# Where is in the World?

## MetaCTF 2021

## The Problem:

I must say, every time I see one of these directional signs, I think I've got to make this into a CTF problem. It's the idea of Open Source Intelligence (OSINT) or Geospatial Intelligence (GEOINT). The idea of being able to take an image and use all of the clues within it to infer details such as where it's at or what's happening in the photo.

Here is one such picture of those signs. Your goal? Use those little details to find the name of the marina it's at which you'll submit for the flag (so MetaCTF{name of marina}

## The Solve:

Hint picture was that:

We read datas from the arrows.
About the City names we can know, the pole stands somewhere in USA
(or North-America).

Watch the picture right bottom corner,
two masts.

So the question of the task can be sure,
it is a port.



Let's look at the numbers. The unit of distance is important, M is
miles.

I was looking for an online map to draw circles showing distances.

https://www.calcmaps.com/map-radius/

Data selection method:
   • short distances
   • opposite arrow directions
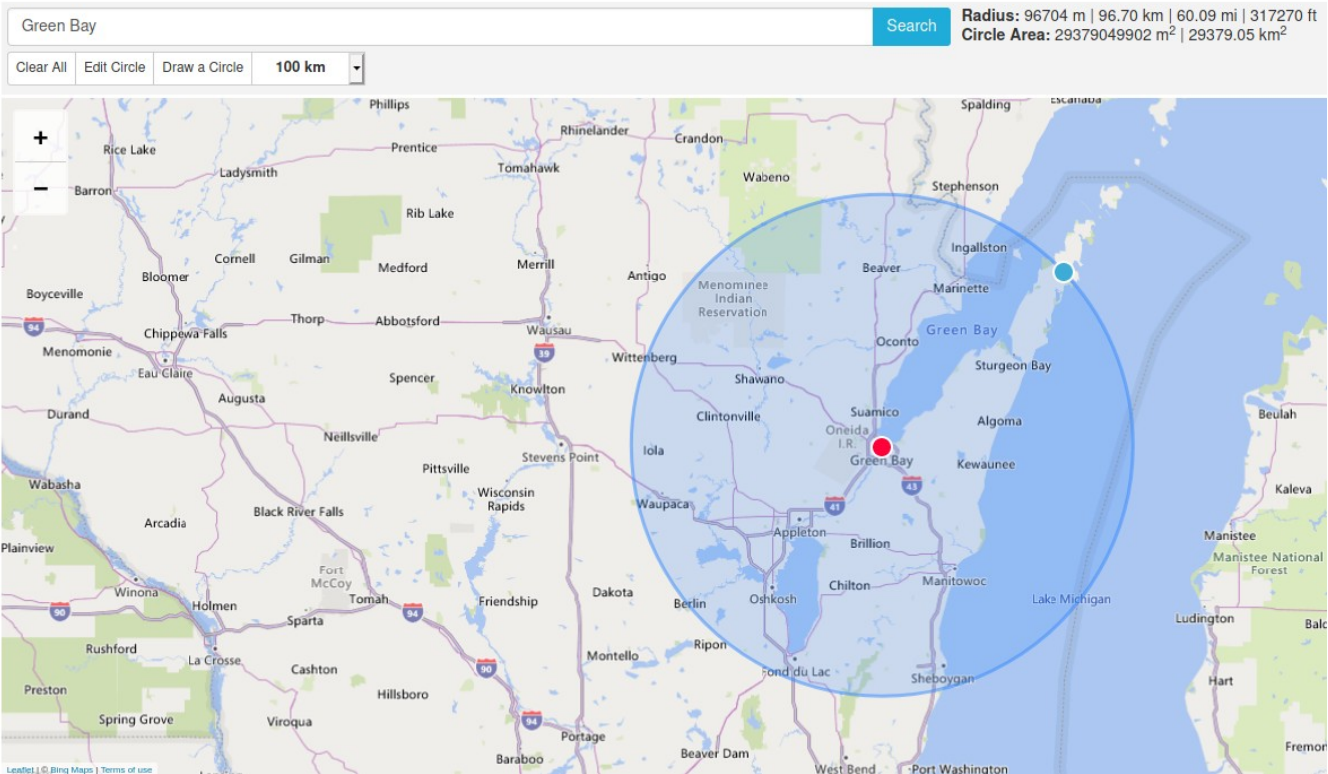
Data I used:



Green Bay - 60M ~ 100km
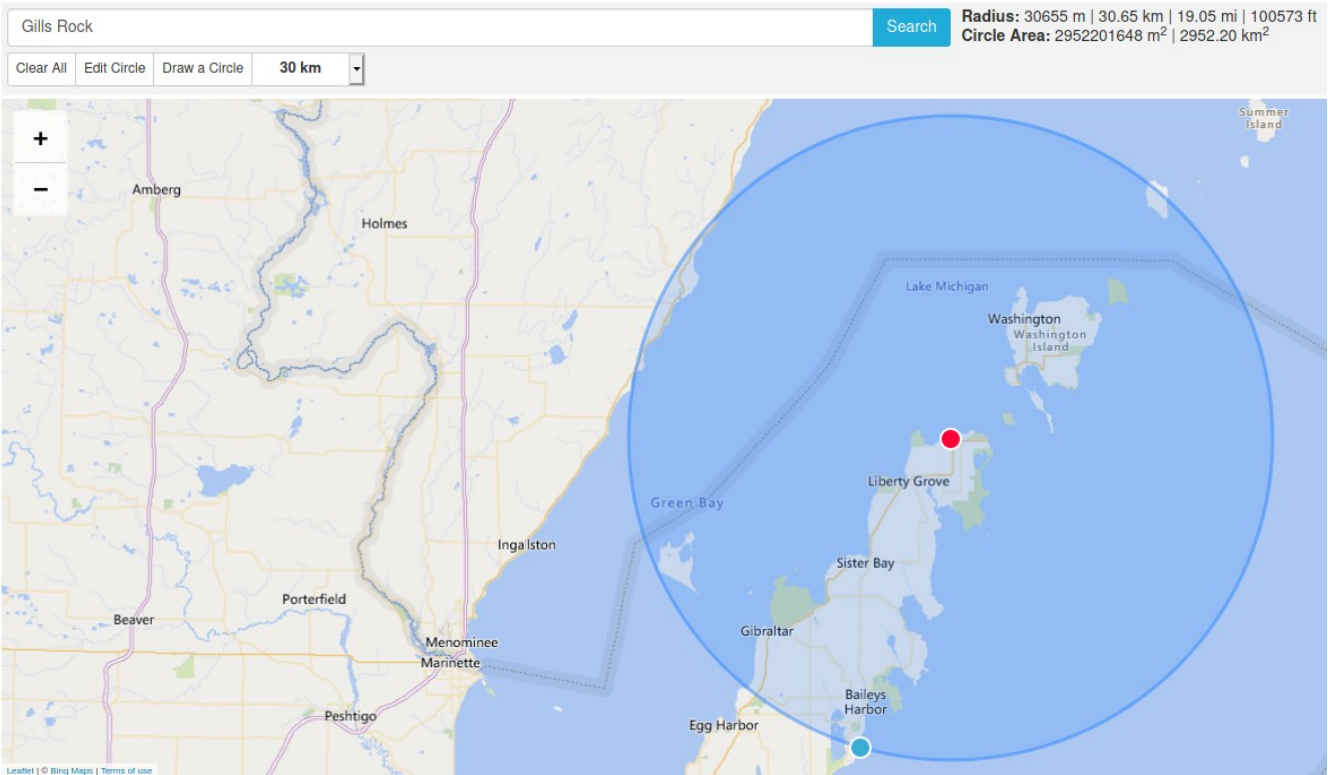Sturgeon Bay - 20M ~ 30km
Gills Rock - 19M ~ 30km

The measurement:

First time large scale. Possible points N and E (2x).
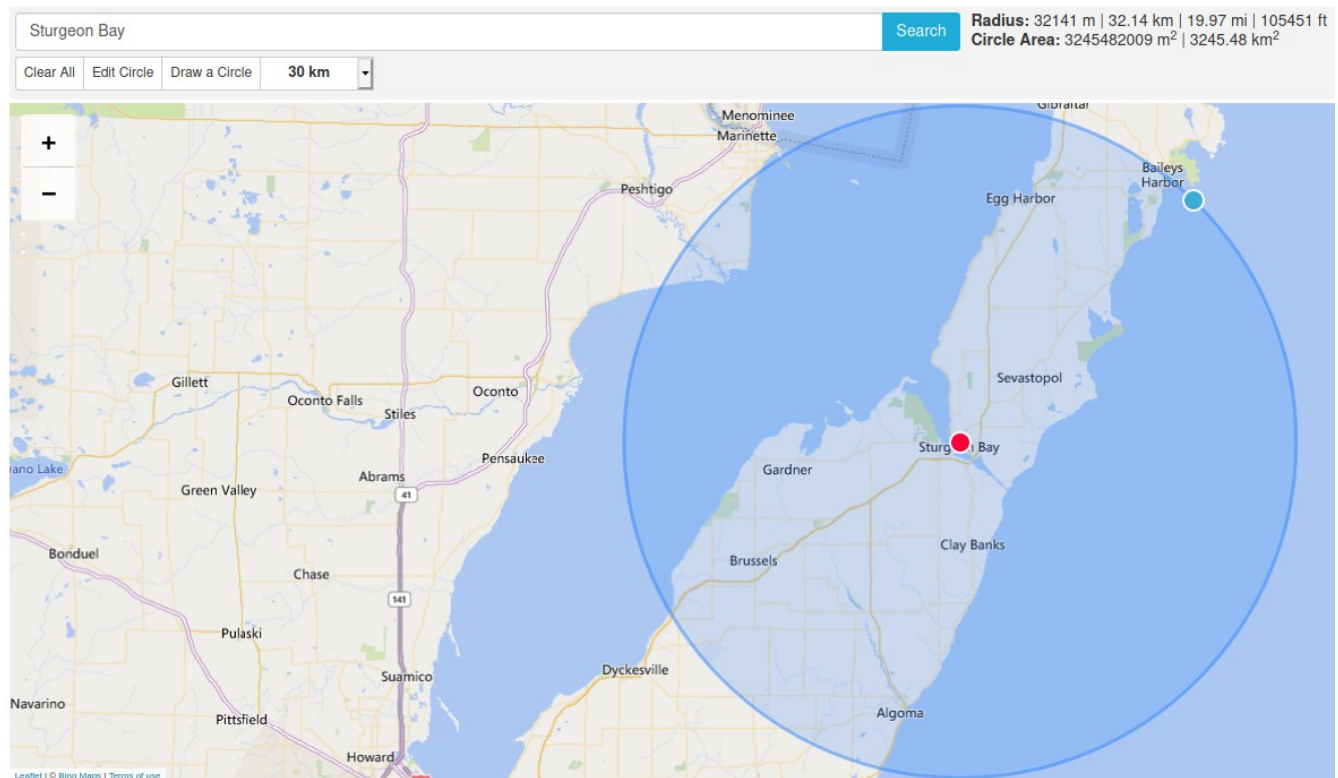
**MAP RADIUS CALCULATOR**

| Green Bay | Search | **Radius:** 96704 m | 96.70 km | 60.09 mi | 317270 ft |
|---|---|---|
| | | **Circle Area:** 29379049902 m² | 29379.05 km² |

Clear All | Edit Circle | Draw a Circle | 100 km ▾



Approximation with the 2 closer data.

**MAP RADIUS CALCULATOR**

| Gills Rock | Search | **Radius:** 30655 m | 30.65 km | 19.05 mi | 100573 ft |
|---|---|---|
| | | **Circle Area:** 2952201648 m² | 2952.20 km² |

Clear All | Edit Circle | Draw a Circle | 30 km ▾

## MAP RADIUS CALCULATOR

Sturgeon Bay

**Radius:** 32141 m | 32.14 km | 19.97 mi | 105451 ft
**Circle Area:** 3245482009 m² | 3245.48 km²

Clear All | Edit Circle | Draw a Circle | 30 km
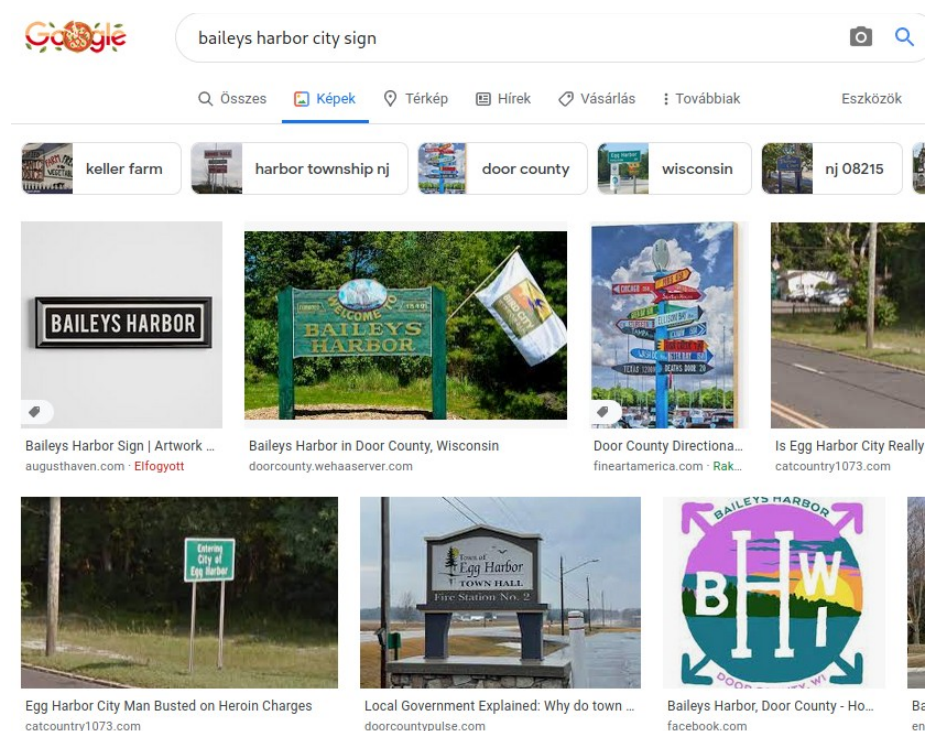
Due to the opposite direction, the intersection points mark the target area, candidate: **Baileys Harbor**

Do a picture search: 'baileys harbor city sign'



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|---|---|
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**PRODUCT DETAILS**

Door County Directional Sign in Egg Harbor wood print by
Christopher Arndt.   Bring your artwork to life with the texture and
added depth of a wood print. Your image gets printed directly onto a
sheet of 3/4" thick maple wood. There are D-clips on the back of

Ooops, another city name, new candidate: **Egg Harbor**

Let's go to Egg Harbor port for proof... virtually…

Google Maps Street View search finally: