

# CarlCOOS Development Plan and Current Status of Observing System Assets

CaRA Stakeholders Council Meeting

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San Juan, Puerto Rico

## Coastal Weather Observing



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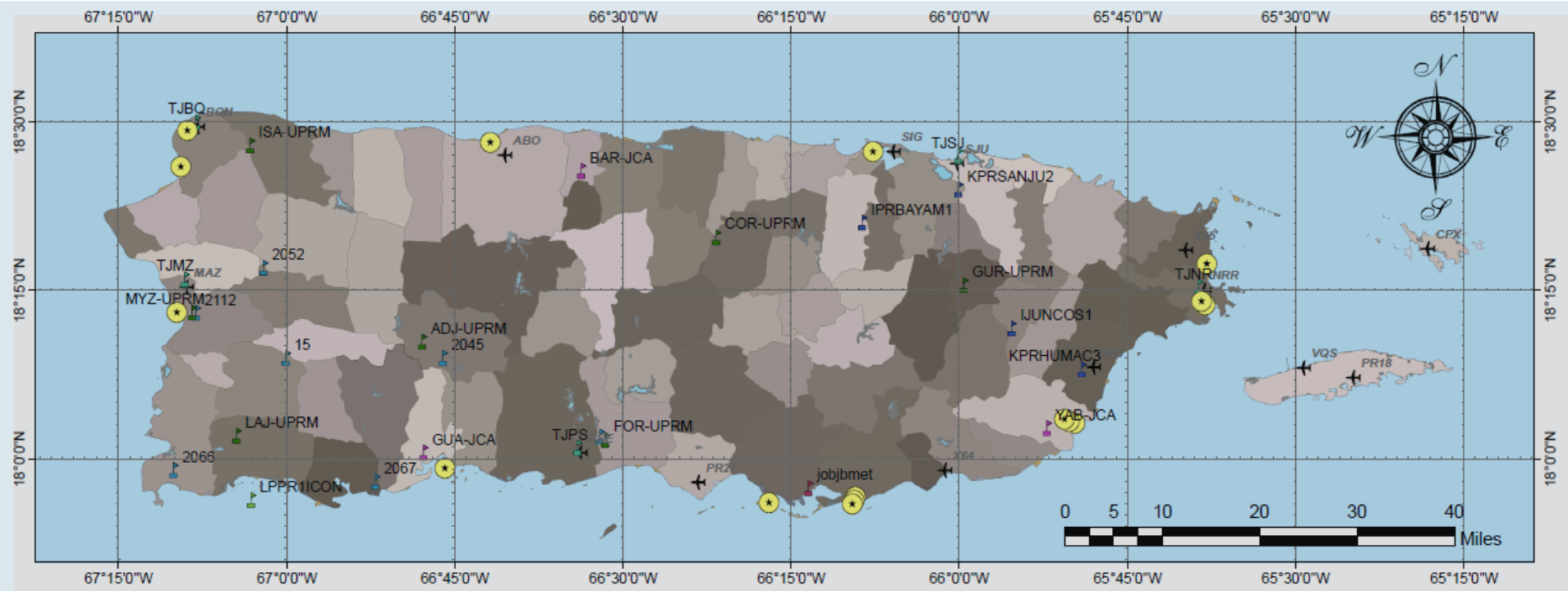
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# CarlCOOS Coastal Weather Observing

- Inventory of current Weather Observation Stations done for Puerto Rico and Caribbean
- Initiative to involve local authorities and agencies collaborations had included communication with:
  - Puerto Rico Electric Power Authority
  - United States Coast Guard
  - Puerto Rico Port Authority
  - Private Individuals
- Site selection and permit application underway









# Current Weather Observations



Real time weather stations in PR

### Weather Station Inventory

**OWNER**

-  ICON Weather
-  JCA
-  NOAA NWS
-  National Estuarine Reserve
-  UPRM
-  USDA/ NRCS W
-  WUNDERGROUND
-  Perspective PR Sites

# CarlCOOS Weather Stations

- Collaborative development, deployment and operation UPRM - WeatherFLOW

## Variables:

- Wind (Speed & Dir)
- Temperature
- Barometric Pressure
- Rain
- Relative Humidity

## Capabilities:

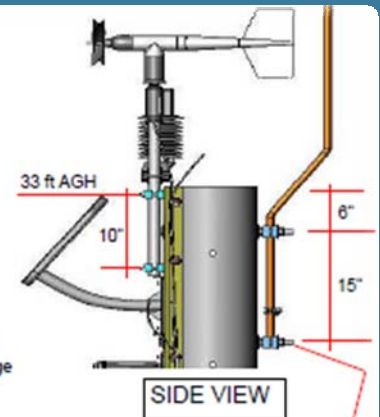
- Real time data
- Self-powered
- Hurricane hardened

### WEATHERFLOW EQUIPMENT MOUNTING DETAILS: ATTACHMENT TO TEN METER CONCRETE POLE

#### PICTORAL ISOMETRIC VIEW

Each component of the Weatherflow metering equipment (solar panel, anemometer and battery box) is attached to the aluminum channel with four 3/8" stainless steel bolts. Solar panel assembly and mount fabricated by Sol, Inc., of Palm City, FL.

Temperature & humidity gage



Offset lightning rod attached to the top two 5/8" through-bolts with compression blocks, using the extended threads. Rod grounded to copper wire internal to the pole.

Channel bracket fastened to pole with three 5/8" through-bolts (Type 304 stainless). CTC bolt spacing from top of pole is 6", 21" & 41"

SPIRAL ENGINEERING SERVICES, INC.  
Florida CA #7132 Ph. 407/898-6222  
3900 Mockingbird Lane, Orlando, FL 32803

Certified:

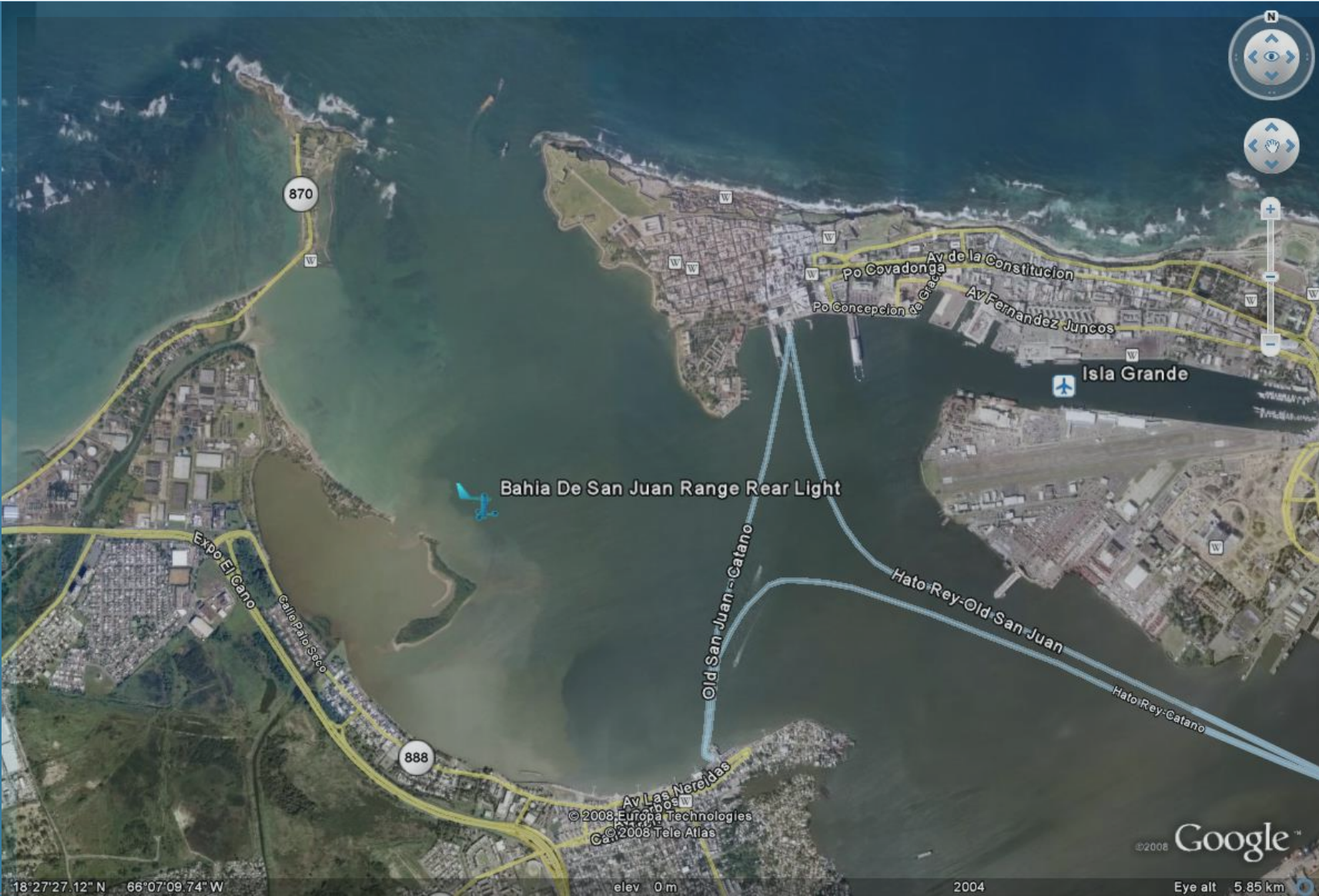
# CarlCOOS Perspective Observation Sites

- Currently considered sites consist of:
  - USCG on navigational aids structures
  - Installed on PREPA sites
  - Installed on PR Port Authorities sites
  - Installed on Private owner sites

# Google Earth site Assessment

- Sites selection criteria:
  1. Close to coastline
  2. Away from sites obstructions and potential debris (i.e., trees, building, etc.)
  3. Consider current nearby weather stations

# USCG – San Juan, PR (On structure)



# PREPA – Arecibo, PR (On concrete pole)

