

Northland Regional Council

Harbourmaster's Direction 1-2012-WHG

Whāngārei Harbour – Wave Rider Data Collection Buoys

Purpose

To promote the safety of navigation in Whāngārei Harbour by prescribing criteria for the protection and integrity of the Wave Rider Buoy System (WRB system) which is permanently deployed near the seaward entrance of the shipping channel.

This harbourmaster's direction is issued to prevent damage to the WRB system and to prevent the disruption of the data these sensitive buoys are collecting.

Harbourmaster's Direction

- 1) All vessels are required to keep at least 100 metres clear of the following WRB system buoys located on the northern side of the Whāngārei Harbour shipping channel midway between the Fairway buoy and No.1 buoy:
 - WRB A in position $35^{\circ} 52.986' \text{ S} / 174^{\circ} 32.888' \text{ E}$
 - WRB B in position $35^{\circ} 53.015' \text{ S} / 174^{\circ} 32.912' \text{ E}$
 - Special Mark Buoy in position $35^{\circ} 52.987' \text{ S} / 174^{\circ} 32.922' \text{ E}$
- 2) Vessels must not attempt to enter or leave the channel between the Fairway Buoy and No. 1 Buoy.

Application

This direction applies to all vessels when navigating in Whāngārei Harbour.

Background

Whāngārei Harbour hosts the deep water jetties and wharves operated by Refining NZ and Northport. The water depth available in relation to the draft (or vertical depth of a ship's hull below the water) is a critical factor in determining when it is safe to bring deep draft vessels into the harbour.

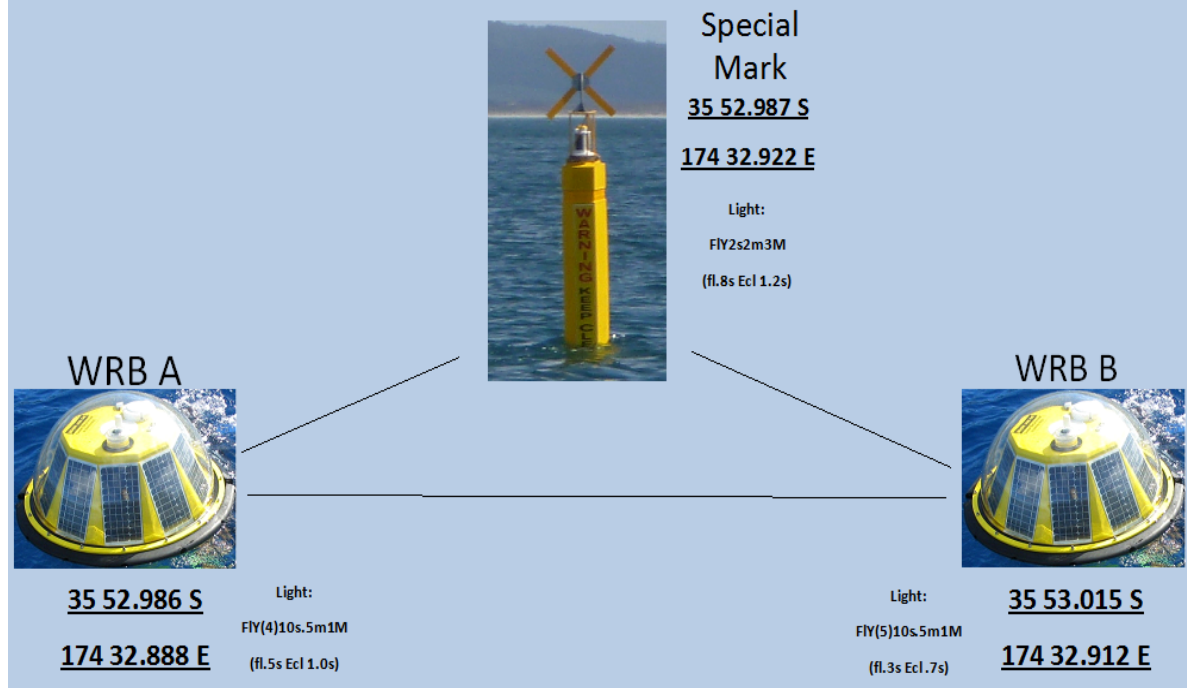
Whāngārei Harbour operates a "Dynamic Under-Keel Clearance" (or DUKC) system to accurately predict the under-keel clearance (the clearance between the ship's keel and the seabed).

The sophisticated system utilises input from a number of sources to provide the calculated results:

- Sea and swell data from the two wave rider buoys;
- Tidal data from the Marsden Point tide gauge;
- Sea level information from a monitoring station located on Frenchman Island;
- Manual inputs of hydrographic survey data and individual vessel information.

The WRB system consists of two wave rider buoys and a special mark buoy located on the northern side of the Whāngārei Harbour shipping channel midway between the Fairway Buoy and No.1 Buoy as shown in the plan below.

Northport's WRB System



The yellow Special Mark Buoy is positioned to the north of the two Wave Rider Buoys at an equal distance from both. The Special Mark Buoy is deployed to indicate the position of the two smaller Wave Rider Buoys and is higher and more visible than the Wave Rider Buoys which sit very low in the water.

The Special Mark Buoy is fitted with a 3NM range light and the two Wave Rider Buoys are fitted with 1NM range lights.

The WRB system is depicted on charts NZ 5219 and NZ5214, adjacent to the Whāngārei entrance channel between the Fairway Buoy and No. 1 Buoy.

Legislation

These directions are issued pursuant to section 650C(3)(a) of the Local Government Act 2002 and prescribe navigation requirements for all vessels navigating in Whāngārei Harbour with respect to the WRB system.

Limitations

Nothing in this Harbourmaster's Direction relieves the master (skipper), crew or operator of any vessel of his or her obligation to comply with the requirements of maritime rules, local bylaws and safety management systems that may be applicable.

Liability

Northland Regional Council shall not, under any circumstances or conditions, be responsible for any loss arising from the negligence of the master (skipper), crew or operator of any vessel.