Project Title: Route Visualization: Toronto–Bahamas Boat Trip

Overview

This project is an interactive mapping mashup that visualizes a boat journey from Toronto to the Bahamas using QGIS and QGIS Cloud. It combines multiple spatial layers—including the full boat route, generalized route, and key trip points—to illustrate the progression of the journey across lakes, rivers, and open ocean. The map integrates ESRI basemaps and custom vector layers to demonstrate how diverse data sources can be merged into a cohesive, web-based geographic visualization.

Context & Problem

- Long-distance routes like Toronto to the Bahamas are difficult to visualize using standard maps because data is scattered across different sources.
- There was no single, interactive map showing the full journey across lakes, rivers, and ocean.
- The challenge was to combine multiple basemaps, custom route lines, and trip points into one clear, web-based visualization.
- The project demonstrates how GIS tools can integrate diverse spatial data into an accessible, narrative map.

Objectives

- Build an interactive web map showing the boat route from Toronto to the Bahamas.
- Integrate multiple spatial layers (routes + trip points) into one visualization.
- Calculate distances between key points along the journey.
- Demonstrate QGIS and QGIS Cloud for publishing multi-layer geographic data online.

My Role

- Designed and built the multi-layer map in QGIS, including route lines and trip points.
- Calculated distances between key points along the Toronto–Bahamas journey.
- Structured and cleaned spatial data for web publishing.
- Configured layer styling, basemaps, and symbology for clear visualization.
- Published the final interactive map using QGIS Cloud and ensured all layers displayed correctly online.

Tools & Technologies

- **QGIS** — data preparation, layer creation, route and point editing, distance calculations.
- **QGIS Cloud** — publishing and hosting the interactive web map.
- **ESRI Basemaps** — ocean and place layers for geographic context.
- **Vector Data** — custom route lines and trip point layers.
- **Coordinate & Distance Tools** — measuring segment distances between key points along the journey.

Process

- Gathered and organized spatial data for the boat route and trip points.

- Created and edited vector layers in QGIS.
- Calculated distances between key points along the journey.
- Applied symbology, basemaps, and layer styling for clarity and visual hierarchy.
- Prepared data for web publishing and configured layer settings for online display.
- Published the interactive map to QGIS Cloud and verified that all layers rendered correctly.

Links

- Interactive Web Map (QGIS Cloud): https://qgiscloud.com/yuliajedi/Bahamas/?l=trip_points_Bahamas%2Cboat_route_Bahamas%2Ctrip_points_full%20%E2%80%94%20trip_points%2Cboat_route_full%20%E2%80%94%20boat_route%2CESRI%20Ocean!%2CESRI%20Places!&bl=mapnik&t=Bahamas&e=-14684937%2C1642037%2C-4326500%2C6464069

Map Preview (Static Screenshot)