

# MEGA CRUISE PIER II

## METOCEAN STUDY & MOORING BERTHING AND NAVIGATION ANALYSIS

Curacao Ports Authority (CPA) plans to construct a second jetty, called the Mega Cruise Pier II, near shore at Otrobanda. The selected location is at the west side of the existing Mega Cruise Pier I, which was constructed over 15 years ago.

To gather information for use in the preparation of a Basis of Design and follow-on structural design and engineering effort a navigation study, mooring and berthing analysis and a metocean study were conducted by Svašek Hydraulics.

The metocean study focussed on the mapping of local wind, waves, currents, water levels and air pressure for both daily and extreme events. 20 years of wave conditions were derived with a SWAN model of the entire Caribbean Sea. 40 years of wind and air pressure data was available from the local airport. Currents and water level model time series were gathered from online available data sources. All model data was validated by a full year of available measurements at the location of the existing Cruise Pier. In combination with NOAA's

hurricane database all information for a detailed metocean study was present.

In cooperation with the "Royal Boatmen's Association Eendracht" (KRVE) a workshop with CPA, the harbor master, the pilots, tug masters and the Harbor Safety Inspection was organized. The focus of this workshop was to discuss the navigation and mooring aspects, procedures and daily practice at the present Mega Cruise Pier I, and on the translation of the present knowledge and experience towards the new Mega Cruise Pier.

With the input of the workshop a mooring, berthing and navigation analysis based on expert judgement supported by several Optimoor calculations was performed.

### CLIENT

Curacao Ports Authority (CPA)

### LOCATION

Curacao

### DATE

2015

### SERVICES

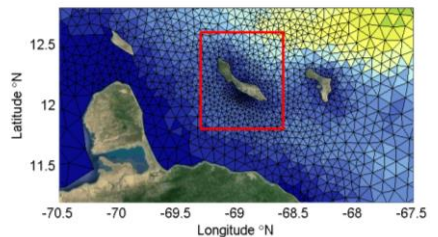
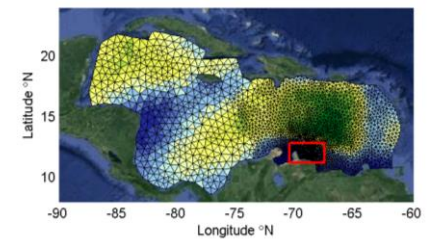
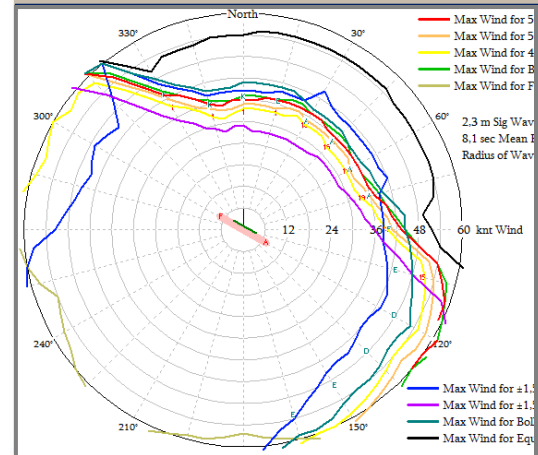
Metocean study

Mooring and berthing analysis

Navigation study

SWAN

OPTIMOOR



RIF  
SEAPORT  
CURAÇAO  
MASTER PLAN

- PHASE 1 + 2 PLAN
1. Existing Mega Cruise Ship Pier
  2. New Mega Cruise Ship Pier
  3. Passenger Arrival Buildings
  4. Independent Tour Scheduling Center
  5. Taxi Operation Areas
  6. Tour Operation Areas
  7. Celebration Plaza
  8. Arrivals Plaza
  9. Retail Shopping Plaza
  10. Waterfront Restaurants
  11. Open Air Marketplace
  12. Performance Amphitheater
  13. Waterfront Promenade
  14. Linkage to RIF Fort, Portico Bridge and Punda District
  15. Future Road Linkage (by others)
  16. Parking Areas



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