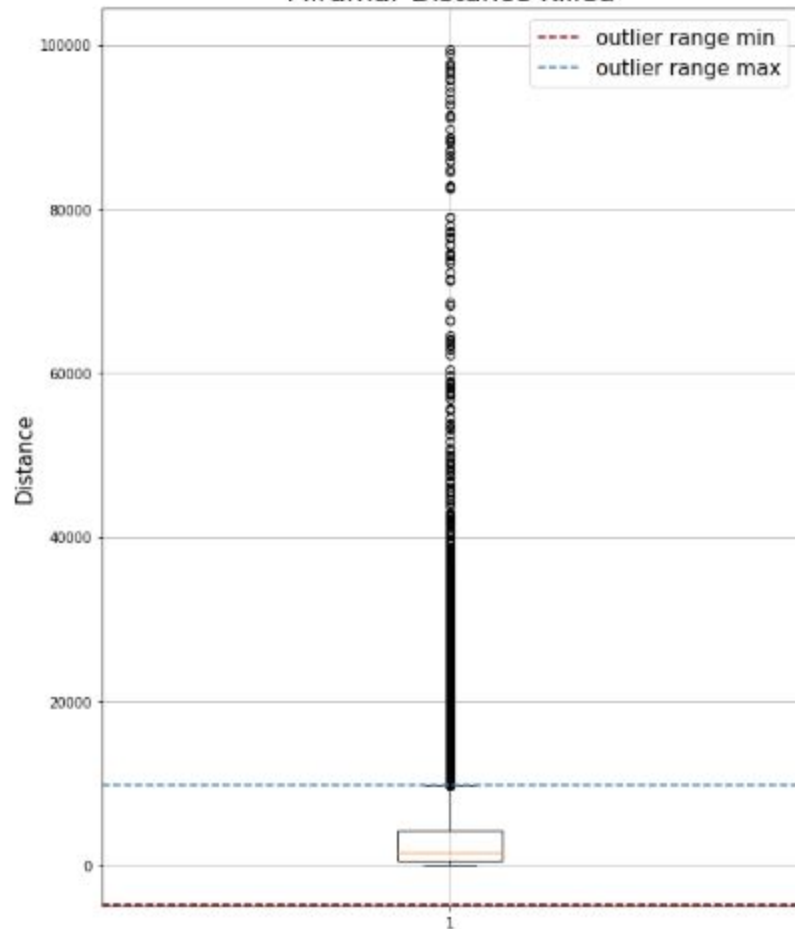


Weapon / Cause

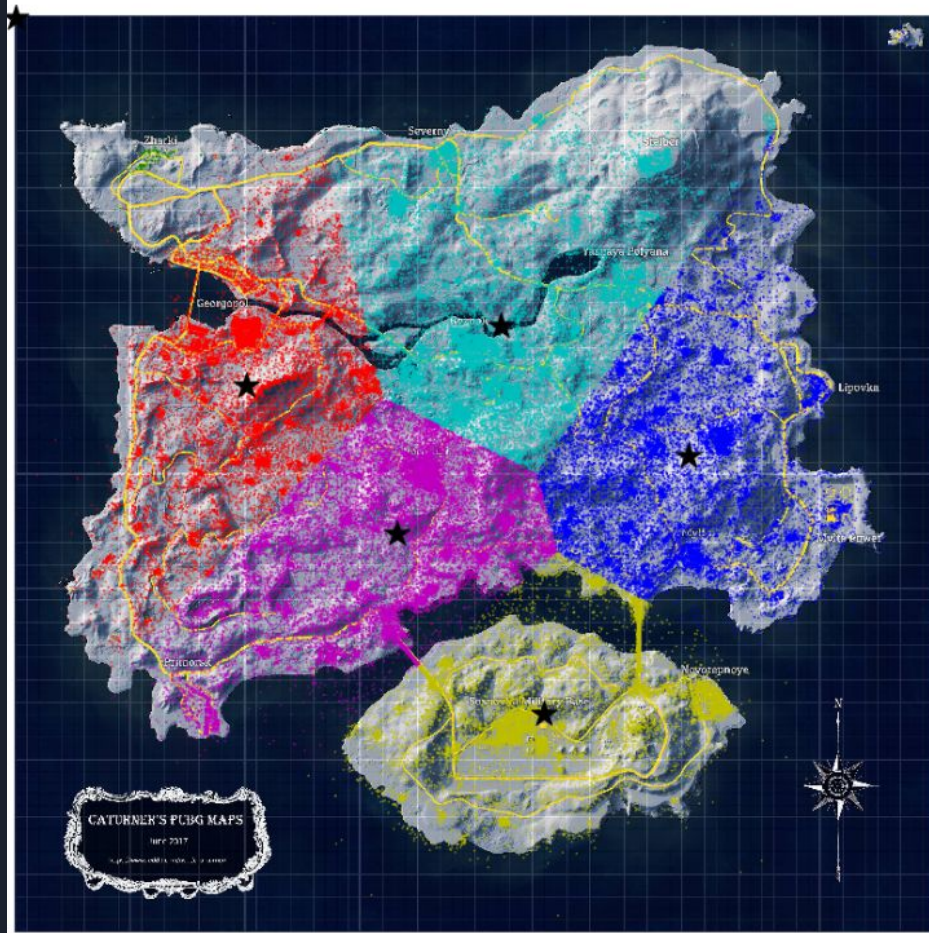
### Erangel Distance Killed



### Miramar Distance Killed

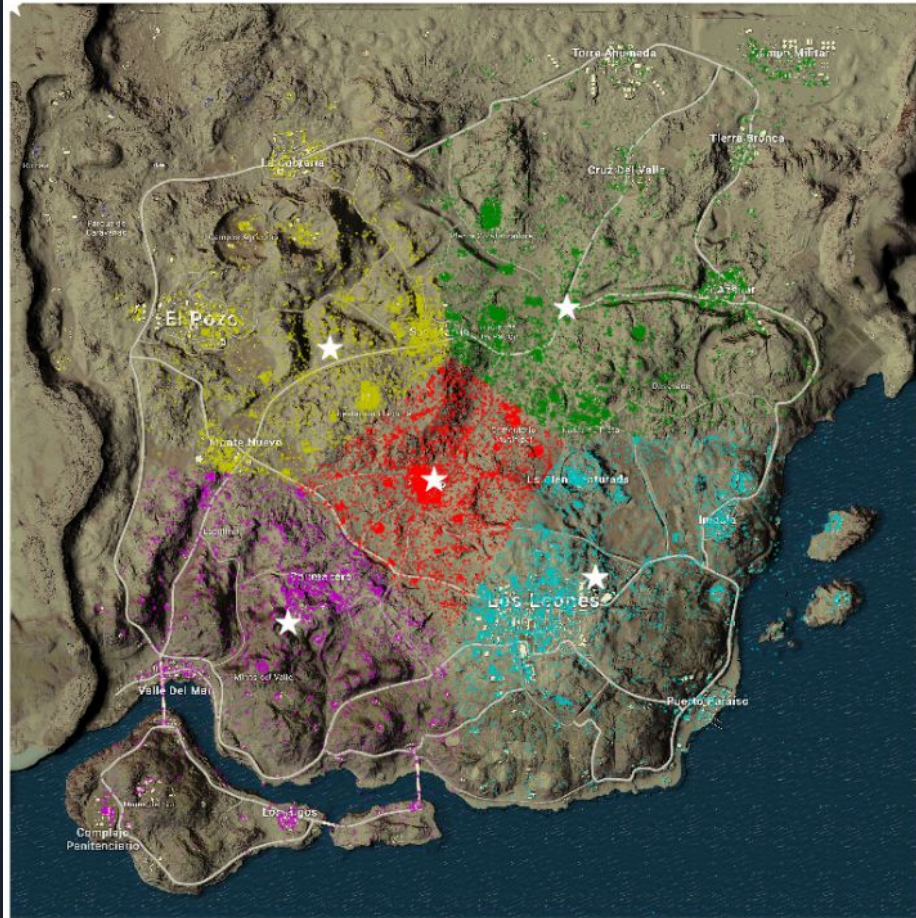


## Solo Erangel Death Cluster

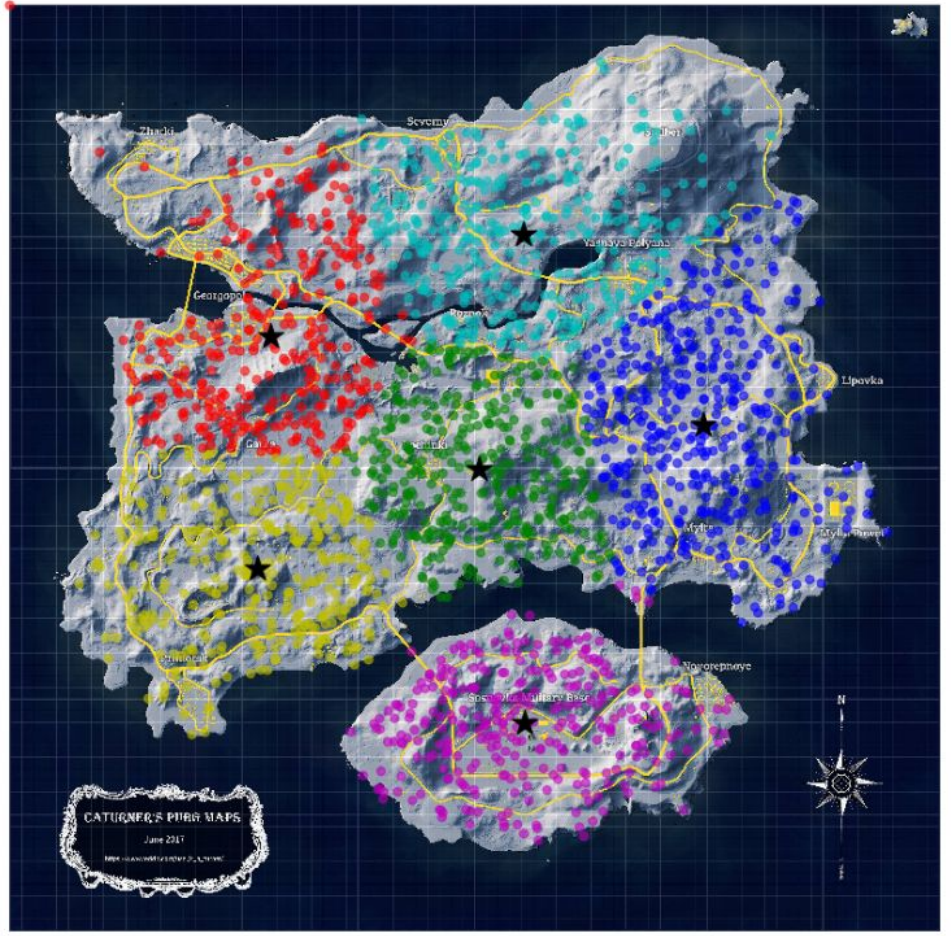




## Solo Miramar Death Cluster

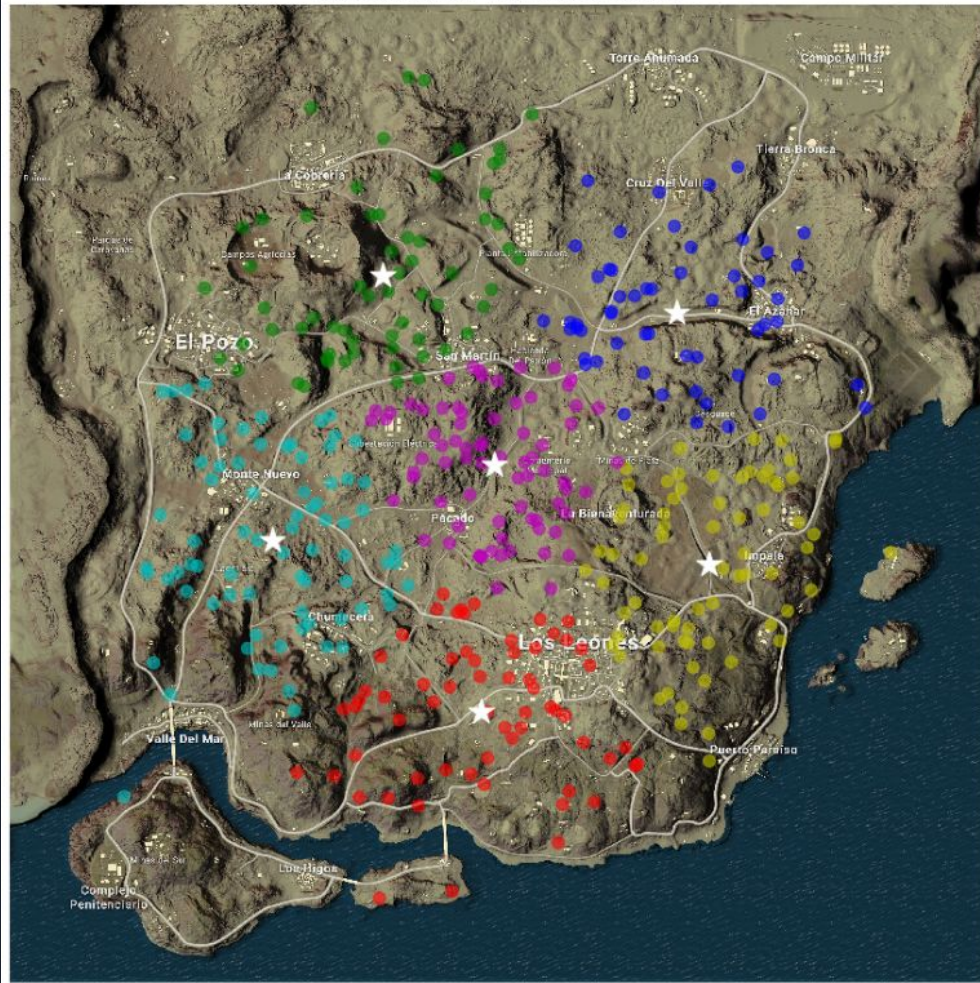


### Solo Erangel Final Kill Cluster





## Solo Miramar Final Kill Cluster





# Application

- A guide of areas to avoid
- Weapons to use based on kills
- Weapons to use based on final circle and distance
- Popularity of weapons based on the map you're randomly given
- Areas to drop given smaller clusters



## Tips & Tricks

- We found that the AUG, while rare, has a longer average kill distance than even the M16A4, which is known amongst players as the best mid-range rifle for longer ranges.
- We found that the MK14 has a similar effective kill range to that of the Kar98K, although the two guns have a completely different feel, one being semi-automatic and the other being bolt-action.

THE END

