

# Map-enabled Dashboards for Business Intelligence in Ports

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# Geospatial System Integrators in Ports since 2008

- Port of Los Angeles
- Port of Oakland
- Port of Stockton
- Port of Tacoma
- Port Tampa Bay
- Port of Vancouver
- Port of Alaska



- Port of Long Beach
- Port of San Diego
- Port of Hueneme
- Port of Houston
- Port of Charleston
- Port Everglades
- Port of Longview



# 200+ Tasks, 50,000+ Hours in Ports to Date



# Enesgy™ for Ports (formerly NSG Port Solution)



[Enesgy Software](#)

[Services & Support](#)

[About](#)



## Enesgy for Ports

Geospatial Solutions for Port Authorities and Marine Terminals



### Port Engineer:

Where are all the as-builts for the area that is about to be redeveloped?



### Environmental Officer:

Which catchment basins are in need of inspection or repair?



### Facility Security Officer:

Which vessel is my camera looking at, and is there HazMat in that warehouse?



### Maintenance Manager:

Where is the security light that was reported damaged, and do we have the right replacement parts?



### Chief Financial Officer:

Where are our assets that are actually worth repairing rather than replacing or disposing?



### Enterprise Approach

Overcome silos of information and gain new efficiencies. Attain a common operating picture of your facility. Access through best practice enterprise security measures.



### Knowledge Security

Capture the precious knowledge of your retiring workforce. Put modern knowledge management tools in the hands of a new generation. Provide critical information in a secure environment. Build resiliency, prepare for emergencies.



### Decision Support

Leverage the data already in your facility and allow your staff to drive defensible, transparent decision making. Oversee operations via a map-driven dashboard. Automate and disseminate repetitive data tasks, making it easy for anyone to access the information they need.



### Robust Geospatial Tools

Enesgy for Ports includes a suite of tools designed specifically to help manage port and marine terminal assets, security, documents, real estate, environmental, engineering, and maintenance, all through organization and presentation of data spatially and existing systems integration to accelerate ROI.



### Modern Architecture

Built on a best-in-class software and database foundation, Enesgy for Ports is designed using a standards-based and easily supportable architecture. Configuration instead of customization reduces cost and promotes organization independence.



### Deployment Options

Deployable behind your firewall or in your own private cloud where you capitalize and own the software, or hosted in the cloud through a subscription. Either way you own and have permanent access to your data.

# Business Intelligence Dashboards

A Business Intelligence Dashboard is a data visualization tool that displays the current status of metrics and key performance indicators ([KPIs](#)) for an enterprise. [Dashboards](#) consolidate and arrange numbers, [metrics](#) and sometimes [performance scorecards](#) on a single screen. They may be tailored for a specific role and display metrics targeted for a single point of view or department. The essential features of a BI dashboard product include a customizable interface and the ability to pull real-time data from multiple sources.

# Logistics – Ports of Montreal & Vancouver

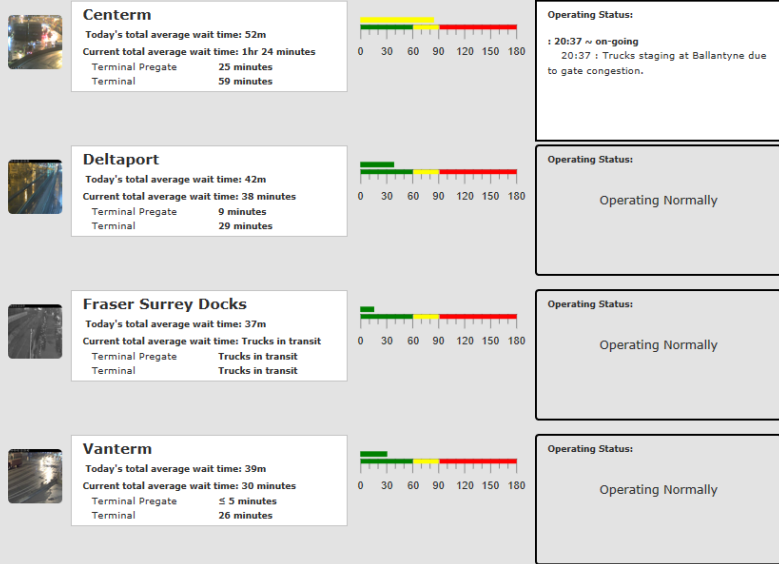


portvancouver.com

Current Hourly

## Estimated truck waiting and flow times at Port of Vancouver terminals

Current date/time: Mar 02, 2018 10:23 PM. Refresh in 48 seconds.



This chart shows the estimated wait times for terminal pre-gates and within terminal yards.

- Current average wait times are updated once per minute and reflect the average waiting time of transactions which have completed their trips in the last thirty minutes
- Total average wait times are updated once per minute and reflect the total average waiting times of transactions which have completed their trips today.

Download the Port Van eHub App for real time updates – available for [iPhone](#) & [Android](#)

### Port's rail crossings status:

Status	Start	Status	Start
Columbia Commissioner Street	● OPEN	Vanterm West Stewart Street	● OPEN
Viterra Stewart Street	● OPEN	AGT Centennial Road	● OPEN
Vanterm East Stewart Street	● OPEN	Rogers St Rogers Street	● OPEN



TABLEAU DE BORD

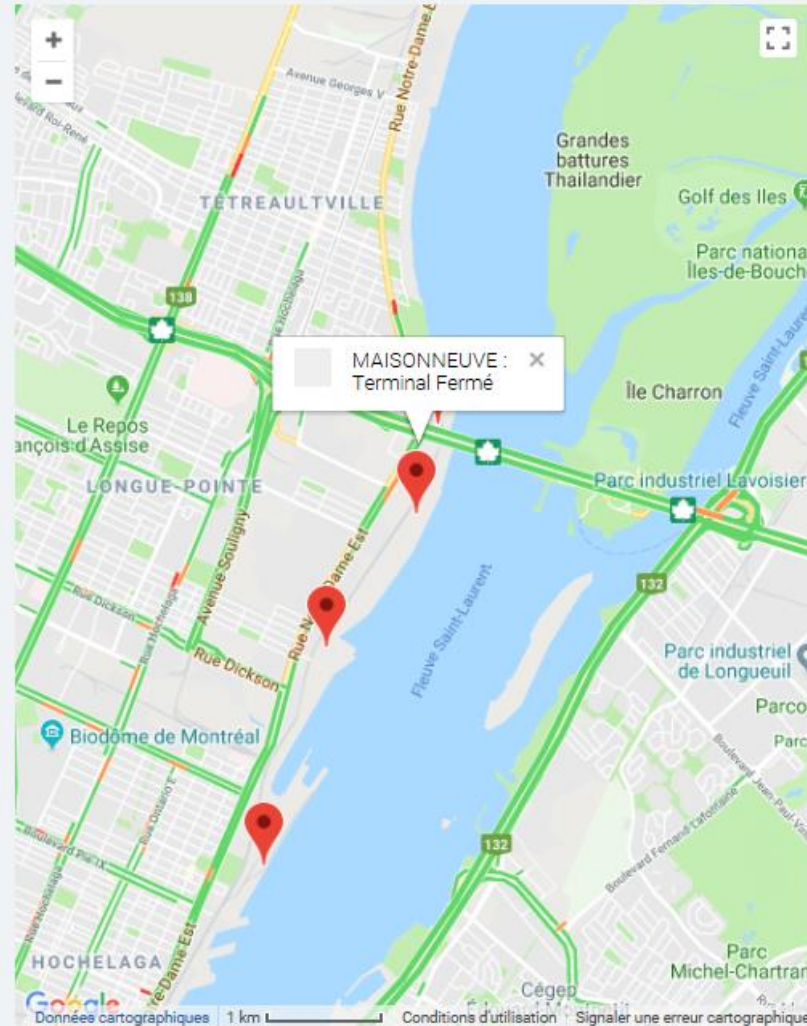
AU SUJET DU PORTAIL

FAQ

NOUS JOINDRE

CONNEXION

ENGLISH



Mars 7, 2018 1:32 AM



CAST :  
Terminal Fermé



MAISONNEUVE :  
Terminal Fermé



RACINE :  
Terminal Fermé



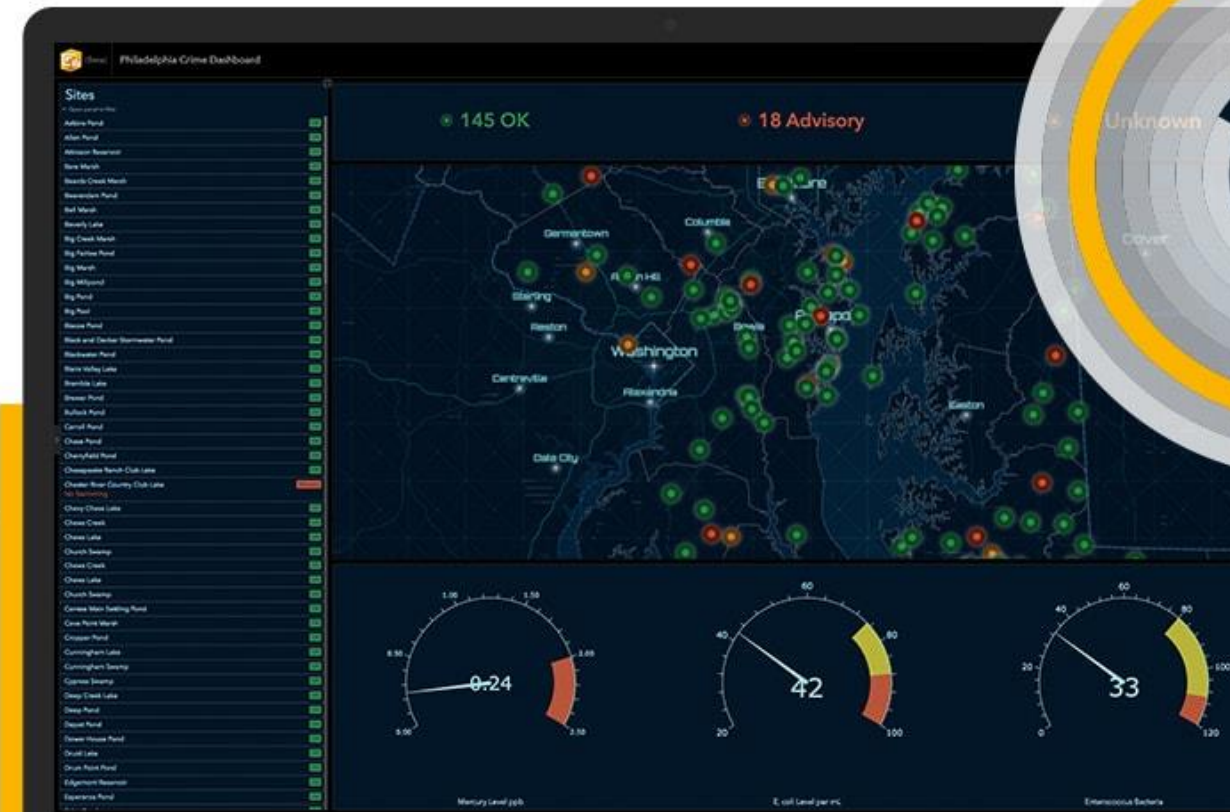
VIAU :  
Terminal Fermé



Gaz à effet de serre  
Présentement: Émission Faible.

# Map-enabled Dashboards

Dashboards that also utilize “smart maps” (GIS, Geographic Information Systems) to help understand the spatial distribution and interrelationships of phenomena, and therefore enhance business intelligence.



# Asset Management – Port of Napier, NZ

## No. of Near Misses

5

In Past 30 days

Last update: a few seconds ago

## Active Hazards

3

Last update: a few seconds ago

### Incoming Hazard Register Updates

John Smith 1 of 3

OBJECTID	1
Hazard Description	Container Poor Stack
Consequence of Hazard	Moderate
Likelihood of Occurrence	Possible
Isolate, Minimise or Eliminate?	Isolate
Controls	
Reported by (Name)	John Smith
Date of Report	9/7/2017, 5:00 AM
Supervisor/ Team Leader	Yes
Informed	
GlobalID	83fff402-6971-4196-baf4-97fe225fdb3
Shape_Area	12016.875
Shape_Length	468.769634567926

Last update: a few seconds ago

### Napier Port Webmap



### Napier Port Webmap

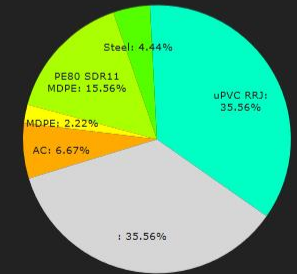
Map Latest Asset Condition Assessment

Sourced from the LINZ Data Service and licensed for re-use under the Creative Commons Attribution 3.0 New Zealand license...

## Asset Types

- HazardArea
- Link Box
- Backflow Preventer
- Duct Cap
- Water Main Pipe Fittings
- Cable Joint
- Manhole
- Valve

## Water Pipe Replacement Progress



Last update: a few seconds ago

### Electrical Ducts

29

In service

Last update: a few seconds ago

### COMMS Ducts

15

In service

Last update: a few seconds ago

### Pile Condition Assessment Completion (%)

76.8

Last update: a few seconds ago



# Pavement Maintenance – Port of Oakland, CA

Legend Layer List

**Pavement Condition Index**

- Serious (PCI 11-25)
- Very Poor (26-40)
- Poor (41-55)
- Fair (56-70)
- Satisfactory (71-85)
- Good (86-100)

**Pavement Image**

crack\_len

- 109.32 - 278.82
- 63.62 - 109.32
- 36.51 - 63.62
- 16.62 - 36.51
- 0.00 - 16.62

**Panoramic Image**

- 

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Filter

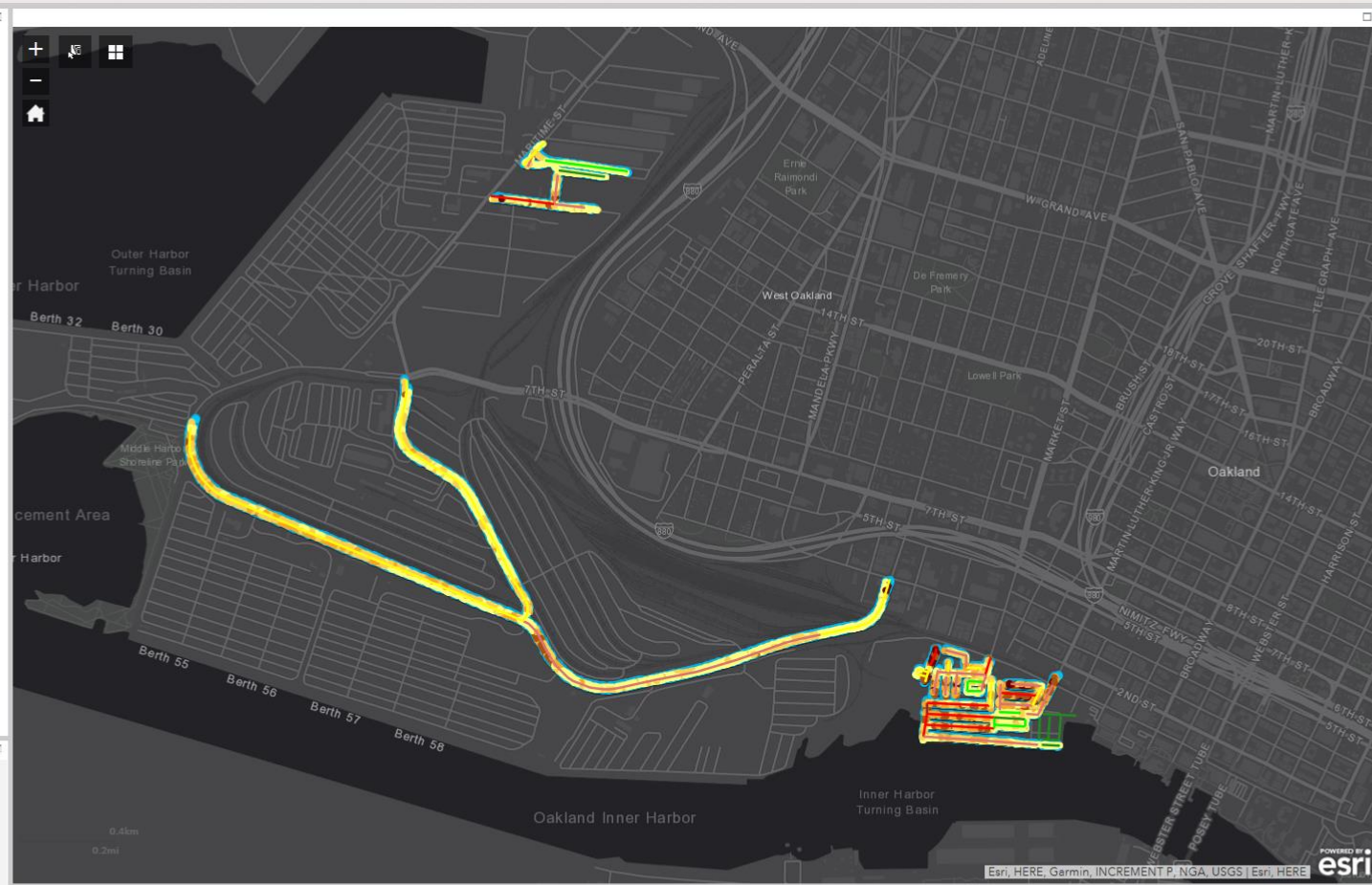
▼ Pavement Condition Index

Branch Name:

Segment ID:

PCI Category:

PCI Range:



Cracking

Total Crack Length

70271 ft

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Rutting

Total Rut Depth

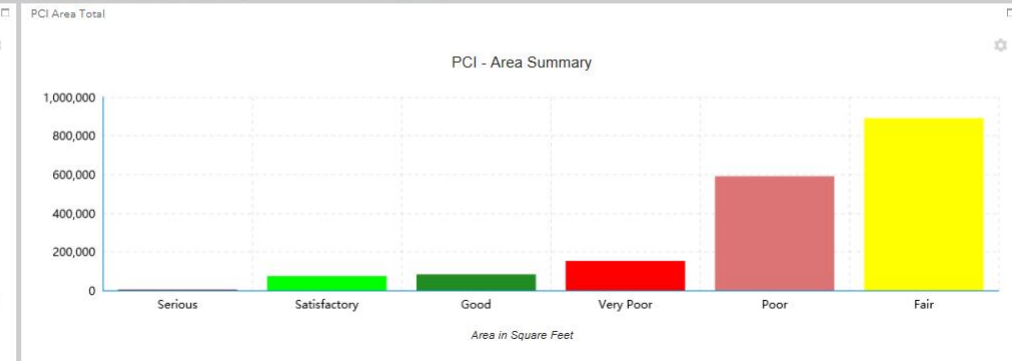
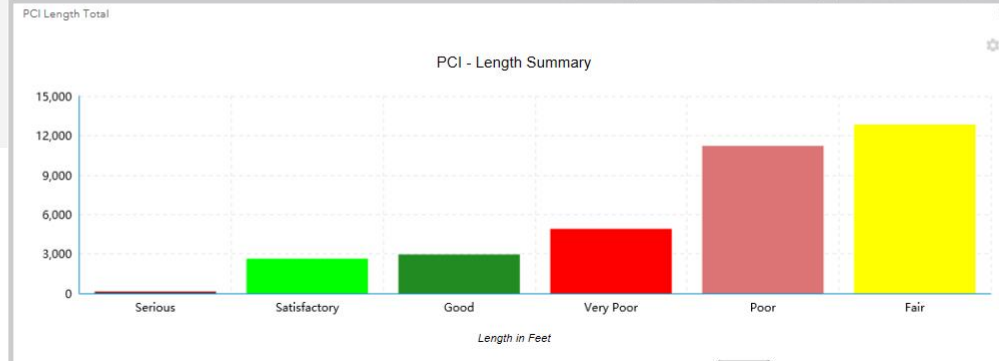
432 in

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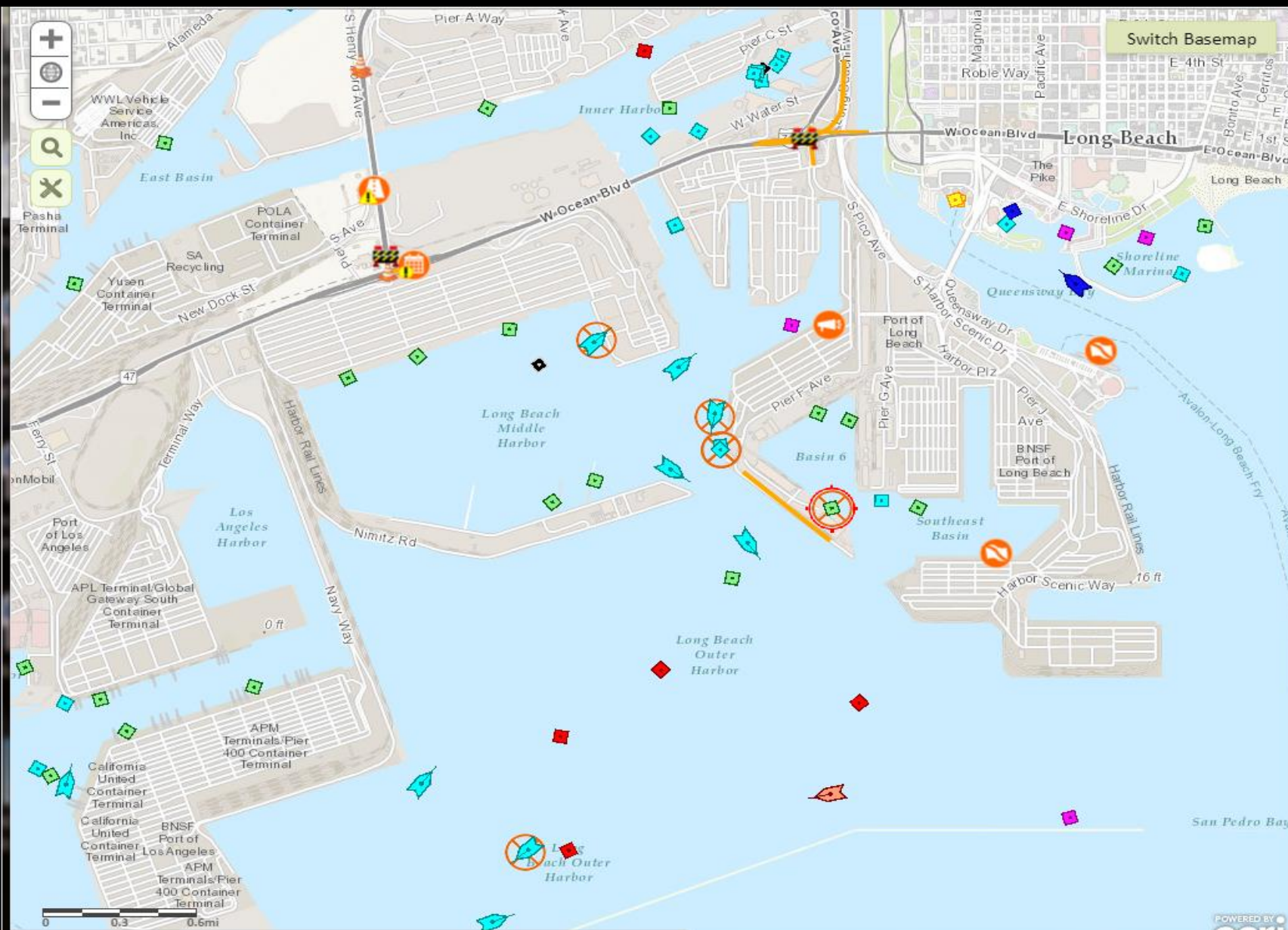
Pothole Area




Total Pothole Area



173 sq/ft



# Security – Port of Long Beach, CA



**VIRTUALPORT**   

Viewing data for: 24 May 2016    My event types only

**Modules**


Operations Brief	Messages
Port Resources	Vessels
Social Media	News
Berths	Tracking
Weather	Advanced
Contributor	

**MARSEC Level**

**1** MARSEC Level 1  
Significant Risk

**Preferred Layers**

Vessel AIS Identified <a href="#">Map Symbols</a>	<input checked="" type="checkbox"/> On
Cameras <a href="#">Map Symbols</a>	<input type="checkbox"/> Off
Long Beach Imagery <a href="#">Map Symbols</a>	<input type="checkbox"/> Off
Traffic <a href="#">Map Symbols</a>	<input type="checkbox"/> Off

POWERED BY 

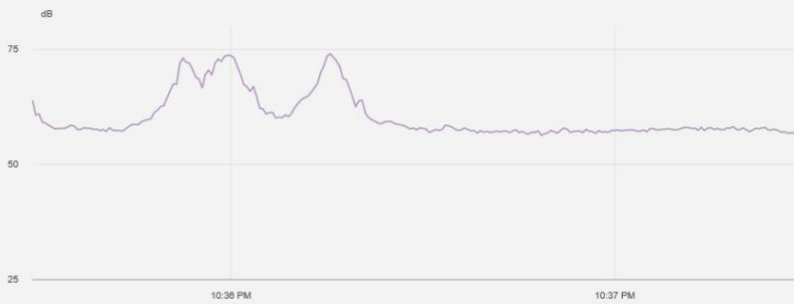
# Compliance – Port of Vancouver, BC



VFPA - Noise Monitoring Program

SITE INFORMATION NEED HELP?

VAN Renfrew



DESCRIPTION

Noise levels at this monitor are slightly higher (~3 dBA) than experienced at the nearest residences. The dominant noise sources are from Commissioner Street vehicle traffic and rail activities such as passbys and rail squeal.

WEATHER



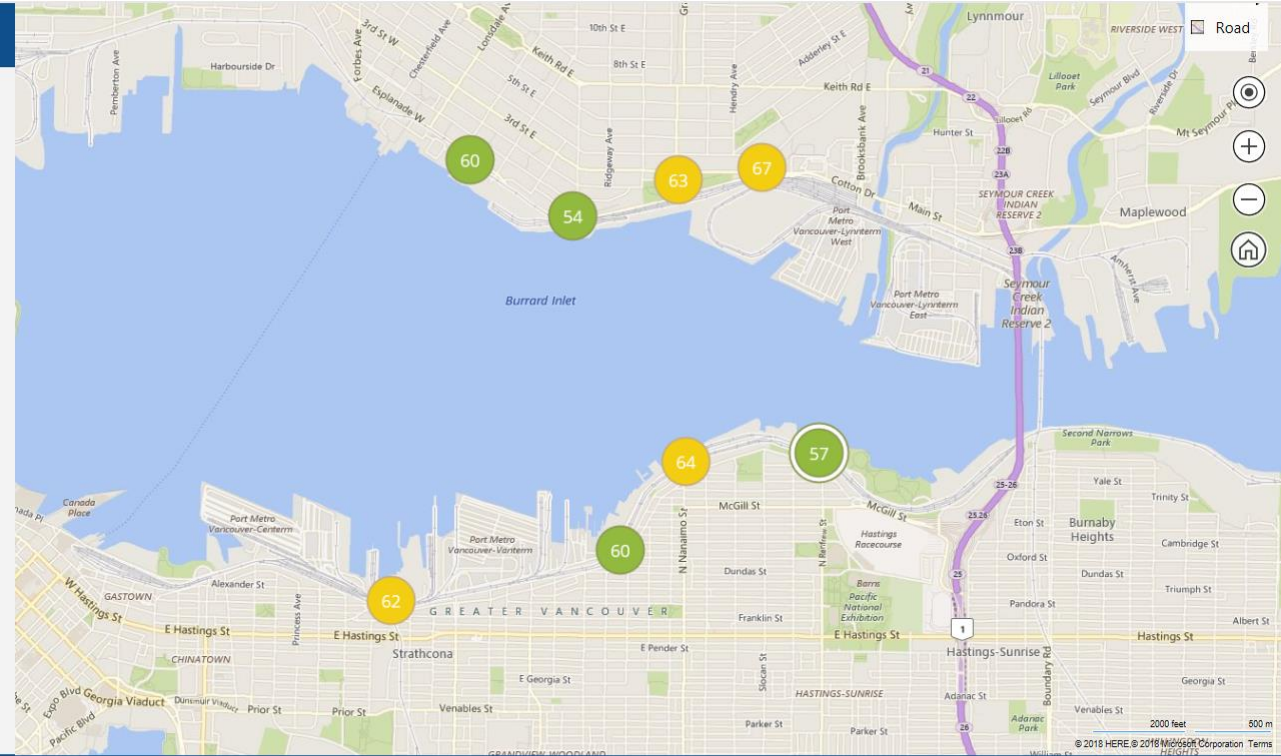
Temperature  
35 °F



East  
4 mph



Pressure  
1010 hPa



One hour from 3/2/2018 9:38 PM VAN Renfrew



# Marine Safety



# 151

## Vessels

Last update: a few seconds ago

Vessels Protected Areas Hazardous Cargo Military Vessels

### Vessels

228304980  
 Time, Local: 3/2/2018, 21:36  
 Destination: OAKLAND  
 Speed, kts: 21.1

249998000  
 Time, Local: 3/2/2018, 21:37  
 Destination: KAOSHIUNG  
 Speed, kts: 13.1

356709080  
 Time, Local: 3/2/2018, 21:43  
 Destination: US OAK 56  
 Speed, kts: 10.2

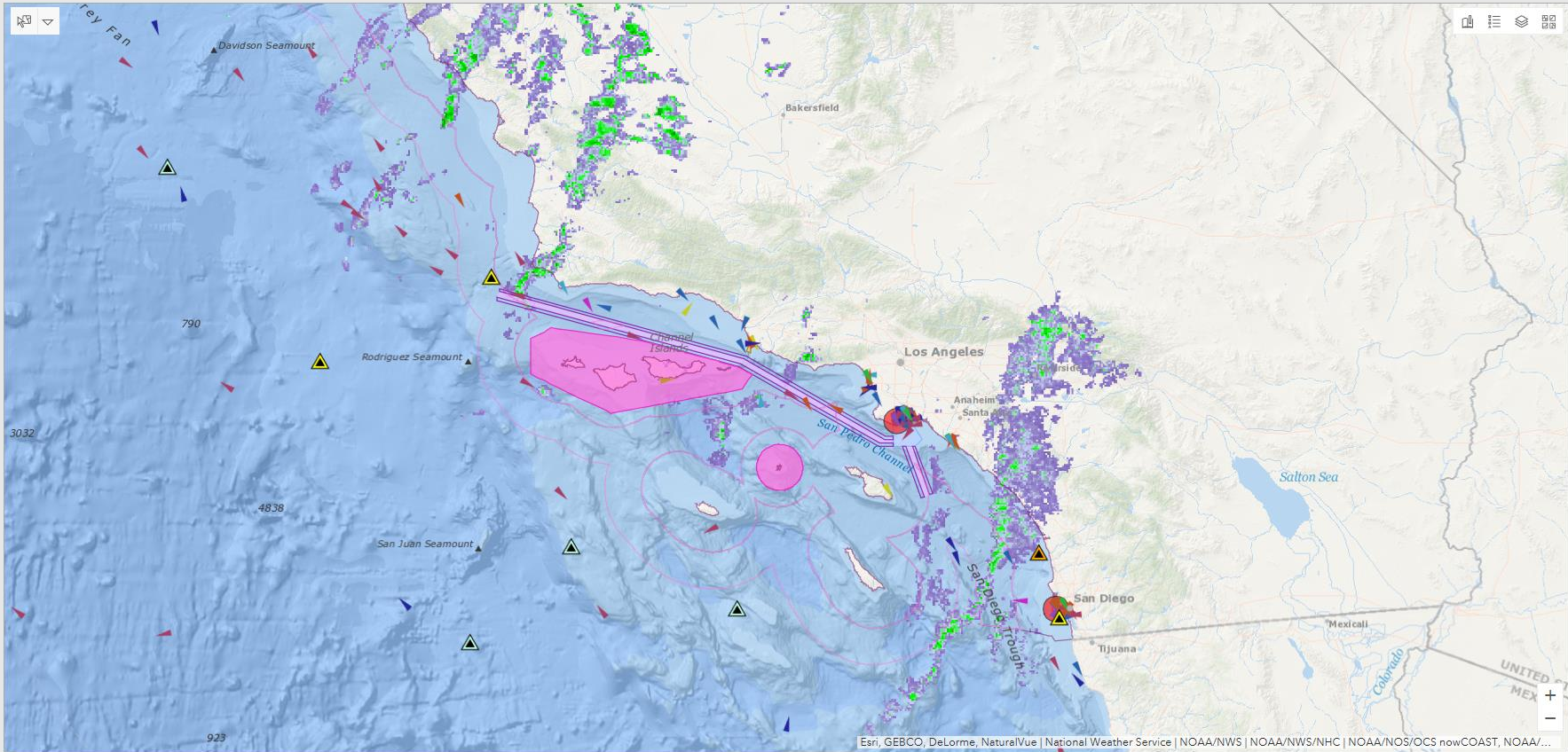
371620500  
 Time, Local: 3/2/2018, 21:38  
 Destination: NAGOYA, JAPAN  
 Speed, kts: 11.8

372501060  
 Time, Local: 3/2/2018, 21:36  
 Destination: BALBOA  
 Speed, kts: 16.5

211763064  
 Time, Local: 3/2/2018, 21:37  
 Destination: US LAX  
 Speed, kts: 16.3

Last update: a few seconds ago

Vessels Protected Areas Hazardous Cargo Military Vessels



Esri, GEBCO, DeLorme, NaturalVue | National Weather Service | NOAA/NWS | NOAA/NWS/NHC | NOAA/NOS/OCS nowCOAST, NOAA/...

### Pacific Cyclones Probability

No Data

National Hurricane Center - 2-Day probability outlook areas.

Last update: a few seconds ago

Pacific Cyclones Atlantic Cyclones

### Weather Warnings and Watches

No Data

### Incident(s) Being Reported



# 8

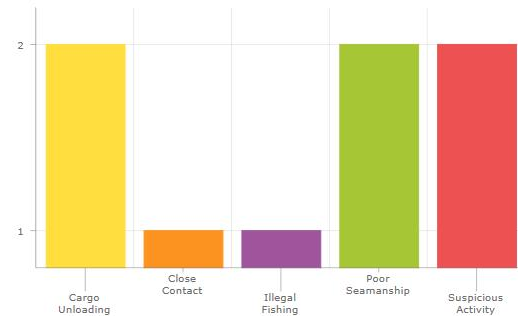
Last update: a few seconds ago

### Incident Gauge



Last update: a few seconds ago

### Incidents by Type



### Maritime Incident Reports

Priority: Low  
 Incident Type: Poor Seamanship  
 Date/Time: 1/12/2018, 6:22 AM  
 Vessel Name: MV Westwood Center  
 Country Flag: Panama

Priority: Low  
 Incident Type: Cargo Unloading  
 Date/Time: 1/26/2018, 9:17 AM  
 Vessel Name: PacificCargoCo12  
 Country Flag:

Priority: Medium  
 Incident Type: Close Contact  
 Date/Time: 1/26/2018, 9:22 AM  
 Vessel Name: CloseCells  
 Country Flag: United States

Last update: a few seconds ago

Incident Reports Proximity Alert

Last update: a few seconds ago

# Benefits

- See where things are, how they relate to each other
- Aggregate items by location, proximity
- Integrate strictly-spatial information like aerial photos, geocoding
- Feed into other spatial software, like routing, network analysis

# Requirements

- Live data feeds and usually some static data as reference
- Definition of “normal” and “exceptional” state
- Preferably a messaging system
- All the usual stuff: Permissions, connectivity, throughout, cross-platform compatibility

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