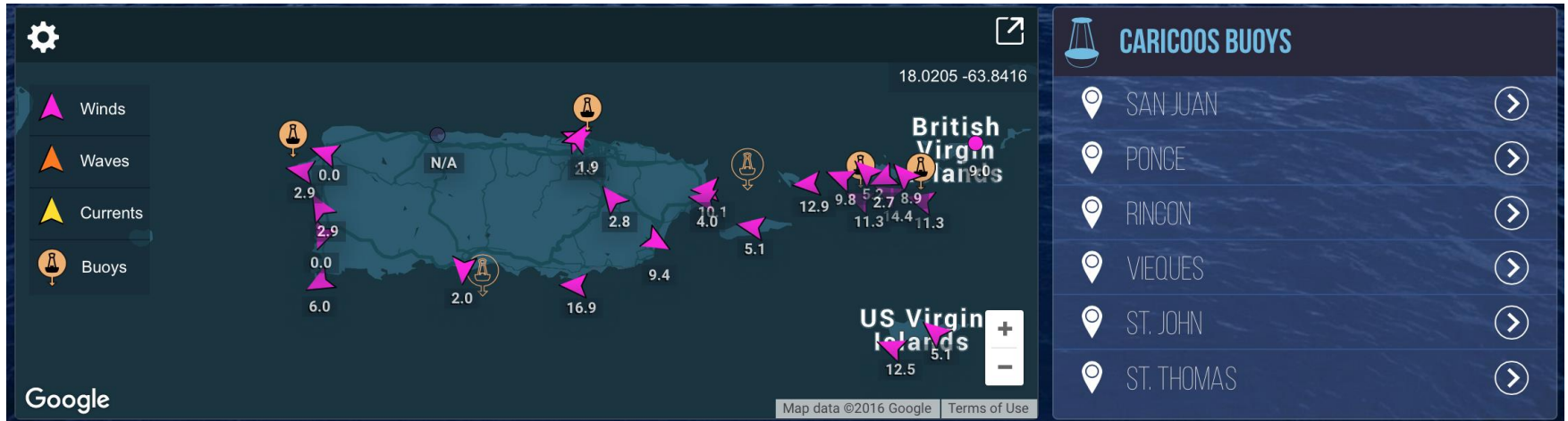




CARICOOS

MISIÓN: OBSERVACIONES Y PREDICIONES DEL OCÉANO – 24/7 – PARA APOYAR SUS ACTIVIDADES MARINAS



OBSERVATION & FORECASTS



WINDS



WAVES



TIDES & CURRENTS



OCEAN COLOR & SST

DECISIONAL SUPPORT TOOLS



MARINE OPERATIONS



COASTAL HAZARDS

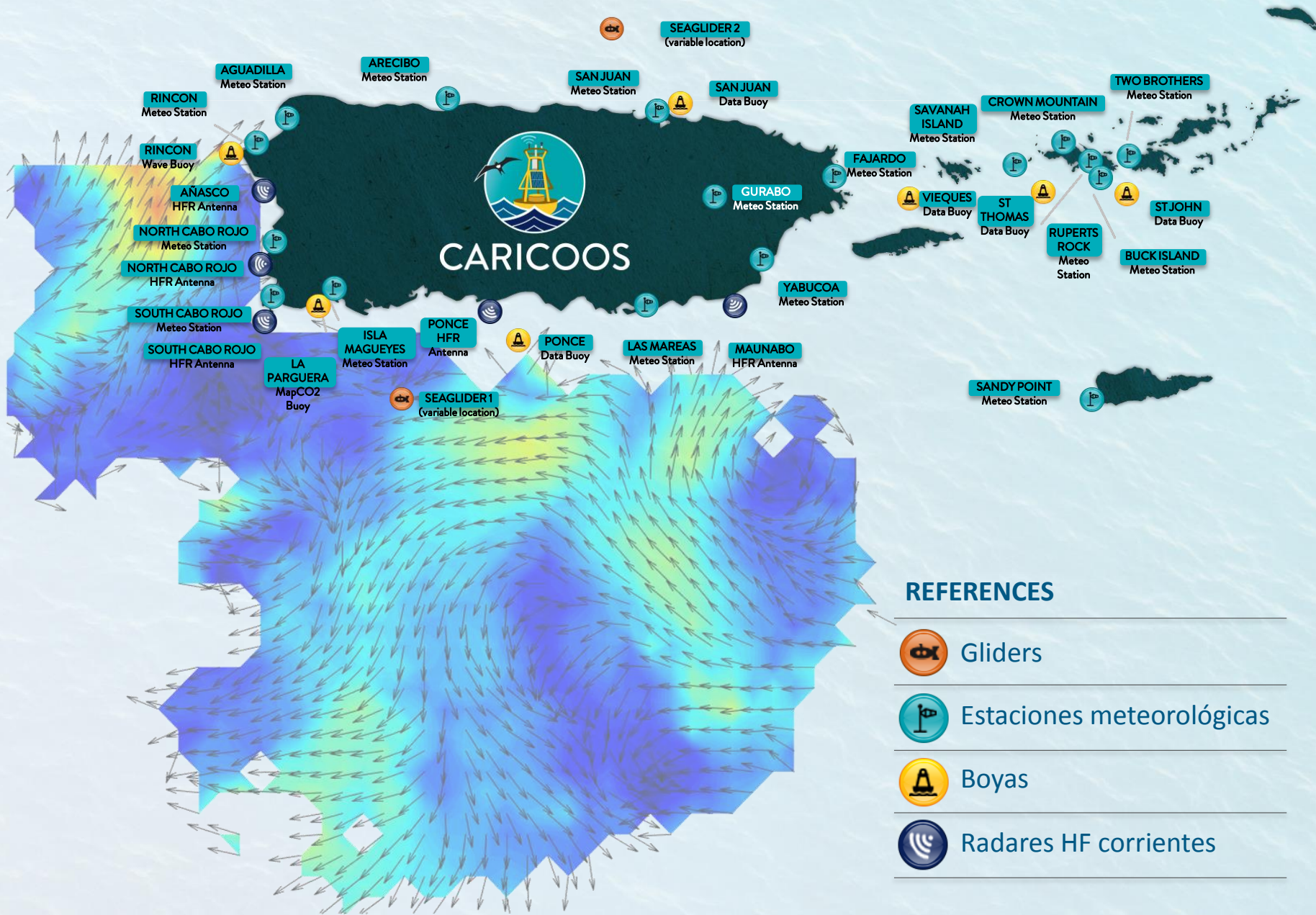


CLIMATE VARIABILITY



ECOSYSTEMS & WATER
QUALITY


OBSERVACIONES



REFERENCES

 Gliders

 Estaciones meteorológicas

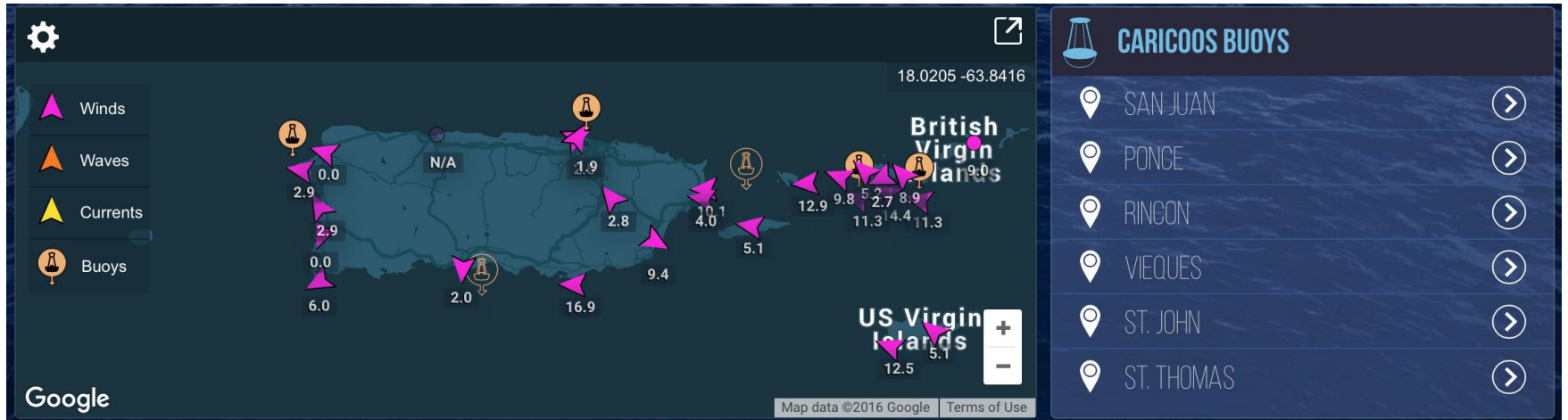
 Boyas

 Radars HF corrientes



CARICOOS

VIENTO



OBSERVATION & FORECASTS

WINDS	WAVES
TIDES & CURRENTS	OCEAN COLOR & SST

DECISIONAL SUPPORT TOOLS

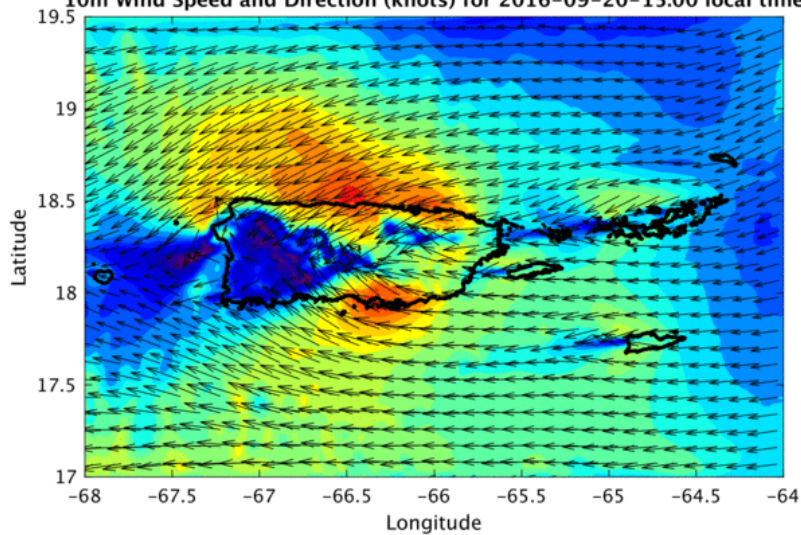
MARINE OPERATIONS	COASTAL HAZARDS
CLIMATE VARIABILITY	ECOSYSTEMS & WATER QUALITY



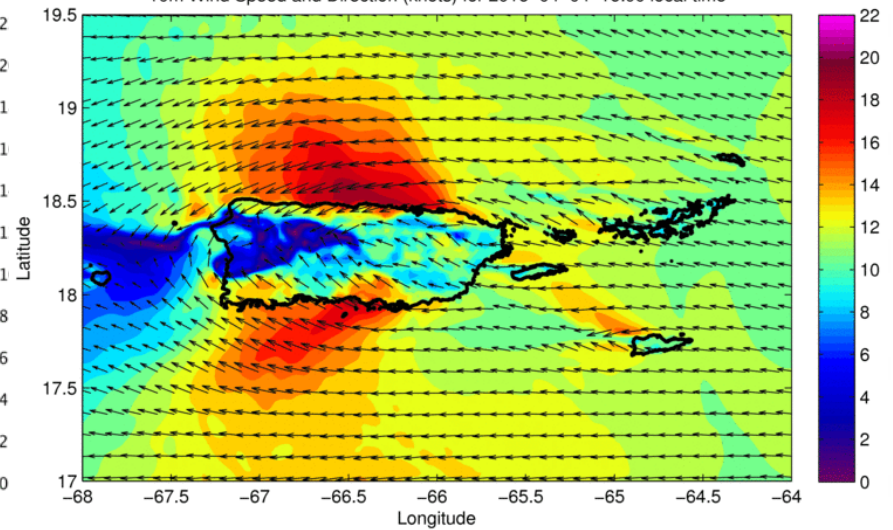
CARICOOS

PRONOSTICOS DE VIENTO: CARICOOS WRF

CariCOOS WRF-NMM 1 km Grid Model – PRVI (Model Run 20160920_00Z)
10m Wind Speed and Direction (knots) for 2016-09-20-15:00 local time



CariCOOS WRF-ARW-v10e 2.5 km Grid Model – PRVI (Model Run 20160404_00Z)
10m Wind Speed and Direction (knots) for 2016-04-04-16:00 local time



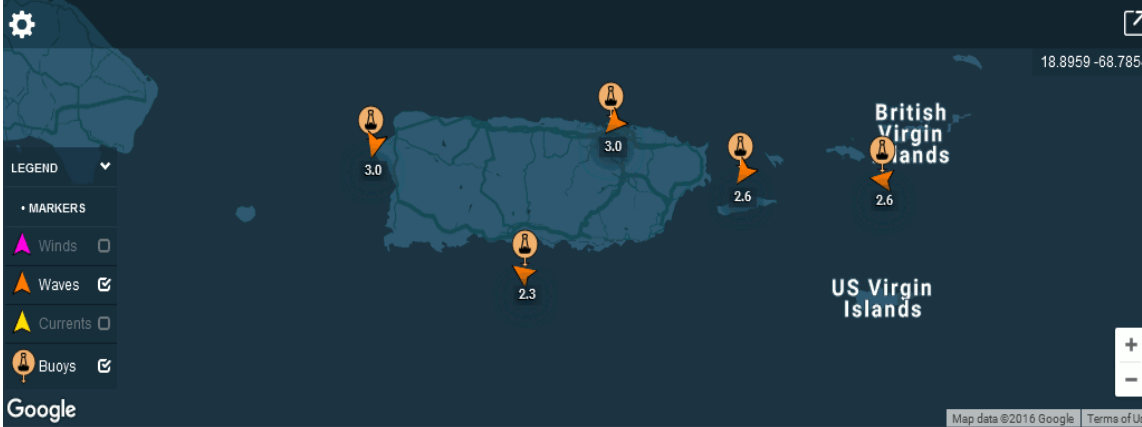


CARICOOS

OLAS



Sep 20 (Puerto Rico) Welcome to the new caricoos.org beta version! For the previous version of the site use legacy.caricoos.org



HURRICANE SEASON

CARICOOS BUOYS

- SAN JUAN
- PONCE
- RINCON
- VIEQUES
- ST. JOHN

OBSERVATION & FORECASTS

WINDS	WAVES
TIDES & CURRENTS	OCEAN COLOR & SST

DECISIONAL SUPPORT TOOLS

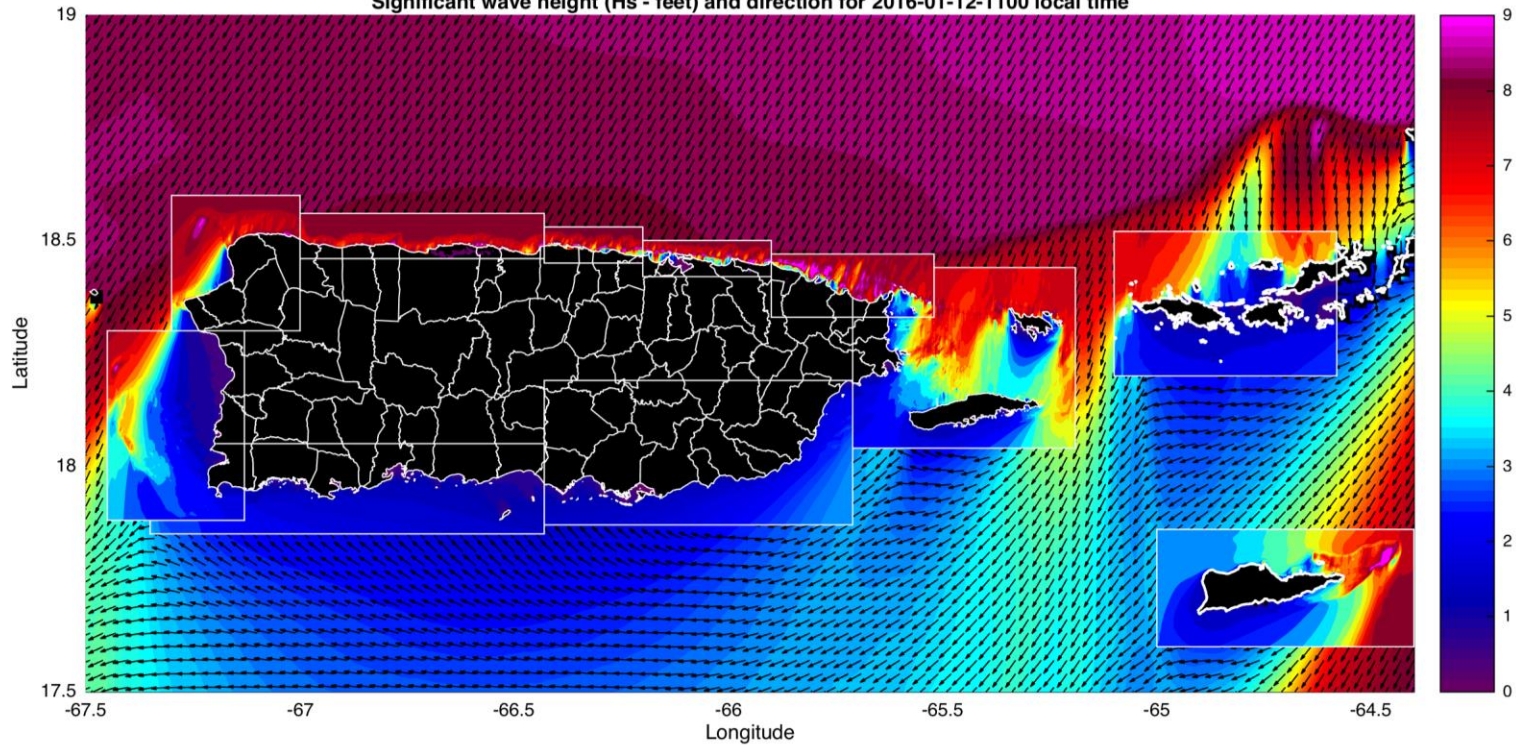
MARINE OPERATIONS	COASTAL HAZARDS
CLIMATE VARIABILITY	ECOSYSTEMS & WATER QUALITY



CARICOOS

PRONÓSTICOS DE OLAS: CARICOOS-SWAN

CariCOOS Nearshore Wave Model v7.0 (run: 20160112.1200 machine:swanwrf)
Significant wave height (H_s - feet) and direction for 2016-01-12-1100 local time



- 12 mallas computacionales a resoluciones desde 240 hasta 10 metros
- Condiciones de frontera de WaveWatch III



CARICOOS

CORRIENTES Y MAREAS

The screenshot displays the CARICOOS website interface. At the top left is the CARICOOS logo. A notification bar reads: "Sep 20 (Puerto Rico) Welcome to the new caricoos.org beta version! For the previous version of the site use legacy.caricoos.org". The main content area features a map of Puerto Rico with current data visualized as colored arrows. A legend on the left lists "Winds", "Waves", "Currents", and "Buoys". A right sidebar includes "HURRICANE SEASON" and "CARICOOS BUOYS" with location links for San Juan, Ponce, Rincon, Vieques, and St. John. The bottom navigation bar is divided into "OBSERVATION & FORECASTS" and "DECISIONAL SUPPORT TOOLS".

OBSERVATION & FORECASTS

- WINDS
- WAVES
- TIDES & CURRENTS** (highlighted with a dashed yellow circle)
- OCEAN COLOR & SST

DECISIONAL SUPPORT TOOLS

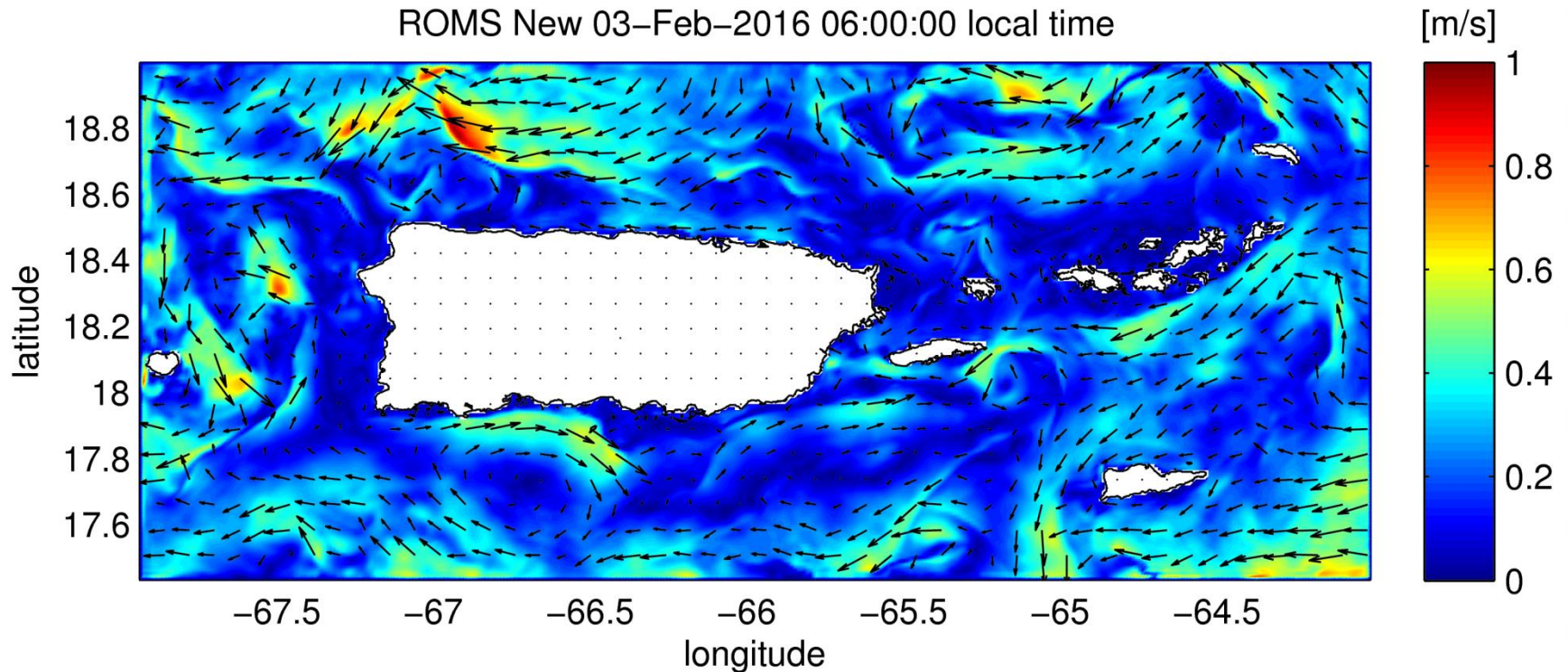
- MARINE OPERATIONS
- CLIMATE VARIABILITY
- COASTAL HAZARDS
- ECOSYSTEMS & WATER QUALITY



CARICOOS

CORRIENTES OCEÁNICAS: ROMS (1km, AMSEAS)

ROMS New 03-Feb-2016 06:00:00 local time

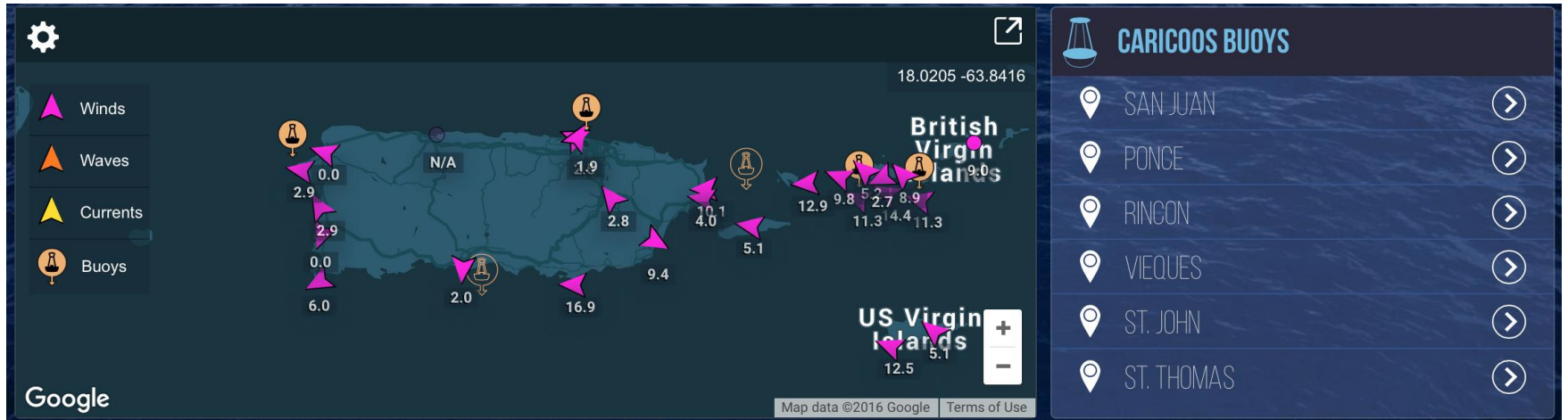


Rescates – Derrames - Sargazo
Manejo pesquerías - Navegación



CARICOOS

RIESGOS COSTEROS



OBSERVATION & FORECASTS

DECISIONAL SUPPORT TOOLS

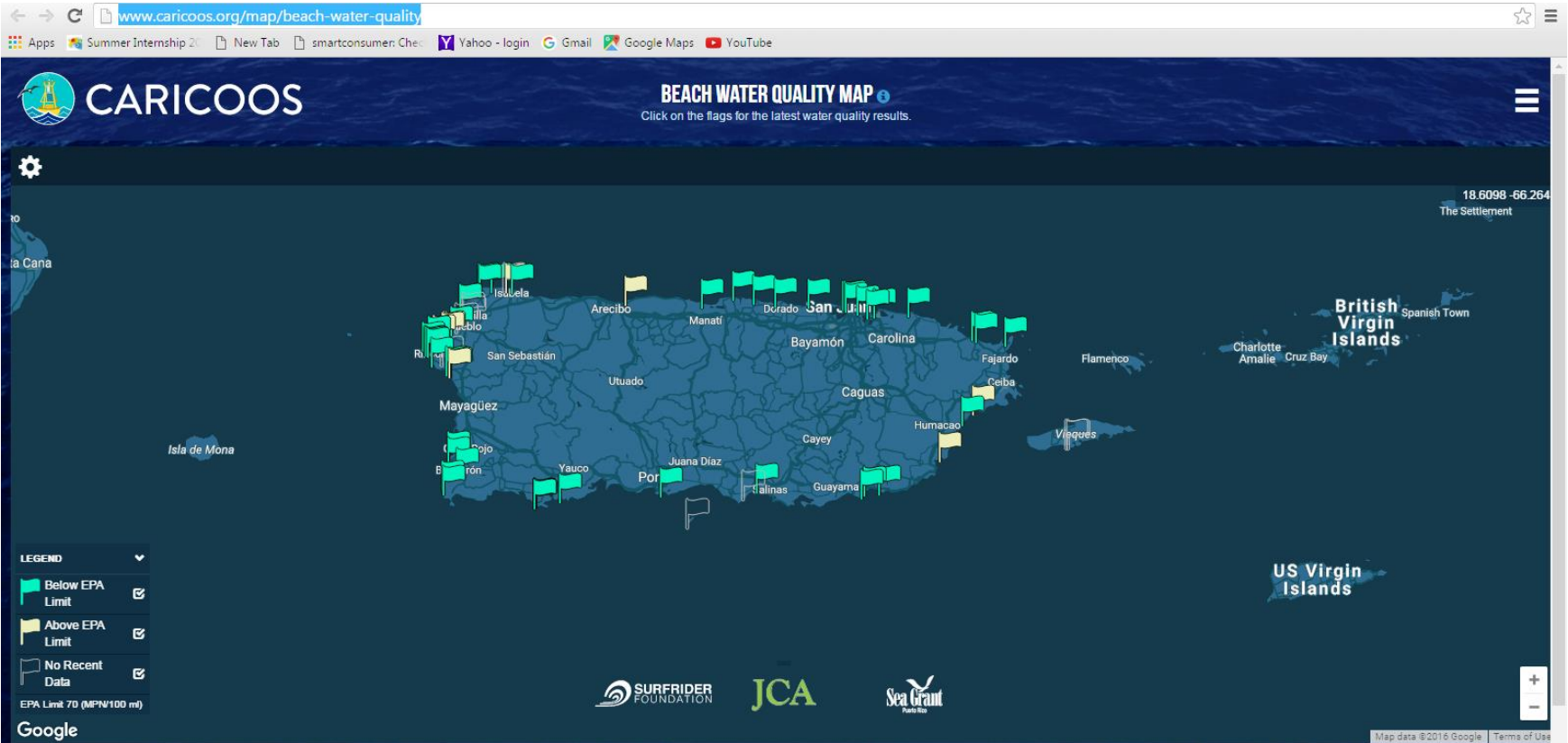
	WINDS		WAVES
	TIDES & CURRENTS		OCEAN COLOR & SST

	MARINE OPERATIONS		COASTAL HAZARDS
	CLIMATE VARIABILITY		ECOSYSTEMS & WATER QUALITY



CARICOOS

RIESGOS COSTEROS: BACTERIAS



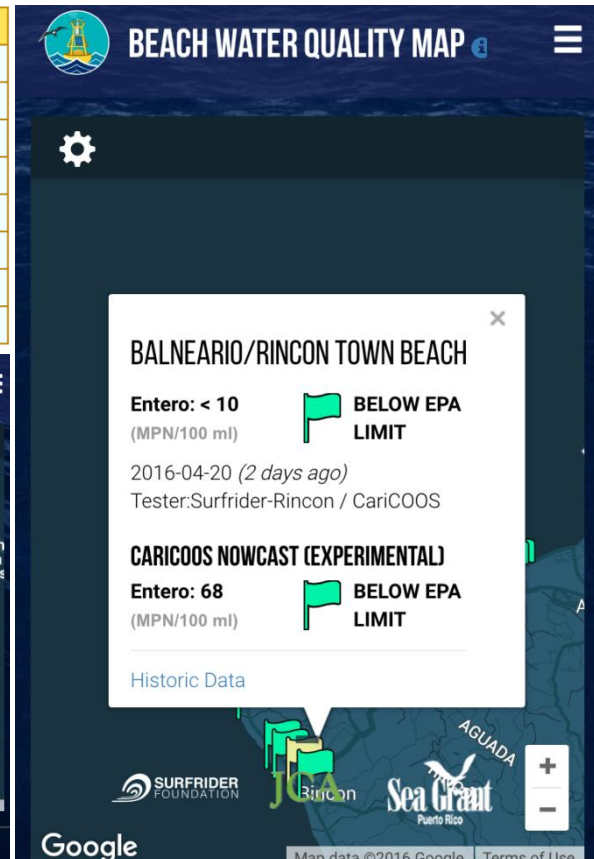
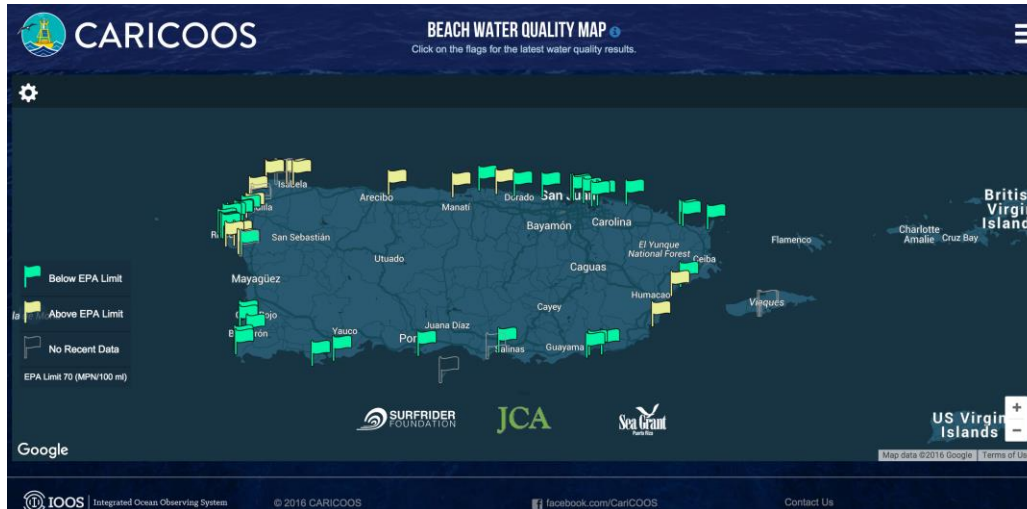


CARICOOS

RIESGOS COSTEROS: ENTEROCOCOS EN PLAYAS

$$\log_{10} Ent = \beta_0 + \Delta\beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + \beta_6x_6$$

Variable	$\beta \pm \epsilon$	Transformation	P-value
β_0 Intercept	-7.30 ± 2.28	-	0.0021
$\Delta\beta_0$ Offset	$-\log_{10}(1.12)$	-	-
x_1 Accumulated Precipitation	$0.68 \pm .08$	$x^{1/4}$	$2.06 \cdot 10^{-13}$
x_2 Wind Speed	$-0.12 \pm .06$	$1/x$	0.0284
x_3 Wind Direction	1.43 ± 0.55	$1.642 + 0.002x - 3.314 \cdot 10^{-6}x^2$	0.0108
x_4 Wave Height	2.66 ± 1.67	$1.820 - 0.261x - 0.114x^2$	0.0148
x_5 Wave Direction	$0.22 \pm .06$	$1/x$	0.0005
x_6 Tides	$1.18 \pm .40$	$1.682 - 1.728x + 12.767x^2$	0.0042





CARICOOS

RIESGOS COSTEROS



CARICOOS WAVE MODEL: BREAKER HEIGHT FORECASTS

Click on any beach for breaker height predictions. The colored flags indicate the maximum expected level of breaker heights for each day (from 5 AM to 8 PM LST). This is a...



TI -18.6593 -66.7392





SEP 15 THU SEP 16 FRI

Forecast Date



LEGEND

EXPECTED BREAKER HEIGHTS

-  High to Very Large
-  Moderate to High
-  Low to Moderate
-  Low

Google



Map data ©2016 Google Terms of Use



CARICOOS

RIESGOS COSTEROS: OLAS ROMPIENTES



EXPECTED BREAKER HEIGHT

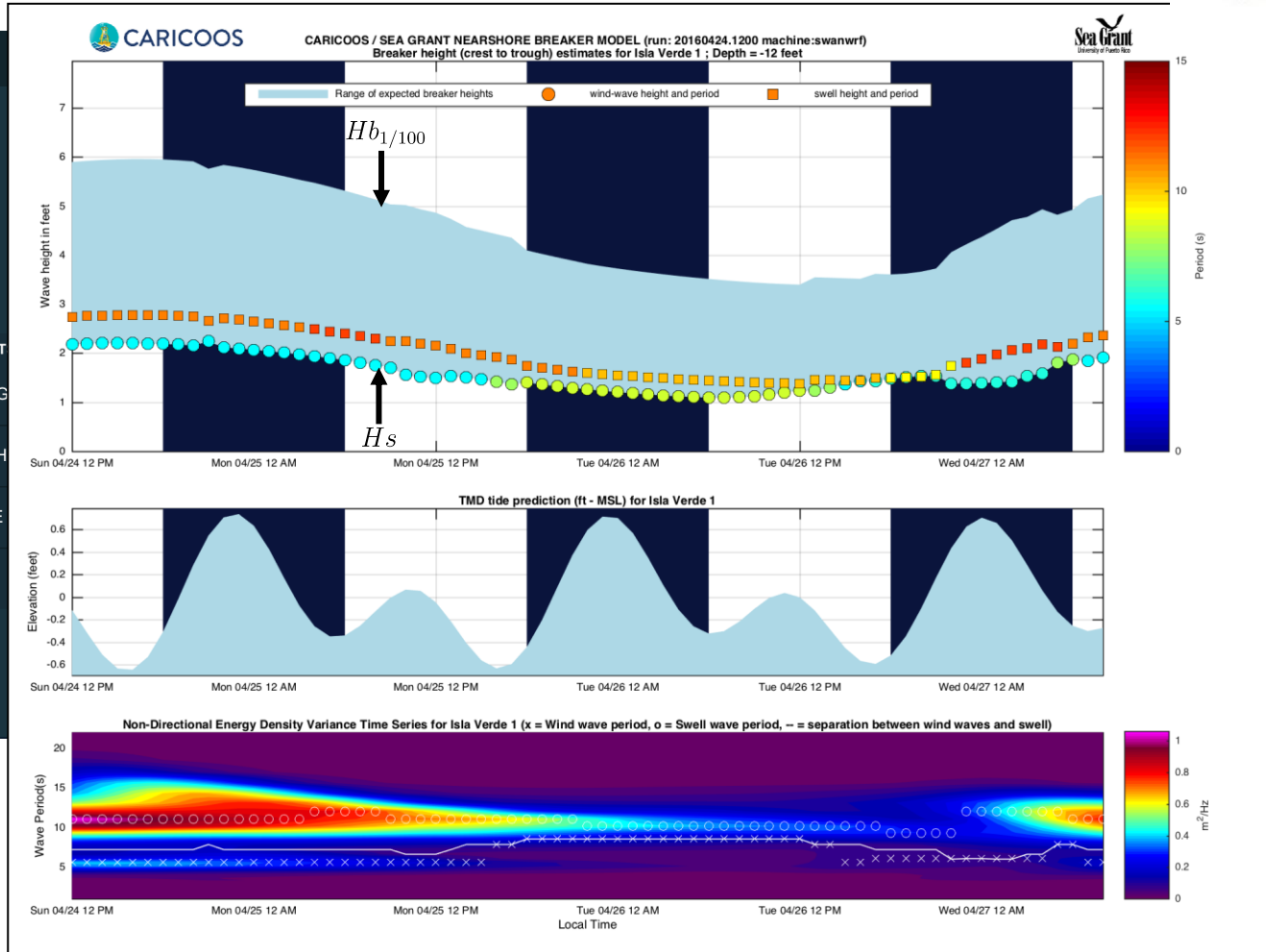
HIGH TO VERY LARGE

MODERATE TO HIGH

LOW TO MODERATE

LOW

Google



18.2476 -67.2281



US Virgin Islands

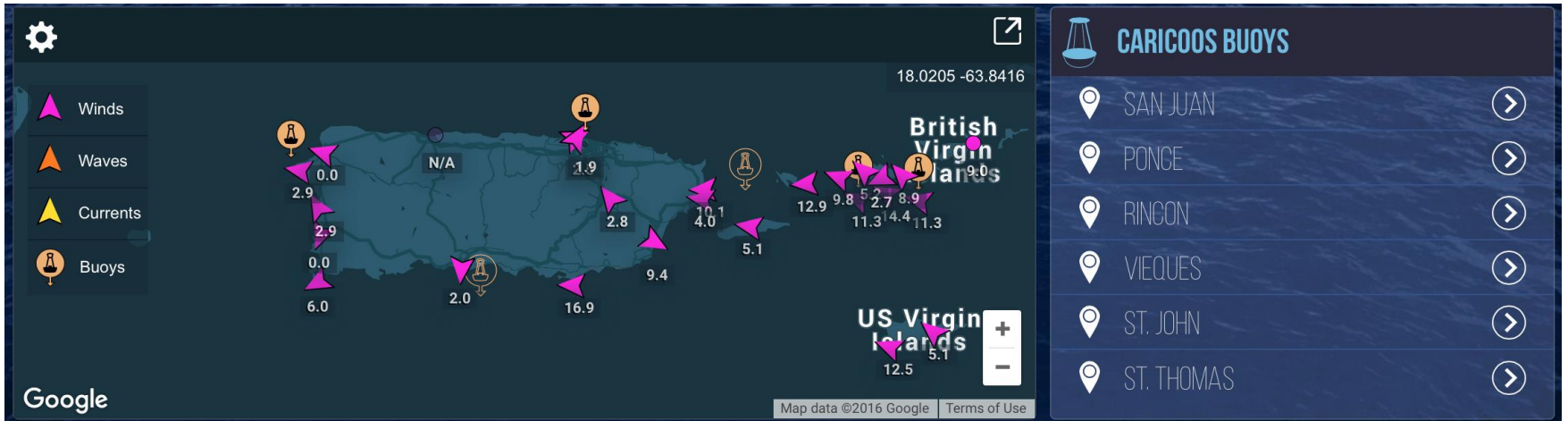


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CARICOOS

OPERACIONES MARINAS



OBSERVATION & FORECASTS



WINDS



WAVES



TIDES & CURRENTS



OCEAN COLOR & SST

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MARINE OPERATIONS



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CLIMATE VARIABILITY



ECOSYSTEMS & WATER QUALITY



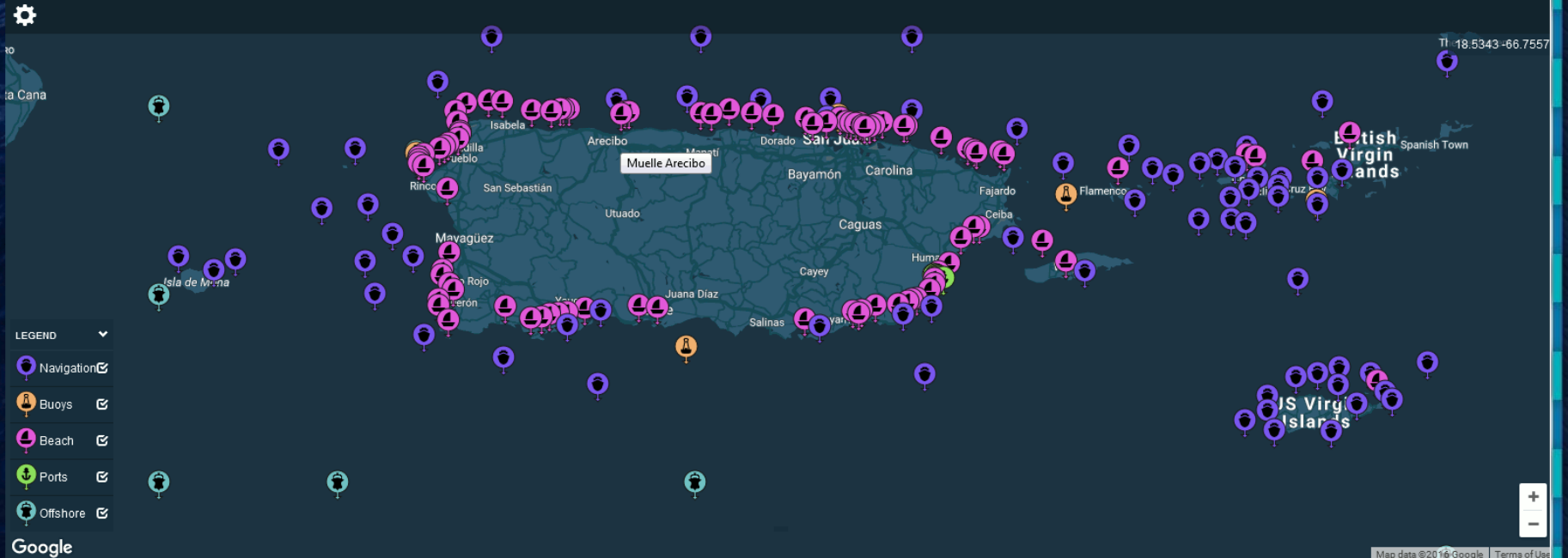
CARICOOS

OPERACIONES MARINAS



CARICOOS WAVE MODEL: SEA STATE POINT FORECASTS

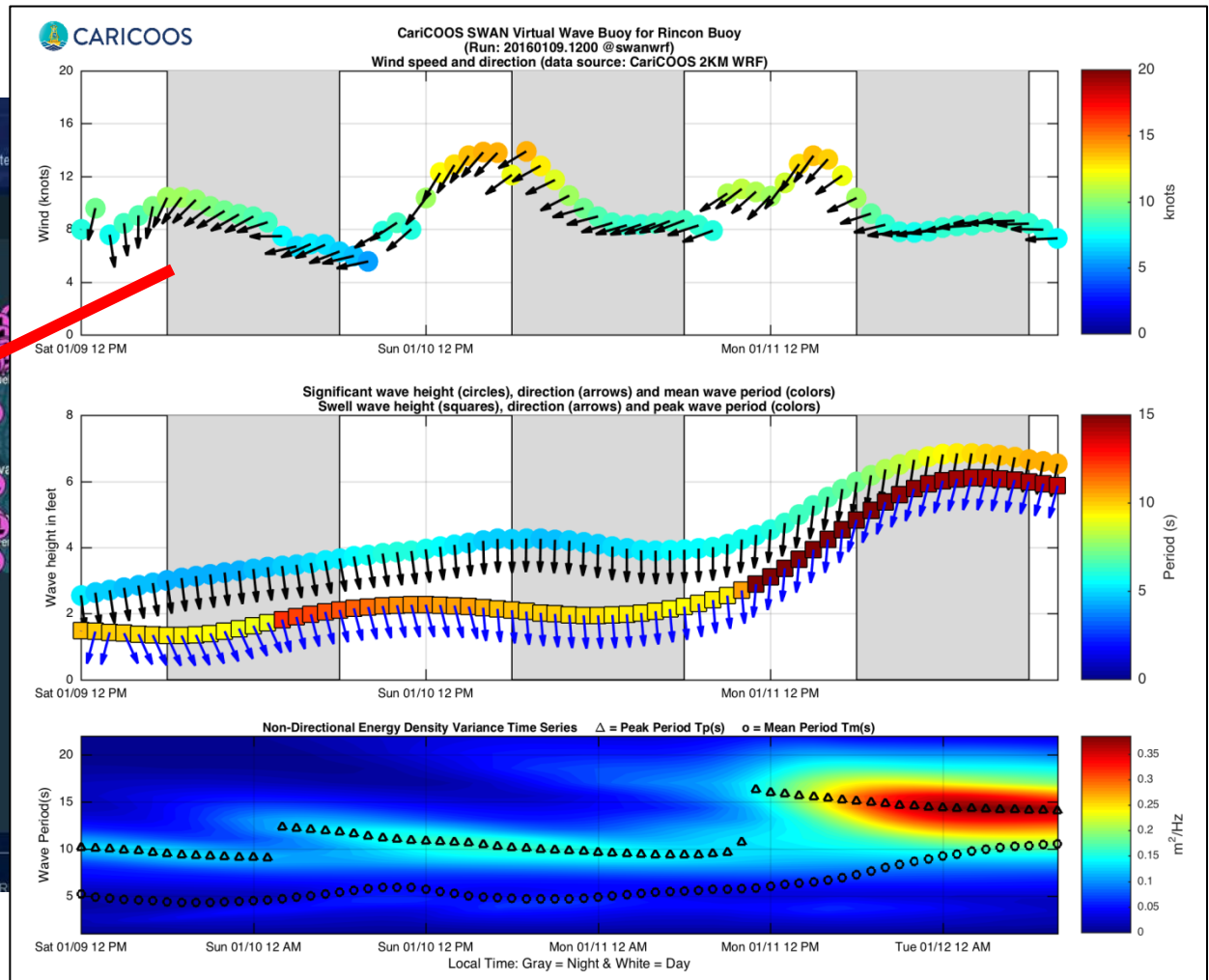
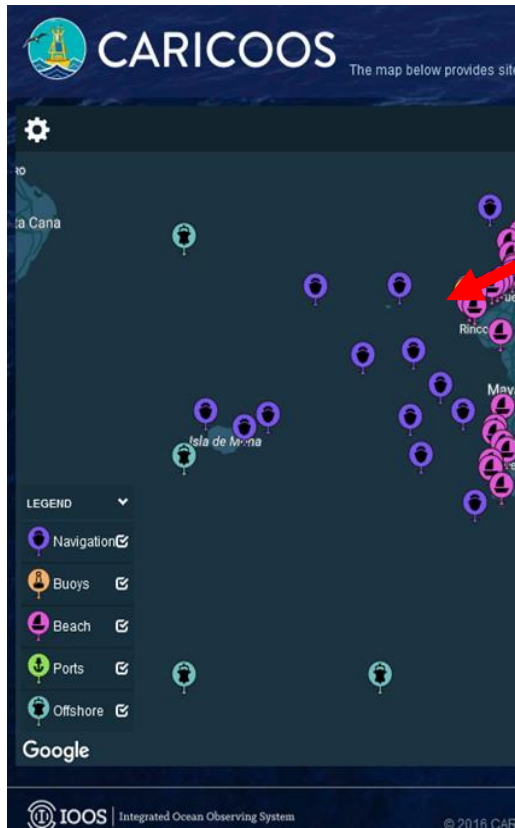
The map below provides site-specific forecasts from the CARICOOS Wave Model and from the NOAA WaveWatch III wave model. This data should be interpreted within the ...





CARICOOS

OPERACIONES MARINAS: PRONÓSTICOS PUNTUALES





CARICOOS

Gracias por su atención

PREGUNTAS?