

RADIO HANDBOOK

FOR COASTAL VESSELS



A GUIDE TO MARITIME COMMUNICATIONS **2007**
IN NEW ZEALAND

DO'S AND DON'TS

IN THE OPERATION OF YOUR MARITIME RADIO APPARATUS

- ✓ Use VHF Channel 16 for distress, safety and calling, or the SSB frequency appropriate for your location.
Cellphones: call 111.
- ✓ Replace your handset correctly when not in use. (Open microphones are the prime cause of serious interference on VHF channels.)
- ✓ Listen before transmitting to avoid interference to others.
- ✓ Use the vessel's name and radio call sign.
- ✓ Use accepted operating procedures.
- ✓ Be brief.
- ✓ Speak as clearly as you can.
- ✓ Be courteous.
- ✓ Wait for a reply to calls before transmitting again, or before changing channels or frequencies.
- ✗ Don't make long transmissions. Remember that many VHF stations are solar powered.
- ✗ Don't transmit false or misleading messages. The transmission of a false distress message is an offence.
- ✗ Don't operate your maritime radio in a manner which endangers or interferes with others.

MARITIME NEW ZEALAND
RADIO HANDBOOK
FOR COASTAL VESSELS
A GUIDE TO MARITIME COMMUNICATIONS IN NEW ZEALAND

Revised and reprinted 2007

Disclaimer: All care and diligence has been used in extracting, analysing and compiling this information, however, Maritime New Zealand gives no warranty that the information provided is without error.

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INTRODUCTION

This handbook is intended as a guide to operators of both ship and coastal radio stations including operators of VHF and SSB radios. It provides information that covers:

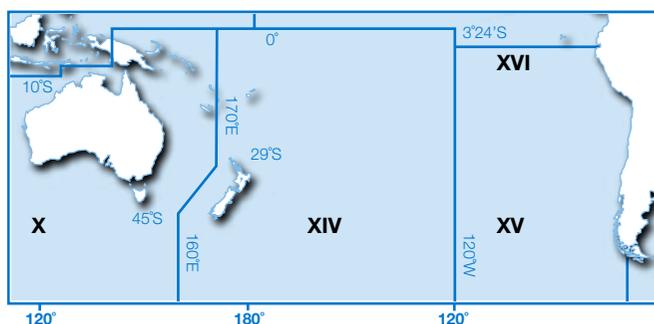
- how search and rescue is managed in New Zealand
- distress, urgency and safety calls including use of cellphones
- radio telephone procedure
- coverage
- other information, eg useful contacts and a glossary.

Maritime Radio Service

For seafarers, their main lifeline to land is the ship's radio.

Maritime New Zealand (MNZ) is responsible for maintaining VHF and HF radio services for New Zealand's coastal waters and the South Pacific, providing around-the-clock monitoring of radio frequencies for distress messages.

The region covered by the New Zealand distress and radio safety service is known as NAVAREA XIV, covering 12.5% of the earth's ocean surface. It extends from mid-Tasman to mid-Pacific and from the Antarctica to the Equator.



MNZ is also responsible for the broadcast of Maritime Safety Information (MSI) within the NAVAREA. The MSI includes meteorological information, coastal and oceanic navigational warnings, and ionospheric prediction forecasts.

The service provided by MNZ is complemented by a network of volunteer private radio operators around New Zealand and its offshore islands.

The radio network is monitored by staff located at the Maritime Operations Centre (MOC) in Lower Hutt on a 24/7 basis.

The Maritime Radio Service consists of 30 coastal VHF stations. Twenty-eight of these stations provide VHF radio coverage throughout the coastal waters surrounding New Zealand. The other two stations provide VHF radio coverage in the coastal waters surrounding the Chatham Islands.

There is also an oceanic MF/HF radio station located to the east of Lake Taupo. All the stations are linked to MOC, which is co-located with the Rescue Coordination Centre New Zealand (RCCNZ).

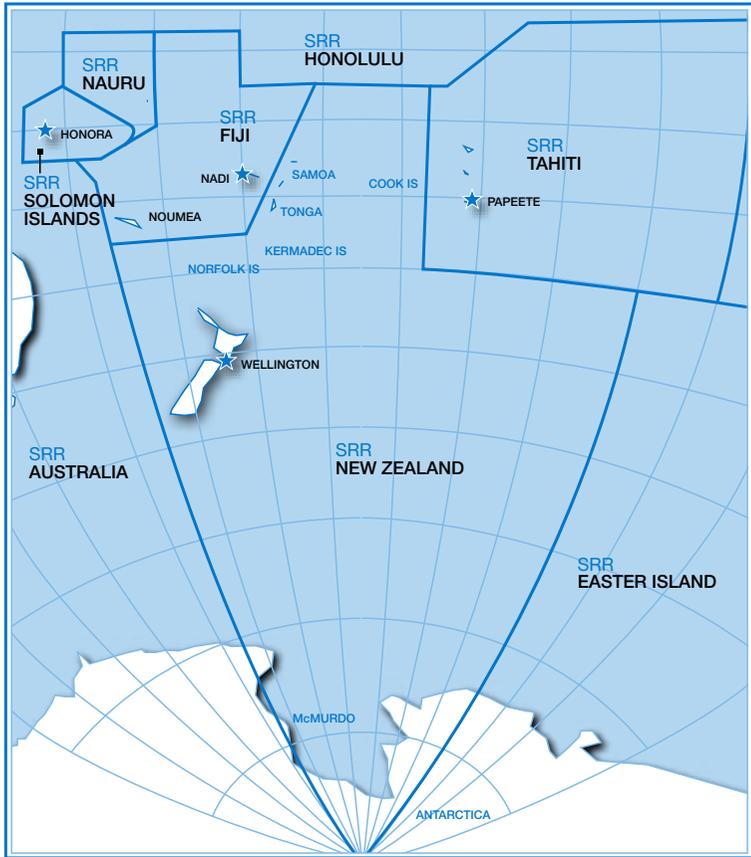
MOC co-ordinates the transmission of all MSI over the INMARSAT SafetyNET satellite system, and by voice on HF and VHF.

The scheduled broadcast times, channels and frequencies are detailed on pages 36 and 37.

The MOC also provides the following services to mariners:

- **telephone patch and message relay facilities for search and rescue and medical purposes on VHF and SSB**
- **the reception and processing on VHF and MF/HF (SSB) of:**
 - **trip reports (TRs)**
 - **ships' meteorological observations**
 - **incoming Ministry of Agriculture and Forestry, and Customs clearance requests.**

How search and rescue is managed in New Zealand



- ★ Rescue Coordination Centre
- Search and Rescue Region boundary of SRR

The RCCNZ is responsible for co-ordinating all major aviation and maritime search and rescue missions within the New Zealand search and rescue region. In addition, RCCNZ is responsible for co-ordinating land-based missions arising from someone activating an EPIRB or personal locator beacon.

All RCCNZ co-ordinated incidents are termed Class III incidents. Class III missions arise because an aircraft, vessel or person is in distress, and they often require the co-ordination of national and international civil and military resources.

The New Zealand Police is responsible for co-ordinating what are known as Class II incidents. Class II incidents include many marine search and rescue missions that happen closer to shore. They also include land-based search and rescues that do not arise from a distress beacon being activated.

The RCCNZ sometimes provides support and advice to the New Zealand Police during Class II search and rescue incidents.

HOW RADIO WORKS

Radio waves

Radio transmitters work by supplying a rapidly changing electrical current to an aerial (antenna) to create a changing electromagnetic field. The speed with which these currents change controls the speed that the electromagnetic field around the aerial changes. This is measured in Hertz (Hz).

1Hz	1 Hertz	1 cycle per second
1kHz	1 kiloHertz	1 thousand cycles per second
1MHz	1 Megahertz	1 million cycles per second
1GHz	1 Gigahertz	1 billion cycles per second

Like dropping a pebble into a pond, the pebble represents the transmitter while the radiating ripples represent the fluctuating electromagnetic fields. These radiating electromagnetic fields are called radio waves.

These radio waves radiate out from the aerial at the speed of light.

Marine VHF operates at a frequency of approximately 156MHz. MF/HF (also called SSB) radios operate at frequencies from about 2MHz to 22MHz.

Frequency characteristics

The different frequencies have different characteristics for specific purposes and are sub-divided into different “bands”. These bands are listed below.

Frequency range	Band classification	Band abbreviation
10-30kHz	Very low frequency	VLF
30-300kHz	Low frequency	LF
300-3000kHz (3MHz)	Medium frequency	MF
3-30MHz	High frequency	HF
30-300MHz	Very high frequency	VHF
300-3000MHz (3GHz)	Ultra high frequency	UHF
3GHz-30GHz	Super high frequency	SHF

VHF radio waves travel in a straight line and won't bend over hills, headlands or over the horizon to any great extent. VHF radio is used for local transmissions but aerials must be in sight of each other (line of sight).

MF radio waves have a greater tendency to follow the earth's curvature, so lend themselves to medium-range navigation aids, regional broadcasting and for medium-range communications because they can curve around obstructions and over the horizon.

HF radio waves do not bend over the horizon, but utilise a layer of the earth's atmosphere known as the "ionosphere" to reflect the radio waves back to earth. The ionosphere varies throughout the day but is most stable shortly after sunset. This is a particularly good time for SSB communications in the HF band.

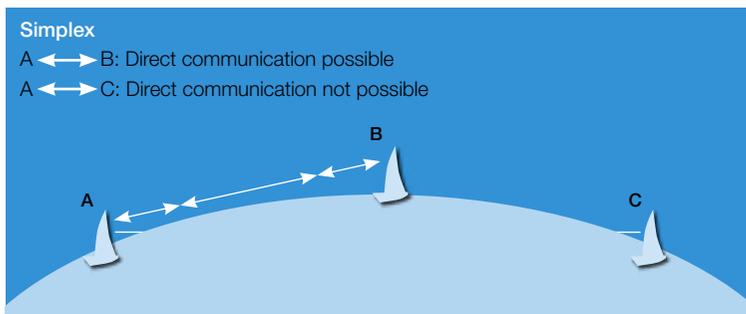
During the daytime, SSB transmissions are not as reliable due to the effect of the sun on the ionosphere. In general, higher frequencies such as 12MHz or 16MHz bands achieve better communications while lower frequencies such as 4MHz or 6MHz work better at night.

The distance between stations is also a factor, with higher frequencies such as 8MHz and above providing better results at longer ranges.

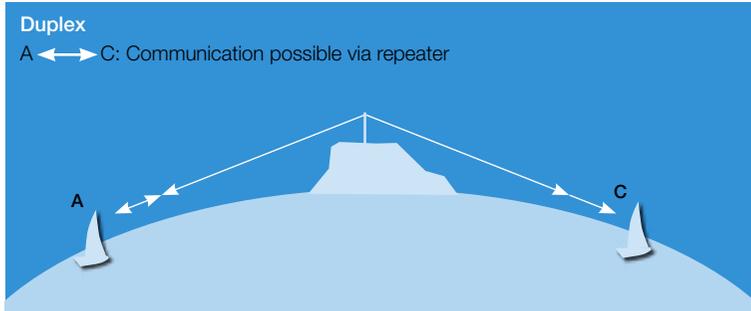
Simplex and duplex – VHF radio

Simplex means both stations use the same frequency for transmitting and receiving. Duplex is where there is a third station, a repeater station, normally on a high mountain or similar. It receives the incoming signal and simultaneously retransmits it on a different frequency. So duplex uses two frequencies, one to transmit and another to receive.

Simplex: One frequency only is used for transmitting and receiving. All channel 16 transmissions are simplex.



Duplex: As VHF signals will not pass through hills or islands, a repeater is often placed on a hill top so stations on different sides of the hill can communicate with each other. By placing the repeater station on top of a high mountain, vessels up to about 70 miles apart can communicate, where line of sight between the vessels may be under 10 miles. Duplex operation requires repeater channels to operate on two separate frequencies, one to transmit and one to receive.



Aerials

The approximate distance in miles from an aerial to the horizon is:

$$\text{Distance} = 1.2\sqrt{\text{aerial height (metres)} \times 3}$$

(Note aerial height is the height above sea level.)

Two aerials will be in range of each other when their distances overlap.

Not all aerials radiate power equally in all directions and a single “whip” aerial mounted vertically should provide the best 360° coverage in all directions from the vessel.

Shielding

Aerials should be placed to avoid shielding from superstructures, masts and similar structures because these could interfere with the radio waves as they radiate outwards from the aerial.

DISTRESS CALLS

Channel 16 is the international VHF maritime distress channel.

Distress, urgency and safety calls

NOTE: The wearing of lifejackets is a legal requirement in all emergencies.

Special calls are used in cases of distress, urgency and safety and must be properly understood and correctly used.

DISTRESS: the radiotelephone distress signal **MAYDAY** is used to indicate that a ship or aircraft or person is threatened by grave and imminent danger and requires IMMEDIATE assistance.

URGENCY: the radiotelephone urgency signal **PAN PAN** is used to indicate that a ship has a very urgent message to transmit concerning its safety, eg loss of steering.

SAFETY: the radiotelephone safety signal **SÉCURITÉ** (pronounced SAY-CUR-E-TAY) is used to indicate that the calling station has an important navigational or meteorological warning to transmit.

Distress

A station in distress may use any means at its disposal to attract attention, make known its position and obtain help.

The radiotelephone distress signal is **MAYDAY** and its use is prohibited except in the case of distress.

The distress call has absolute priority over all other transmissions. All ships and coastal stations hearing it must immediately cease any transmissions capable of interfering with the distress communications, and must continue to listen on the frequency being used.

Distress calls and distress messages may be sent only on the authority of the master or person responsible for the station.

Stations involved in distress communications should exercise great care not to interfere with the transmissions of the station in distress or with other assisting stations.

When **MAYDAY** is not warranted, but urgency is required for the safety of the ship or person, the urgency signal **PAN PAN** should be used.

IMPORTANT – *DISTRESS and URGENCY calls and messages must be cancelled if it is subsequently found that help is no longer required or when the incident is finished.*

Distress procedure

The distress procedure is:

- **the alarm signal (if available) followed by**
- **the distress call followed by**
- **the distress message.**

Alarm signal

The radiotelephone alarm signal is only used on SSB transmissions. (Not all SSB radios are fitted with an alarm signal generator.) It consists of two different audio frequency tones transmitted alternately, giving a distinctive warbling sound. The alarm signal is only used on 2182kHz, 4125kHz or 6215kHz.

The purpose of this signal is to attract the attention of the person on watch or to activate an automatic receiver alarm (if fitted).

The alarm signal should be sent continuously for a period of at least 30 seconds, but not exceeding one minute.

It shall be used only:

- **to announce that a distress call or message is about to follow**
- **by an authorised coastal station transmitting an urgent cyclone warning – the warning shall be preceded by the safety signal**
- **to announce the loss of someone overboard when the assistance of other ships is required and cannot be obtained by using the urgency signal only. In this case the alarm signal shall not be repeated by other stations. The message shall be preceded by the urgency signal.**

Any radiotelephone alarm signal transmitted by a coastal station is followed by a single tone for 10 seconds.

Distress call

The radiotelephone distress call is the distress signal **MAYDAY** (spoken three times), the words THIS IS and the name and callsign of the ship in distress (spoken three times).

VHF radio distress calls are transmitted on VHF channel 16.

SSB distress calls are transmitted on 2182kHz, 4125kHz, 6215kHz, 8291kHz, 12290kHz or 16420kHz.

These frequencies are dedicated to distress, safety and calling.

Distress message

The distress call should be followed immediately by the distress message.

This message consists of:

- the distress signal **MAYDAY**
- the name and callsign of the ship in distress
- the ship's position (either in terms of latitude and longitude or, as a true bearing and distance from a known geographical point)
- the nature of the distress
- the type of assistance required
- the number of people on board
- any other information that may help the rescue such as the sea conditions and description of the ship.

EXAMPLE

- Switch to VHF channel 16 or SSB 2182kHz, 4125kHz, 6215kHz
- On SSB – send alarm signal if available
- **MAYDAY; MAYDAY; MAYDAY**
- **THIS IS**
- **ALBATROSS ZM1726; ALBATROSS ZM1726;**
ALBATROSS ZM1726
- **MAYDAY ALBATROSS ZM1726 – 5 nautical miles west of**
Kapiti Island – holed and listing heavily, engine room flooded – require
immediate assistance – three people on board – seas rough – OVER.

IMPORTANT – listen on the same frequency for an acknowledgement.

Acknowledgement of a distress message

Any station hearing a distress call and message should write it down. If no response is heard from a shore station, acknowledge the distress call and take all possible steps to attract the attention of other stations that may be able to help.

The acknowledgement of a distress message should take the following form:

- the distress signal **MAYDAY**
- the name and callsign of the ship sending the distress message (three times)
- the words **THIS IS**
- the name and callsign of the station acknowledging receipt (three times)
- the word **RECEIVED**
- the distress signal **MAYDAY**.

EXAMPLE

- **MAYDAY**
- **ALBATROSS ZM1726; ALBATROSS ZM1726; ALBATROSS ZM1726**
- **THIS IS**
- **BLUE DUCK ZM1983; BLUE DUCK ZM1983; BLUE DUCK ZM1983**
- **RECEIVED MAYDAY**
- If there is any doubt regarding the vessel's position, repeat the position back to confirm.

Relay of a distress message

A ship or coastal station would in most cases re-transmit a distress message to summon further assistance. This message consists of the signal **MAYDAY RELAY** (spoken three times), the words **THIS IS**, the name and callsign of the relaying station (three times) – followed by the distress message as broadcast by the ship in distress. When using SSB, use the alarm signal (if available).

EXAMPLE

- **MAYDAY RELAY; MAYDAY RELAY; MAYDAY RELAY**
- **THIS IS**
- **BLUE DUCK ZM1983; BLUE DUCK ZM1983; BLUE DUCK ZM1983**
- **MAYDAY ALBATROSS ZM1726 – 5 nautical miles west of Kapiti Island – holed and listing heavily, engine room flooded – require immediate assistance – three people on board – seas rough – OVER.**

In cases where the distress message is repeated on a frequency other than that used by the ship in distress, an indication should be given of the frequency used and the time at which the message was received.

EXAMPLE

(Initial procedures as outlined above.)

- **Following received on Channel 60 at 0930 – MAYDAY ALBATROSS ZM1726 – 5 nautical miles west of Kapiti Island etc.**

Control of distress traffic

The control of distress traffic is the responsibility of the ship in distress or the station relaying a distress message. In most cases these stations will transfer the control to Maritime Radio. While Maritime Radio stations cover New Zealand coastal waters, there may be situations where another station has to control the distress traffic. In all cases the controlling station should inform search and rescue authorities.

If necessary, the station in distress or the station in control of the distress traffic may impose silence on other stations in the area using the signal **SEELONCE MAYDAY**, followed by its own name and callsign. Other stations near the ship in distress may, if necessary, impose silence by using the signal **SEELONCE DISTRESS**, followed by its own name and callsign.

Resumption of restricted working

When complete silence is no longer necessary on a frequency being used for distress traffic, the controlling station will transmit on that frequency a message addressed to ALL STATIONS indicating that restricted working may be resumed with caution.

EXAMPLE

- **MAYDAY**
- **ALL STATIONS; ALL STATIONS; ALL STATIONS**
- **THIS IS**
- **TAUPO MARITIME RADIO**
- **0930 (the time of the message) ALBATROSS ZM1726**
- **PRUDONCE**

Resumption of normal working

When the distress communications have ceased, the controlling station will transmit a message addressed to ALL STATIONS indicating that normal working may be resumed.

EXAMPLE

- MAYDAY
- ALL STATIONS; ALL STATIONS; ALL STATIONS
- THIS IS
- TAUPO MARITIME RADIO
- 0940 (the time of the message) ALBATROSS ZM1726
- SEELONCE FEENEE

IMPORTANT: The radio watch and contact with the ship in distress should continue until all activity has ended. A distress or urgency call can be cancelled by transmitting a message advising that help is no longer required.

When circumstances change, a ship which has sent a MAYDAY may alter the message to a PAN PAN when imminent danger has passed. A PAN PAN can also be upgraded to a MAYDAY if a situation becomes more dangerous.

Urgency signal and message

The radiotelephone urgency signal is **PAN PAN** (spoken three times) and indicates that the calling station has a very urgent message to transmit concerning the safety of a ship or person. Medical emergencies are normally designated as a PAN PAN message.

The urgency signal has priority over all other communications except distress. All stations hearing it must take care not to interfere with the transmission of the message which follows the urgency signal.

The urgency message may be addressed either to ALL STATIONS or to a particular station. As soon as the station responsible for the transmission of the urgency message knows that action is no longer necessary, it must cancel the message.

The urgency signal and message should be sent on any international distress frequency/channel for radio telephone. In the case of a long message or medical call, a change to a working frequency should be made.

EXAMPLE

Using VHF Channel 16, or SSB 2182kHz, 4125kHz, 6215kHz, 8291kHz, 12290kHz or 16420kHz

(Any other frequency may be used where it is known that a coastal station or ship is keeping watch.)

- **PAN PAN; PAN PAN; PAN PAN**
- **ALL STATIONS; ALL STATIONS; ALL STATIONS**
- **THIS IS**
- **ALBATROSS ZM1726; ALBATROSS ZM1726; ALBATROSS ZM1726 – 5 nautical miles west of Kapiti Island – dismantled and drifting – require tow – sea smooth – no immediate danger**
- **The number of persons on board should be transmitted**
- **OVER.**

IMPORTANT – listen on the same frequency for an acknowledgement.

Safety signal and message

The radiotelephone safety signal is SÉCURITÉ (pronounced SAY-CUR-E-TAY). Spoken three times, it indicates that the coastal or ship station is about to transmit a message containing an important navigational or meteorological warning.

Navigational and meteorological warnings are broadcast by Maritime Radio stations as soon as possible after they have been received, repeated following the next silence period, and thereafter at the scheduled times as shown on [pages 36 and 37](#), until they are cancelled or replaced.

The safety signal and call should normally be sent on VHF Channel 16, or SSB 2182kHz, 4125kHz, 6215kHz, and the safety message that follows is transmitted on a working frequency.

Safety messages are usually addressed to ALL STATIONS, but in some cases may be addressed to a particular station.

EXAMPLE

- SÉCURITÉ; SÉCURITÉ; SÉCURITÉ
- THIS IS
- TAUPO MARITIME RADIO ZLM; TAUPO MARITIME RADIO ZLM;
TAUPO MARITIME RADIO ZLM
- LISTEN 2207kHz (working frequency) for (type of
warning message).

The call is then repeated on the working frequency and followed by the safety message.

Emergency position indicating radio beacons (EPIRBs)

EPIRBs are designed to alert authorities that someone is in distress and to provide a homing signal for searching aircraft. EPIRBs operate on 121.5MHz, 243MHz, or 406MHz.

The 406MHz EPIRBs transmit a unique code number. Provided this number is registered with RCCNZ, the identity of the vessel and its owner will be known. RCCNZ must be notified of changes of vessel or 406MHz EPIRB ownership.

The COSPAS/SARSAT international satellite system for search and rescue currently monitors 121.5MHz, 243MHz or 406MHz. The system covers New Zealand waters and the information collected by satellites is passed on to RCCNZ near Wellington.

Once activated for distress alerting, the EPIRB should be left running continuously until the rescue is completed. Do **NOT** turn the EPIRB off, because search and rescue operations may be tracing the signal.

From February 2009, satellite monitoring of 121.5/243MHz beacons will cease.

There is no maintenance of 121.5/243MHz satellites and EPIRBs using these frequencies are becoming increasingly unreliable.

All ships making coastal and/or international voyages should carry a 406MHz EPIRB.

IMPORTANT: Care should be taken to avoid accidentally activating a beacon. They should be stowed correctly and not stored or disposed of without first ensuring that the batteries have been removed.

Most cases of accidental transmissions are found to be from EPIRBs that have been thrown in a cupboard, had gear stowed on top of them or dumped at a tip.

These transmissions are likely to interfere with genuine distress signals, and locating the source of them is very costly and time consuming.

If an EPIRB is accidentally activated, phone RCCNZ on 0508 472 269 immediately. No costs or prosecution will result from reporting an accidental activation that is reported as soon as the activation is discovered.

Personal locator beacons (PLBs)

PLBs operate on 121.5/243 and 406MHz. While they are used extensively by trampers and as a personal beacon on small craft, they are not designed for use in the marine environment:

- **Most do not float**
- **PLBs operate for 24 hours (rather than 72 hours for EPIRBs).**



Distress and safety procedure summary

The following table summarises the procedures for distress, urgency and safety communications.

 Denotes text which must be said three times.

	Radio type	TYPE OF CALL		
		Distress	Distress acknowledge	Distress relay
Distress channel	VHF only	Channel 16	Channel 16	Channel 16
Is alarm signal sent (if fitted)?	SSB only	Yes 30-60 seconds 2182, 4125, 6215 kHz	No	Yes + 10 second tone by coastal station
Call	VHF and SSB	"MAYDAY	"MAYDAY	"MAYDAY Relay
		MAYDAY	Name, Callsign	MAYDAY Relay
		MAYDAY	Name, Callsign	MAYDAY Relay
		This is	Name, Callsign."	This is
		Name, Callsign	(of the vessel in distress)	Name, Callsign
		Name, Callsign		Name, Callsign
		Name, Callsign."		Name, Callsign."
			(of the station relaying)	
Message	VHF and SSB	"MAYDAY Name, Callsign Position Nature of distress Assistance required Persons on board Any other information, eg description of vessel, weather and sea state Over."	"This is Name, Callsign Name, Callsign Name, Callsign (of the vessel acknowledging) Received MAYDAY."	"MAYDAY Name, Callsign (of the vessel in distress) Distress message Over."
Remarks	VHF and SSB	Listen on same frequency Must be cancelled if no longer required.		If repeated on different frequency, say: "The following received on _____ (frequency)" and repeat the distress message verbatim.

TYPE OF CALL						
	Radio type	Resumption of restricted/full working	Urgency	Safety: important navigation or meteorological warning		
Distress channel	VHF only	Channel 16	Channel 16	Channel 16 (then working channel)		
Is alarm signal sent (if fitted)?	SSB only	No	Yes	Yes Urgent cyclone warning		
Call	VHF and SSB	"MAYDAY All stations	"PAN PAN PAN PAN	"SÉCURITÉ SÉCURITÉ		
		All stations	PAN PAN	SÉCURITÉ		
		All stations	All stations	All stations		
		This is Name, Callsign (of the coast station)	All stations	All stations		
		Time Name, Callsign (of the vessel in distress)	All stations	All stations		
		Or	A specific station	This is Name, Callsign		
		A specific station	A specific station	Name, Callsign		
		A specific station	A specific station	Name, Callsign."		
		This is Name, Callsign	Name, Callsign	Listen ____ (working frequency)		
		Name, Callsign	Name, Callsign	for ____		
		Name, Callsign."	Name, Callsign."	(type of warning)		
		Message	VHF and SSB	" ____ PRUDONCE (for restricted working) or " ____ SEELONCE FEENEE (for normal working)."	"Urgent message ____ over".	"All stations All stations All stations This is Name, Callsign Name, Callsign Name, Callsign." Warning message
		Remarks	VHF and SSB		Listen on same frequency Must be cancelled if no longer required.	

Use of cellphones during distress and urgency

Cellphones can only provide person to person communications. They cannot broadcast.

Digital cellular phone coverage can change without warning depending on the density of traffic using the cellphone site on shore.

Wearing of lifejackets is mandatory in all cases of distress or urgency.

Keep the cellphone in a waterproof plastic bag to protect it from water in case of a capsiz or swamping – it can be used while still inside the bag without loss of signal strength.

If you use your cellphone to obtain assistance:

- use a cellphone with a booster kit and external aerial if available
- dial 111 for distress or urgency messages
- provide emergency services with:
 - name of the vessel and brief description
 - cellphone number
 - position
 - nature of the problem and assistance required
 - number of persons on board
 - skipper's home address and landline number
 - any other relevant information
- once you have reported a maritime emergency, keep the line free for access by search and rescue services
- don't hang up after talking to search and rescue services, unless instructed to do so
- conserve cellphone battery as much as possible. Carry a spare battery – your phone will use more power if you are a long distance from a cellsite. Use power conservation features if available while at sea. Carry a 12 volt phone charger on board.

Be aware of the limitations of using cellphones in place of a proper marine VHF radio.

- Many areas do not have cellphone coverage.
- In areas with coverage, signal availability is inconsistent.
- In many emergencies, vessels in the vicinity are in the best position to provide assistance. They will be unaware of an emergency unless VHF radio or flares are used.

As a **back up to VHF radio and in areas where there is good coverage**, a cellphone **sealed in a plastic bag** may provide lifesaving communications.



RADIO TELEPHONE PROCEDURE

The use of radio communications has introduced words and abbreviations and it is important that all radio operators use the correct procedure in the appropriate context.

- **Turn the radio on and select a channel.**
- **LISTEN.** Others may be using the channel for messages more urgent than your own.
- **THINK.** Prepare what you are going to say before you transmit, be succinct.
- **When not transmitting, be careful not to hold the transmit button down at all times. If this button is jammed or held down by mistake, it prevents any other person from transmitting any messages.**
- **Safety or lives may depend on clarity in communication.**
- **Speak simply and enunciate words slowly and clearly using correct procedures and avoid casual technique.**

The correct voice procedure is:

Over	This is the end of my transmission. I will listen for and expect your reply.
Out	This is the end of our contact. No reply is expected and I have no further messages for you. (Also used when switching the radio off.) This is a sign for other parties waiting to use the channel that they will not interrupt if they start transmission.
<i>These two keywords (over – out) have different (almost opposite) meanings and are never used together!</i>	
This is	Used to separate the target's callsign from your own.
All understood	I understand what you want and I will do it.
Romeo, Copy or Acknowledged	I have received your message correctly and it is understood.
Say again	I did not receive correctly, or I don't understand your message. Please repeat it so I can be sure I have it right. <i>This statement is sometimes qualified by describing the portion not understood, eg "All after – between – and", indicating the boundaries of what was correctly received and understood.</i>
Correction or I say again	I have made a mistake; this version following is the correct one.
Wait or Standby	I will call you back soon. <i>This statement may be followed by a figure (especially wait), indicating the estimated delay in minutes.</i>
Clear	I have finished with this communication but will remain listening.
Affirmative	Yes. <i>These expressions are less easily lost in noise than the single syllables of "Yes" and "Right".</i>
Negative	No. <i>These expressions are less easily lost in noise than the single syllables of "No" and "Wrong".</i>
I spell	I will spell the word using the phonetic alphabet.
Radio check	The caller is requesting confirmation that their radio is working and indication of strength and clarity (5x5).
Numbers	All numbers are to be transmitted over the radio as single digits only , eg nine-nine-nine, not nine hundred and ninety nine.

Phonetic alphabet

When it is necessary to spell out callsigns/IDs or words, the following spelling should be used:

LETTER	WORD	SPOKEN AS	LETTER	WORD	SPOKEN AS
A	Alpha	AL FAH	N	November	NO VEM BER
B	Bravo	BRAH VOH	O	Oscar	OSS CAH
C	Charlie	CHAR LEE	P	Papa	PAH PAH
D	Delta	DELL TAH	Q	Quebec	KEH BECK
E	Echo	ECK OH	R	Romeo	ROW ME OH
F	Foxtrot	FOKS TROT	S	Sierra	SEE AIR RAH
G	Golf	GOLF	T	Tango	TANG GO
H	Hotel	HOH TELL	U	Uniform	YOU NEE FORM or OO NEE FORM
I	India	IN DEE AH	V	Victor	VIK TAH
J	Juliet	JEW LEE ETT	W	Whiskey	WISS KEY
K	Kilo	KEY LOH	X	Xray	ECKS RAY
L	Lima	LEE MAH	Y	Yankee	YANG KEY
M	Mike	MIKE	Z	Zulu	ZOO LOO
The syllables to be emphasised are in blue (bold) text.					

Transmitting numbers

Transmitting numbers by radio can become garbled and incorrectly recorded by the receiving station. Numbers should be transmitted as a series of single digit numbers.

NUMBER	WORD	SPOKEN AS	NUMBER	WORD	SPOKEN AS
0	Zero	ZEE ROH	.	Decimal	DECIMAL

The syllables to be emphasised are in **blue (bold)** text.

EXAMPLE

- You may be in distress and your GPS records that you are at the following position:
- $43^{\circ} 85.97'S$ $174^{\circ} 52.48'E$.
- This position would be transmitted as:
"We are at 4 – 3 degrees 8 – 5 decimal 9 – 7 minutes south;
1 – 7 – 4 degrees 5 – 2 decimal 4 – 8 minutes east."

Tables of SSB frequencies and VHF channels

All ships licensed to operate in the marine frequency bands between 1605kHz and 2850kHz must be able to transmit and receive on 2182kHz. Distress, urgency and safety calls should be made on this frequency.

The 2182kHz frequency is also the general calling and reply frequency when establishing communication with ship and coastal stations and for use by coastal stations to announce the transmission, on other frequencies, of safety information and lists of messages on hand.

Except for distress and urgency, all other communications should be carried out on a working or inter-ship frequency, leaving 2182kHz available for such calls. Safety traffic should also be transmitted on a working frequency.

LOCAL SSB FREQUENCIES IN THE MEDIUM AND HIGH FREQUENCY BANDS (MF/HF)	
Supplementary calling frequency.	2045kHz 2068kHz
Inter-ship working frequency for use after communication has been established on 2182kHz or 2045kHz.	2456kHz 2638kHz 2012kHz
Harbour authority working frequency.	2162kHz
Working frequencies for exchanging messages between private coastal stations and ships after communication has been established on 2182kHz or 2045kHz.	2480kHz 2444kHz
For communication with coastal stations providing communication for aquatic sporting events. These frequencies may also be used by land stations providing communication for sporting events.	2089kHz 2129kHz
Working frequencies between coastal and ship stations, or inter-ship, after initial contact has been established on 4125kHz.	4146kHz 4417kHz
Working frequencies between coastal and ship stations, or inter-ship, after initial contact has been established on 6215kHz.	6224kHz 6227kHz
Working frequencies for exchanging messages between TAUPO Maritime Radio and ships after communication has been established on a calling frequency.	2207kHz 4146kHz 6224kHz 8297kHz 12356kHz 16531kHz

INTERNATIONAL DISTRESS AND CALLING FREQUENCIES IN THE MEDIUM AND HIGH FREQUENCY BANDS (MF/HF)	
An international distress, safety and calling frequency for radiotelephony.	2182kHz
An international distress, safety and calling frequency.	4125kHz 6215kHz
International call frequency only (not monitored by MOC).	8255kHz
International distress and safety frequency only.	8291kHz
International distress, safety and calling frequencies.	12290kHz 16420kHz

PURPOSE OF VHF CHANNELS	CHANNEL
The international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service. All ship's stations licensed for operation in the authorised bands between 156MHz and 174MHz must be able to transmit and receive on this channel.	16
Inter-ship navigation safety.	13
For inter-ship working.	6, 8
Working channel for harbour authority radio stations on port operation and ship movements.	9, 10, 11, 12, 14, 19
Continuous weather transmission channel.	20, 21, 22, 23
Two frequency talk-through repeater channels, some allocated to Coastguard and to other private coast stations.	1, 3, 4, 5, 60, 61, 62, 63, 64, 65, 66, 80, 81, 82, 83, 84, 85, 86
Working channel for Great Barrier Maritime Radio.	25
Working channel for WHANGAREI, TOLAGA, WAIRARAPA, TARANAKI, D'URVILLE, FOX, PUYSEGUR, KAIKOURA and WAITAKI Maritime Radios, and anti-pollution operations.	67
Working channel for CAPE REINGA, PLENTY, NAPIER, FAREWELL, PICTON, AKAROA, GREYMOUTH and BLUFF Maritime Radios.	68
Working channel Wanganui Maritime Radio.	69
DSC distress alert and messaging	70
Working channels between coast and ship stations after initial contact has been made on channel 16. Also working channel for KAITAIA, AUCKLAND, RUNAWAY, WELLINGTON, WESTPORT, FIORDLAND, CHALMERS, CAPE EGMONT and STEWART ISLAND Maritime Radios.	71
Channel for use in association with marina developments.	73
Working channels between coast and ship stations after initial contact has been made on channel 16.	74
Channels available for aquatic events.	17, 77
Working channels for CHATHAM ISLANDS Maritime Radio.	60, 62

Use of callsigns/IDs

All transmissions must be identified by the name and callsign. Because many ships have the same name or a similar name to other ships, radio operators should use their callsign to correctly identify themselves.

Operating procedure

Before transmitting on any frequency/channel, radio stations (except those in distress) should first listen to ensure that other communications are not interrupted. This is particularly important on VHF Channel 16, and on SSB frequencies 2182kHz, 4125kHz, 6215kHz, 8291kHz, 12290kHz and 16420kHz.

Calling frequencies should be used for initial calls and replies only (except in cases of distress or urgency). Once communications have been established, stations shall change to a working frequency before continuing.

The following example will illustrate the procedure to be used for contacting another ship station:

EXAMPLE

Calling on channel 16

- **KOTARE ZM1624 (up to three times) – THIS IS OCEAN BLUE ZM1234 (up to three times) – ARE YOU RECEIVING? – OVER.**
- **OCEAN BLUE ZM1234 – THIS IS KOTARE ZM1624 – CHANGE TO CHANNEL 6 – OVER.**

Working on channel 6

- **KOTARE (up to three times) – THIS IS OCEAN BLUE – ARE YOU RECEIVING ME? – OVER.**
- **OCEAN BLUE – THIS IS KOTARE RECEIVING YOU LOUD AND CLEAR – GO AHEAD – OVER.**
- **KOTARE – THIS IS OCEAN BLUE – WILL BE ARRIVING PICTON AT ABOUT 6 PM. CAN WE MEET YOU AT THE FERRY TERMINAL THEN? – OVER.**
- **OCEAN BLUE – THIS IS KOTARE – WE CAN MAKE THAT MEETING – SEE YOU THEN – OVER.**
- **KOTARE – THIS IS OCEAN BLUE – OUT.**

The above example shows VHF operation and inter-ship communication. This procedure is also used for ship-shore and MF/HF communications.

Silence period

VHF: There is no provision for silence periods in the VHF maritime mobile service.

SSB: All radiotelephone stations of the maritime mobile service licensed for operation in the frequency bands between 1605kHz and 2850kHz shall, during their hours of service, keep watch on 2182kHz for 3 minutes starting on the hour and the half-hour. During these periods all transmissions between the frequencies of 2173.5kHz and 2190.5kHz, except for distress and urgency communications, shall stop.

The clock used by the radio operator must be checked regularly to ensure correct timekeeping, especially during the silence periods.

Radio watch

Listening on the international distress frequency of channel 16 and/or 2182kHz by ship and coastal stations of the Maritime Radio Service is an essential part of maintaining the safety of life at sea.

In addition, watches are kept continuously at the locations and on the calling frequencies mentioned on [page 28](#).

Voyage or trip reports

Ship stations are encouraged to give coastal stations details of their voyages in a trip report (TR), to facilitate possible search and rescue operations.

The TR comprises:

On departure:

- the abbreviation “TR”
- name and call sign of the ship
- port of departure
- port of destination and, if possible, estimated time of arrival (ETA)
- number of persons on board (POB).

EXAMPLE

TR Ocean Blue/ZM1234 leaving Wellington – ETA Picton 1800 today, three POB.

On arrival:

- the abbreviation “TR”
- name and callsign of the ship
- port and, if possible, estimated time of departure (ETD).

EXAMPLE

TR Ocean Blue/ZM1234 arrived Picton – station closing – ETD 0900 Thursday.

Additionally, fishing boats are encouraged to report their positions to the nearest coastal station:

- on leaving port for the fishing grounds
- on arrival at the fishing grounds
- when proceeding from one area to another on the same voyage, or on arrival in port.

EXAMPLE

TR Ocean Blue/ZM1234 leaving Wellington for Mernoo Bank area. ETA 0600 on the 11th. Three POB.

Every effort should be made to call notifying arrival at a safe anchorage or the end of the voyage. However, unless a vessel is reported as overdue, the absence of a closing TR will not initiate a search or other follow-up action.

COVERAGE AND SERVICES

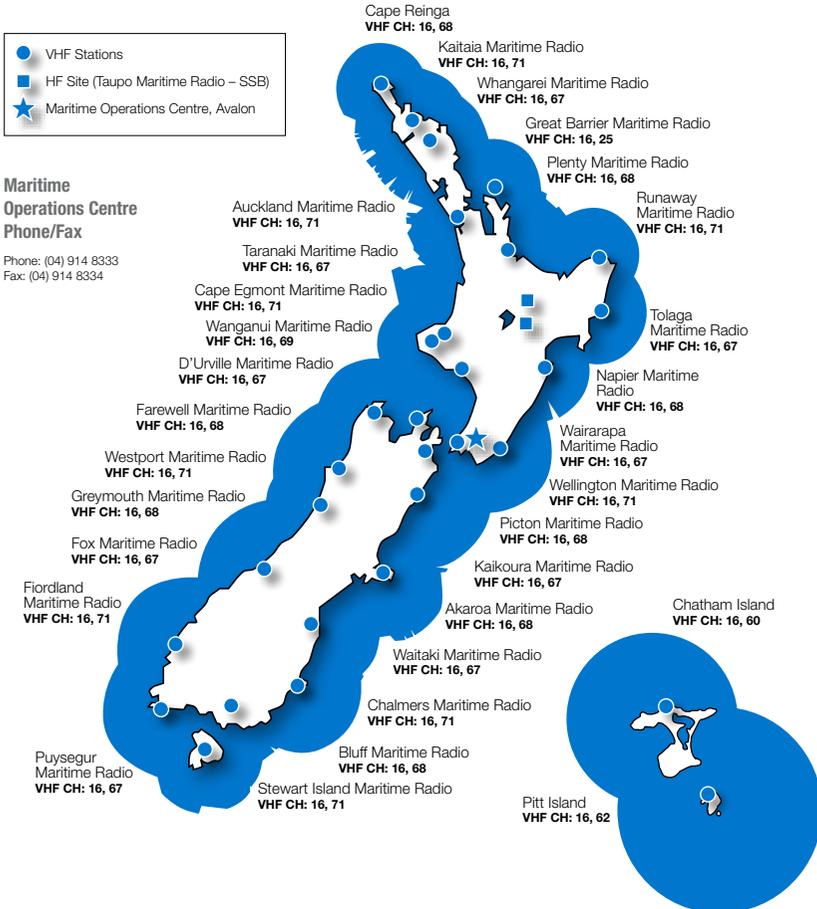
Maritime Radio: VHF and SSB

Maritime Radio Services are provided for New Zealand's coastal and surrounding waters by MNZ and by private coastal station operators. The following is a summary of the services provided. The list for the private coastal station indicates the range of services provided, as not all operators offer the full range. For details about the coastal radio stations, refer to the *New Zealand Nautical Almanac*.



SERVICE	MNZ	PRIVATE
Public non-commercial service	Yes	Some
Watchkeeping on VHF distress channel	Continuous	Varies
Watchkeeping on MF/HF distress frequencies	Continuous	Varies
Provision of communications for distress situations	Yes, nationally	Yes, in some locations
Regular schedule on VHF and MF/HF of weather and navigational bulletins	Yes	Some
Immediate weather warnings	Yes	Some
Immediate navigational warnings	Yes	Some
Locality	32 radio stations remotely controlled from single national operating centre	Local or regional service in many locations
Commercial services, eg messaging, connection to telephone network	No Customs/ Immigration/MAF	Some
Personalised subscription service	No	Some
Voyage or trip reports	Yes	Yes

MARITIME RADIO VHF COVERAGE



Note: This map represents approximate location and coverage of Maritime New Zealand's VHF radio stations. From time to time gaps may exist within the areas shown due to terrain shadows and system maintenance. Terrain shadows can occur close to the shore under cliffs or in bays and fiords.

- 24hr/day listening watch is kept by all VHF stations on channel 16.
- The coverage shown above is for vessels with a 25W radio working into a correctly installed antenna mounted 4m or more above the waterline.

VHF broadcasts

The following broadcasts are made daily by Maritime Radio. These broadcasts include weather warnings, situation and forecast, and navigational warnings. All times are in New Zealand local times and include a long range (5-day) outlook.

All New Zealand coastal VHF stations transmit forecasts for all weather forecast areas simultaneously ([page 48](#)):

TAUPO MARITIME RADIO VHF VOICE BROADCASTS	
Calling	Channel 16
Working	Channel 25, 67, 68, 69, 71 (see page 35 for area detail)
Times	0133, 0533, 0733, 1033*, 1333, 1733 and 2133. NZST or NZDT

Local area forecasts and current wind conditions are also broadcast continuously by Coastguard in Auckland, Northland, Whitianga, Wellington, Cook Strait and Nelson using channels 20, 21 or 23.

Chatham Island coastal VHF stations transmit weather forecasts simultaneously on working channels 60 and 62 at 0603, 1403, 1803, 2203 (all times are Chatham Islands local time).

* The 1033 broadcast includes all warnings in force and reports from coastal stations, but no situation or forecast.

TAUPO Maritime Radio (MF/HF)

The MF/HF (SSB) Maritime Radio Service is provided by TAUPO Maritime Radio, from a site in the middle of the North Island. The calling and working frequencies are shown below. A watch is kept continuously on all calling frequencies.

TAUPO MARITIME RADIO VOICE FREQUENCIES (in kHz)						
Calling	2182	4125	6215	8291	12290	16420
Working	2207	4146	6224	8297	12356	16531

For a ship near New Zealand, the lower frequency bands (in MHz) should generally provide the best radio communication with TAUPO Maritime Radio.

TAUPO MARITIME RADIO DIGITAL SELECTIVE CALLING (DSC) FREQUENCIES (in kHz)					
Distress	4207.5	6312.0	8414.5	12557.0	16804.5

MF/HF propagation can never be exactly predicted for all places, times and conditions. For guidance on the best frequencies to use, mariners are advised to keep a close watch on the IPS warnings in *Notices to Mariners*.

MF/HF broadcasts

The following broadcasts are made on MF/HF frequencies from TAUPO Maritime Radio.

A preliminary call is made on the calling frequencies shown below and the broadcasts are made on the working frequencies. All times are in New Zealand local times.

BROADCAST TYPE	TIMES		FREQUENCIES kHz			
			Calling		Working	
Coastal warnings and bulletins (including Chatham Islands)	0133 1333	0533 1733	2182 4125 6215		2207 4146 6224	
Coastal reports	0803 1203 2003		2182 4125 6215		2207 4146 6224	
Oceanic warnings*	0303	1503	6215	12290	6224	12356
Oceanic warnings*	0333	1533	8291	16420	8297	16531
Oceanic weather bulletins and warnings	0903	2103	6215	12290	6224	12356
Oceanic weather bulletins and warnings	1003	2203	8291	16420	8297	16531

* For daylight saving time, add 1 hour.

Notes:

- **Bulletins contain weather situation and forecast.**
- **Reports contain the weather situation at selected coastal sites.**
- **Warnings include navigational, ionospheric and meteorological warnings.**

Warnings

Meteorological warnings are issued by the New Zealand Meteorological Service, while navigational warnings are issued by MNZ and the New Zealand Hydrographic Office.

Warnings are broadcast on VHF by Maritime Radio stations, and on SSB by TAUPO Maritime Radio as soon as possible after they have been received. The warnings are repeated on SSB following the next silence period, and thereafter at scheduled times until they are cancelled or replaced.

All warning information is available, on request, from Maritime Radio stations or TAUPO Maritime Radio.

Information contained in radio navigation warnings is primarily to assist mariners up to the entrances to ports. Harbour authorities provide local harbour warnings, but if they do not have a 24-hour VHF radio service, Maritime Radio stations will broadcast radio navigation warnings on their behalf.

Some examples of the type of information contained in coastal navigational warnings are:

- **casualties to lights, buoys and beacons affecting main shipping lanes**
- **the establishment of major new aids to navigation, or significant changes to existing ones**
- **the presence of large, unwieldy tows in congested waters, or vessels engaged in seismic surveys who require other vessels to keep well clear**
- **areas where search and rescue, firing or bombing practices, cable and pipe laying activities, anti-pollution exercises or other operations constituting potential dangers near shipping lanes, are being carried out, so that the areas can be avoided**
- **significant malfunctioning of radio communications services.**

Other weather information

Additional forecasts for small craft in local waters are broadcast by Radio New Zealand community stations and are normally read with scheduled news programmes that may vary in length. Some private broadcast radio stations broadcast local forecasts. Marine weather information is also available via website: www.metservice.co.nz

Many private coastal stations also broadcast local marine weather information and safety information.

Facsimile weather charts are broadcast on MF/HF daily. A schedule of services is broadcast daily at 1100 and 2300 UTC on 5807kHz.

Medical advice

Medical advice may be obtained by sending a message to any of the coastal VHF stations of the Maritime Radio Service or to TAUPO Maritime Radio by SSB. The stations will forward the message to the appropriate medical authority, whose reply will be passed on to the ship. No charge is made for this service.

Ionospheric prediction services (IPS)

Communications over SSB are predicted to improve. During periods of degraded ionospheric propagation, warnings are promulgated by radio. The quarterly optimum frequencies are published in the *New Zealand Nautical Almanac*.

Satellite safety services

Many New Zealand ships are now equipped with INMARSAT-C, which is a text communication system via satellite. In addition to its use for messaging, this service can be used for sending distress alerts and for receiving safety information.

MNZ provides coastal warnings and weather bulletins on the INMARSAT-C satellite service. These broadcasts are coded in such a way that all INMARSAT-C equipped ships within a circular area of 800 nautical miles radius centred on Nelson can receive the coastal broadcasts.

The oceanic broadcasts are coded so that they can be received throughout NAVAREA XIV. (NAVAREA XIV is an area covering much of the Southern Pacific, over which New Zealand has responsibility for providing maritime safety information.)

Coastal bulletins: these bulletins contain current warnings, the current weather situation and forecasts for the New Zealand coastal forecast areas.

CONTENTS OF BROADCAST	UTC
Situation, forecast and warnings for New Zealand coast	1330
Warnings, wind force 8 to 12, SW Pacific, 0° to 55° S, 150° E to 120° W	1530
Warnings, situation and forecasts, 0° to 55° S, 150° E to 120° W	2130
Situation, forecast and warnings for New Zealand coast	0130
Warnings, wind force 8 to 12, SW Pacific, 0° to 55° S, 150° E to 120° W	0330
Warnings, situation and forecasts, 0° to 55° S, 150° E to 120° W	0930

Oceanic bulletins: these bulletins contain warnings, situation and forecasts for the following four weather forecast areas:

Islands: Equator to 25° S, 160° E to 120° W

Subtropic: 25° S to 40° S, Australian coast/150° E

Forties: 40° S to 55° S, 150° E to 170° W

Pacific: 25° S to 55° S, 170° E to 120° W

Southern: 55° to Antarctica, 160° E to 120° W

They are broadcast on INMARSAT-C at the times listed.

OTHER INFORMATION

Offences and penalties

The law provides penalties for people who communicate false information affecting safety. Every person who uses any means to give another person false information relating to the safety of a ship commits an offence if they know the information is false. The penalty can be imprisonment for up to 12 months and/or a fine up to \$10,000.

Medical Evacuation (MEDEVAC) checklist

- Name and callsign of the vessel with the medical emergency
- Position – latitude and longitude in degrees and minutes, or bearing and distance from a known point of land
- Date and time of position
- Vessel's course and speed
- Patient's name, nationality, age, sex etc
- Patient's symptoms
- Medication given
- Medication available
- Radio frequencies in use, or monitored
- Description of the vessel
- A New Zealand contact address, phone or fax number, website or email address
- Last port of call, port of destination, ETA
- On-scene weather and sea conditions
- Nature of assistance required
- Other pertinent information, such as a cell or satellite phone number

There may be local variations to this checklist.

Sea rescue by helicopter

Once a helicopter is airborne, the speed with which it locates the vessel and the effectiveness of its work depends, to a large extent, upon the co-operation of the vessel itself.

From the air, especially if there is a lot of shipping in the area, it is very difficult for the helicopter pilot to pick out the particular ship being searched for, unless that ship uses a **distinctive distress signal** that can be clearly seen.

Helicopter rescue is not normally undertaken over the sea at night, or when wind speeds exceed 45 knots.

Be aware that no form of communication by radio or even person-to-person conversation is possible when a helicopter is overhead due to the extreme noise level.

To ensure that the on-scene period of time is reduced to an absolute minimum:

- **by day, use an orange smoke float distress flare, and orange square (some marked with a black V), signal lamp or heliograph**
- **by night, use a torch or a handheld flare**
- **if practical, give a cell or satellite phone number to the search and rescue authority.**

Provide the following information to the radio station:

- **your position as accurately as possible (latitude/longitude in degrees and minutes, or by GPS, or by bearing and distance from a known point of land)**
- **a description of the vessel**
- **details of your communications capabilities such as VHF, SSB, cell or satellite phone number, if applicable.**

Important points when working with a helicopter:

- when the helicopter arrives, change course to place the wind 30° on the port bow, and maintain this new course at your standard speed
- tie down or stow all loose gear which may be blown about by the rotor wash (this can be drawn up into the rotors)
- keep all unnecessary personnel out of the way while the helicopter is hoisting
- allow the hoist cable (high-line or winch cable) to touch the water or the vessel to dissipate any build-up of static electricity
- do not allow the hoist cable to become attached to the vessel under any circumstances
- ensure the person being lifted is wearing a lifejacket, if at all possible. If the person is a patient, they should be made as comfortable as possible, and if conscious, briefed about the rescue procedure
- light the deck by night, using lights or torches facing downwards
- by day, indicate the apparent wind by using a flag or smoke, as long as it does not impair the pilot's visibility
- on reaching the shore, all persons must obey the instructions of the pilot or crewman, leaving the helicopter in a forward direction, keeping well clear of the tail rotor and engine exhausts.

These procedures may be modified by instructions from the pilot if communications exist.

Secrecy of correspondence

A person who receives information not intended for them shall not disclose or make use of that information or disclose the existence of the transmission unless specifically authorised under a radio apparatus licence.

Transmissions in harbour

To avoid interference to any other radio service, minimum transmitter power should be used by ships in harbour.

Testing of radio apparatus

When it is necessary for a ship station to transmit signals for testing, the transmissions must be brief and should include the callsign and the name of the ship. A shielded dummy load may also be provided for testing purposes.

Interference

It is important that stations should interfere as little as possible with the working of other stations of the Maritime Radio Service. Operators should restrict the use of the radio frequency/channel to an absolute minimum. Unnecessary conversation not only interferes with the genuine needs of other users, but may also disrupt a distress call.

Another common cause of interference is the handset switch being accidentally pressed. Care must be taken to replace the handset correctly in its holder after use.

Useful contacts

Maritime New Zealand

PO Box 27 006
Wellington

Ph (04) 473 0111

Fax (04) 494 1263

Email maritime.radio@maritimenz.govt.nz

Website www.maritimenz.govt.nz

Maritime New Zealand

Maritime Operations Centre

Ph 0800 MARITIME (0800 627 484)

or (04) 914 8333

Fax (04) 914 8334

Email maritime@kordia.co.nz

Rescue Coordination

Centre New Zealand

Level 6, Avalon TV Studios
Tower Block
PO Box 30 050, Lower Hutt

Ph (04) 577 8034

Fax (04) 577 8041

24-hour numbers

Emergency: 0508 472 269

Accident reporting: 0508 222 433

Coastguard Boating

Education Service

PO Box 91 322
Auckland

Ph 0800 40 80 90

Fax (09) 489 1506

For VHF Callsigns phone:

0900 LIFEBOAT (0900 54332)

Website www.cbes.org.nz

Other useful information for boat owners include the:

- ***New Zealand Nautical Almanac* available from many bookshops.**
- ***New Zealand Notices to Mariners* available free from [Land Information New Zealand](#) (see [website link below](#)).**

Land Information New Zealand **Ph** (04) 460 0110

Lambton House

160 Lambton Quay

Private Bag 5501, Wellington

Fax (04) 472 2244

Website www.linz.govt.nz

(click on the "Mariners" link)

406MHz Distress Beacon

Registration – free service

If you purchase a new or used
406MHz beacon you **MUST**
register it with RCCNZ.

Ph 0800 406 111

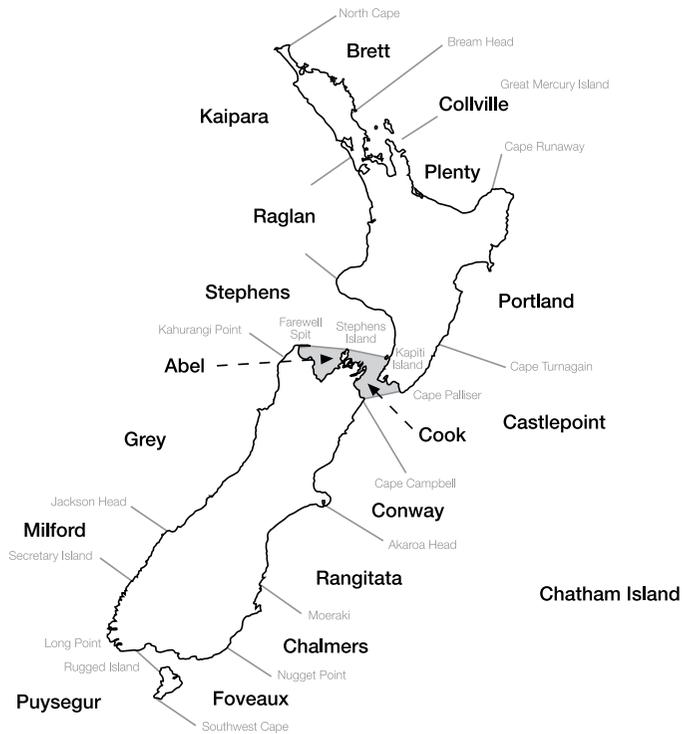
Website www.beacons.org.nz

Glossary of terms

Calling frequency or channel	The frequency (for MF/HF) or channel (for VHF) on which initial contact is established, prior to switching to the working frequency or channel for ongoing communication.
Channel	A VHF radio frequency designation expressed as a one or two digit number.
Chatham Island's time	New Zealand local time (either NZDT or NZST) plus 45 minutes.
Coastal station	A land station in the Maritime Radio Service.
Distress frequency or channel	Channel 16 (for VHF). The distress frequencies for SSB are 2182 kHz, 4125 kHz or 6215 kHz; or 8291 kHz, 12290 kHz, 16420 kHz, for MF/HF. Distress communications are not switched to the working channels or frequencies.
EPIRB	Emergency Position Indicating Radio Beacons used to facilitate search and rescue operations, operating on 121.5 MHz, 243 MHz or 406 MHz.
Frequency	A measure of the rate at which radio waves oscillate (hertz). For ship radio stations this term is commonly used for MF/HF sets and is expressed in kHz (kilo hertz) or MHz (mega hertz).
GPS	Global Positioning System.
IPS	Ionospheric prediction services – IPS acts as the Australian Space Weather Agency, providing the Australian national radio propagation and space weather services.
Maritime Radio Service	The public maritime radio service provided by MNZ to continuously monitor safety calling frequencies, provide distress and safety communications and enhance safety through the dissemination of MSI, including weather and navigational information. The service includes the MF/HF station, TAUPO Maritime Radio, the coastal VHF stations and INMARSAT-C satellite services.
MAYDAY	The distress signal. This signal indicates that a ship or aircraft or person is in grave and imminent danger and immediate assistance is required.
MNZ	Maritime New Zealand. The government agency with statutory responsibilities for maritime safety, security and environmental protection.
MF/HF	Medium and high frequency. Used to describe frequencies or channels in the range 300 kHz – 30 MHz. SSB (single side band) radios are used for communication in the MF/HF bands.

MOC	Maritime Operations Centre co-located with RCCNZ – they monitor the maritime radio network on a 24/7 basis.
MSI	Maritime Safety Information.
Navigational warnings	Warnings regarding hazards to safe navigation of ships, issued by MNZ and the New Zealand Hydrographic Office and broadcast by coastal stations.
NZDT	New Zealand daylight time, which is UTC plus 13 hours (daylight saving time).
NZST	New Zealand standard time, which is UTC plus 12 hours (winter time).
PAN PAN	Urgency signal. Used to indicate that the caller has a very urgent message to transmit.
PLB	Personal Locator Beacon. Used to facilitate search and rescue operations, operating on 121.5 MHz, 243 MHz or 406 MHz. Operates only for 24 hours, is not designed for marine use. Primary use is for persons inland beyond radio or cellphone range.
PRUDONCE	A signal which is used to advise that complete silence is no longer needed on a frequency being used for distress traffic, and that restricted working may be resumed with caution.
RCCNZ	MNZ's Rescue Coordination Centre New Zealand is responsible for co-ordinating major maritime, aviation and beacon-related search and rescue missions in New Zealand's search and rescue region.
SÉCURITÉ	A signal which is used to indicate that the caller is about to transmit a message containing an important navigational or meteorological warning.
SEELONCE FEENEE	A signal which is used to advise that distress communications have ceased and normal working may be resumed.
Ship station	Any mobile radio station in the Maritime Radio Service located on board a vessel that is not permanently moored. These vessels can range in size from runabouts to cargo and passenger ships.
SSB	Single side band mode of transmission as used on MF/HF maritime frequencies.
UTC	Is the time kept at the Greenwich Meridian.
VHF	Very high frequency. Used to describe frequencies or channels in the range 30 – 300 MHz.
Working channel or frequency	The channel (for VHF) or frequency (for MF/HF) on which communications are carried out after initial contact has been established on the calling frequency or channel.

Coastal weather forecast areas



Up-to-date weather information is provided on the website: www.metservice.com
or by ringing MetPhone on 0900 999 + your Area Code.

MARITIME NEW ZEALAND

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Level 10, Optimisation House
1 Grey Street
PO Box 27-006, Wellington 6141
T +64-4-473 0111
F +64-4-494 1263
Toll free: 0508 22 55 22

RESCUE

COORDINATION CENTRE

Avalon TV Studios
Percy Cameron Street
PO Box 30-050, Lower Hutt 5040
T +64-4-577 8034
F +64-4-577 8041

MARINE POLLUTION RESPONSE SERVICE

755 Te Atatu Road
PO Box 45-209, Auckland 0651
T +64-9-834 3908
F +64-9-834 3907

AUCKLAND

20 Augustus Terrace
Level 2, Suite 6, Parnell
PO Box 624, Auckland 1052
T +64-9-307 1370
F +64-9-309 3573

WHANGAREI

Manaia House
Rathbone Street
PO Box 472, Whangarei 0140
T +64-9-438 1909
F +64-9-438 1909

TAURANGA

Level 1, Nikau House
27-33 Nikau Crescent
PO Box 5288, Mt Maunganui 3150
T +64-7-575 2079
F +64-7-575 2083

NEW PLYMOUTH

Hutchen Place
Port of Taranaki
PO Box 6094, New Plymouth 4344
T +64-6-751 3131
F +64-6-751 4097

NAPIER

NZWTA Building
Cnr Lever & Bridge Streets
PO Box 12-012, Ahuriri, Napier 4144
T +64-6-835 4889
F +64-6-831 0008

PICTON

Mariner's Mall
PO Box 301, Picton 7250
T +64-3-520 3068
F +64-3-520 3068

NELSON

Shipping House
36 Graham Street
PO Box 5015, Nelson 7043
T +64-3-548 2434
F +64-3-548 2998

LYTTELTON

Level 1
Shipping Services Building
Norwich Quay
PO Box 17, Lyttelton 8841
T +64-3-328 8734
F +64-3-328 9423

DUNEDIN

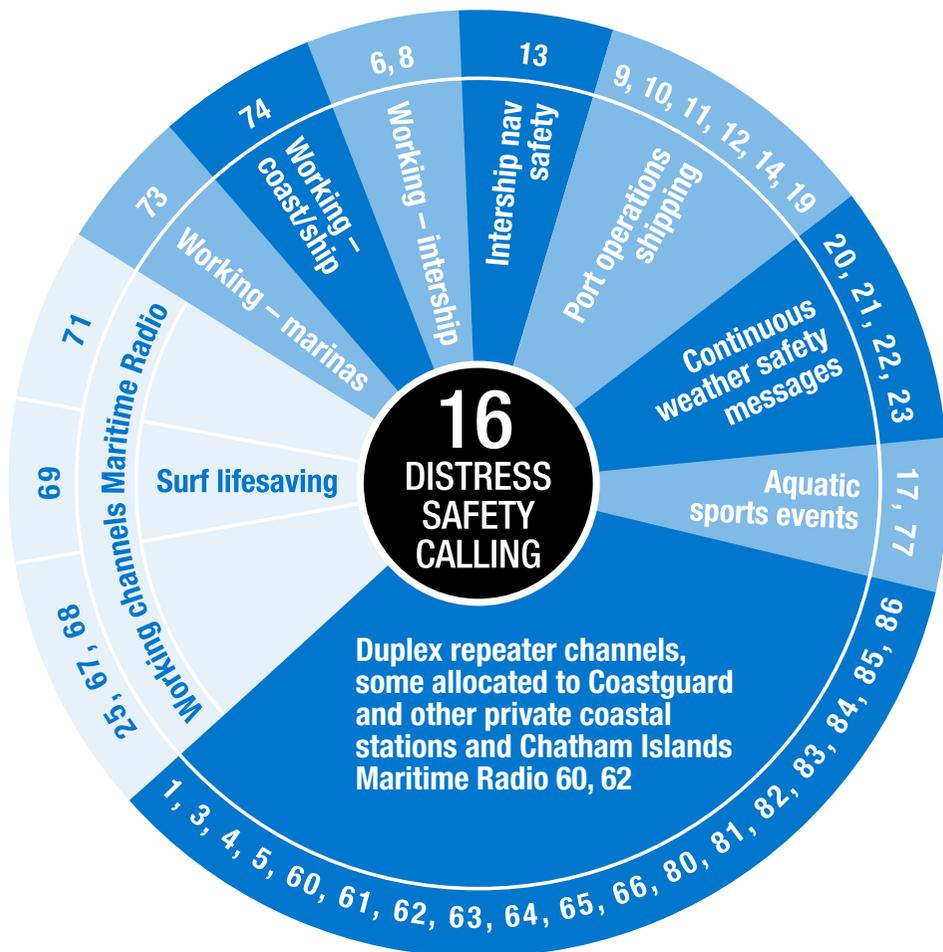
1 Birch Street
PO Box 1272, Dunedin 9054
T +64-3-477 4055
F +64-3-477 9121

BLUFF

72 Gore Street, Bluff
PO Box 1709, Invercargill 9840
T +64-3-212 8958
F +64-3-212 8578

NOTES

VHF MARINE CHANNEL ALLOCATION



RADIO **DISTRESS** CALLING

USE ONLY IF IN GRAVE OR IMMINENT DANGER

- 1 VHF Ch 16 *or* SSB 2182, 4125, 6215, 8291
- 2 MAYDAY MAYDAY MAYDAY
- 3 THIS IS 3 TIMES
- 4 MAYDAY
- 5 Vessel's position in degrees and minutes of latitude and longitude or bearing and distance from a well known geographical feature.
- 6 Nature of distress and kind of assistance required.
- 7 Any other information that may assist rescuers – number of persons on board, emergency details, description of vessel, liferaft, EPIRB, cellphone number.
- 8 Allow a short period for shore station to reply.

If there is no response and you have an EPIRB, activate it. Repeat the distress call working through all the distress frequencies. If contact is made with a shore station, inform the station that you have activated your EPIRB and do NOT turn it off until advised by the rescue authority.

You can use any number of means to communicate distress simultaneously.

Distress alert by cellphone call: 111