MARLBOROUGH DISTRICT COUNCIL

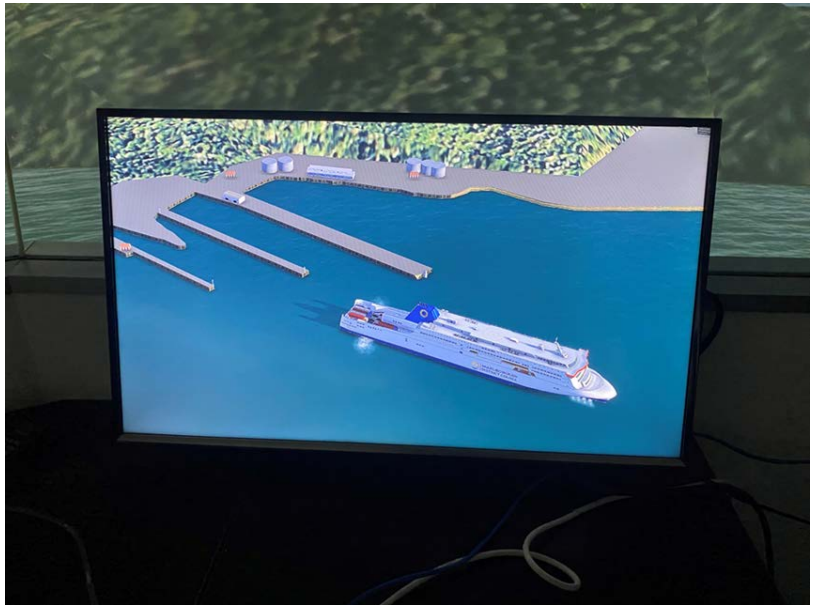
Marlborough Sounds Common Passage Plan Project

Introduction

- The MDC Harbourmaster in consultation with Port Marlborough, Interislander and StraitNZ have begun the process of developing a common passage plan for the passage from Tory Channel/Kura Te Au entrance through to Picton and back out to sea.
- The genesis of this project stems from a need to define the required water space for commercial shipping within the Sounds and from separate navigation risk assessments conducted for MDC and Interislander.
- As part of this project the Harbourmaster has commissioned and built a ship simulator model of the new Interislander ferries.
- With this presentation over the next 10 – 15 minutes, I intend to demonstrate the Transit Analyst system, overview the common passage plan concept, how the MDC network aids the system, and overview the ship simulation component of the work conducted.

Ship Model

- Modelled on the designs as supplied for the new Interislander ferries.
- Able to with the current data available to act in the simulator as a real ship in terms of movement through the water space and be affected by wind, tide, sea conditions and currents.

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Terminology

1. Navigation track or corridor – The area where the vessel will conduct her planned passage, this area consists of safe navigable water.

2. Reserve area – The area between the defined track or navigable corridor and no-go area, which still consists of safe water. However, would normally only be used in exception for example collision avoidance, adjustment of a turn due to prevailing conditions.

3. No go area – The area outside of the reserve area where the vessel should not be at any time.

Transit Analyst

The Harbourmaster has been working with the company – Transit Analyst to look at the tracks and water space consumption by both the ferry companies and other commercial vessels calling to Port Marlborough.

Transit Analyst provides a service where it is possible to pull ships tracks from stored AIS (automatic identification system) data and display this both as a full track and as a replay function. Weather sensor data is integrated into this data set as well, so an appreciation of these influences on a vessel's passage can be considered.

The data feeds for AIS and weather into the systems are using parts of the wider MDC network and infrastructure.

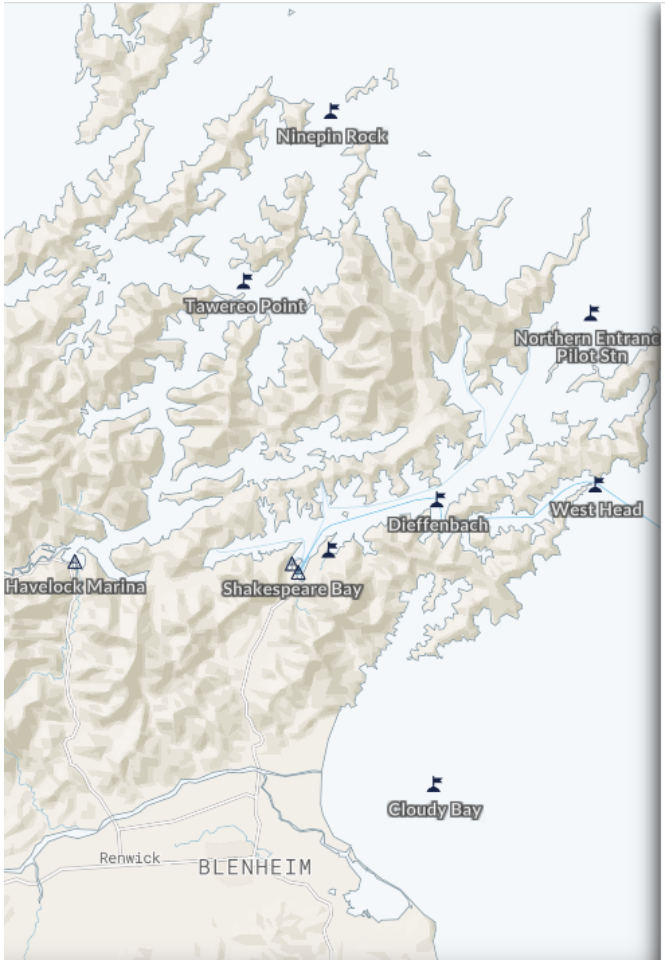
Transit Analyst

https://transitanalyst.sandpit.dukc.net/

Met Ocean View

Met Ocean View use data sources to develop accurate weather forecasts for specific defined locations. In conjunction with Port Marlborough the MDC Harbourmaster use these forecasts to better inform decisions made around the Harbour and shipping activities.

https://app.metoceanview.com/helm/#/



Report: West Head PM

Generate PDF

close

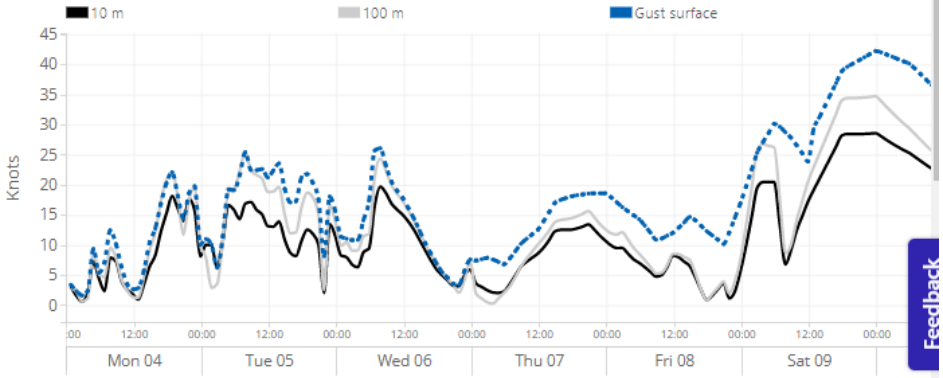
Please contact support@metocean.co.nz for more information

West Head - rbevwc2h
(41.213S, 174.320E)

Issued Jul 4, 2022 10:48

19 kt	0.8 m	Sun rise
OK	OK	Sun set
highest average wind speed over the next 24 hours is less than 21 kt	Highest Wave height - significant over the next 24 hours is less than 2 m	

ATMOSPHERIC FORECAST

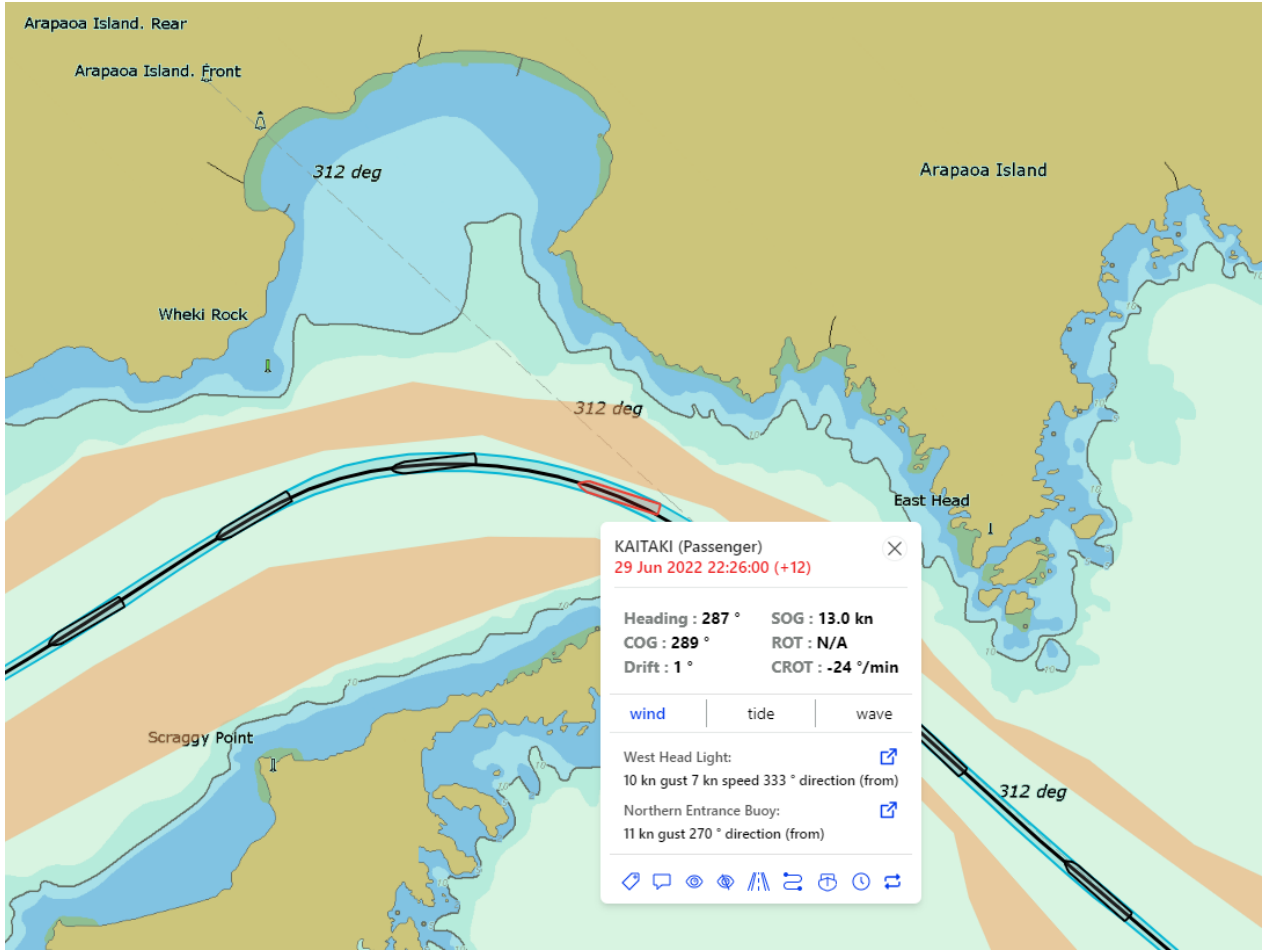


Direction	↗	↑	↖	↗	↙	↓	↘	↘	↓	↓	↘	↘	↘	↓	↑	↑	↖	↖	↖	↖	↖	→	↗	↗	↑	↑	↑	↑	↑	↖	↖	↖	↑	↑	↑	↖	↖	↖	↖
Direction cardinal	S	S	NNW	NNW	S	NNW	NNW	SSW	SSW	SSE	SE	SSW	SW	SSW	SSE	SSE	SE	SSE	SSW	E	NW	S	S	SSE	SSE	SE
Direction degrees °	182	172	345	347	173	333	331	194	192	154	145	208	233	193	165	162	130	159	202	101	305	180	172	165	154	14
Pressure hPa	1025	1028	1027	1026	1025	1023	1019	1014	1016	1022	1023	1024	1023	1023	1019	1016	1008	1002	995	993	994	1000	1006	1013	1019	102
Visibility km	24	24	24	24	24	24	21	19	24	24	24	24	5	5	15	5	4	8	10	8	20	3	3	5	36	61

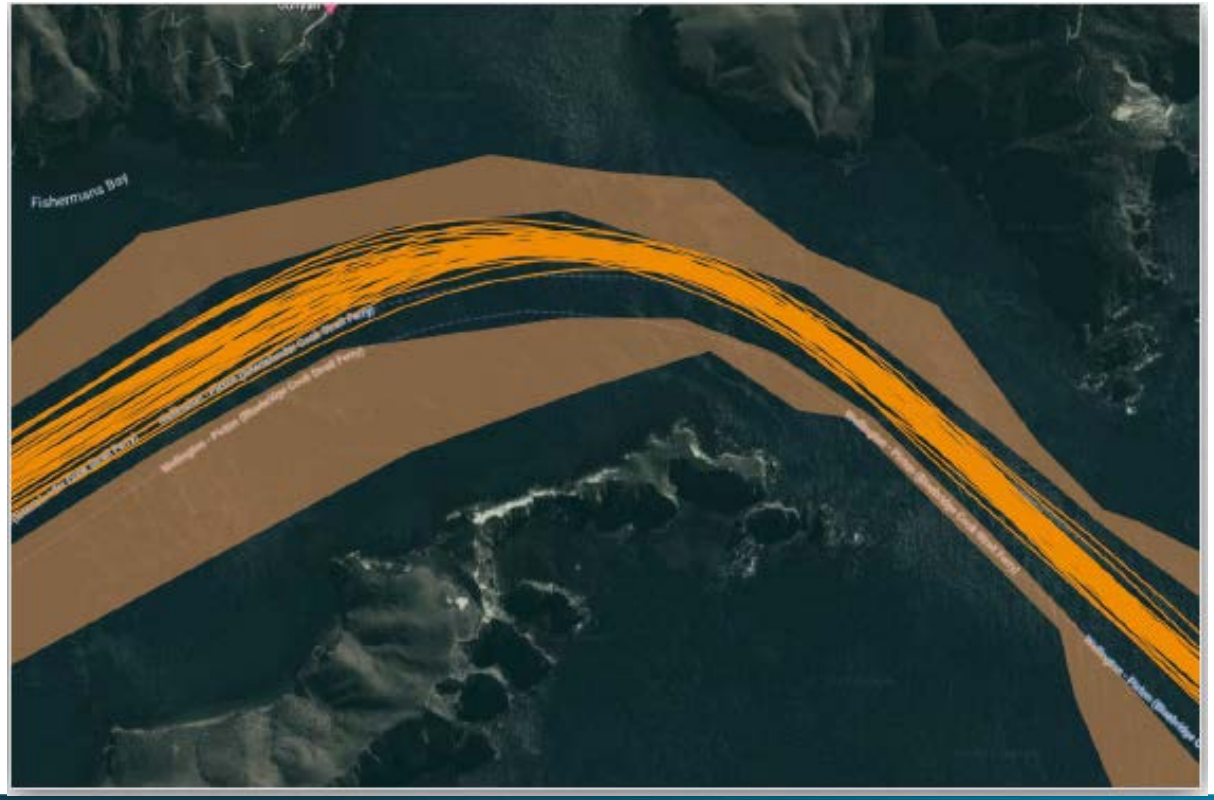
Risk Level: Fog Low Moderate Good

WAVE FORECAST

Feedback


Arapaoa Island. Rear
Arapaoa Island. Front
312 deg
Arapaoa Island
Wheki Rock
312 deg
East Head
KAITAKI (Passenger)
29 Jun 2022 22:26:00 (+12)
Heading : 287 °
SOG : 13.0 kn
COG : 289 °
ROT : N/A
Drift : 1 °
CROT : -24 °/min
wind
tide
wave
West Head Light:
10 kn gust 7 kn speed 333 ° direction (from)
Northern Entrance Buoy:
11 kn gust 270 ° direction (from)
Scraggy Point
312 deg

Critical Navigation Zone - Inbounds

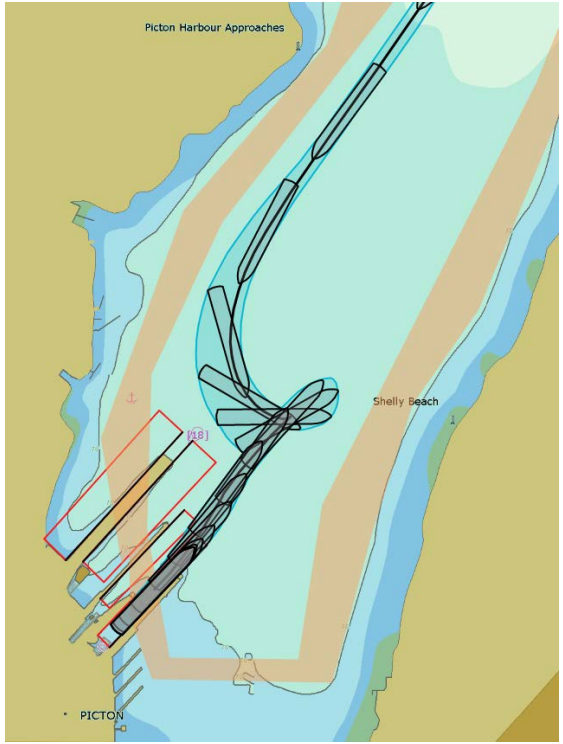


Critical Navigation Zone - Outbounds

Dieffenbach - Inbounds

Dieffenbach - Outbounds

Berthing in Picton Harbour



Kaitaki – 29 June

Strait Feronia – 3 Transits between 26 – 29 June

Summary

- We are now able to with data and evidence monitor vessel transits accurately within the Marlborough Sounds. This is enabled by the previous work done by MDC to build a data network within the Sounds.
- The aim is to have large commercial vessels operating for both the ferries and other port users from a common operating picture. Whereas currently the plans are very close but with some differences.
- We are able and will continue make decisions for future operations based in evidence and data so that risk can be evaluated and managed effectively.

Next Steps?

- We intend to continue working with Transit Analyst to continue building the data picture of water space usage within the Marlborough Sounds.
- After the visit to Auckland recently, there were a few minor changes to the proposed common passage plan route. These consisted of small adjustments to course lines and radii of turns. These have been circulated to both ferry companies for review and comment, it has also been provided to Port Marlborough for review by the pilots.
- We will receive a formal report from the Auckland meeting from the NZ Maritime School.

Next Steps?

- Once feedback has been received from the ferry companies and pilots, we will then arrange appropriate meetings to collectively review and work towards formalising the common passage plan.
- To continue the project to incorporate the Northern Entrance.
- To continue to develop the network of data sensors in the Marlborough region and continue working on visualisation of the data to benefit decision making for MDC, shipping companies, operators and recreational users.

Questions?