Maritime Emissions Portal

Collaboration between RightShip, AUSMEPA and PortVision.

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American Association of Port Authorities 2018

Agenda

About RightShip

The air quality challenge

Maritime Emissions Portal – A solution

- How it started
- How it works
- Emission calculations

Maritime Emissions Portal – Live demonstration

Maritime Emissions Portal – Applications

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About RightShip

RightShip is the world's leading maritime risk management and environmental assessment organisation.

RightShip helps customers manage maritime risk through big data and predictive analytics across safety and environment performance.

Independent company formed in 2001
- Houston, Melbourne & London
- 300+ customers globally

Greenhouse Gas Emissions Rating
- 76000+ ships
- Used by financers, charterers, ports & others.

Industry collaboration
- Environmental organisations (e.g. Green Marine, ESI, AUSMEPA, NAMEPA).
- Maritime Emissions Portal an example of this

Air quality – the challenge

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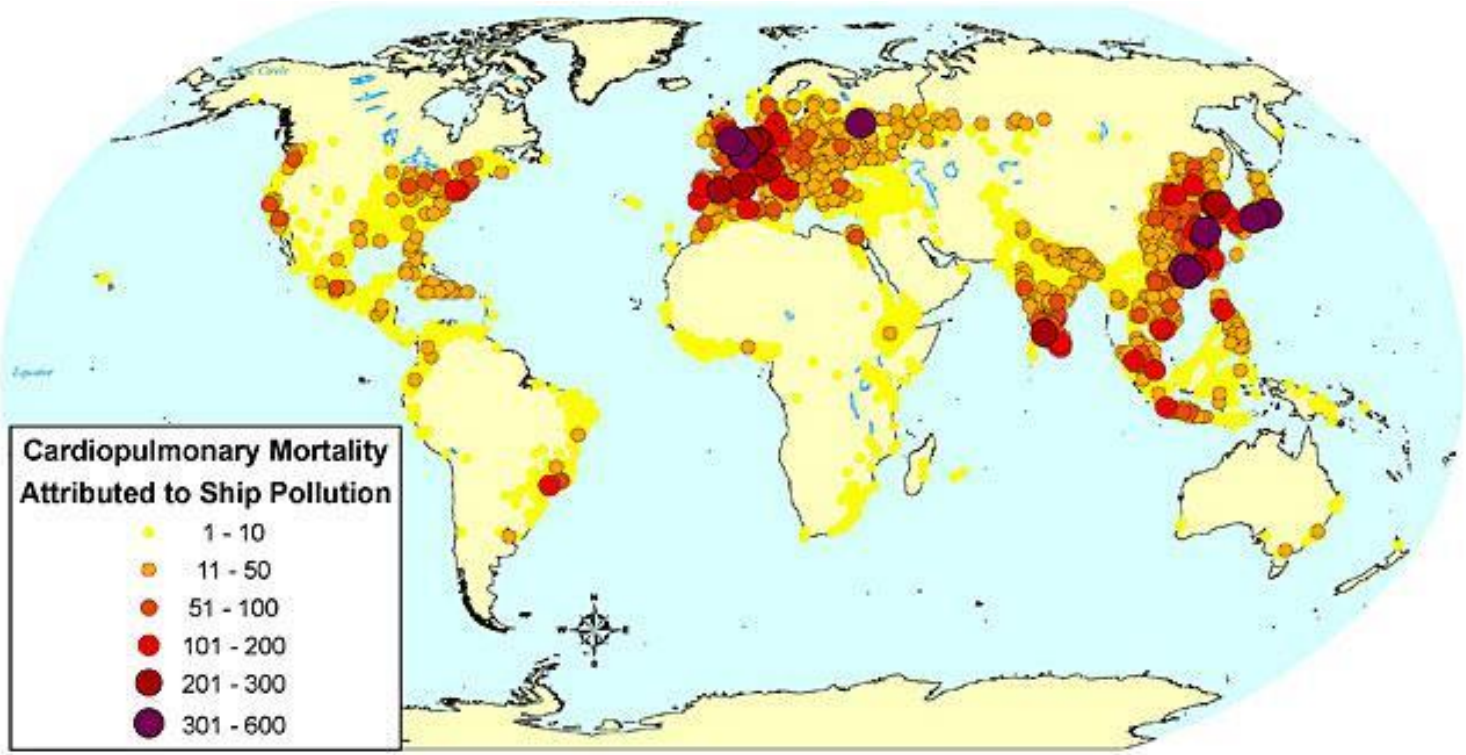
Air quality – Everyone's problem

- N_2O
- SO_2
- PM2.5
- PM10
- CO_2
- VOC



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Air quality – The Data

- Lack of good data
- Laborious
- Expensive?
- Retrospective
- Complex

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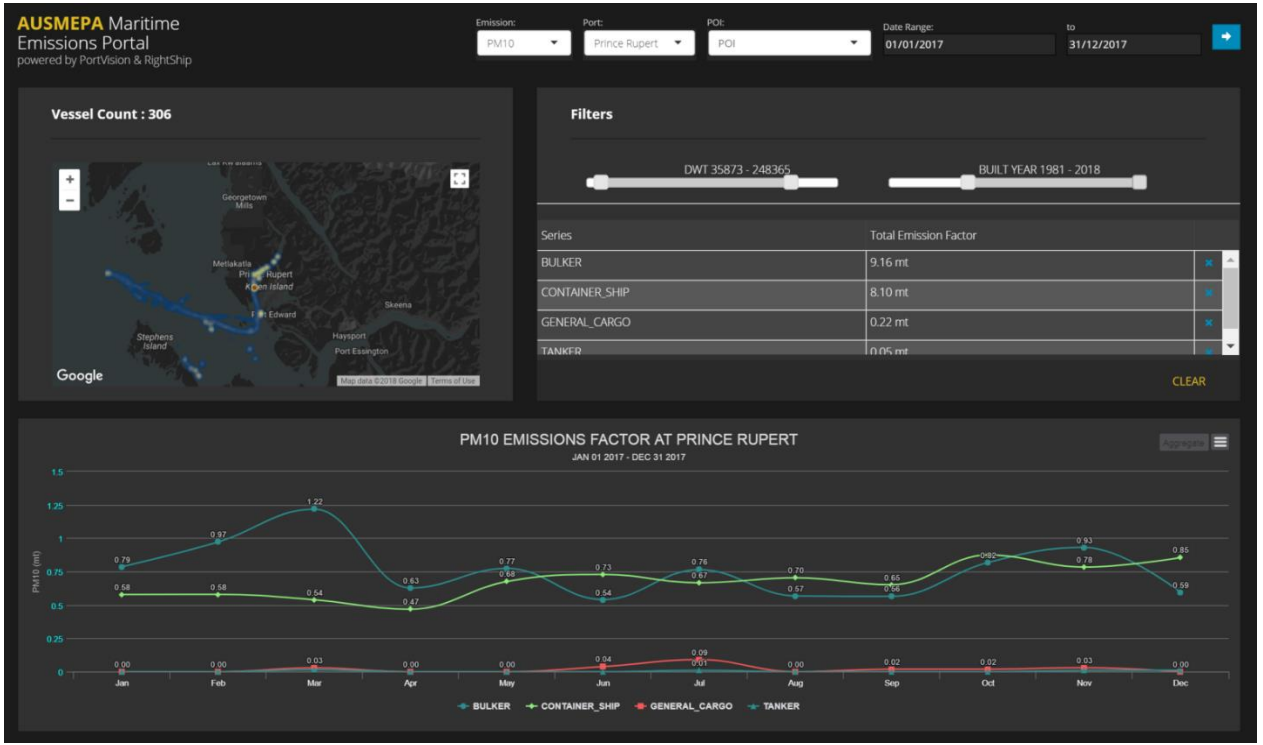
Maritime Emissions Portal (‘MEP’) – A Solution

MEP - What is it

An online portal that helps reduce the impact of ship emissions on the health of port communities and the environment.

It provides users with the ability to observe changing air patterns throughout a port and city over the course of a day, week, month or a year.



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MEP – How it started

Google Impact Challenge

“Using technology to tackle a global issue that makes a better world, faster”

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MEP– How it works

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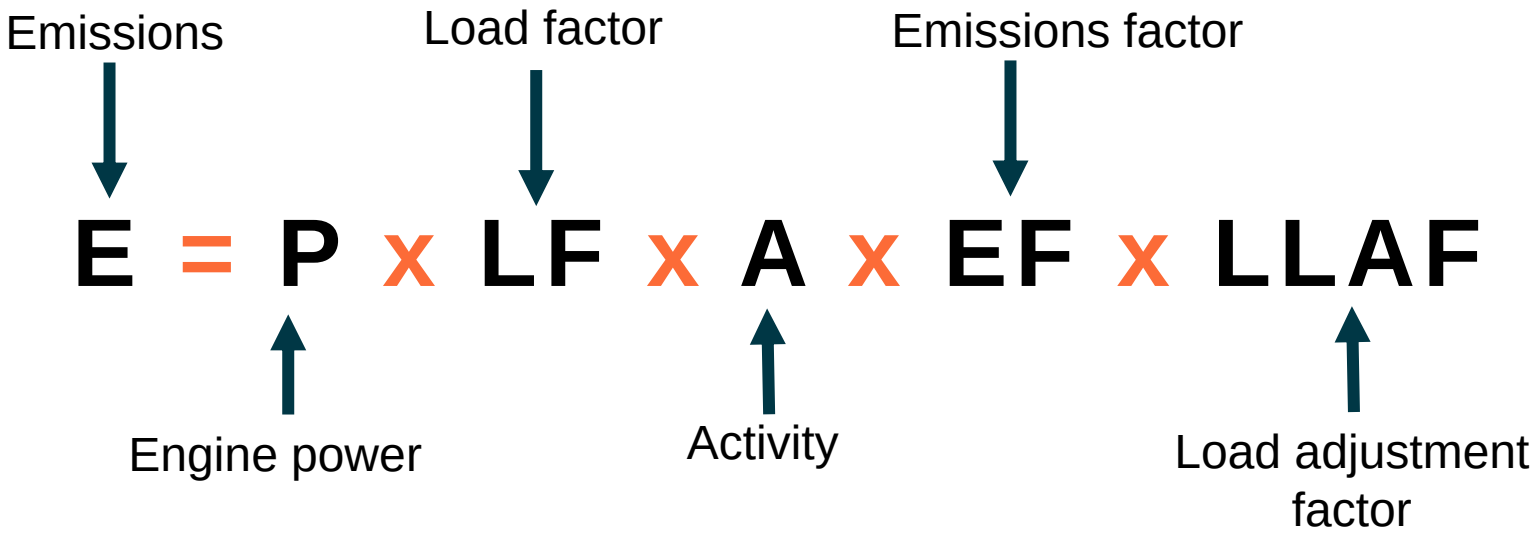
MEP – Emissions calculation



Underlying methodologies: US EPA, California Air Resources Board, Entec UK and the IMO 3rd GHG Report.

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MEP – Verification

3 independent experts:

- Dr. James Corbett - University of Delaware
- Russell Furey - California Air Resources Board
- Tim Scarbrough - Ricardo Energy & Environment

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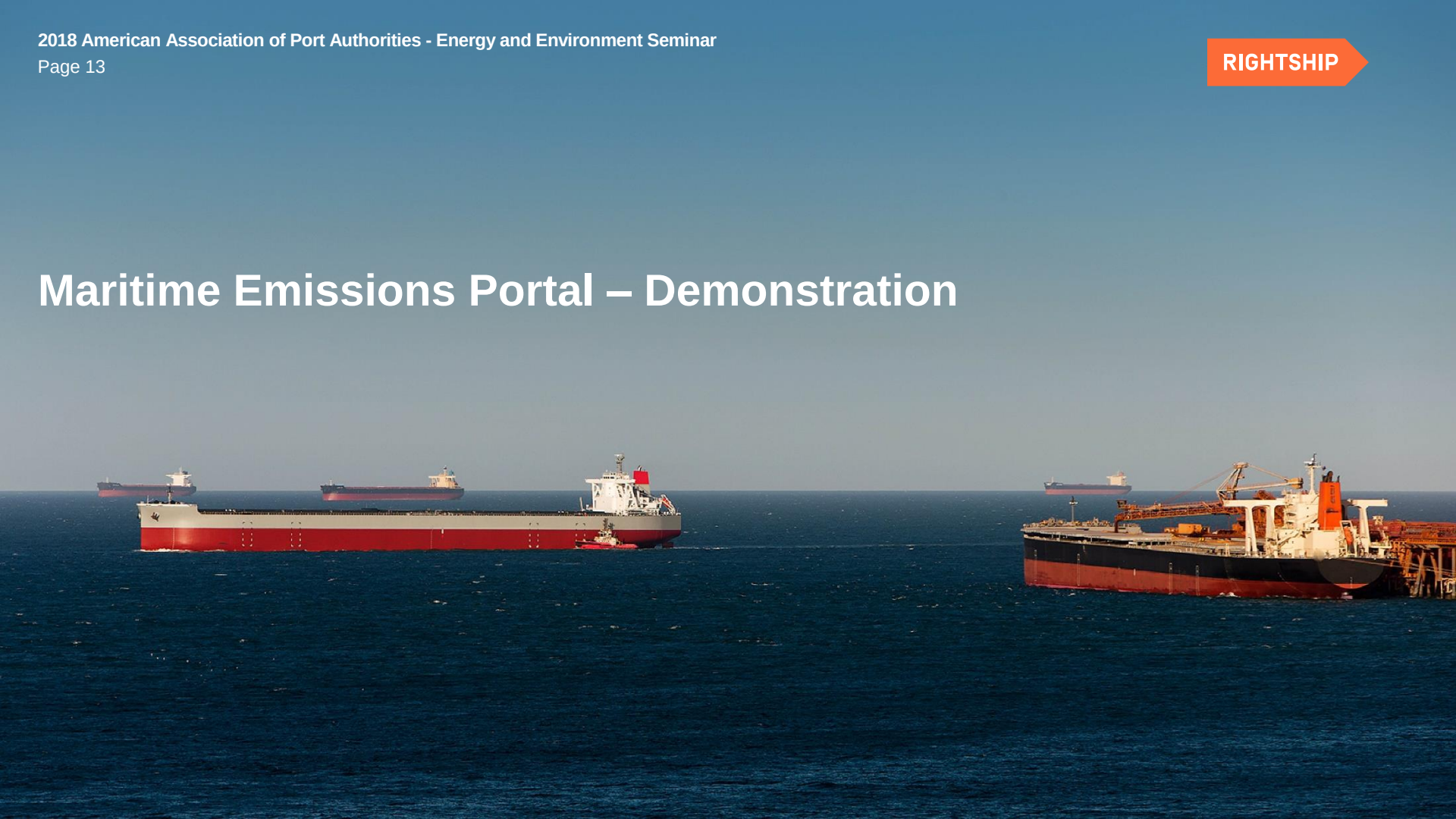
Maritime Emissions Portal – Demonstration



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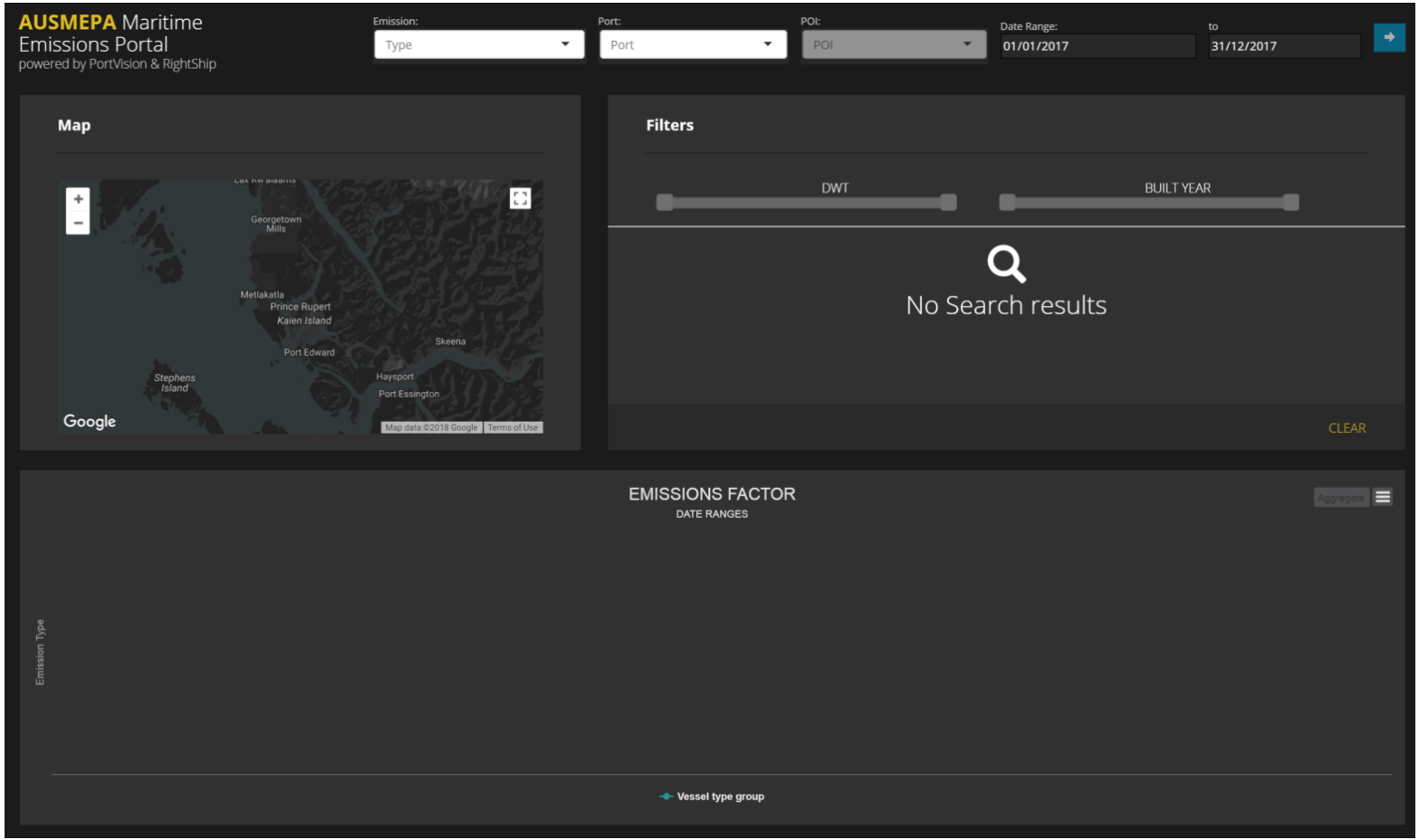
AUSMEPA Maritime Emissions Portal
powered by PortVision & RightShip
Emission:
Type
Port:
Port
POI:
POI
Date Range:
01/01/2017
to
31/12/2017
Map
Georgetown Mills
Metlakatla
Prince Rupert
Kaien Island
Port Edward
Skeena
Stephens Island
Haysport
Port Essington
Google
Map data ©2018 Google
Terms of Use
Filters
DWT
BUILT YEAR
No Search results
CLEAR
EMISSIONS FACTOR
DATE RANGES
Aggregate
Emission Type
Vessel type group

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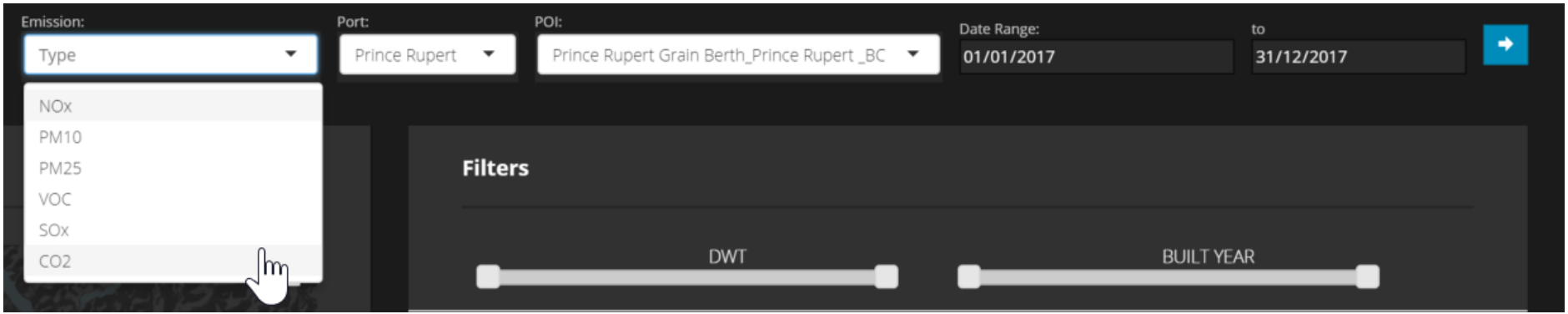
Emission:
Type
NOx
PM10
PM25
VOC
SOx
CO2
Port:
Prince Rupert
POI:
Prince Rupert Grain Berth_Prince Rupert _BC
Date Range:
01/01/2017
to
31/12/2017
Filters
DWT
BUILT YEAR

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AUSMEPA Maritime Emissions Portal

powered by PortVision & RightShip

Emission: PM10 | Port: Prince Rupert | POI: POI | Date Range: 01/01/2017 to 31/12/2017

Vessel Count : 306

Filters

DWT 35873 - 248365

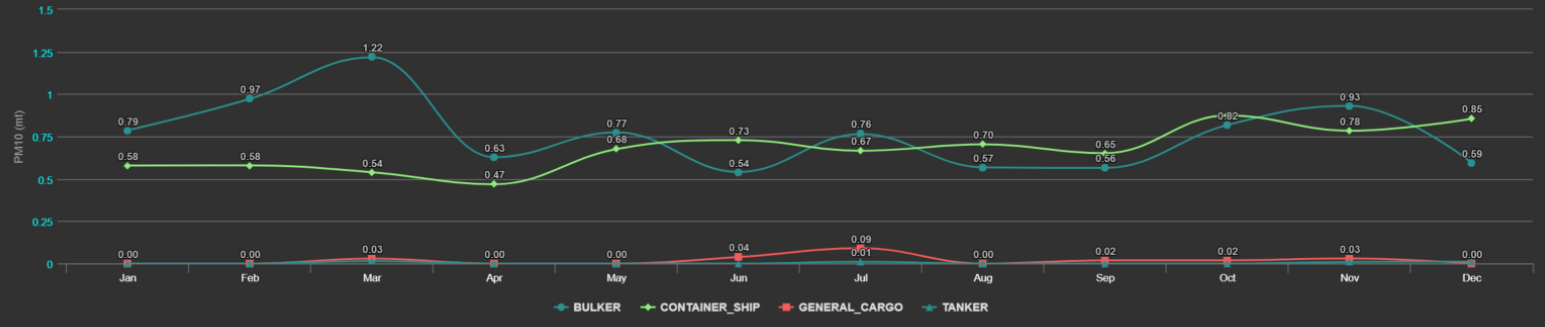
BUILT YEAR 1981 - 2018

Series	Total Emission Factor
BULKER	9.16 mt
CONTAINER_SHIP	8.10 mt
GENERAL_CARGO	0.22 mt
TANKER	0.05 mt

CLEAR

PM10 EMISSIONS FACTOR AT PRINCE RUPERT

JAN 01 2017 - DEC 31 2017



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Maritime Emissions Portal – The Opportunities

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MEP – Applications & Opportunities

- Port wide inventory (on-demand)
- Alignment with strategic objectives
- Reporting function
- Scenario planning tool
- Future state assessment
- Stakeholder engagement

Integrate/inform/measure port incentive programs

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Where to next?

1. Collaborate with more ports
2. Develop tailored reporting outputs
3. Develop improved functionality
4. Get it to market – accessible to all