

# UFO EXPLORATION

with Teresa White

**30 YEARS OF REPORTS**  
**the truth is in there**

Hey yall!

I am Teresa White. I am excited to talk with you about UFOs tonight.

In 1938 Orson Wells broadcast War of the Worlds, his radio drama about an alien invasion, and terrified the nation.

Then in 1947, a pilot flying near Mt Ranier saw 9 shiny circular objects traveling at around 1200 mph. The media dubbed them 'flying saucers' and the modern UFO craze officially began.

The mania ebbs and flows out of pop culture, but Congressional hearings in 2023 brought them back into current conversation.

leblower testifies U.S. salvaged 'non-human biologics' from UFO ... <https://www.npr.org/2023/07/27/1190390176/ufo-hearing-non-hu>

FOLLOWERS  
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PLAYLIST

NATIONAL SECURITY

**U.S. recovered non-human 'biologics' from UFO crash sites, former intel official says**

JULY 27, 2023 · 10:52 AM ET

By Vanessa Romo, Bill Chappell

Ryan Graves, executive director of Americans for Safe Aerospace (left), retired Air Force Maj. David Grusich and retired Navy Cmdr. David Fravor are sworn in during a House Oversight and Accountability subcommittee hearing on UFOs on Wednesday.

Nathan Howard/AP

US conducted 'multi-decade' secret UFO program, ex-intelligence offici... <https://www.theguardian.com/us-news/2023/jul/26/ufo-hearing-congress>



UFO whistleblower says he faced 'brutal' retaliation after going public with coverup claim - video

#### House of Representatives

This article is more than 6 months old

**US conducted 'multi-decade' secret UFO program, ex-intelligence official says**

Whistleblower David Grusich claims 'non-human' beings found as issue of alien life receives highest-profile airing before US Congress

**UFO hearings live - follow the latest updates**

**Adam Gabbatt in Washington**

at @adamgabbatt

Wed 26 Jul 2023 14:07 EDT

The hearings were to investigate what many considered a government conspiracy to hide information about UFO reports. Whistleblowers dropped some bombs!

The hearings covered these allegations, as well as combing through many civilian reports and asked about their validity.

So... where did the government get those civilian UFO reports? Some of them came from the National UFO Reporting Center.

# What is NUFORC?

- The **National UFO Reporting Center** was founded in 1974 by noted UFO investigator Robert J. Gribble.
- Processed over 170,000 reports.
- Their principal means used to receive sighting reports is the website, which has operated continuously since **1994**. Prior to that period, the telephone hotline and the U.S. mail were the primary means of taking reports.



NUFORC was founded in 1974 and has been logging UFO reports since.

One of the things that makes it unique is that it makes those reports public.

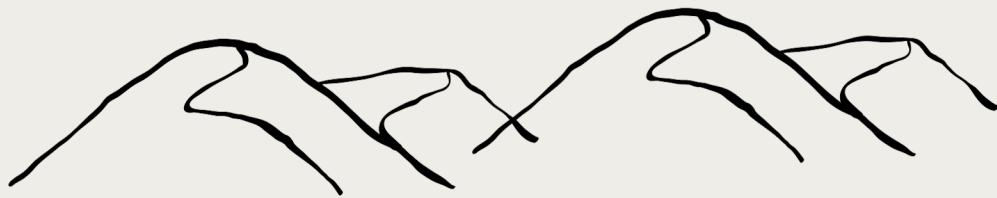
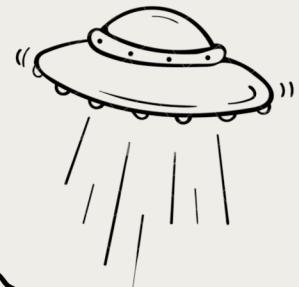
Their records contain some historical reports of sightings dating back to the 1600s--including one in the 1700s by Thomas Jefferson!

## Questions

- How can I maximize my chances of seeing a UFO?
- Are there popular times and places? If so, what are they?
- What should I be looking for?

## Parameters

- Reports from website only: 30 years of sightings
- United States only



When I saw their records I became curious:

- How can I maximize my chances of seeing a UFO?
- Are there popular times and places?
- if so, what are they?
- What should I be looking for?

I focused on reports from the NUFORC website, which went active in 1994. That gives us 30 years of data.

Also, although they collect reports from around the world, I only looked at the US states and Washington DC.

# Sample Reports

It was a clear night but the object was emitting fog and mist along with projecting blue lights. It was half a mile high in the sky.



We both saw something, the same thing, and we both felt really weird about it.



THESE OBJECTS SEEM TO MAKE OBVIOUS ATTEMPTS AT GETTING NOTICED BY ME ONLY!



What are the reports?

Reports contain a lot of stats, as well as a summary of the viewer's experience.

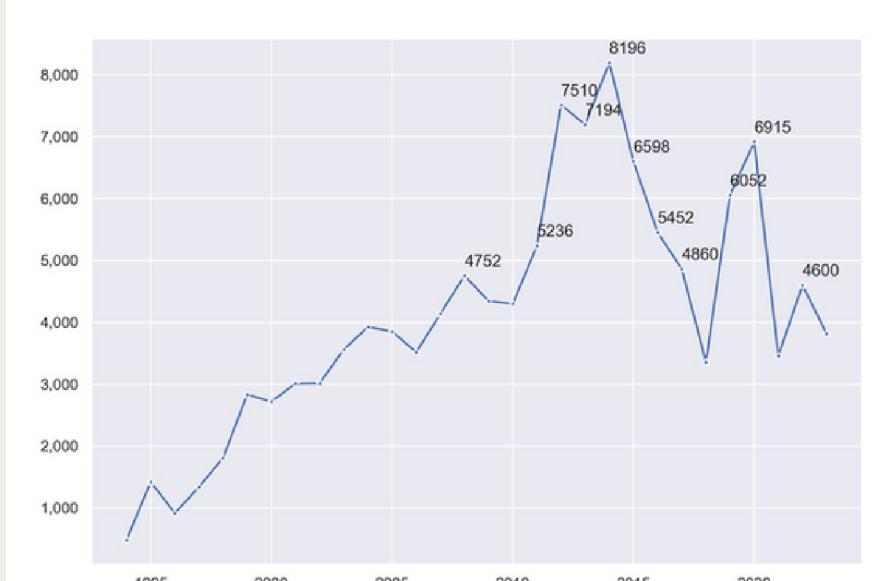
Here is a sampling. We have 1 here from what they would call reliable witnesses.

One that I call uninformative.

and one that is both unreliable and uninformative.

Our dataset covers all types.

# Yearly Sighting Reports 1994 - 2023



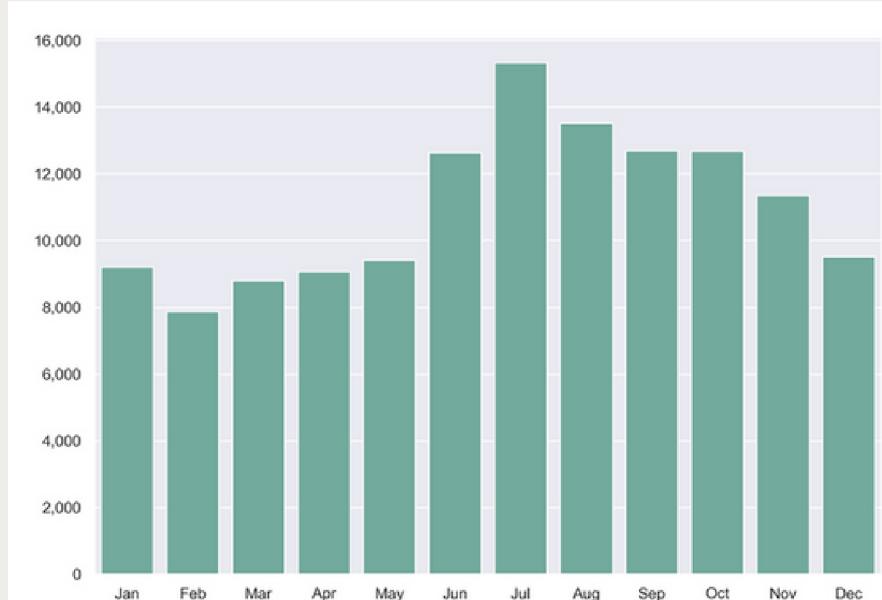
Here we can see that reports rise sharply in 2012, peaking in 2014.

2020 saw another spike, and then it dropped dramatically again.

Just in case you were curious, Space Force was founded in Dec 2019.

Is it a coincidence that sightings dropped sharply in 2021?

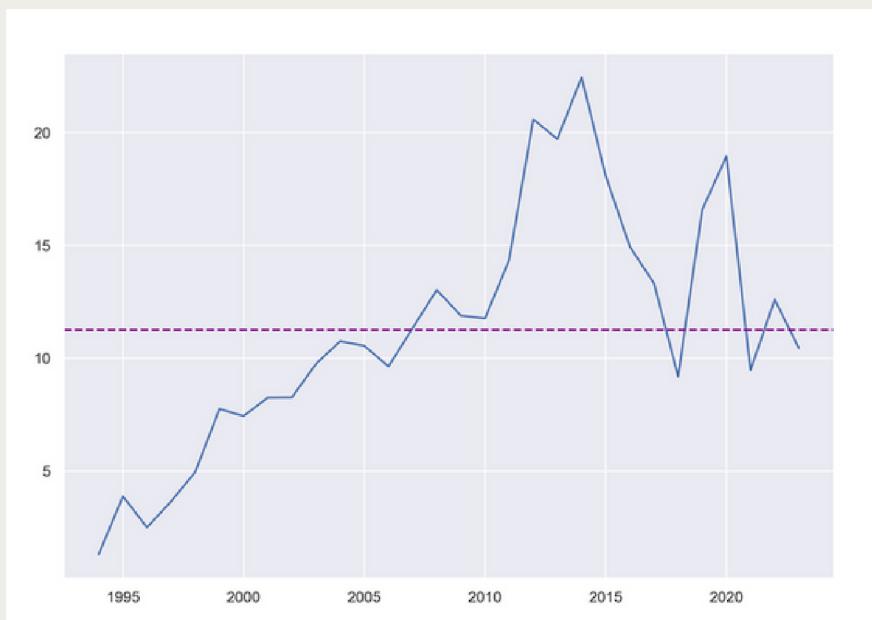
## Total Sightings per Month 1994 - 2023



Summer and Fall months have the highest reports.

It peaks significantly in July.

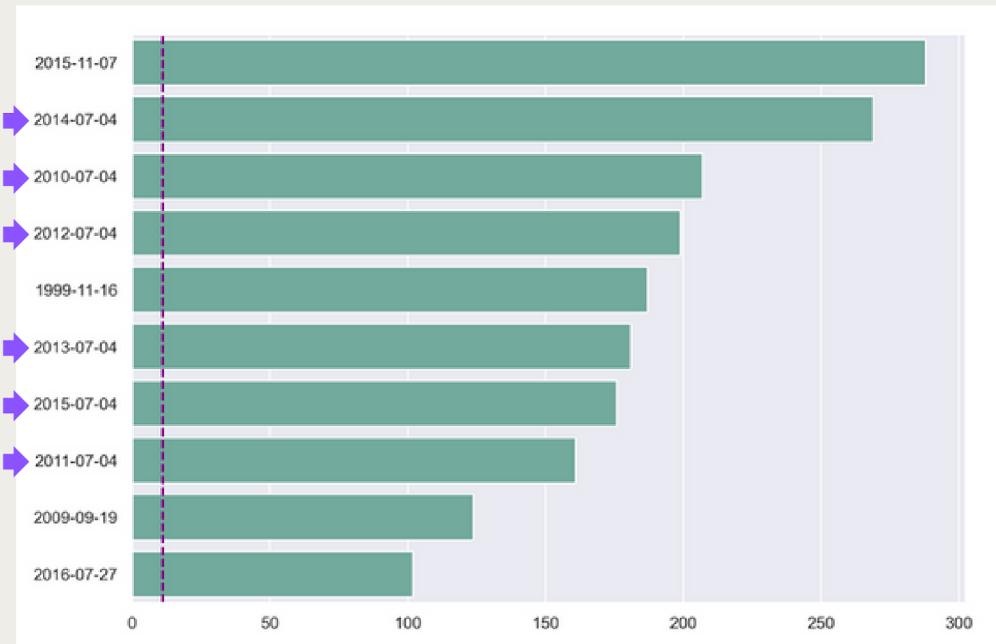
## Average Daily UFO Reports



When we drill down to the day, you can see that  
The highest daily average was in 2014 with 23 sightings per day.

Last year, there were about 11.

# Top 10 Dates for UFO Sightings



When were the most UFOs seen?

6 of 10 of the top dates are July 4.

Remember that the highest daily average was 23. These numbers are more than 20x the average

Let's look more closely at the top 2 dates

What was going on?

<https://www.independent.co.uk/news/science/huge-light-across-the-sky-leaves-thousands-of-americans-terrified-a6725866.html>

INDEPENDENT

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News > Science

'UFO' over Los Angeles on Saturday night revealed to be Trident missile launched by US Navy

Californians were left mystified by a strange light streaking across the sky

Emma Henderson • Sunday 08 November 2015 09:34 GMT •  Comments



Missile across the sky in Los Angeles (Julien Solomita)

**288 reports**  
**Nov 7, 2015**

<https://www.cbsnews.com/colorado/news/intense-july-4-skydive-had-everything-except-ufos/>

COLORADO News Weather Sports Video Your Reporters 

LOCAL NEWS  
**'Intense' 4th Of July Skydive Had Everything -- Except UFOs**

 July 7, 2014 | 10:07 AM MDT / CBS Colorado



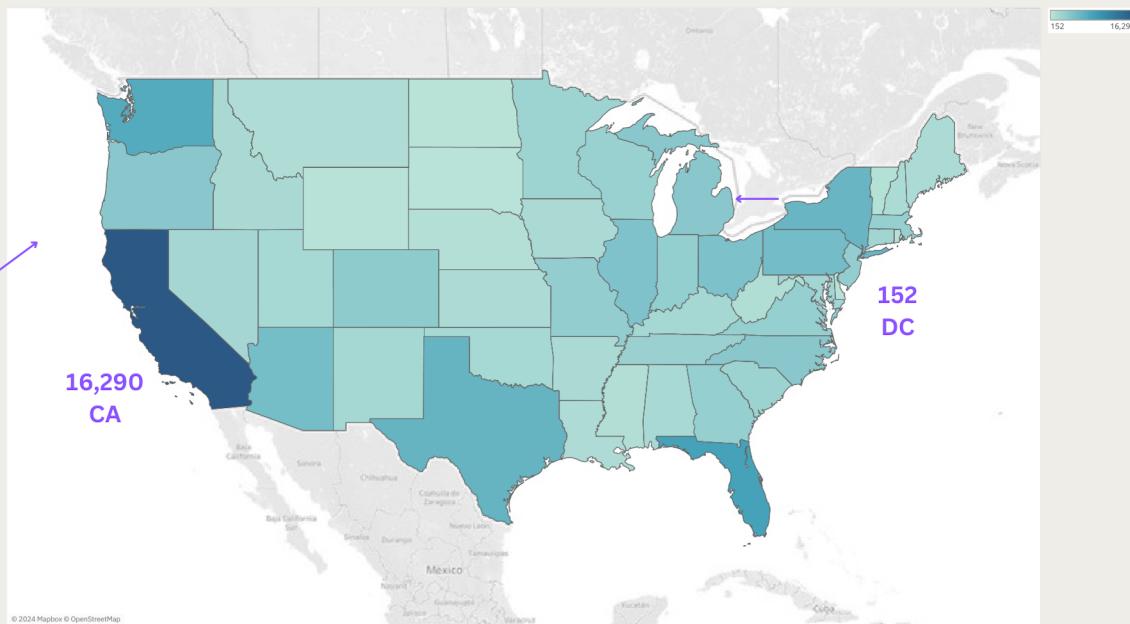
**269 reports**  
**Jul 4, 2014**

here we go.

The missile was seen both in and outside of LA

July 4 report is from Denver

# Total Sightings per State



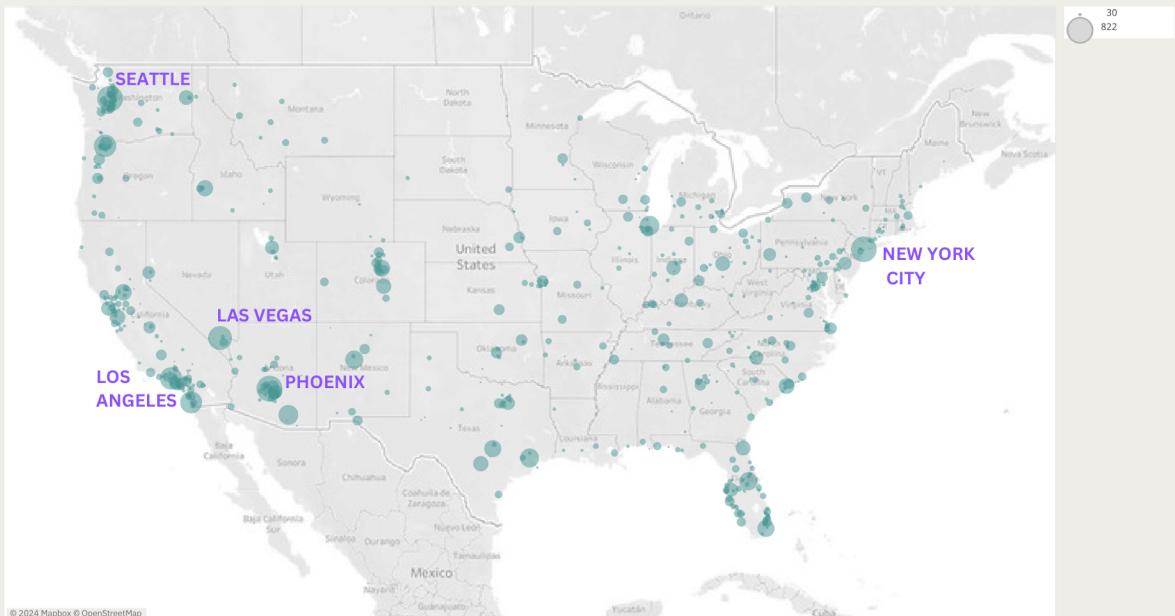
So now when to look for a UFOs, where do we go?

CA had the most reports - 16,290

152 in DC. By the way, DC is 68 sq miles. That's over 2 UFOs per sq mile.

Alaska and HI had about 600 each, which were right in line with VT and NE, a light green color.

# Total Sightings by City



But where in those states?

I filtered to 1 per year min. for the biggest bang/buck

You can see that they are spread throughout the US

Phoenix 822

NYC 809

Seattle 806

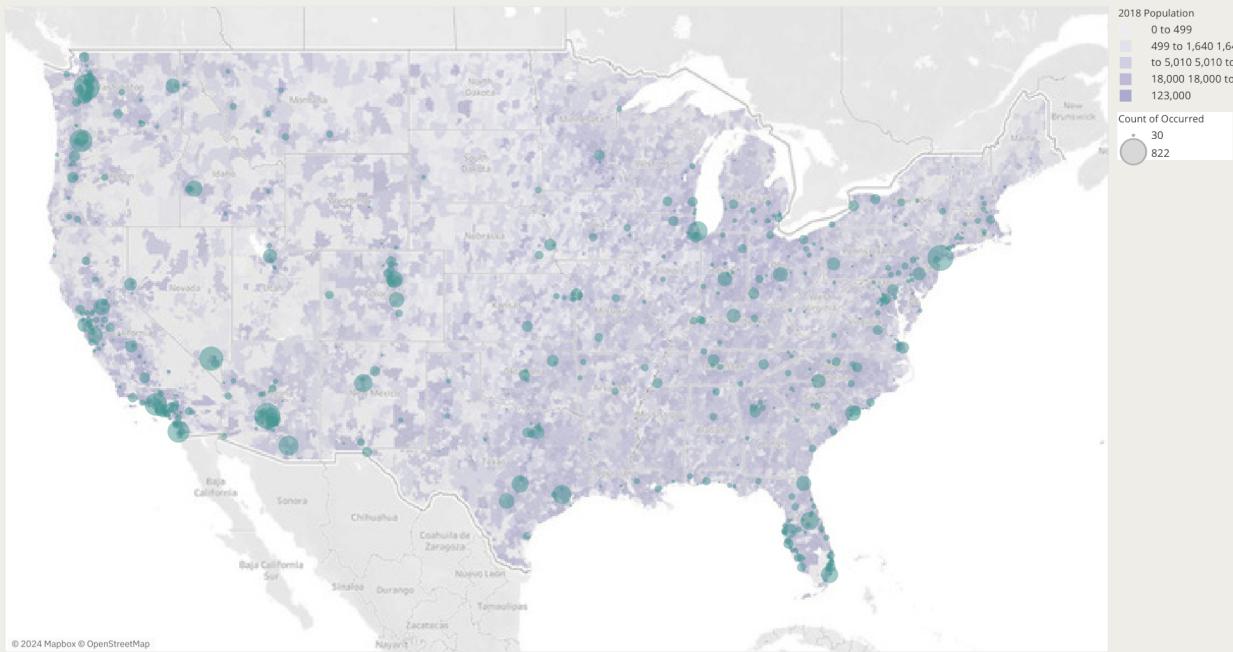
--- all within about 16 sightings of each other

Las Vegas 704

Los Angeles 614

I expected there may be a difference according to terrain, but we can see that there is a fairly even distribution between coastal, inland, and mountain regions.

# Total Sightings by City with Population

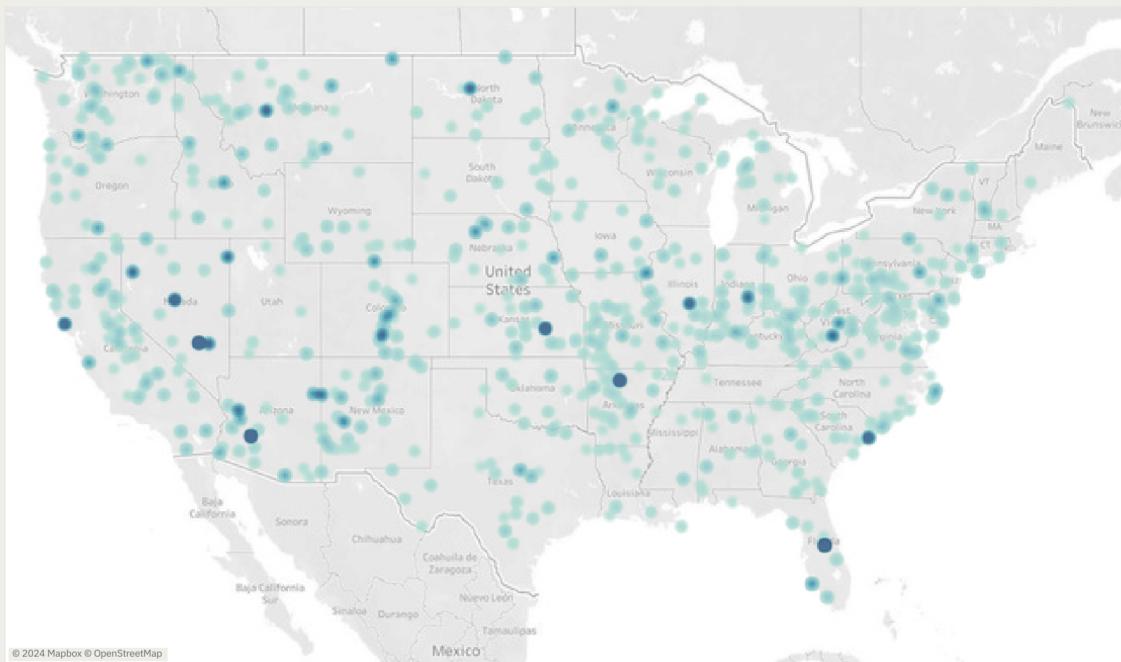


How does this compare to population?

major metro areas have more reports, as expected.

I already noted Phoenix, NYC, Seattle, Vegas, and LA. You will also notice larger numbers of reports around Chicago, Denver, Tuscon, Houston, and Orlando.

# Sightings per Capita by City



If we look at sightings per capita, it's a different story.

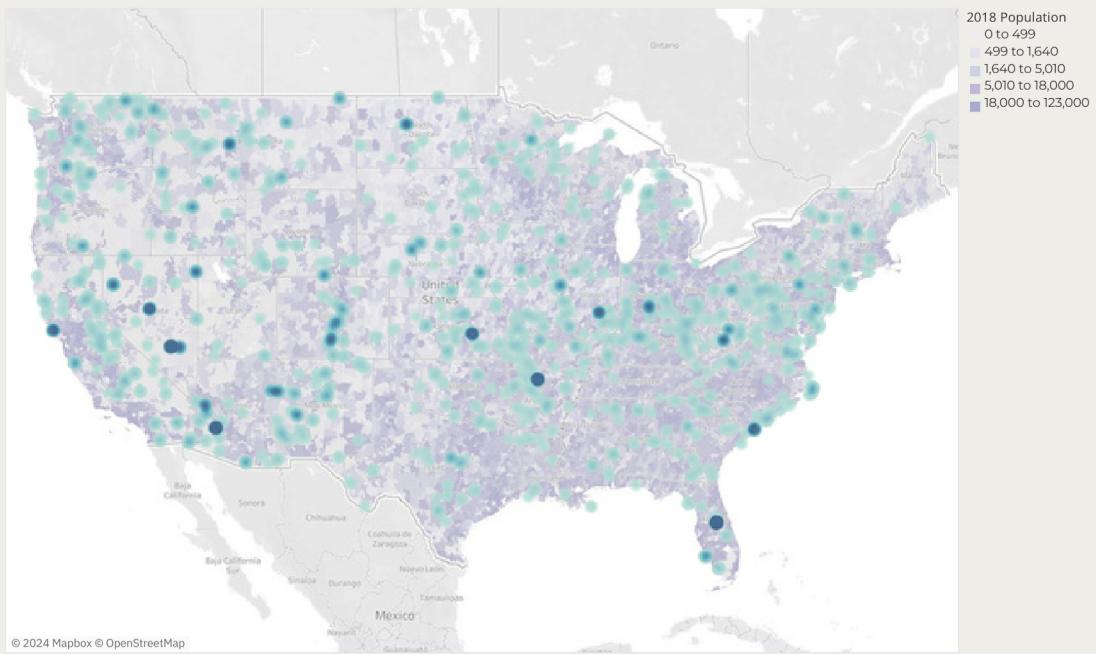
I filtered this map to a 1% minimum.

The densest sightings are in less populated areas.

(map to population again?)

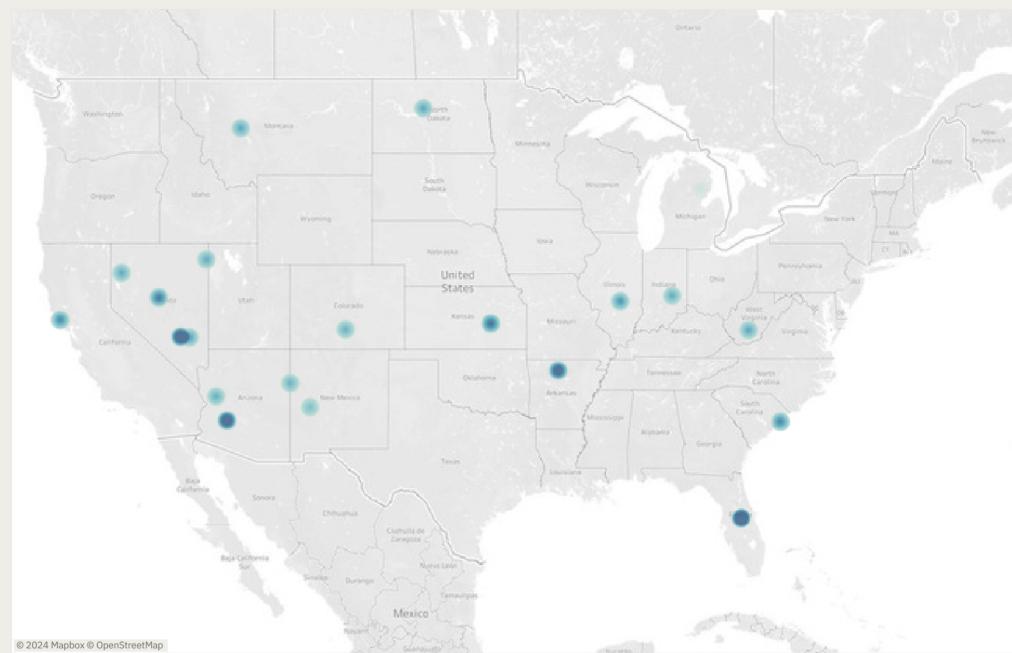
Let's drill down to the top 20.

# Total Sightings per Capita by City with Population



# Top 20 Cities with Sightings per Capita

city	state	per_cap
LAKE BUENA VISTA	FL	1.29
RACHEL	NV	1.00
TONOPAH	AZ	0.92
GILBERT	AR	0.75
CEDAR POINT	KS	0.50
AUSTIN	NV	0.44
PAWLEYS ISLAND	SC	0.39
JENNER	CA	0.38
LAKEWOOD	IL	0.32
HIKO	NV	0.27
RUSO	ND	0.25
THURMOND	WV	0.25
WOLF CREEK	MT	0.25
GERLACH	NV	0.24
MARION	IN	0.23
MONTELLO	NV	0.23
WIKIEUP	AZ	0.22
CRESTONE	CO	0.21
LUPTON	AZ	0.20
NIOTA	IL	0.15



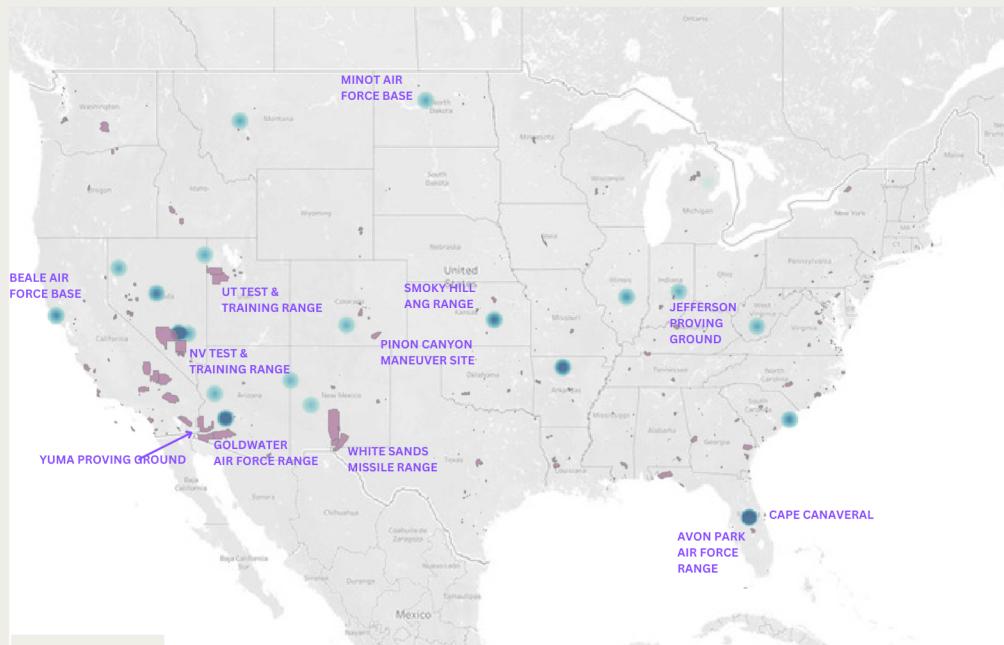
from this list, Marion IN is most populous, with 207 people.

which might explain why the #1 has more sightings than residents. Population 7, sightings 9

Rachel NV is 20/20. Btw, it is the closest town to Area 51

speaking of Area 51... how do sightings line up with military bases?

# Military Bases & Top 20 Cities with Sightings per Capita



military bases in

NV: testing & training

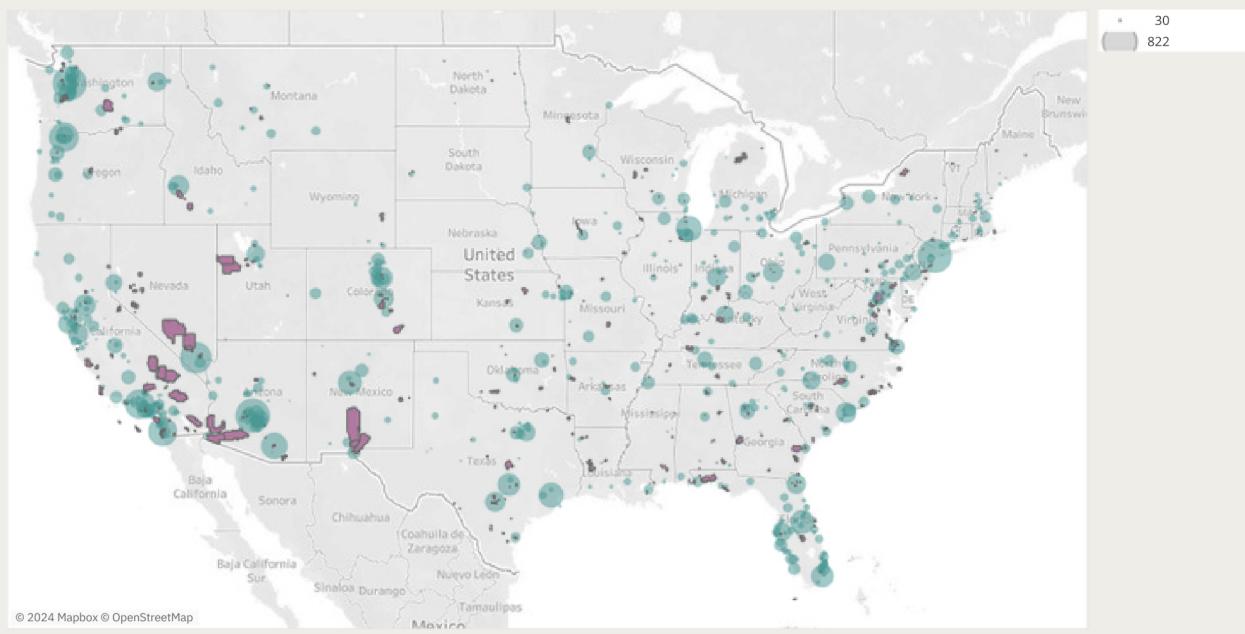
AZ: air force bases

NM: white sands missile

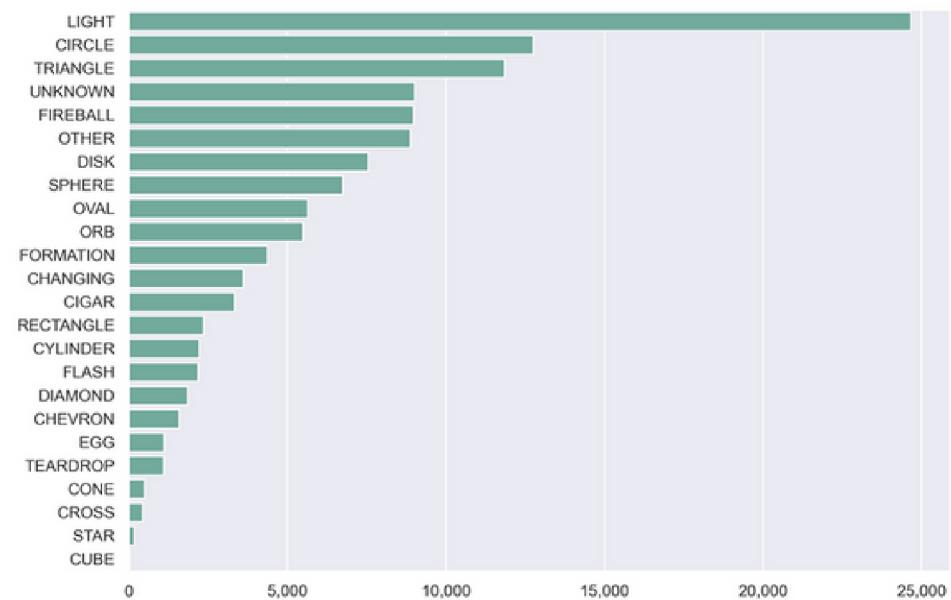
CA: Edwards AFB, Naval Weapons Station

FL: Cape Canaveral

# Total Sightings by City with Military Bases



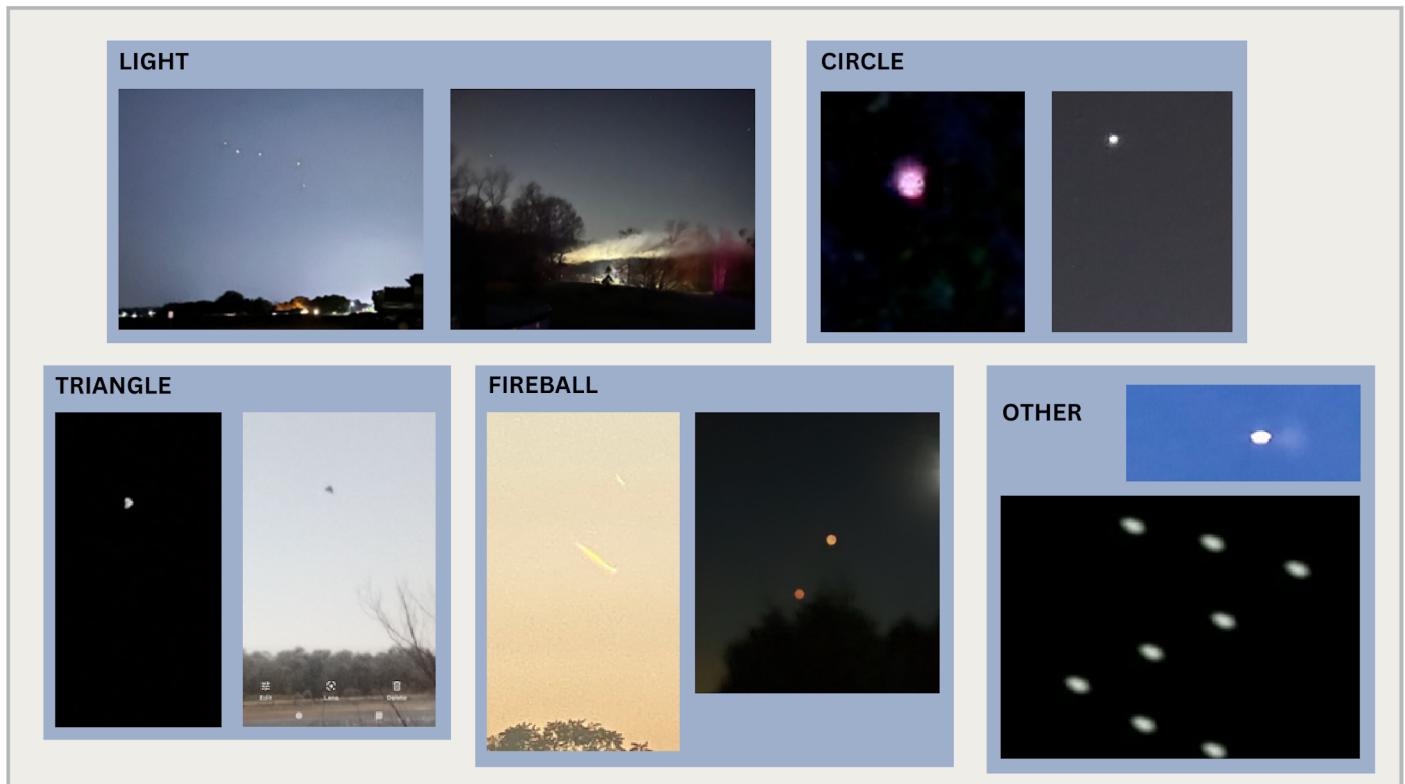
# Observed Shapes of UFOs



What do people see when they see UFOs? NUFORC collects data about the shapes.

Some of these are very broad terms. Let's look at some specific examples of the top 5 shapes.

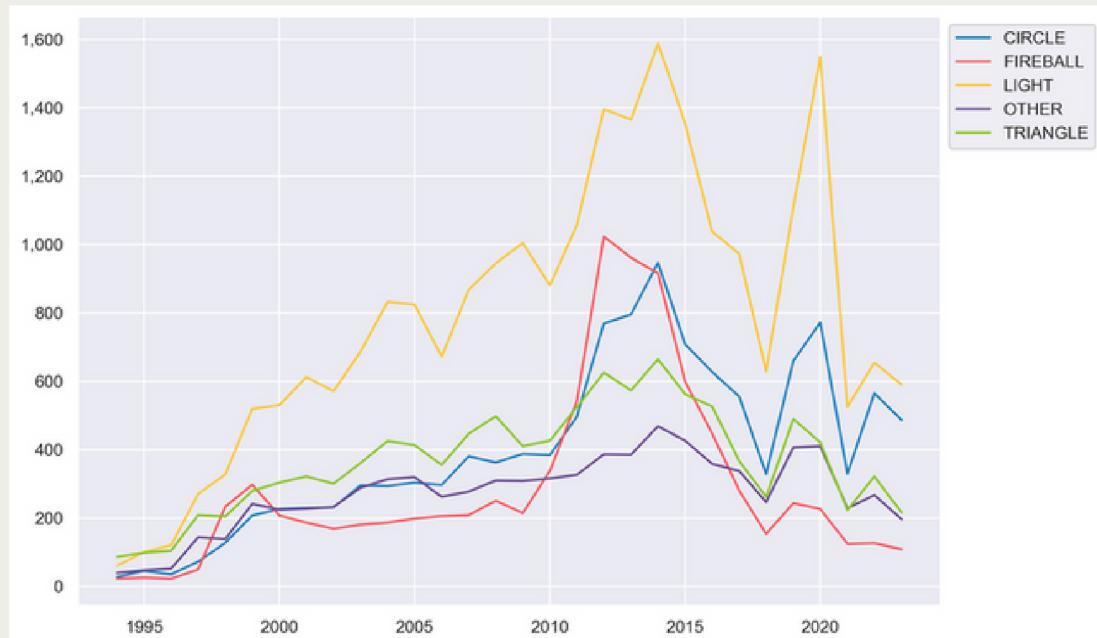
I did not include Unknown, since people didn't know what it looked like.



One of the fun features of the NUFORC site is that it allows users to upload photos and videos. Here are some samples of the top 5 shapes observed.

Light seems to have the most variation, and it had a lot of overlap with things that could also be described as Circle.

# Number of UFO Shapes by Year



## Conclusions

- ☛ UFO sightings are declining
- ☛ Most likely to be seen in Summer and Fall months, especially July
- ☛ July 4 is a peak night to look up and see fun things
- ☛ More likely to be seen in proximity to a military base
- ☛ Most observers see lights, circles, and triangles
- ☛ Be willing to be amazed

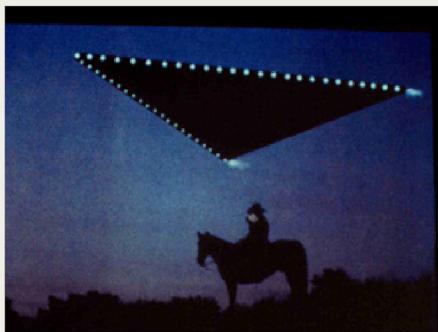
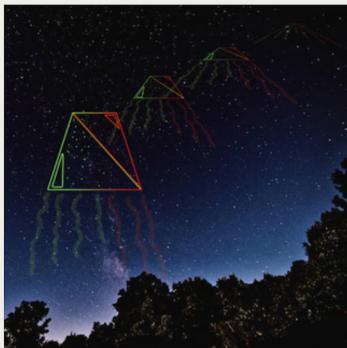
## Where would I go?

Walt Disney World  
located in Lake Buena Vista, FL  
fireworks every night  
near 2 military bases



**See something, say something!**

NUFORC needs you.



## Technologies

- Webscraping
- Excel
- Python
- Seaborn/Matplotlib
- Tableau

## Sources

- nuforc.org
- US DOT: ArcGIS Online - Military Bases