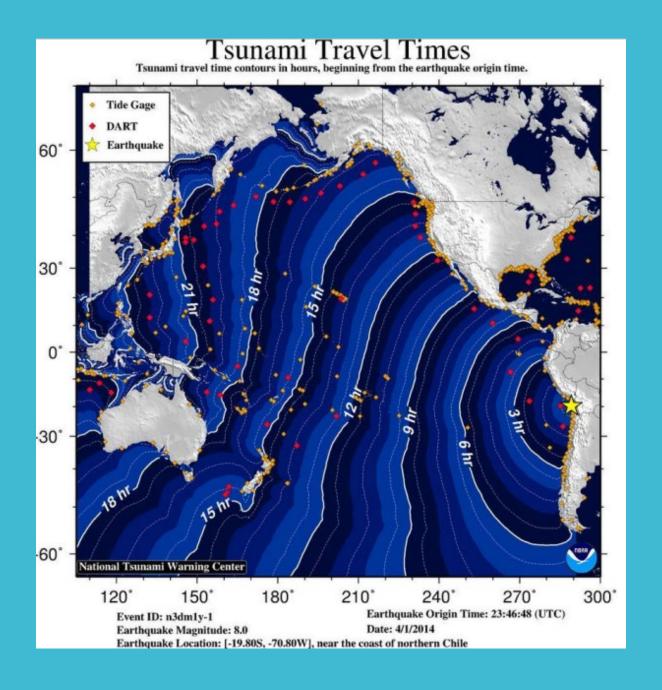
PROVIDING ECONOMIC SECURITY FOR ALL HAWAIIAN ISLANDS

Capt. Ed Enos
HAWAII PILOTS
ASSOCIATION



MARINERS NEED EASY
ACCESS TO ACCURATE,
RELIABLE, REAL-TIME
OBSERVATIONAL DATA
AT ALL COMMERCIAL
PORTS



INTERUPTIONS OF SERVICE LEADS TO:

DELAYED DELIVERIES OF FOOD, MEDICINE, FUEL, & OTHER CONSUMABLES



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"MILITARY READINESS"

UNRELIABLE ENERGY
PRODUCTION FROM
PRIMARY POWER
GENERATION SOURCES



WHAT PRODUCTS OR SERVICES DO LOCAL MARINERS NEED FROM NOAA?

MUST HAVE EASY ACCESS FROM A TUG OFFSHORE OR SHIP IN TRANSIT, AT SEA. THINK ABOUT MOBILE PHONES OR LAPTOPS BEING USED BY TUG CAPTAINS AND PILOTS.

- 1. ACCURATE BATHYMETRIC DATA FOR ALL OUR HARBORS
- 1. REAL-TIME WIND SPEED AND DIRECTION OBSERVATIONS
- 1. REAL-TIME SEA AND SWELL OBSERVATIONS
- 1. EASY ONLINE ACCESS FROM VESSELS OFFSHORE
- 1. DATA GATHERING SENSORS MUST BE AT COMMERCIAL HARBOR LOCATIONS
- 1. SYSTEM MUST BE ROBUST AND RESILIENT TO WITHSTAND HEAVY WEATHER

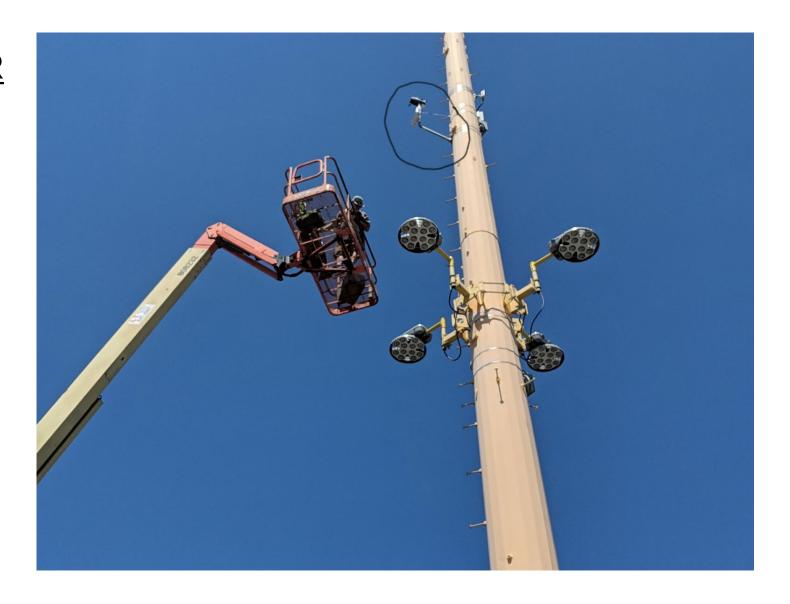
HONOLULU HARBOR

PIER ONE WEATHER
STATION INSTALLATION
ON LIGHT POLE FOR
LARGE CRUISE SHIPS

JOINT VENTURE WITH:

- -STATE DOT-HARBORS
- -HAWAII PILOTS ASSOC.
- -PacIOOS
- -HAWAII STEVEDORES

"PROJECT WAS A SAFETY ISSUE CONDITION BY ALL CONCERNED PARTIES"



BATHYMETRIC DATA

DO WE HAVE ENOUGH WATER?

GOOD DATA TODAY IS BETTER THAN PERFECT DATA NEXT YEAR

WE DON'T CARE WHO DOES
THE SURVEY

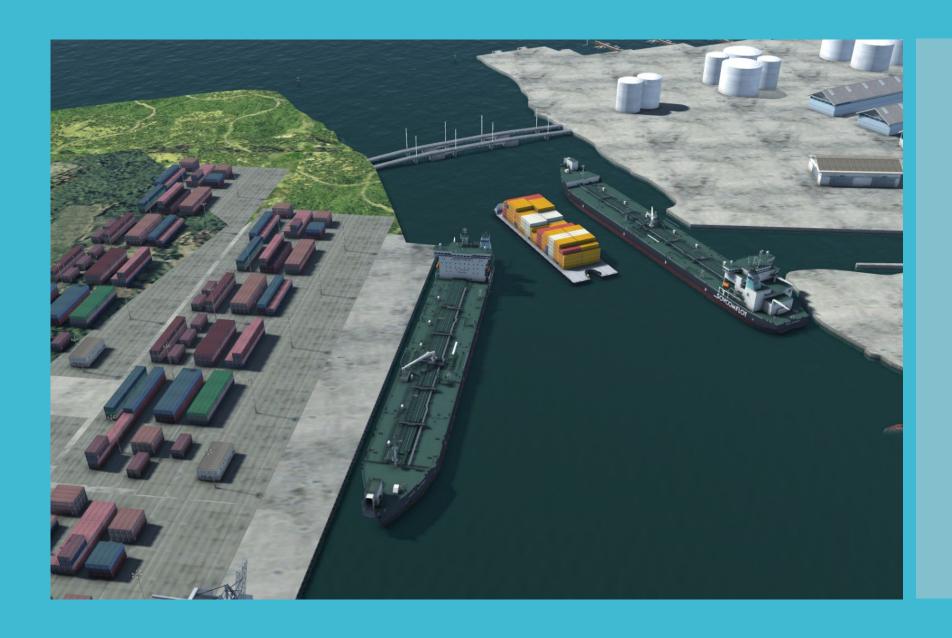
WE DO CARE WHEN IT WAS DONE

SURVEYS SHOULD BE ROUTINE, NOT A SPECIAL PROJECT



SIMULATOR IMAGE FROM MITAGS FACILITY IN SEATTLE

KCT PROJECT
CONCEPTION WAS
ALMOST 20 YEARS
AGO. TODAY, THE
ACTUAL SHIPS
NAVIGATING THIS
BASIN ARE POST
PANAMAX HULLS.



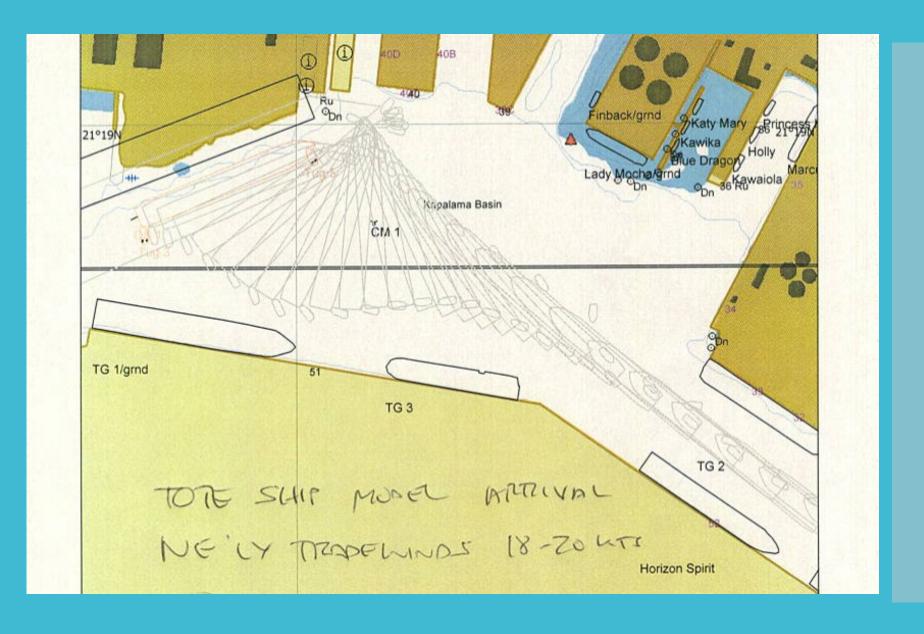
COMPUTER SIMULATION IS BECOMING THE NORM IN THE MARITIME INDUSTRY. THE **FOUNDATION IS ACCURATE GRAPHICS TO DEPICT WHAT MARINERS ACTUALLY SEE IN REAL LIFE. IT STARTS WITH THE CHARTS WE USE ALL** THE TIME.

Images courtesy of PMI



MITAGS SIMULATOR IMAGE

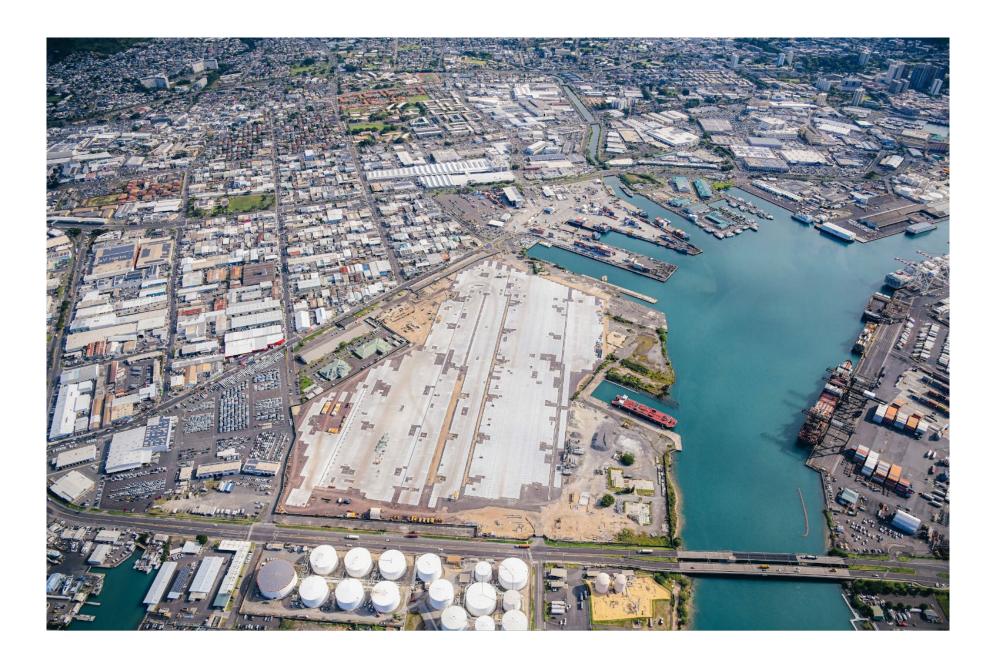
PROVIDING MITAGS AN UPDATED CHART OF KAPALAMA BASIN WILL ALLOW PILOTS **TODAY TO RUN SIMULATED EXERCISES AT THEIR FACILITY, WELL BEFORE WE HAVE TO** DO IT IN REAL LIFE IN TWO YEARS. SAFETY!



KAPALAMA CONTAINER TERMINAL

CAN WE GET A
NEW CHART
SHOWING THE
NEW PIER AS
FINISHED?

OR MUST WE WAIT A FEW MORE YEARS?



WEATHER DATA

KAHULUI, MAUI:
HAWAII'S MOST VULNERABLE
PORT, DUE TO SEASONAL
WEATHER CONDITIONS



JEAN ANNE arrival into Kahului, Maui

This RO-RO ship transits every other week here. This video was created on a very nice day with "optimal" weather conditions. Then you see the worst conditions.



Local mariners need NOAA's help to continue to provide a safe & efficient supply chain to all the islands in our State. The Dept. of Defense also benefits from your investment.

Mahalo!

