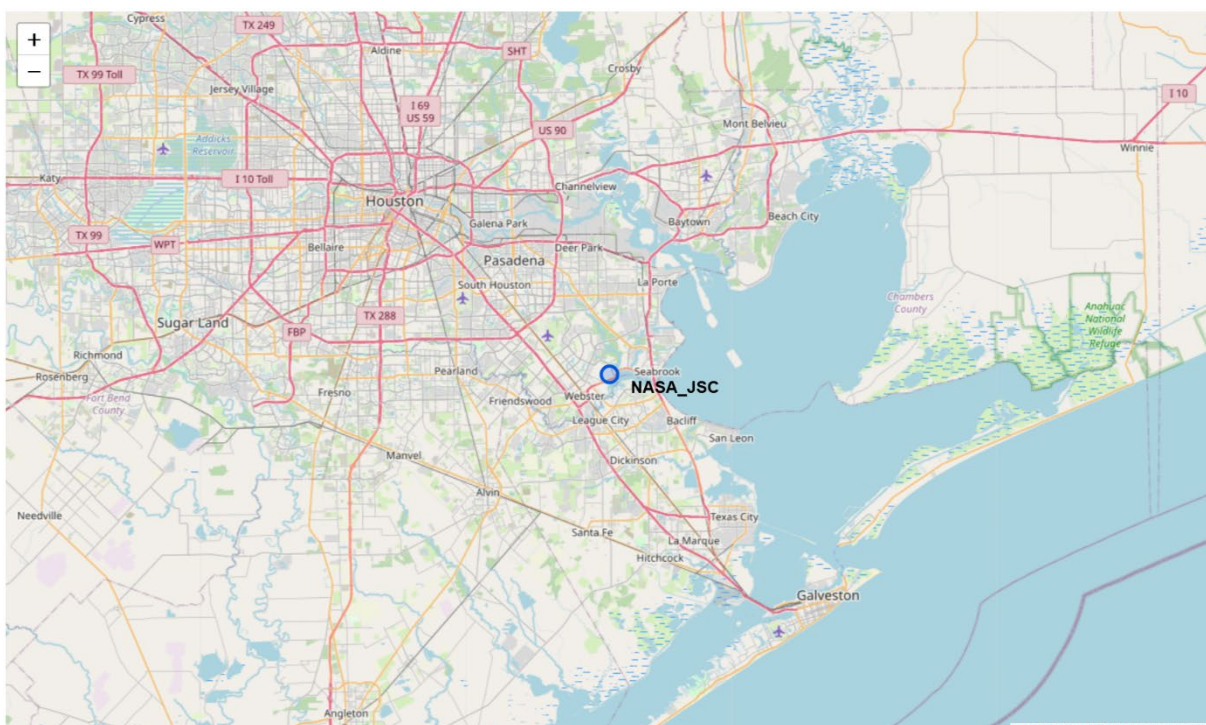
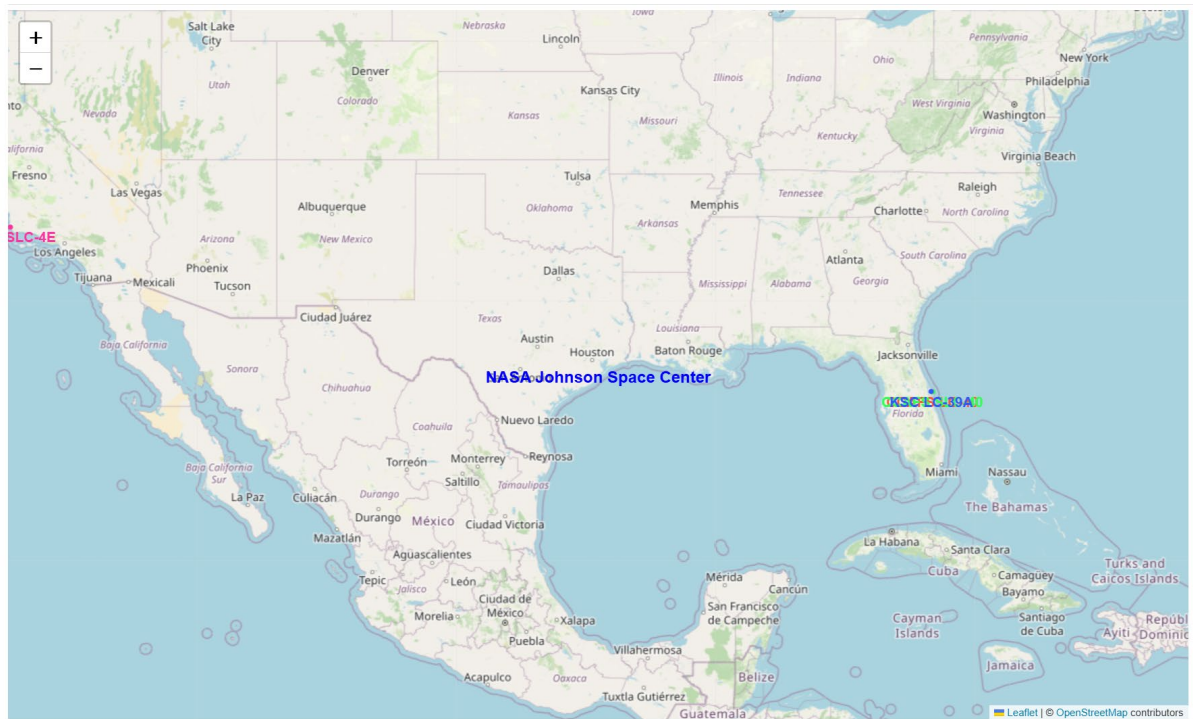
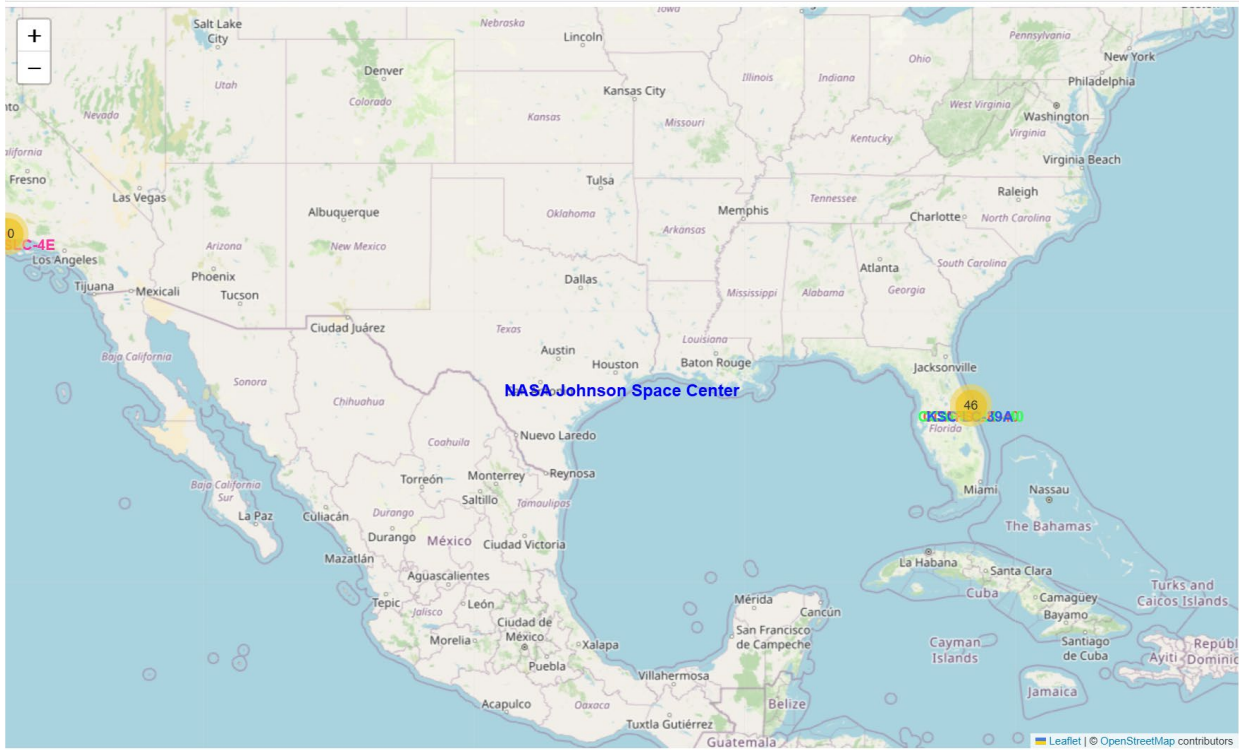


21]:

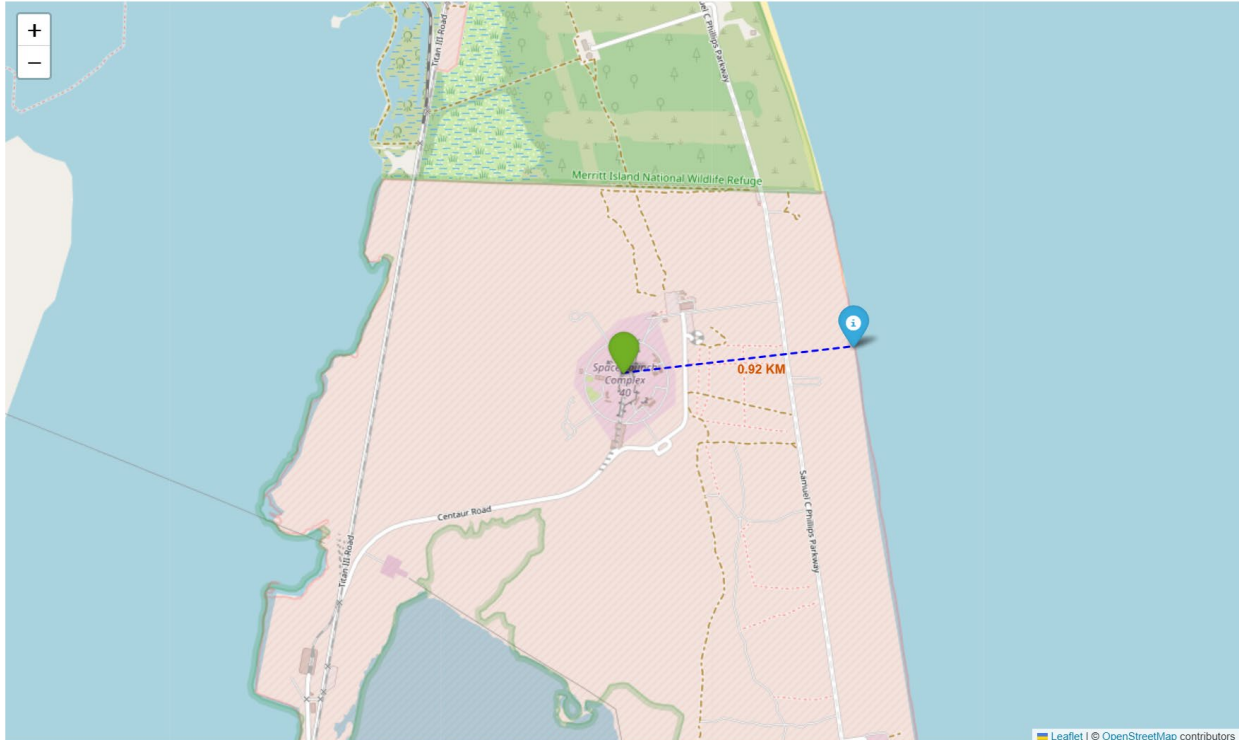


[35]:





Distance to coastline: 0.92 KM



```
[52]: # CCAFS LC-40 Launch Site Coordinates
launch_site_lat = 28.562302
launch_site_lon = -80.577356
# Coordinates of the closet COASTLINE
coastline_lat = 28.56521
coastline_lon = -80.56801
distance_coastline = calculate_distance(launch_site_lat, launch_site_lon, coastline_lat, coastline_lon)
print(f'Distance to Coastline: {round(distance_coastline,2)} km')

# Create and add a folium.Marker on the selected point on the map
distance_marker = folium.Marker(
    [coastline_lat, coastline_lon],
    icon=DivIcon(
        icon_size=(20,20),
        icon_anchor=(100,-10),
        html=f'<div style="font-size:12px; color:#222; font-weight:bold; width:200px;">Coastline {round(distance_coastline,2)} km</div>',
    )
).add_to(launch_site_map)
```

Distance to Coastline: 0.92 km

```
[50]: # CCAFS LC-40 Launch Site Coordinates
launch_site_lat = 28.562302
launch_site_lon = -80.577356
# Coordinates of the closet RAIL LINE
rail_line_lat = 28.57209
rail_line_lon = -80.58520

distance_rail_line = calculate_distance(launch_site_lat, launch_site_lon, rail_line_lat, rail_line_lon)
print(f'Distance to Rail Line: {round(distance_rail_line,2)} km')

# Create and add a folium.Marker on the selected point on the map
distance_marker = folium.Marker(
    [rail_line_lat, rail_line_lon],
    icon=DivIcon(
        icon_size=(20,20),
        icon_anchor=(-40,-20),
        html=f'<div style="font-size:12px; color:#222; font-weight:bold; width:200px;">Rail Line {round(distance_rail_line,2)} km</div>',
    )
).add_to(launch_site_map)
```

Distance to Rail Line: 1.33 km

```
[51]: # Coordinates of a point on the ROAD circling the Launch site
road_lat = 28.561695
road_lon = -80.575553
distance_road = calculate_distance(launch_site_lat, launch_site_lon, road_lat, road_lon)
print(f'Distance to Road: {round(distance_road,2)} km')

# Create and add a folium.Marker on the selected point on the map
distance_marker = folium.Marker(
    [road_lat, road_lon],
    icon=DivIcon(
        icon_size=(20,20),
        icon_anchor=(10,0),
        html=f'<div style="font-size:12px; color:#222; font-weight:bold; width:160px;">Perimeter Road {round(distance_road,2)} km</div>',
    )
).add_to(launch_site_map)
```

Distance to Road: 0.19 km

```
54]: # Coordinates of a City(Cape Canaveral, Florida) near to the Launch site

city_lat = 28.6115
city_lon = -80.8077
distance_road = calculate_distance(launch_site_lat, launch_site_lon, city_lat, city_lon)
print(f'Distance to Road: {round(distance_road,2)} km')

# Create and add a folium.Marker on the selected point on the map
distance_marker = folium.Marker(
    [road_lat, road_lon],
    icon=DivIcon(
        icon_size=(20,20),
        icon_anchor=(10,0),
        html=f'<div style="font-size:12px; color:#222; font-weight:bold; width:160px;">Perimeter Road {round(distance_road,2)} km</div>',
    )
).add_to(launch_site_map)
```

Distance to Road: 23.15 km

[59]:

