MarineLabs
DATA SYSTEMS

Real-time and Predictive Coastal Intelligence

October 31, 2024

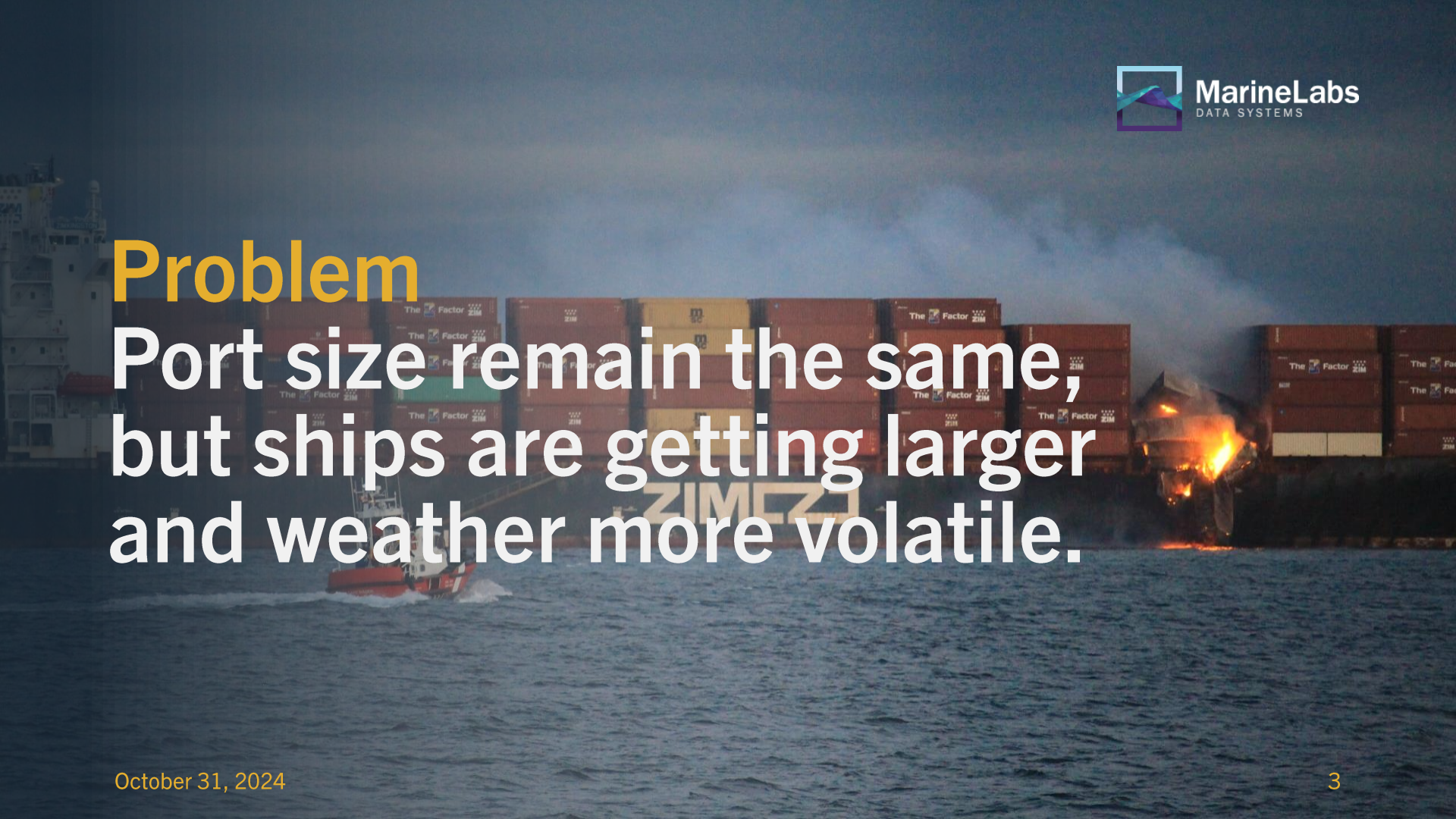
Company Overview

- MarineLabs Data Systems Inc. – A coastal intelligence company
- Canadian Owned and Operated - Victoria, BC
- Incorporated Feb. 2017
- 24 Employees
- Operational on both East and West Coasts of North America

MarineLabs
DATA SYSTEMS

Problem

Port size remain the same, but ships are getting larger and weather more volatile.



MarineLabs
DATA SYSTEMS

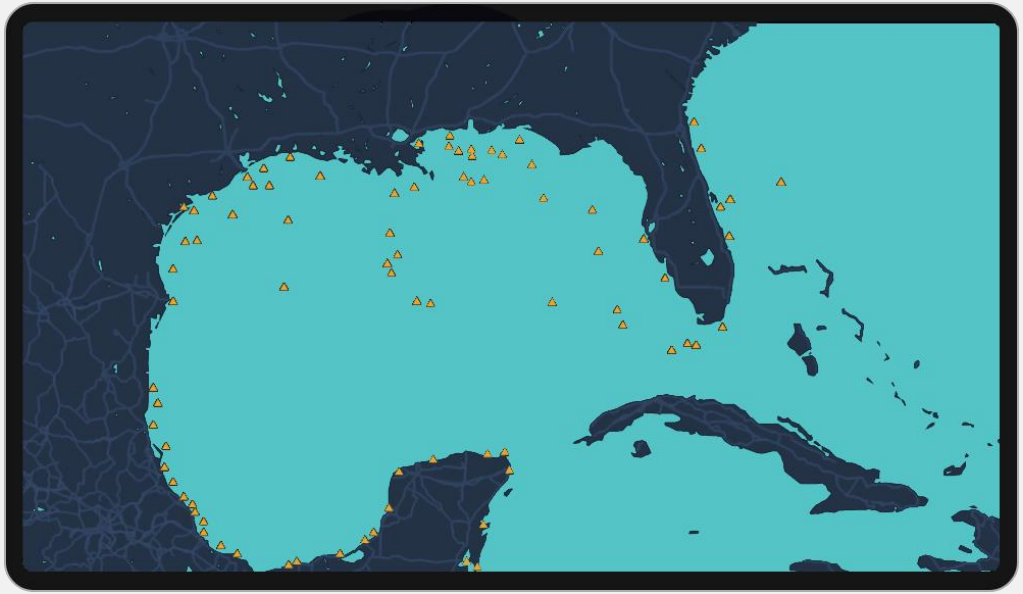
Solution

Every float in the world should be a real-time data station.

Problem

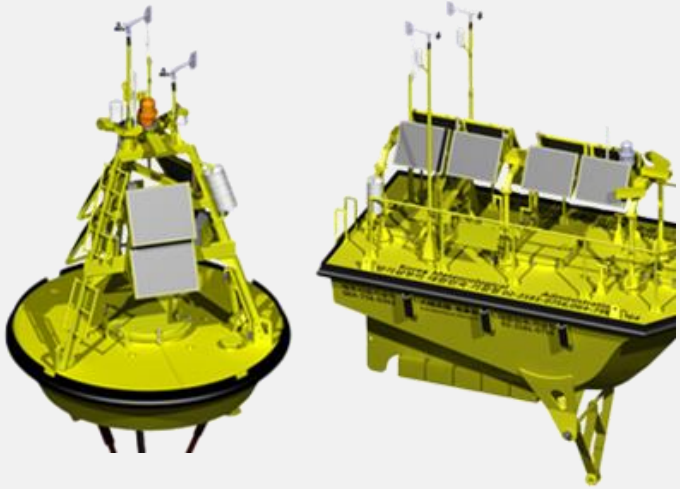
MarineLabs
DATA SYSTEMS

SOUTHEAST US — TODAY | CURRENT ODAS NETWORK



LEGACY ODAS BUOYS

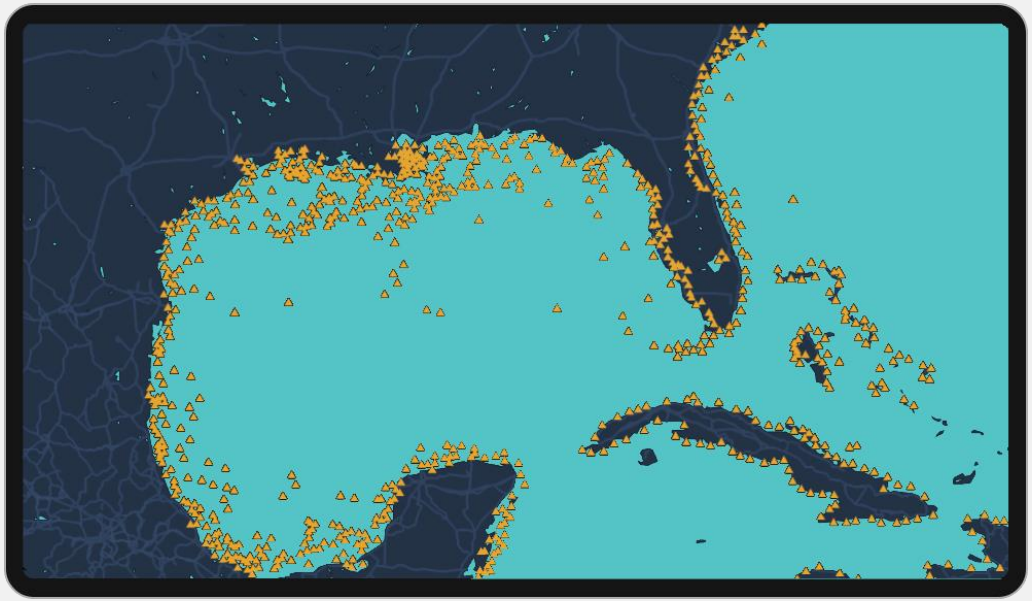
THOUSANDS GLOBALLY
COST: $250k – $1.5M EACH



Solution

MarineLabs
DATA SYSTEMS

SOUTHEAST US – FUTURE | POTENTIAL NETWORK



EXISTING BUOYS

AMOUNT: TENS OF
THOUSANDS IN THE US ALONE

MarineLabs
DATA SYSTEMS

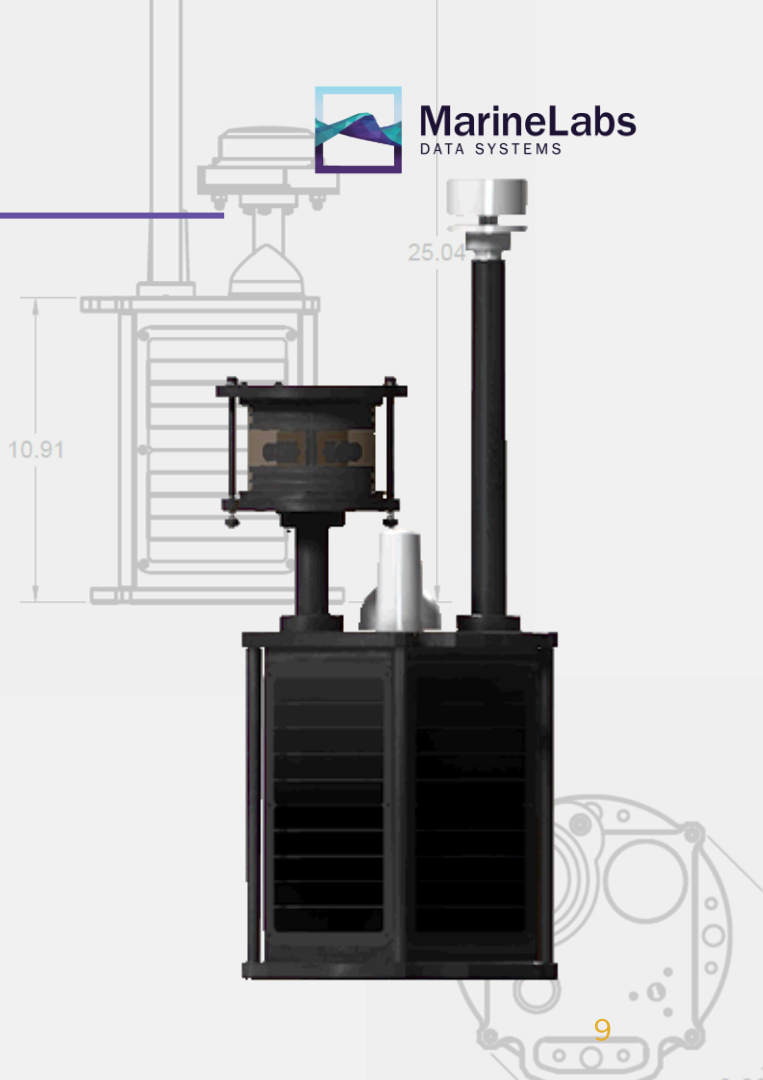
Why?
Marine safety and port efficiency.

Why?
Protect coastlines and communities.

How We Do It

Rapid-deploy, solar powered, self contained sensor nodes collect new real-time data:

- Wind
- Wave
- 360-Degree Cameras
- Vessel Wake Detection

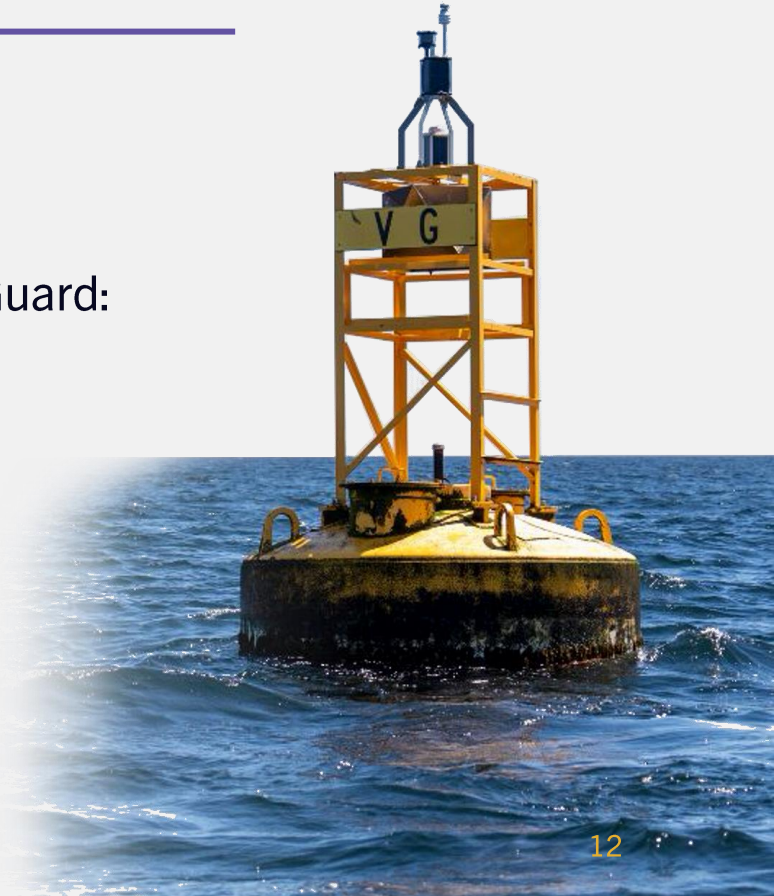


MarineLabs
DATA SYSTEMS

Turns any navigation buoy
into a Smart Buoy.
CF

Turns AtoN into Smart Buoys

- Mounts on standard cage above lantern
- No modifications to AtoN
- MarineLabs works with and benefits to CoastGuard:
  - Asset management
  - Weather intelligence



MarineLabs
DATA SYSTEMS

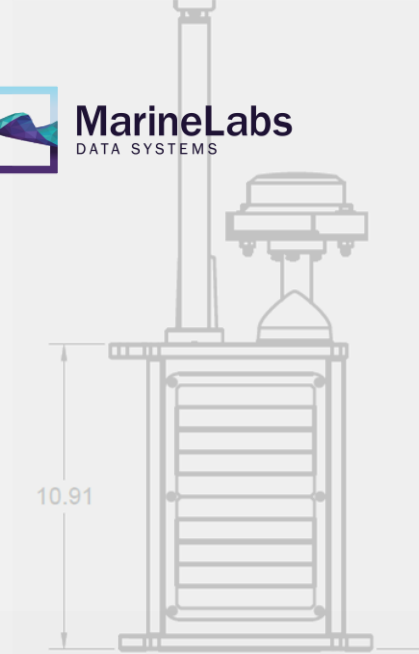
Also Works on Small Buoys

MarineLabs
DATA SYSTEMS

- 0.9m diameter
- ~80kg
- Max 4kn current, ~200m (~650') water depth
- Meets or exceeds all private buoy regulations
- MarineLabs handles the anchor/mooring/float and all maintenance.
- Often deployed for specific Port monitoring – weather intelligence, climate resilience, vessel wake detection

Subscription Based Service

- MarineLabs owns and operate the hardware
- Subscriptions to Port/Pilots/Industry
- Charge per month per location
- Data access by phone, browser, API



CoastAware

MarineLabs
DATA SYSTEMS

- A new benchmark in weather intelligence.
- Real-time, machine learning-enabled weather insights and forecasting to validate critical decisions and improve safety.

CoastAware

MarineLabs
DATA SYSTEMS

- Fully-managed, hassle-free operations
- Real-time updates and API integration
- Customizable alerts and views
- Use existing locations, commission new ones, or convert AtoNs

BuoyCam

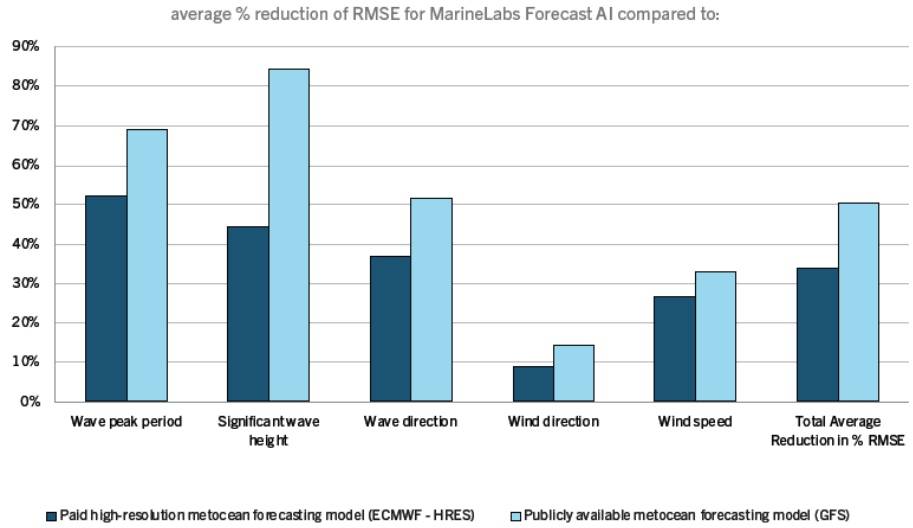
MarineLabs
DATA SYSTEMS

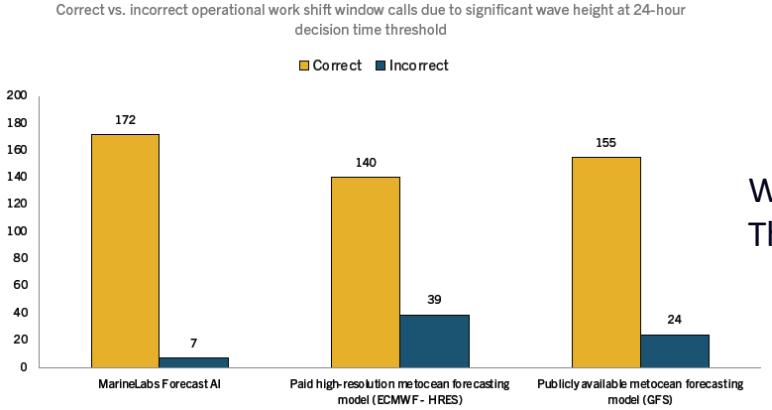
Real-time eyes-on-the-water

Forecast AI

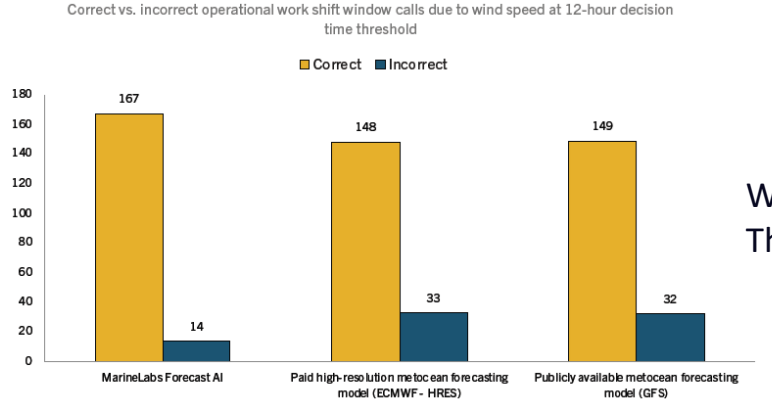
- Accurate, hyper-local forecasts that account for each location’s unique characteristics and geography
- Consistently outperforms trusted third-party models
- More accurate predictions you can rely on

Forecast AI - Performance





Wave 1.5m Threshold



Wind 20kn Threshold

Reliability in Numbers

MarineLabs
DATA SYSTEMS

Single ODAS buoy

Fleet of Sensor Nodes

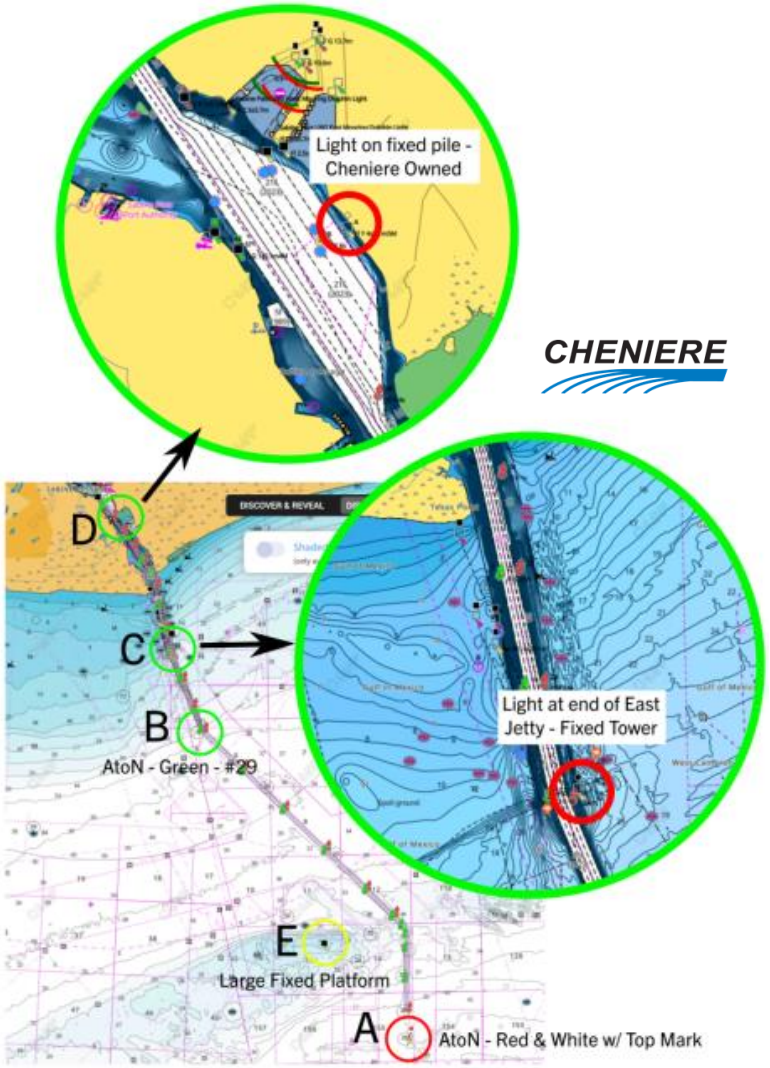
Reliability in Numbers

If your ODAS goes down, you have nothing

If one node goes down, you have 4 others

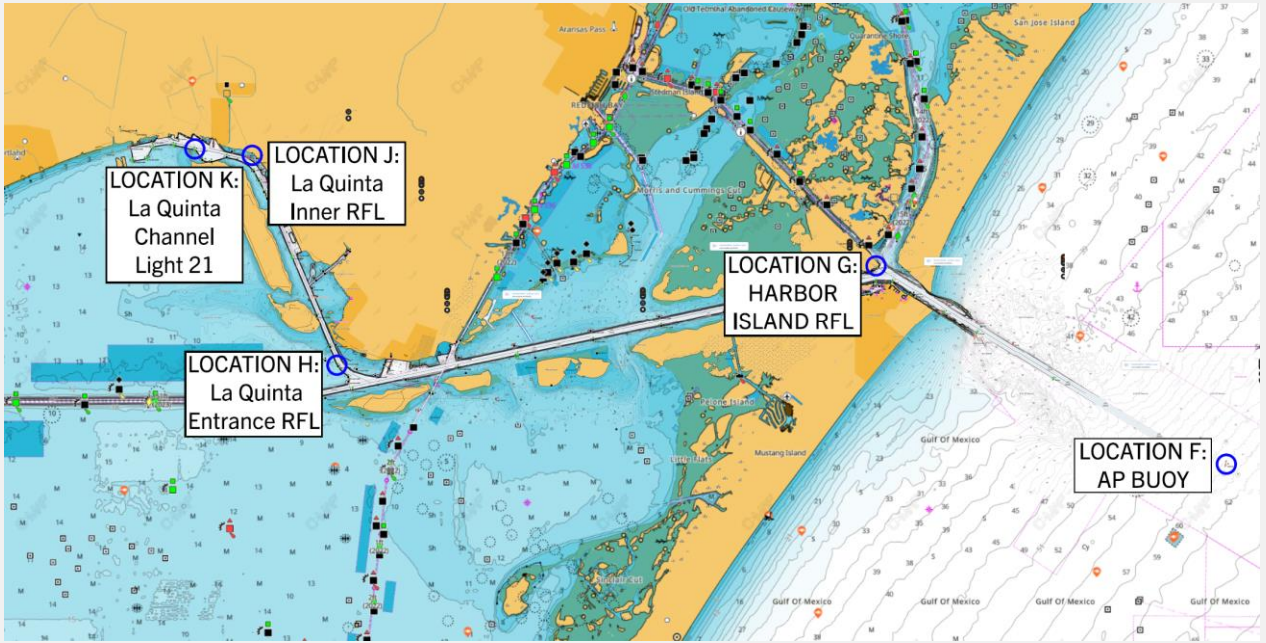
Sabine Pass Summary

- 5 locations along channel
- 4 on fixed structures, 1 on a buoy
- First deployments by end of 2024



Corpus Christi Summary

- 5 locations along channel
- First deployments in 2025



Testimonials

“We simply wouldn’t be able to smoothly support the new class of ships without MarineLabs data.”

BRENT BAXTER
Harbour Master (ret’d), Prince Rupert Port Authority

Testimonials

"MarineLabs transform weather data into actionable insights. Their forecasting solution empowers my team to help optimize resource allocation, enhance safety, and improve overall port efficiency through informed strategic planning."

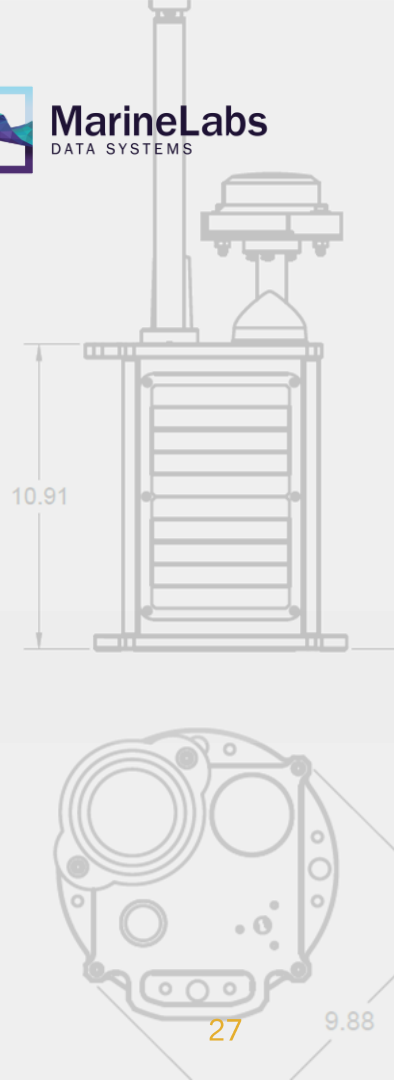
COMMANDER (RET'D) COREY GLEASON

MMM, MSC, CD, PME
Deputy Harbour Master – Port of Halifax

Why do Maritime Operators Care?

MarineLabs
DATA SYSTEMS

- Handle larger ships in tight weather margins
- 360 cams help determine visibility
- Reduce unforeseen weather delays and cancellations
- Incident/Accident avoidance
- Data is more frequent, more reliable
- Subscription service is tailored to your workflows



MarineLabs
DATA SYSTEMS
Thank you!
Reach us at
sales@marinelabs.io