UFO Encounters in the United States

Dan Spector

What information did I visualize?

1. **Encounters over Time (Years)**

2. **Shape / type**

3. **Duration of encounter (how long was the UFO observed?)**

4. **Distance from the freeway**

1. **Encounters over Time (Years)**

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I will visualize my inquiries with maps of Colorado, Massachusetts, and the overall U.S.

1. Encounters over Time

This data is from 1945 - 2014. Each year is presented individually - the dots are not cumulative.

The video export took forever and I did not realize the time slider and years would not be included in the video :(

Each second represents 2 ⅓ years.

Here are the approximate video length to year conversions:

Time in Video	Year
0-5s	1945 – 1956.5
5-10s	1956.5 – 1968
10-15s	1968 – 1979.5
15-20s	1979.5 – 1991
20-25s	1991 – 2002.5
25-30s	2002.5 – 2014

Click to view video.

Encounters Over Time: Conclusions

There is a linear relationship between year and encounter

Encounters are skewed towards the 2000's (bias of the dataset?)

Encounters cluster near major metropolitan areas, and this gets more pronounced in years with higher amounts of data

The Rockies and Great Plains do not have many encounters (is this because there are simply not as many people there to report them?)
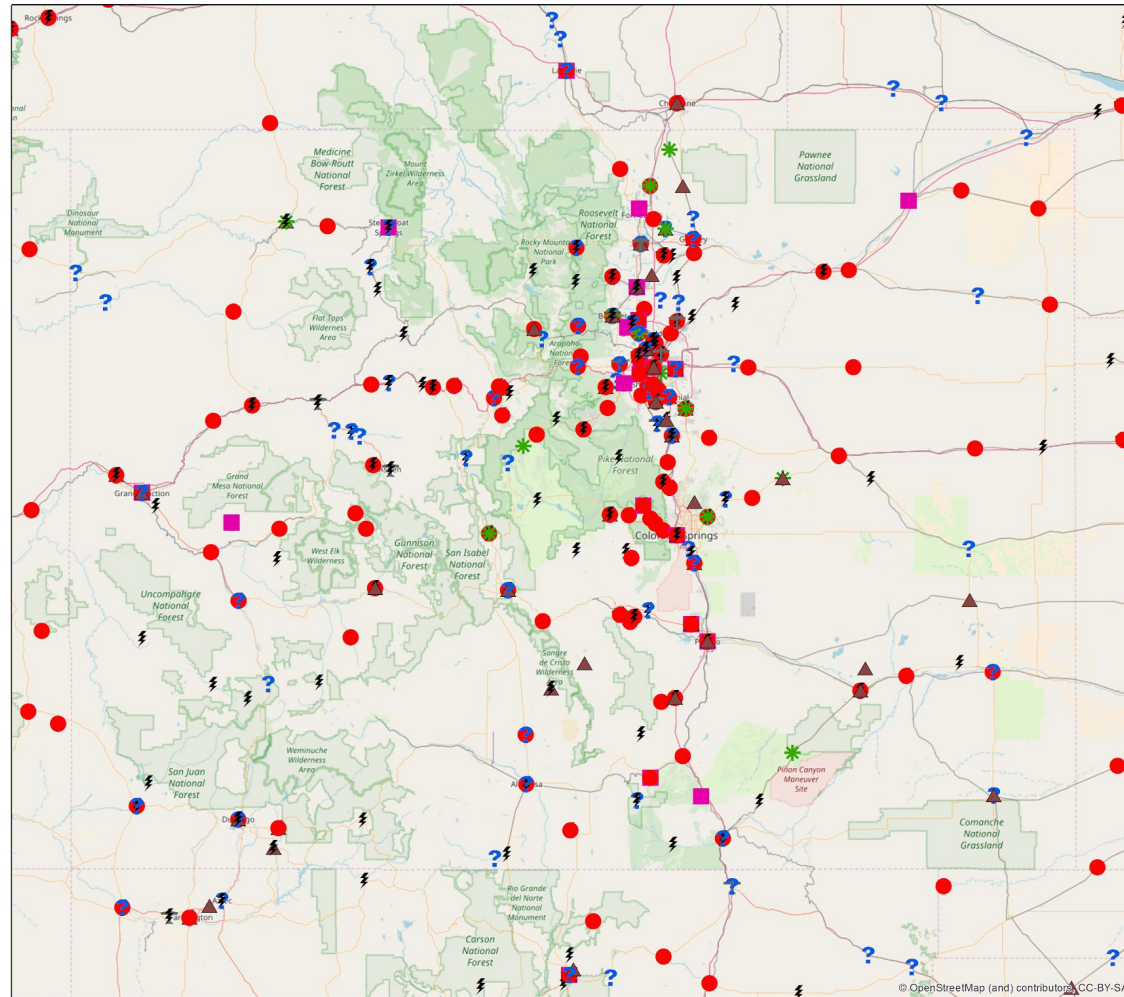
2. Shape / Type

Colorado

UFO Shapes

ufo_type

- **?** Other/Unknown/Null
- ✳ Changing
- 🔴 Circular/Spherical/Round; Cylinder
- ⚡ Flash/Light
- ⊥ Formation
- 🟪 Rectangle
- ▲ Triangle

Massachusetts

UFO Shapes

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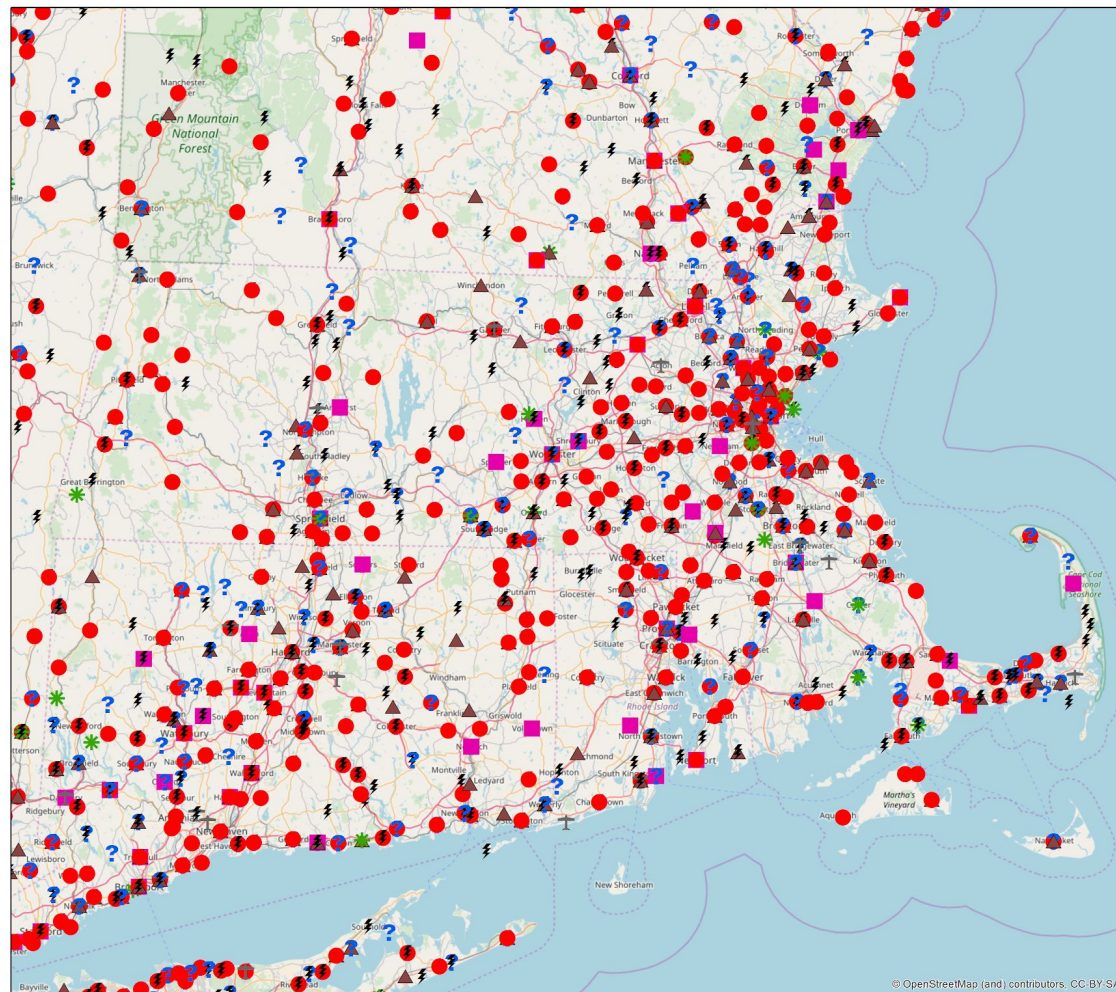- ⊥ Formation
- 🟪 Rectangle
- 🔺 Triangle

Shape/Type: Conclusions

The circular group is the most common, followed by the unknown/other group

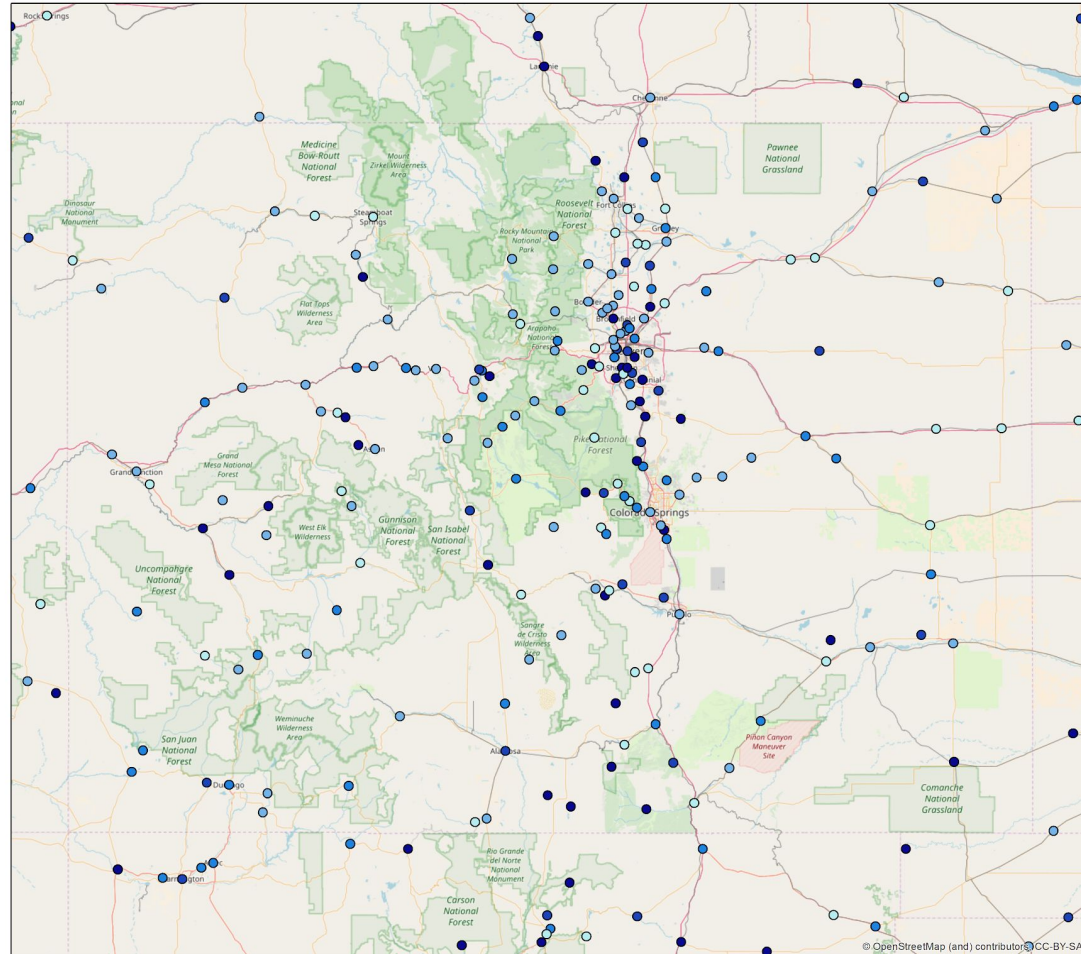The least common shapes consist of rectangles and triangles

Originally, there were roughly 20 categories of shapes! The "summary" shapes I presented are the result of me combining groups, especially in the circular and unknown categories.

3. Duration of Encounter

Colorado

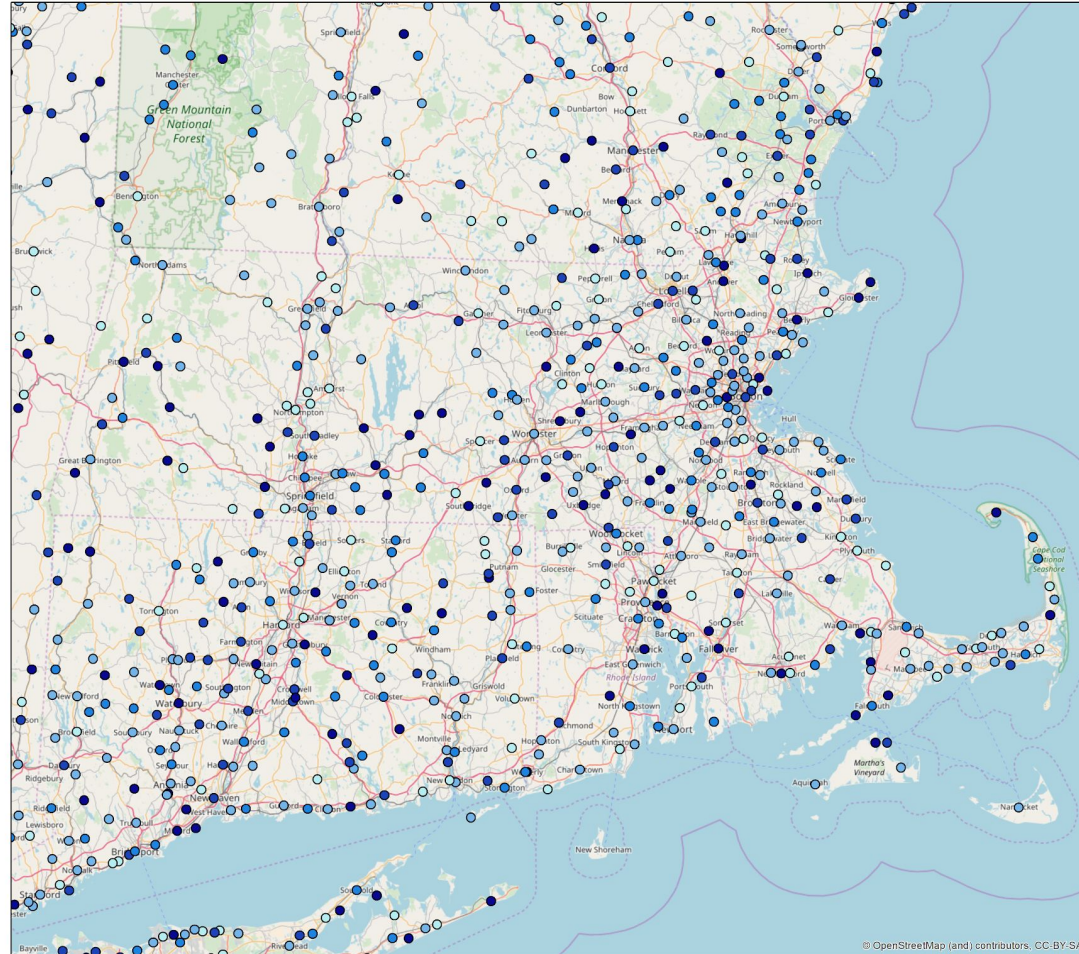**Duration of Encounter**
duration (seconds)

- Below 15 seconds
- 15 seconds - 2 minutes
- 2 minutes - 5 minutes
- 5 minutes - 17 minutes
- Greater than 17 minutes

Massachusetts

Duration of Encounter

duration (seconds)

- Below 15 seconds
- 15 seconds - 2 minutes
- 2 minutes - 5 minutes
- 5 minutes - 17 minutes
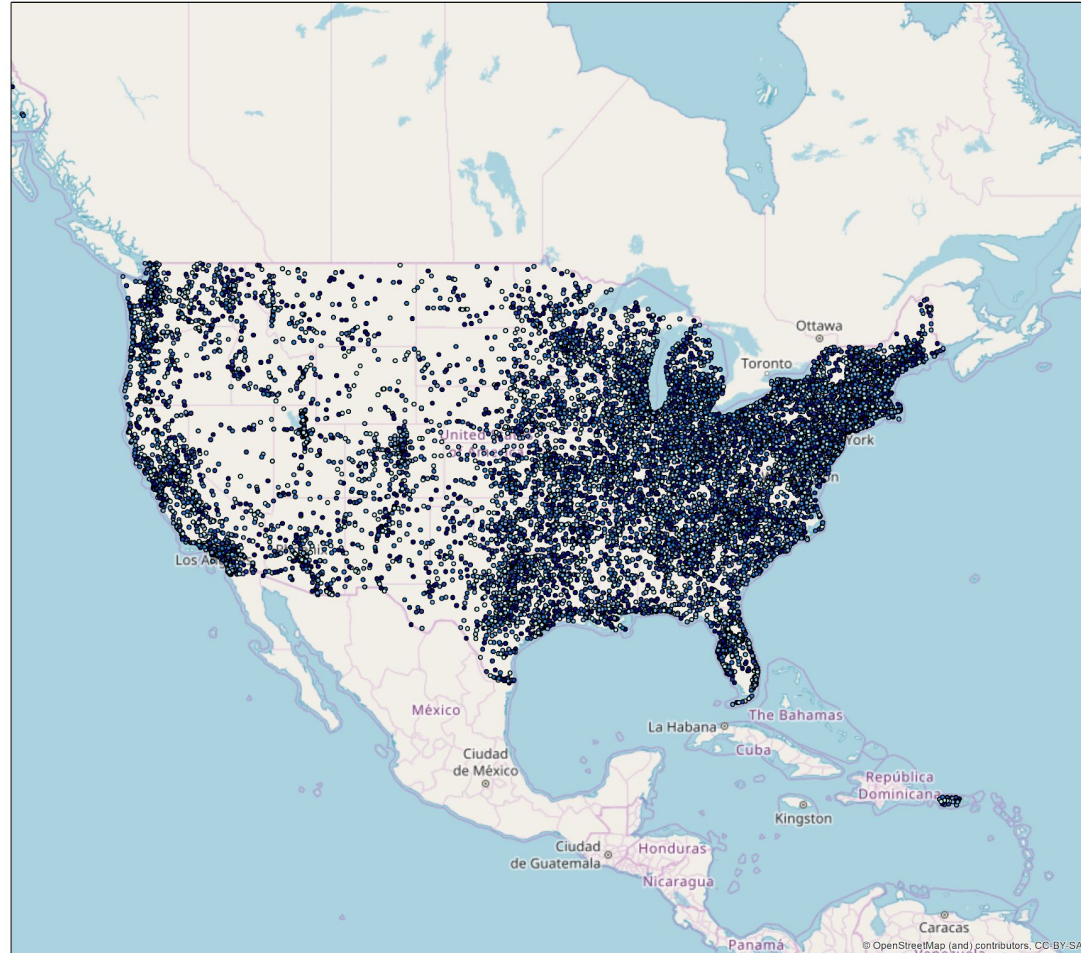- Greater than 17 minutes

Impossible to see on the country scale

Data is too dense and clustered

United States

Duration of Encounter

duration (seconds)

- ○ Below 15 seconds
- ○ 15 seconds - 2 minutes
- ○ 2 minutes - 5 minutes
- ● 5 minutes - 17 minutes
- ● Greater than 17 minutes

Duration of Encounter: Conclusions

Very difficult to identify any patterns in the data

Do city centers have higher durations of encounter?

I used quantile groupings because they seemed to make more sense than natural breaks

4. Distance from the freeway

Methodology

I found a feature layer in ESRI online which contained lines for all the freeways in the U.S.

Since UFO sightings tended to cluster near freeways, I thought it would be useful to visualize how far UFOs were from the freeways

I decided to use Colorado for this example, because it has a relatively simple freeway layout and it was easy to draw a feature on top of it (Because it is perfectly rectangular… thanks Glenn for the help!)

Statistics

There are 1,413 total UFO sightings in Colorado.

421 (30%) are within 1 mile of the freeway.

928 (66%) are within 5 miles of the freeway.

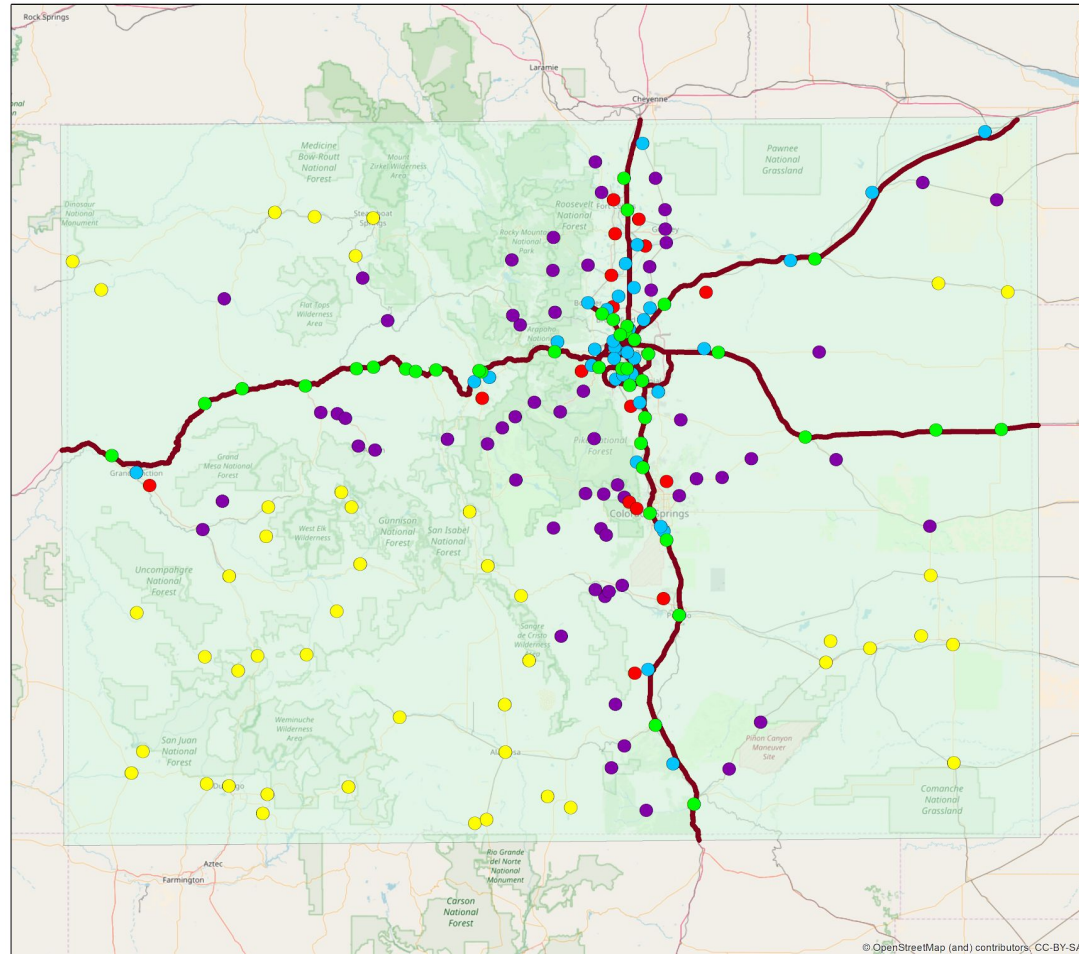1128 (80%) are within 10 miles of the freeway.

1286 (91%) are within 50 miles of the freeway

Only 127 (9%) are greater than 50 miles from the freeway.

Colorado is 380 miles long and 280 miles wide!

Colorado Encounters
Miles from the Freeway

- 🟢 <1 mile
- 🔵 1-5 miles
- 🔴 5-10 miles
- 🟣 10-50 miles
- 🟡 >50 miles

thanks!