Memorandum

To: Mariners' Advisory Committee Members and Interested Parties -------
From: Captain Drew Hodgens
Re: Meeting Agenda – **March 12, 2026**

Your presence is requested at the Quarterly Meeting of the above-mentioned committee on **Thursday, March 12, 2026 at 1100 hours**.

Agenda

I Approval of Minutes – from the December 2025 meeting

Introduction of all in attendance

II. Reports

A. **Treasurer's Report** - Capt. Drew J. Hodgens

B. **Membership Report** - Capt. Drew J. Hodgens

C. **USCG Report** - Capt. Kate Higgins-Bloom

D. **USACE Report** - Mr. Tim Rooney, Project Manager, USACE

E. **NOAA Report** - Mr. Christopher DiVeglio & Mr. Ryan Wartick

F. **BMT Report** - Mr. Phillip White

III. Unfinished Business

IV. New Business

V. Open Discussion

VI. Adjournment

Next meeting: Thursday, June 11, 2026 at 1100 hours

Memorandum

To: Mariners' Advisory Committee Members and Interested Parties
From: Captain Rick Iuliucci, Treasurer
Re: Treasurer's Report for March 12, 2026

Balance – from December 11, 2025		**$ 9,153.30**
Deposits (December 2025- March 2026)		
Total Deposits during the period		**$ 15,599.08**
INCOME BALANCE		**$ 24,752.38**
Disbursements	(December 11, 2025 – March 12,2026)	
Popi's Restaurant		$ 5,819.09
Email service	(G-mail @ 3 months)	$ 136.08
Email service	(Twild- $89.95. Per month @3 months)	$ 269.85
PNC service fees	($3.00 per month @ 3 months)	$ 9.00
CPOA Liberty Chapter Donation (12/19/25, cashed 2/10/26)		$ 500.00
TOTAL DISBURSEMENTS (December 2025 – March 2026)		**$ 6,734.02**
BALANCE as of March 11, 2026		**$ 18,018.36**

USACE PHILADELPHIA DISTRICT

MAC MEETING

MAC Meeting Presentation

Timothy J. Rooney, Project Manager

12 March 2026

US Army Corps of Engineers®

U.S.ARMY

Delaware River, Philadelphia to Sea

- FY25 maintenance dredging was awarded Norfolk Dredging Company (NDC) for $27,690,000. Notice to proceed was issued on 28October2025. Scheduled dredging will include Marcus Hook, Cherry Island, Deepwater Point, and New Castle Ranges. Wilmington Harbor will be the first priority with dredged material being placed in Pedricktown South dredge material placement facility (DMPF). The Delaware City DMPF will be used for Deepwater Point and New Castle Ranges.
- This year's ice created pipeline issues for NDC. They are currently checking the entire pipeline from Wilmington Harbor to the DMPF for possible leaks. Pipeline channel crossing is scheduled for 13March2026.
- USACE is currently consulting with NMFS to begin dredging Marcus Hook Range following completion of Wilmington Harbor dredging operations.
- The Hopper Dredge McFarland's next tour is scheduled for Spring 2026 with potential dredging orders being Cross Ledge and/or Mifflin Ranges.

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Delaware River, Philadelphia to Trenton

Dredging between the Turnpike Bridge and Newbold Island as well as the Fairless Turning Basin was completed in January by Cottrell Contracting.

Wilmington Harbor

NDC is expected to begin dredging in the Port, however this year's ice created pipeline issues and NDC. They are currently checking the entire pipeline from Wilmington Harbor to the DMPF for possible leaks. Pipeline channel crossing is scheduled for 13March2026.

Emergency Object Removal

- Solicitation was posted on 26February2026 and bids will be received 30March2026.
- 5 year contract which will cover all of the Delaware River channels, C&D Canal, Wilmington Harbor and Schuylkill River.

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EMERGENCY OBJECT REMOVAL

Object Removal Regions

- **Region 1:** All Federal waterways within circle between Biles Island PA and Wilmington Harbor DE. Circle Diameter is approx. 45NM.
- **Region 2**: All Federal waterways within circle between Wilmington Harbor DE and Artificial Island NJ including the C&D Canal and Chesapeake Bay to the Sassafras River. Circle Diameter is approx. 30NM.
- **Region 3**: All Federal waterways within circle between Artificial Island and end of Delaware River Federal Channel. Circle Diameter is approx. 50NM.

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C & D Canal

- FY25 Maintenance dredging is underway. Curtin Maritime is currently dredging in the Upper Chesapeake and is expected to complete all dredging activities on April 8th.

- Weeks Marine is expected to complete the Port Mahon project on March 14. They will continue offloading activities until March 16. It is anticipated that the offloader stationed along the North side of the canal will be off stie on or about March 16.

- Summit Bridge painting and repair activities will continue through October 2026. An air gap restriction of 5ft has been issued until June 2026. Work will only be performed on half of the main span of the bridge leaving the air gap unrestricted on the other side of channel. Currently, work is being performed on the south side of the main channel.

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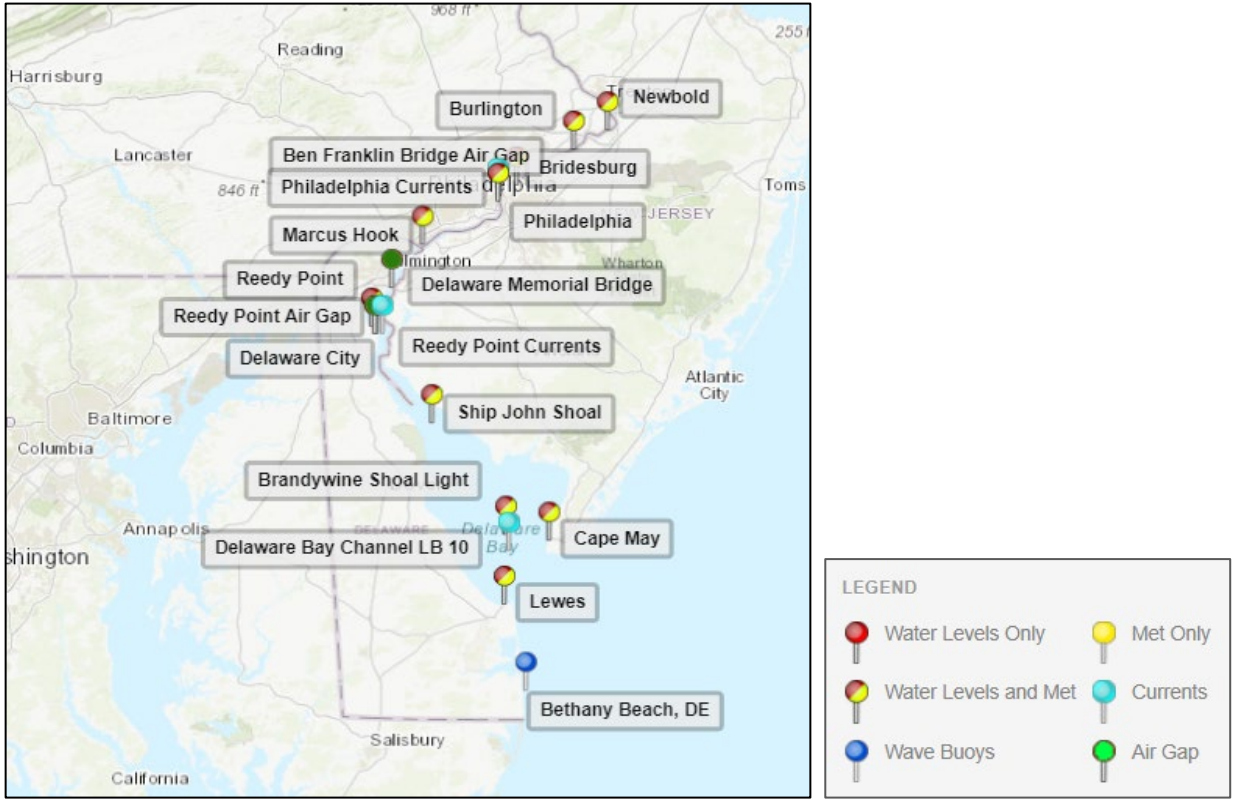
NOAA
Physical Oceanographic Real Time System (PORTS®) Updates

Christopher DiVeglio
NOAA PORTS Program
March 12, 2026

https://tidesandcurrents.noaa.gov/ports/index.html?port=db



Quarterly Sensor Statistics

Air gap and current meter station Instrument performance stats

12/01/2025-02/28/2026

Delaware Memorial Bridge Air Gap – 100%
Ben Franklin Air Gap – 99%
Reedy Point Air Gap – 90%
Chesapeake City Gap – 100%

db0301 (Philadelphia) currents – 99%
db0502 (Delaware Bay Channel LB10) currents – 90%

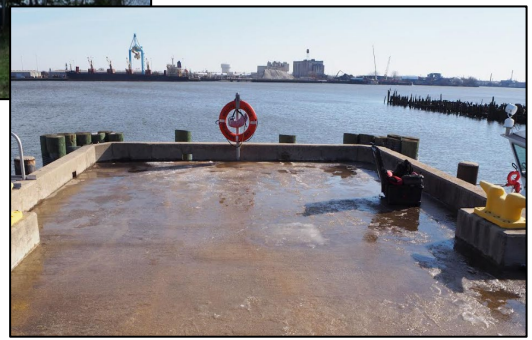
- ***Timeliness of data***
- ***Quality of data***

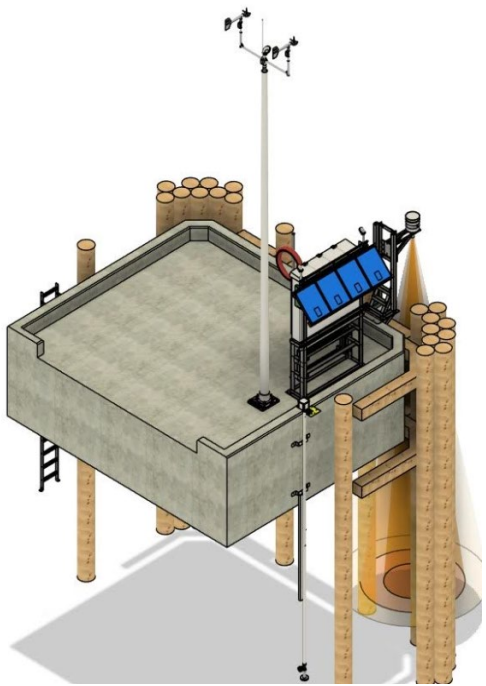
Reedy Point station destroyed

- NOAA managed National Water Level Observation Network (NWLON) station
- Old USACE pier was already degraded
- Significant ice damaged the pier, which collapsed sending all observing equipment in the water
- Future repairs and replacement are TBD

Philadelphia USCG station - planned rebuild

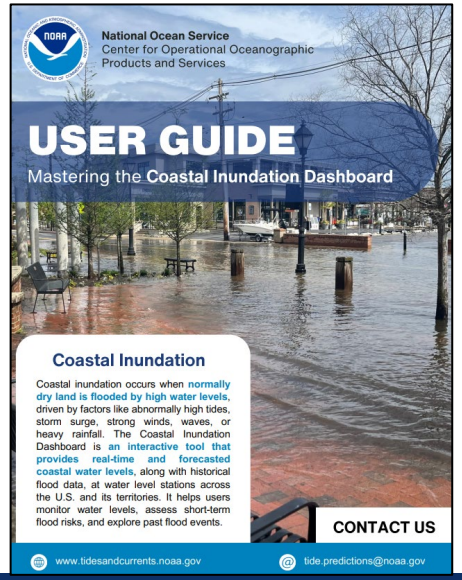
- NOAA managed National Water Level Observation Network (NWLON) station
- Rebuild to take place in September 2026
- USCG approved permit for relocation
- Upgrades to water level sensor technology

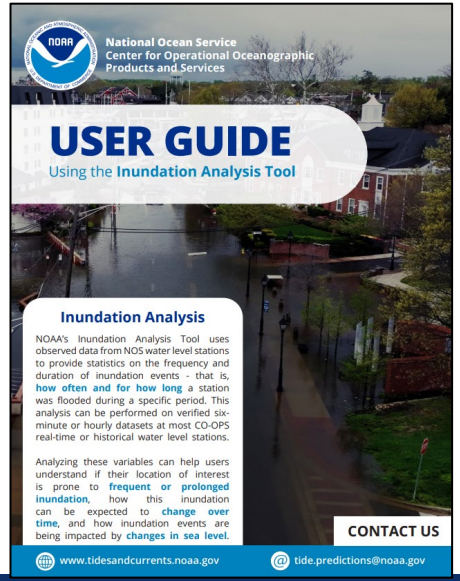




Two newly released user guides

- The Coastal Inundation Dashboard User Guide is a comprehensive resource for navigating, understanding, and working with the dashboard. It features detailed descriptions of the dashboard's different features and capabilities accompanied by screenshots and helpful tips.
- The Inundation Analysis Tool User Guide provides detailed directions on how to use the tool to assess flood frequency and duration at CO-OPS water level stations. The guide outlines steps to run an analysis with the tool, including selecting stations, thresholds, and time periods of interest.





Questions?

PORTS program@noaa.gov
christopher.diveglio@noaa.gov

240-620-6919

Capabilities

Mariners' Advisory Committee for the Bay and River Delaware

March 2026

BMT at a glance

1,580 people

Established 1985

30 offices

4 continents

Turnover 2022/23:
£180m

Independent:
an Employee Benefit Trust

BMT

Our Core Offerings:

Defense and Security

Supporting government organizations to procure new capabilities, support solutions, and deliver business and capability change

Maritime Design and Consultancy

Supporting defense and commercial maritime vessel and infrastructure owners, operators, and maintainers across the lifecycle, from design, integration of capabilities to life extension of existing platforms

Asset Monitoring and Sustainment

Supporting customers (in the maritime, offshore, and pipeline markets) in managing their portfolio of assets to ensure the structural integrity, efficiency, and longevity of operation

Environment and Climate Solutions

Supporting customers in understanding and mitigating the impacts of environmental and climate effects on their assets and operations

Ports & Marine Infrastructure

Reducing Risk in Marine Operations

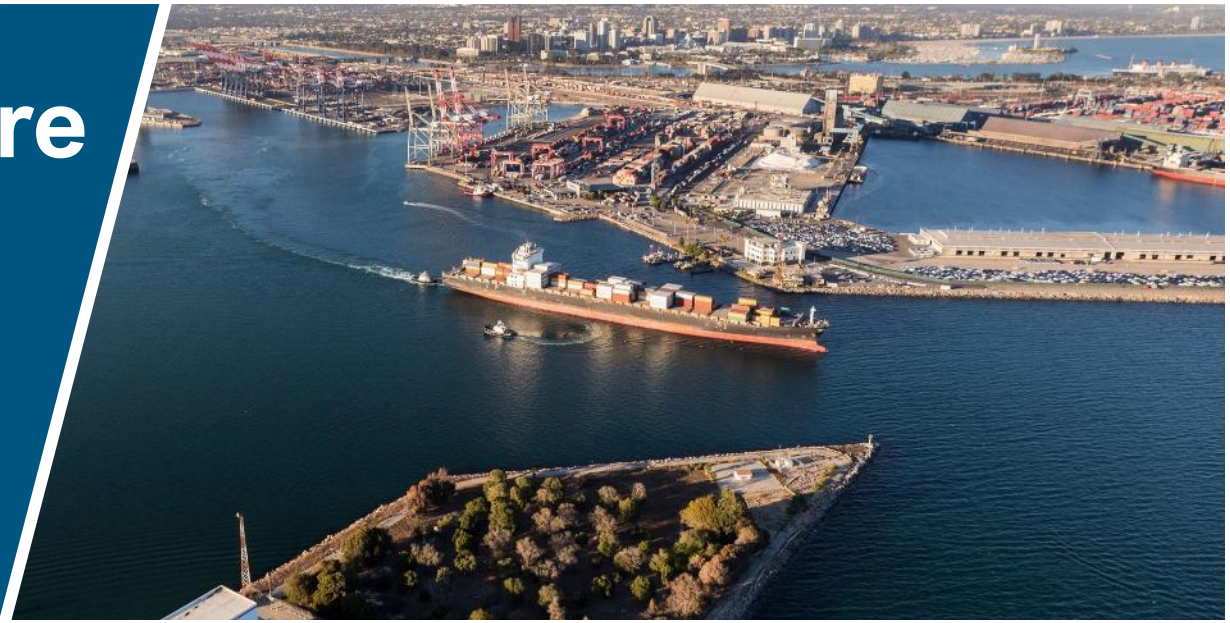
Provision of port risk and safety management, including safe navigation, traffic modelling, marine surveying, incident investigation, and cyber security and assurance.

Improving Operational Efficiency

From strategic level asset management and digital transformation, through to improving operating windows through coastal hydraulics and adaptive dredging, whilst planning for current and future regulatory & legislative change.

Decarbonisation & Resilience

Working to ensure reduced environmental risk and impact of maritime operations, understanding investment and planning for future fuels and decarbonisation, and the development of environmental and resilience plans.



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Port Risk

Management of the Safety, Security, Environmental and Economic Risk for Ports

Safe port management is critical to ensuring the safety of all those operating in ports and at sea, as well as the ecology of the maritime environment. Without safe port management the risks to safe navigation, ecological and economic fallout are substantial, including multi-billion-dollar costs associated with claims following major incidents.

BMT combines expert knowledge of the maritime environment from navigation, traffic simulation, digital and cyber assurance, as well as risk management and environmental expertise to ensure that ports can manage personal, vessel, ecological and economic risks. Our focus is on informed CAPEX and OPEX expenditure, reducing operational risk and improving environmental credentials and resilience.

Port & Maritime Infrastructure Risk

Vessels, safe navigation, regulatory compliance, and security all form part of risk management. BMT employs specialist expertise and in-house products to maritime infrastructure stakeholders to manage maritime operations risk:

- Safe Navigation & Traffic Simulation Modelling
- Surveying, Inspections & Incident Investigation
- Vessel Design and Operations
- Riverine, Estuarine & Coastal Hydraulics
- Environmental Management
- Cyber Assurance and Digital Transformation
- Strategic Asset Management Advisory Services

Services

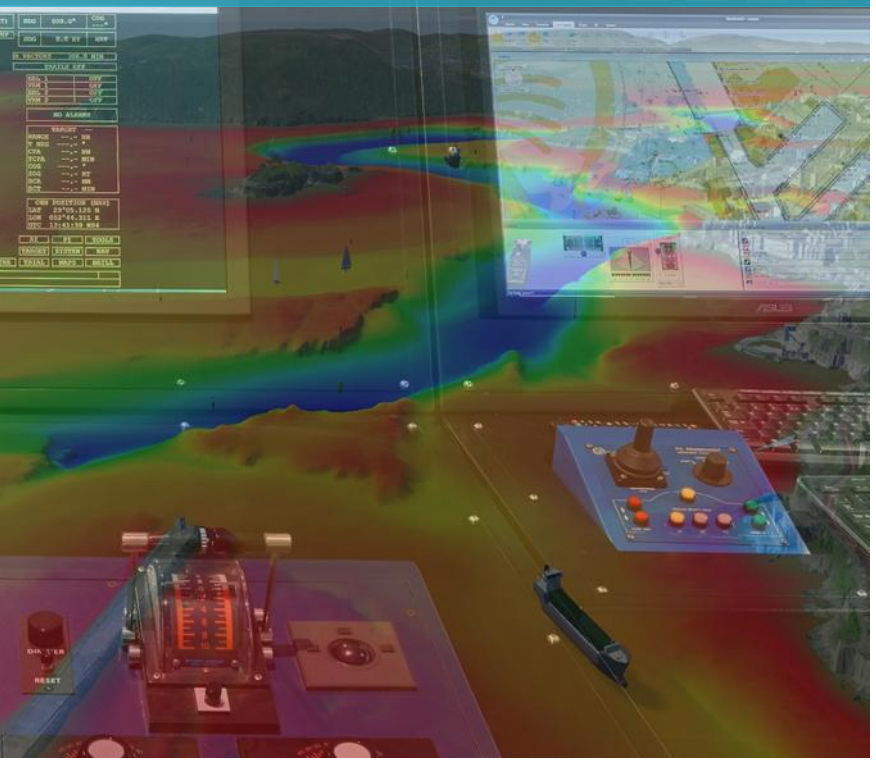
By combining our specialist services with state-of-the-art maritime modelling tools, we provide the following:

- Port Risk Management Assessment
- Associated Investment Appraisals
- Strategic Investment Advisory Services
- Maritime Incident Investigation Assessments
- Environmental Management Planning

BMT

Maritime Modelling & Simulation

Advanced navigation training, test and evaluation, and reconstruction



Our real-time ship-handling and manoeuvring simulation system, BMT REMBRANDT, is used by national maritime authorities, ports, pilots, ship operators, and naval architects to analyse vessel handling, enable advanced training, provide accurate operations rehearsal, evaluate port feasibility, and in incident investigation.

BMT REMBRANDT ensures that your specific characteristics, class of ships, and reference points (such as anchors, mooring lines, navigation aids) form part of the simulation. BMT REMBRANDT is used world-wide to provide training, safe navigation assessments and to understand incidents and investigations following maritime accidents.

Simulation, Analysis & Training

Certified by DNV GL & BAW, BMT REMBRANDT is used for:

- Full mission bridge simulation
- Pilot and officer training
- Complex multi-vessel tug and towage simulation
- Forensic incident investigations/root cause analysis
- Maritime autonomy test and evaluation
- Navigation of restricted and inland waterways
- Onboard installs for STCW/OOW training at sea
- Mooring analysis
- Marine consultancy for safe port operations

Outcomes and Benefits

- **A realistic and accurate synthetic environment** giving incredible utility to mariners to prove and train manoeuvring and berthing operations, especially complex multi-vessel scenarios. S100 capability.
- **Generating assured insight and evidence** for vessel operators to minimise risk and financial impacts of collisions and groundings, and to demonstrate safe operations, including new or changed port layouts.
- **Detailed representation of incidents** to provide safety board or insurance bodies with robust information to derive and validate recommendations for future safe and efficient operations.

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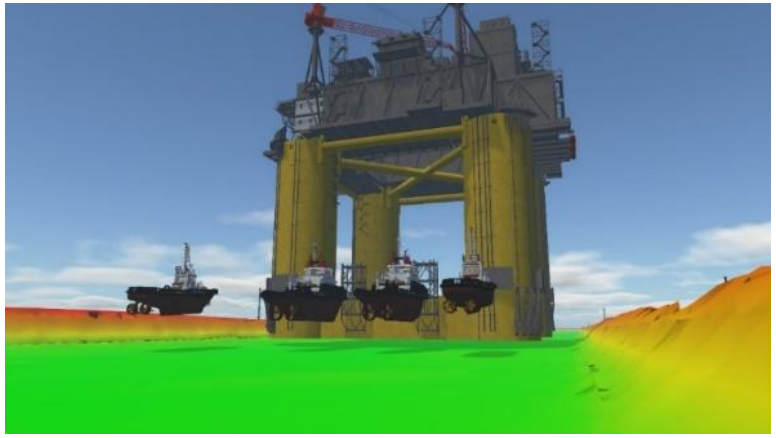
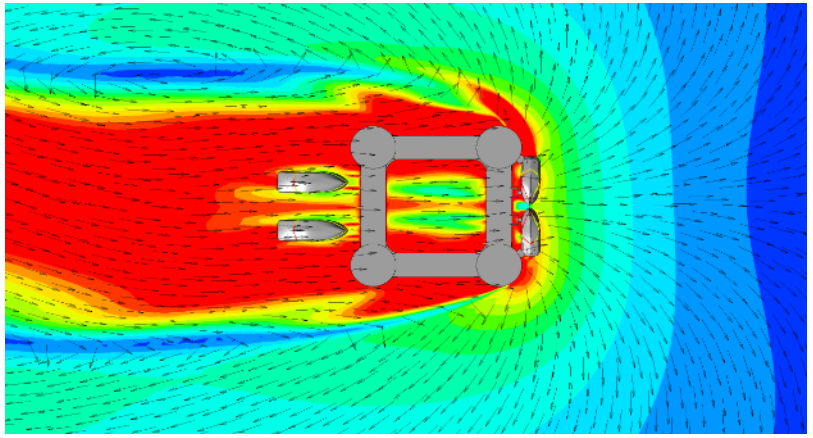
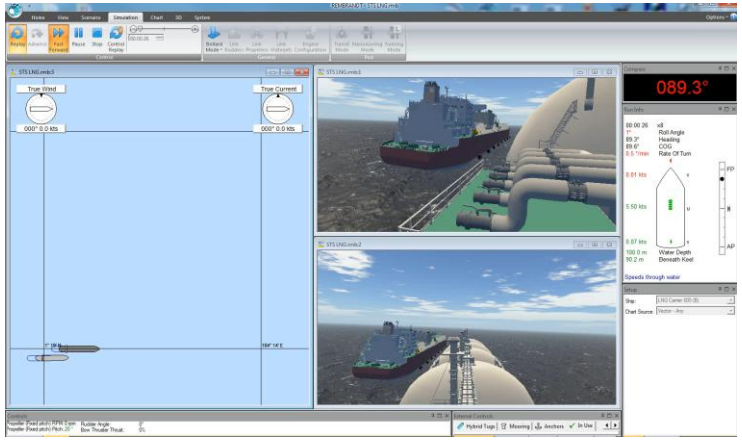
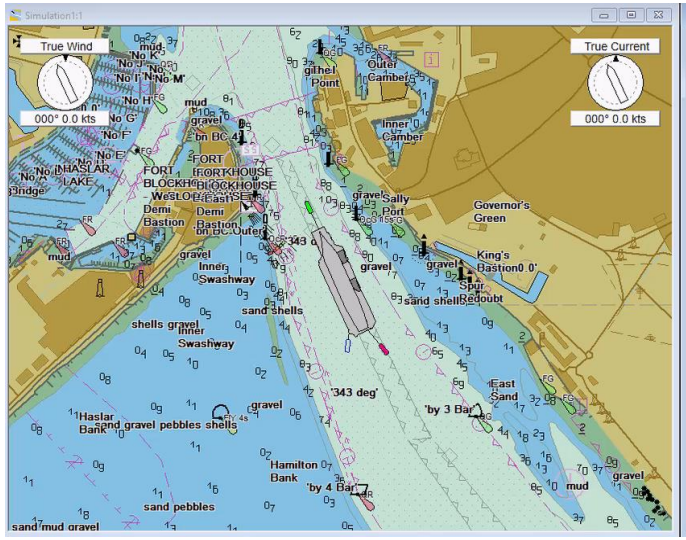
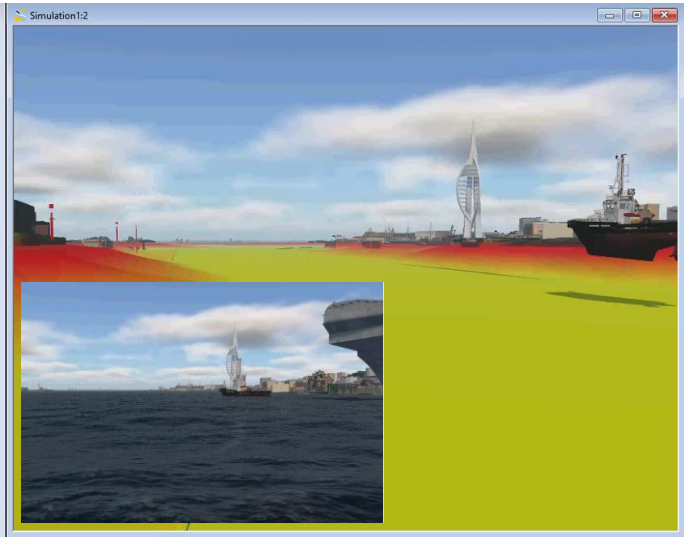
BMT REMBRANDT

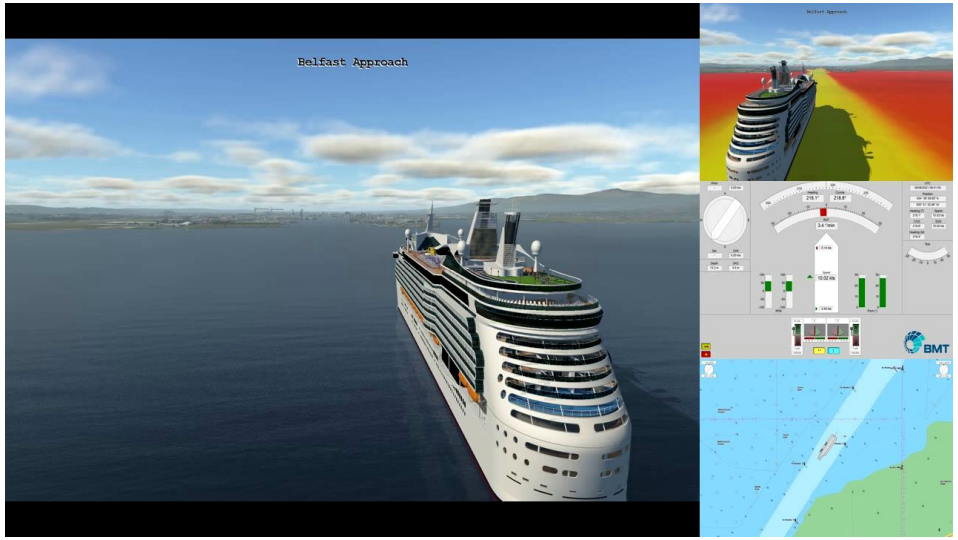












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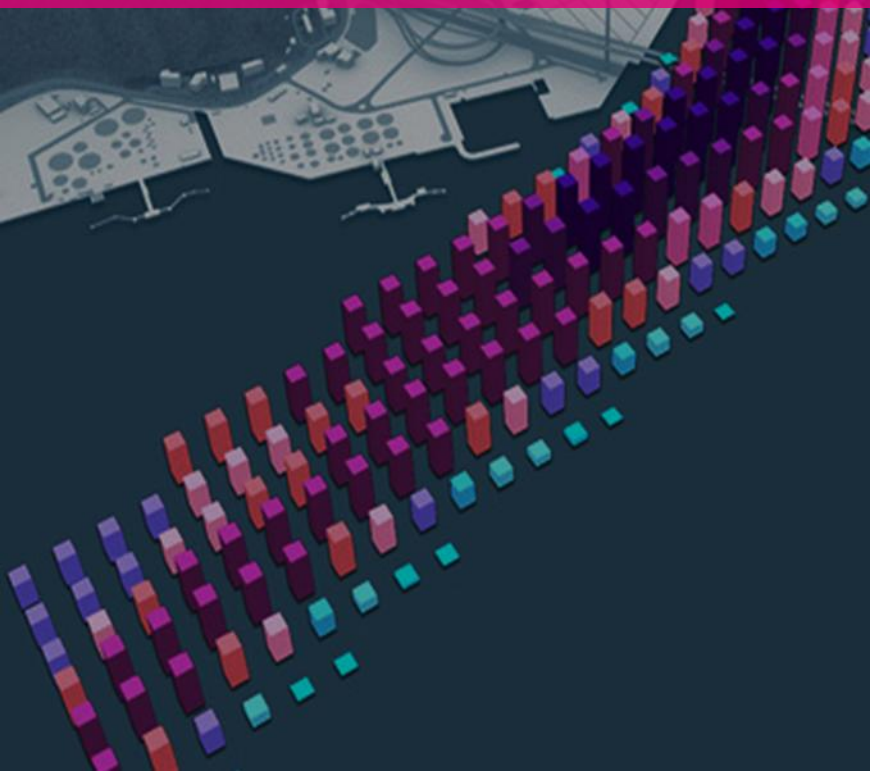
Maritime Traffic Assessment

Vessel Collision Risks



Managing vessel collision risk in congested waters is an intrinsic part of safe vessel and port management. By better understanding collision risk and planning, improvements to safety and incident response planning can be made early to reduce human, environmental and economic costs downstream.

BMT's proprietary Dynamic Marine Traffic Simulation Model meets the collision risk challenges in dense marine traffic streams by reproducing realistic navigation and collision avoidance behaviour.

Dynamic Marine Traffic Simulation

BMT's dynamic vessel collision simulation and modelling enables the following:

- Understanding of **navigational risks** and scenarios, including traffic 'bunching' and knock-on effects of real-life behaviours.
- **Risk mitigation** for vessel encounters and collisions to be modelled in a variety of traffic situations including variable vessel speeds and density.
- Planning ahead through baseline modelling, alternative traffic control measures and **testing of scenarios** relating to marine risk, including stakeholder analysis.

Outcomes and Benefits

- Optimised traffic management and reduced environmental impact from loitering
- Reduced impact of reclamations, bridges and other infrastructure on traffic flow
- Optimisation of fairway arrangements
- Reduced risk from new traffic movements
- Safe operation and integration of construction and other temporary traffic
- Impacts of offshore energy site developments.

BMT

Marine Surveying

Surveys, Inspections and Incident Investigation

Marine investigation and surveying forms a critical part of maritime operations, applying global regulation, monitoring how attitudes and behaviours shift over time, and how organisations respond to a range of maritime incidents, inclusive of managing risk. Ports rely on expert surveyors to ensure cargo, vessels and marine incidents are managed appropriately.

BMT provides services inclusive of expert witness and litigation services. With over 45 dedicated marine surveyors and a further 300+ affiliate surveyors worldwide, BMT is involved in audits, technical inspections, forensic investigation, claims and casualty investigation, cargo handling and marine incident and emergency management.

Who We Work With

Our marine surveying and incident investigation services are provided to a range of stakeholders in the maritime industry including:

- Protection & Indemnity Clubs
- Insurance Organisations
- Port Authorities
- Ship Owner Operators
- Maritime Organisations
- Offshore Energy Organisations
- Litigation Specialists

Handbooks and Training

In addition to our marine surveying services, we also provide access to the following:

- **CargoHandbook** The CargoHandbook is the world's largest database of transportation of cargoes in the marine industry. The platform is openly available to share best knowledge on cargo transportation, raising awareness and prevention of loss.
- **Training** From Port & Ship Familiarisation Courses, through to Tanker, Terminal and Liquid Cargo, LNG & LPG, our team of experts, based in Rotterdam, provide courses to support a wider understanding of ports, ships, tankers and terminals.

BMT

Coastal Management & Access

Coastal Hydraulics and Port Operations

Coastal modelling is key to understanding the interactions between marine infrastructure and its surrounding environment. With accurate, predictive modelling, port stakeholders can make timely and informed decisions on the most effective and efficient infrastructure designs, employment of port management resources, and port operation models.

BMT combines environmental expertise with proprietary tools for coastal modelling and analysis (TUFLOW) to ensure that the economic, technical and environmental feasibility of port management and maritime operations are understood and are managed in accordance with maritime regulations.

Coastal Modelling Services

TUFLOW | TUFLOW is a suite of advanced 1D/2D/3D computer simulation software for flooding, fluvial modelling, coastal hydraulics, sediment transport and morphology, particle tracking, water quality and aquatic ecology processes.

World Leading | With over 30 years of continuous development, TUFLOW is internationally recognised as the industry leader for hydraulic modelling accuracy, speed and workflow efficiency.

Integrated | Ability to integrate TUFLOW with wider modelling systems (e.g. waves).

Adaptive Dredging | Integrating modelling and monitoring capability to enable efficient employment of dredging assets.

Outcomes and Benefits

Cost Efficiencies | Infrastructure and operation cost reduction through precise predictive employment of assets, and enhanced information for risk mitigation.

Coastal Management | Estuarine and coastal modelling for the complex interaction of tides, inflows and ocean currents to address sedimentary & environmental challenges.

Maritime Infrastructure| Providing a link between oceanography and coastal engineering advanced modelling supports marine infrastructure assessments for ports and offshore energy developments.

Marine Conservation | Modelling to identify locations for marine restoration and conservation including seagrass and kelp forest initiatives.

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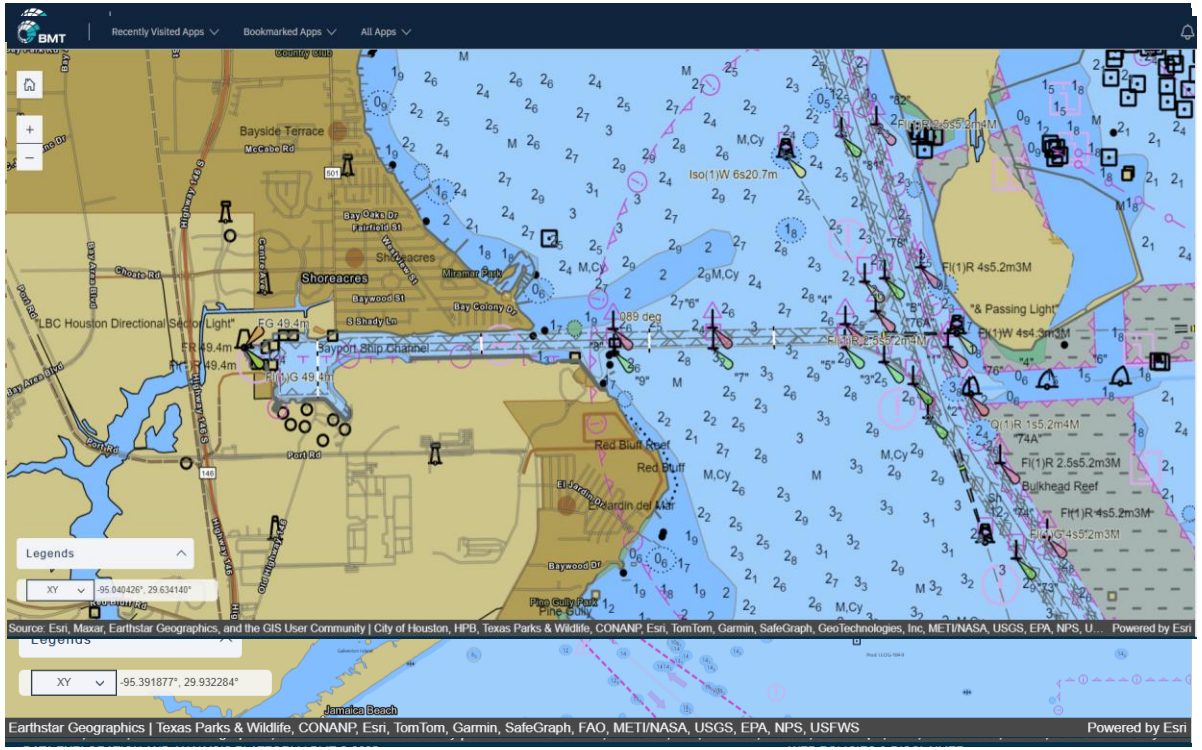
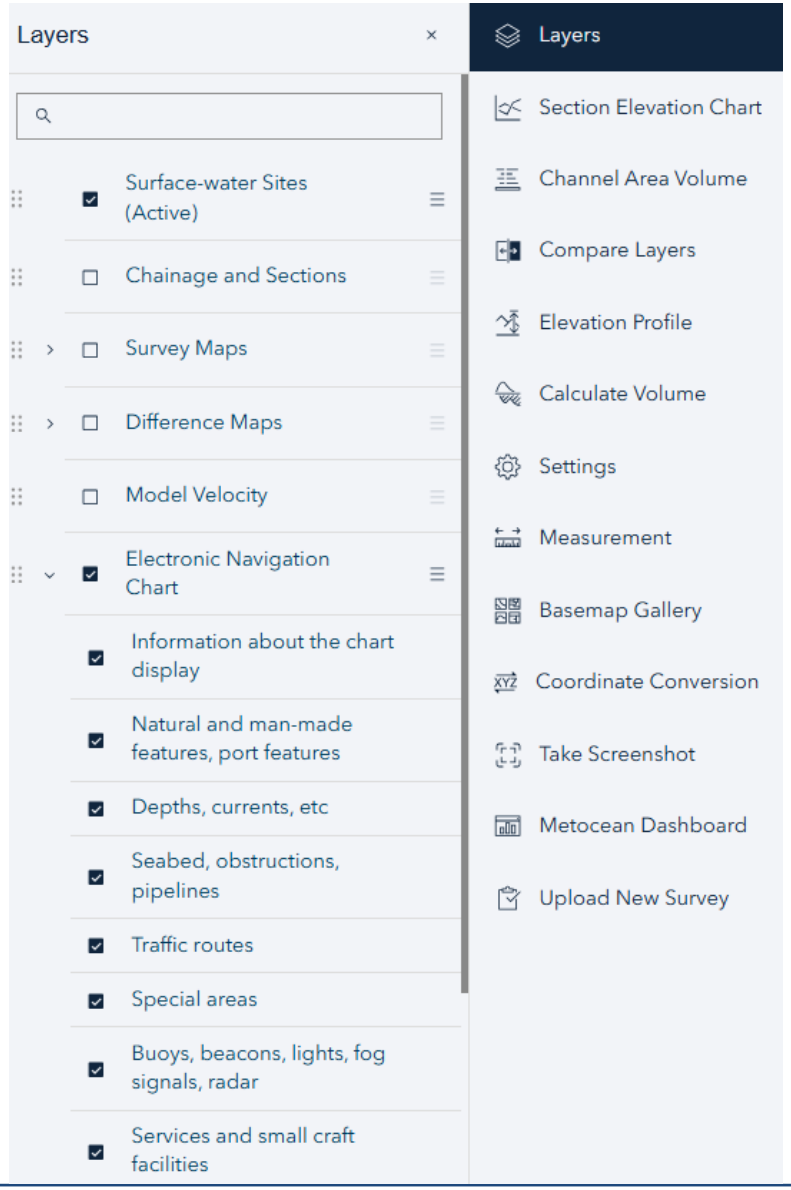
Channel Explorer
– Basemaps

Detailed features: Navigation charts, environmental data, manmade features





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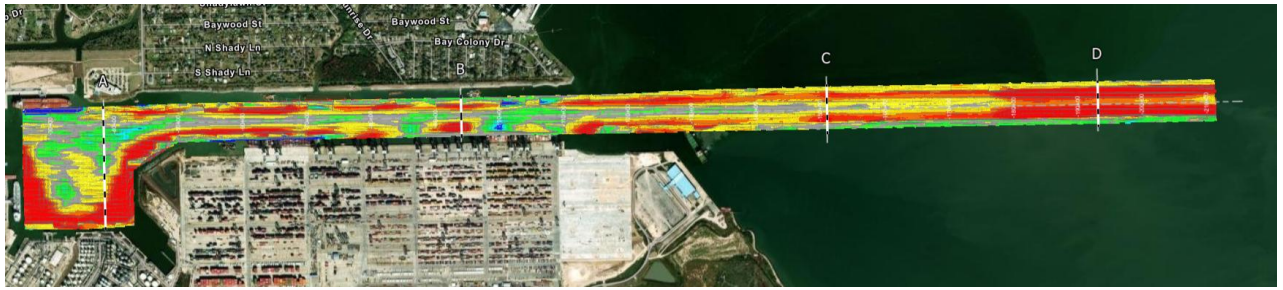
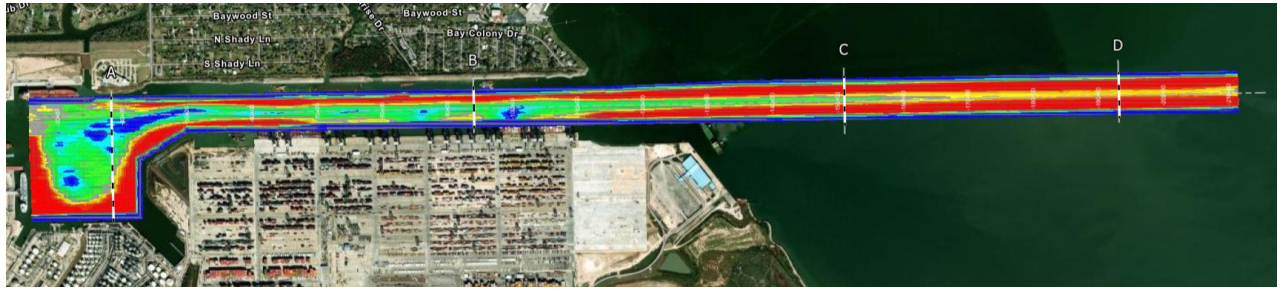
Channel Explorer
– Sediment Volumes

Actual sedimentation volumes (difference between two condition surveys)

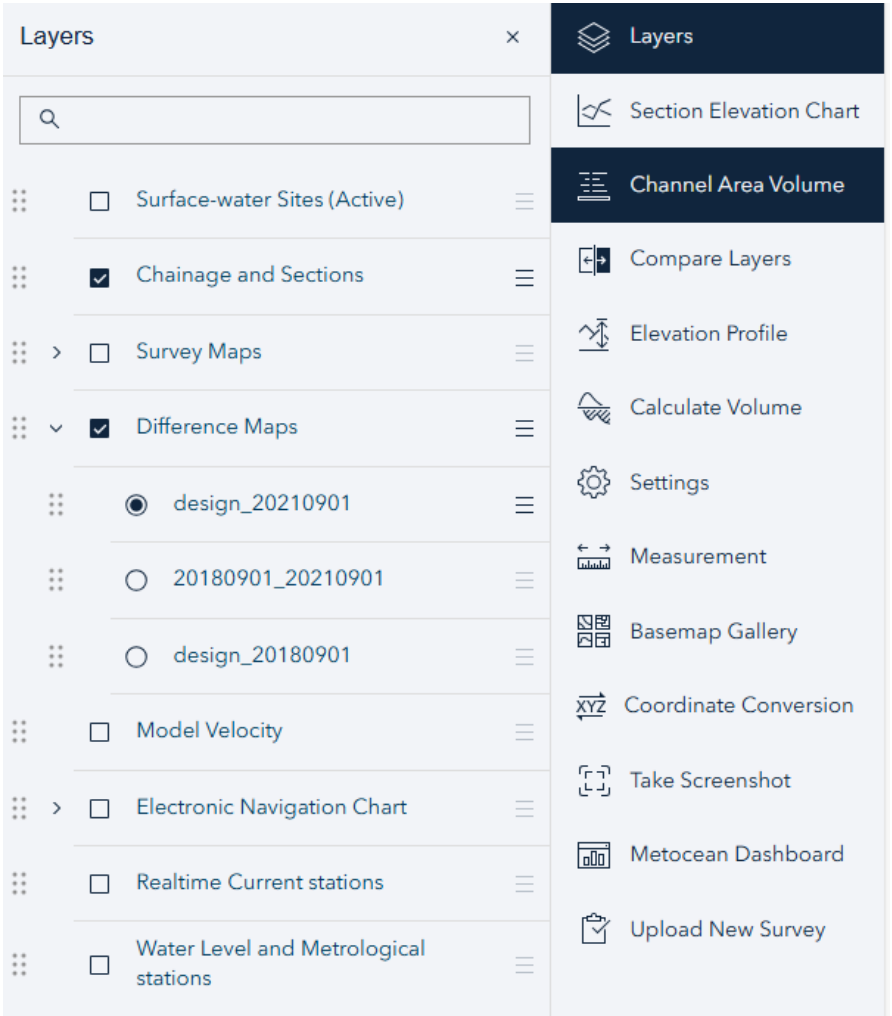


Actual dredging volumes (difference between survey and design)



Volume Layer design_20210901 ☑ Hide Channel Areas from Map

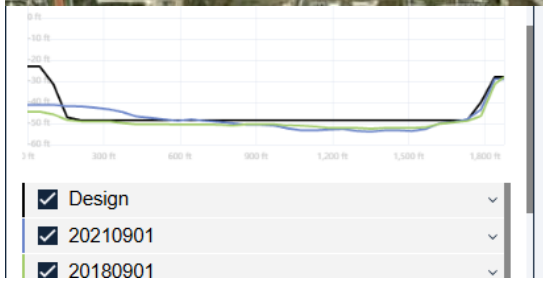
Channel Area 1 (-214+30.76 to	Channel Area 2 (-160+00 to	Channel Area 3 (-110+00 to	Turning Basin (-50+00 to
Cut Volume -11,900,036.86 ft³	Cut Volume -7,478,378.69 ft³	Cut Volume -3,273,433.29 ft³	Cut Volume -5,102,531.16 ft³
Fill Volume 3,876.53 ft³	Fill Volume 837,002.7 ft³	Fill Volume 3,594,002.71 ft³	Fill Volume 5,730,566.42 ft³

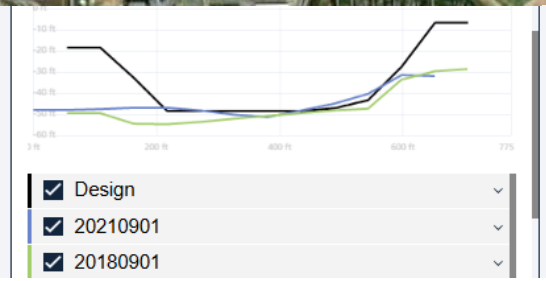


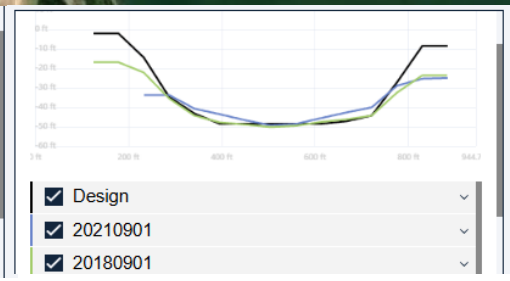
BMT

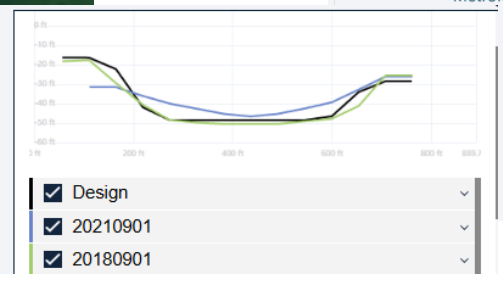
Channel Explorer – Channel Profiles

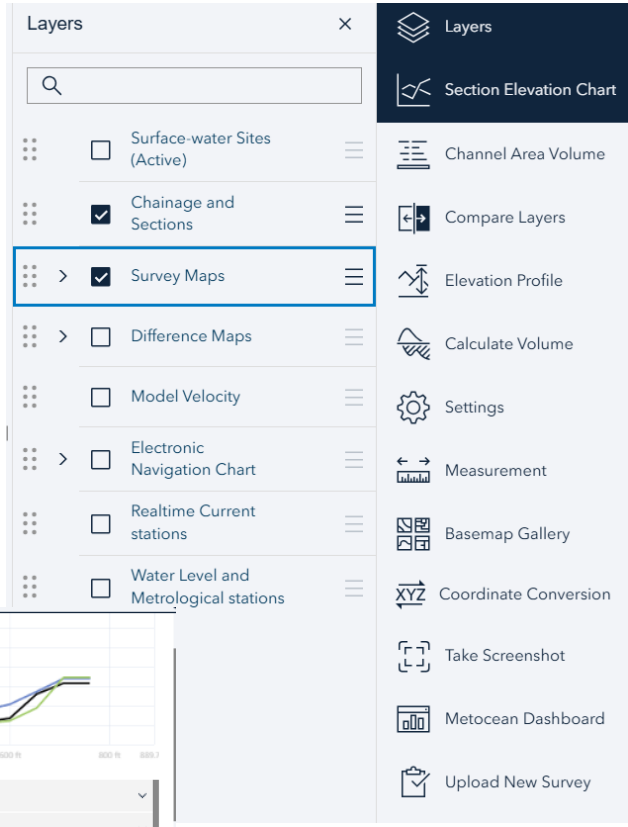
Changes in channel profiles along pre-determined cross sections



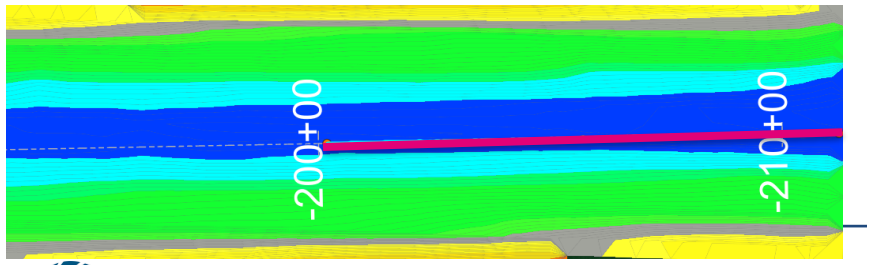


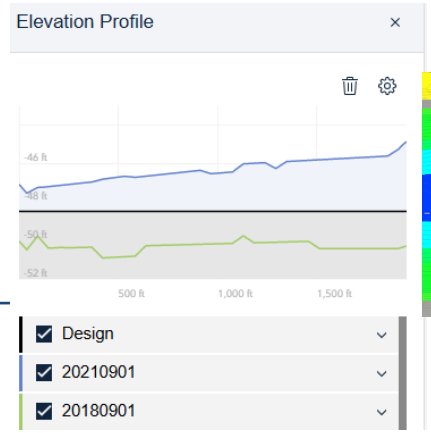


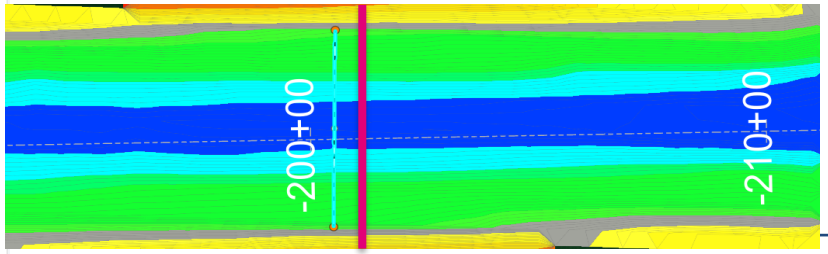


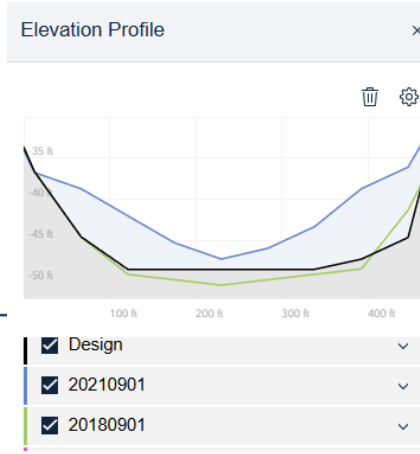


Changes in channel profiles (along user defined cross sections)









BMT

Environmental Risk

Resilience for Ports & Marine Infrastructure

Environmental risk, adaption and resilience are integral in port management and marine infrastructure strategies. Reducing risk, maintaining safety levels and viability of operations is critical. We go beyond simply assessing the acute physical risks associated with environmental events, and engage with our port customers, investors and insurers to develop practical solutions in policy, adaptation plans and associated guidelines to address chronic risk from the environment.

Working with key stakeholders to understand the complexities of their own operating environment, BMT applies environmental, safety, techno-economic and strategy asset management expertise to understand the scale, likelihood and impact of severe weather events on safety, operational resilience, risk and economics.

Environment and Marine Infrastructure

Environmental impacts on ports and marine infrastructure may come in many forms ranging from:

- Acute Environmental Events (Storms, Hurricanes)
- Rising Sea Levels, Extreme Precipitation
- Marine and Land-Based Heatwaves
- Damage to Estuaries and Access Routes
- Ecological Impacts (Marine Conservation)
- Impacts to Vessel Operations (Sea States)
- Coastal and Riverine Flooding
- Fires from Surrounding Areas

Outcomes and Benefits

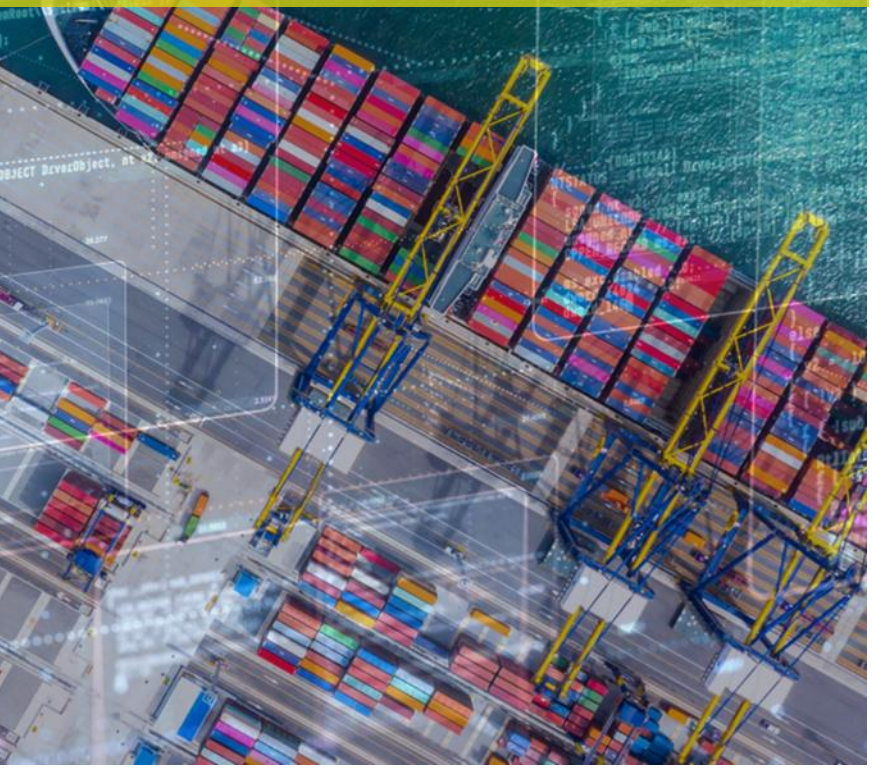
BMT supports the ability to plan and adapt to current and potential future climate change risks inclusive of how these affect the physical, human, operational and systems of ports and marine infrastructure, providing:

- Tailored Climate Impact Frameworks
- Tailored Risk and Mitigation Plans
- Environmental Impact Assessments
- Safety and Regulatory Compliance Advice
- Coastal and Flood Modelling and Advice
- Marine Access and Safe Navigation Simulation
- Strategic Asset Management Services

BMT

Cyber Assurance

Protecting Critical Infrastructure and Maritime Assets



Cyber security is complex and dynamic and affects nearly everything within our global supply chains. Understanding what is relevant to ensuring resilience in terms of critical infrastructure, from port management through to maritime assets can be challenging. By applying best practice and tailoring requirements to your organisational needs you can transform your security position into one that is risk-informed and fits your business model.

BMT's cyber security team provide a range of services to ensure that organisations that are critical to our national security and infrastructure are equipped to make cyber security decisions today with a view to reducing risk and cost for tomorrow.

BMT Cyber Assurance Services

- Cyber Strategy, Risk Reviews & Compliance
- Security Documentation & Governance
- Data Protection & Security Implementation
- Resilient Smart Port Security
- Threat Intelligence & Monitoring
- Cloud Security & Governance

BMT Risk-Informed Approach

- **Integration**: Combines industry best practices with tailored security strategies.
- **Alignment**: Fits business model and organizational needs
- **Proactive Defense**: Utilizes a risk-informed defense approach.
- **Threat Navigation**: Assists in mitigating evolving threats.
- **Supply Chain Security**: Understands supply chain security challenges.
- **Secure Operations**: Ensures secure operations.
- **Cost Reduction:** Lowers risk and cost for the future.

BMT

Future Fuels & Clean Maritime

Ship to Shore Infrastructure

The International Transport Forum projects that global freight demand is expected to triple by 2050 with 75% of goods movements taking place on ships. With maritime shipping accounting for ~4% of global emissions, a shift towards the adoption of alternative fuels is inevitable. Decisions on future fuels are required today to ensure tomorrow's ship to shore infrastructure.

With a heritage in vessel design and operations, combined with expert knowledge on alternative fuels and energy efficiency, BMT provides advisory services relating to energy saving options and alternative fuels, including advice on supply, storage, safety and environmental impacts on ship to shore infrastructure.

BMT Service Menu

BMT employs specialist knowledge of the maritime environment, with teams of marine engineers, naval architects and specialists in alternative fuels and energy saving technologies. This is supplemented by BMT's comprehensive approaches in:

- BMT Horizon Scanning
- BMT Technology Road-mapping
- Techno-Economic Modelling
- Clean Maritime Expertise
- Environmental Management Expertise

Outcomes and Benefits

BMT supports major stakeholders in ship to shore infrastructure for decisions relating to future fuels from port owners, operators and authorities through to ship owner operators. Assessing options for alternative fuels and ship to shore connectivity includes:

- Vessel and Fleet Design and Technology Advice
- Energy Saving Strategies and Planning
- Design & Integration Services
- Alternative Fuel Options and Advice
- Advice on Supply, Storage and Safety
- Techno-Economic Services

BMT

BMT Specialised Ship Design

Ferries

Offshore Energy

Government and Security

Yachts (Lateral Naval Architects)

BMT

Thank you

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