

TAUMATA PLANTATIONS LTD

RADIO NETWORK

USER MANUAL



Central Area Forests

KINLEITH / KING COUNTRY

RADIO NETWORK USER MANUAL

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Use of TPL Radio Telephone (RT) Network

Criteria for Individuals and/or Organisations to use the TPL RT Network

1. Only MFM (NZ) Staff, MFM (NZ) Contractors, TPL Contractors and TPL LTO Holders may apply to use the Network.
2. They must apply to the MFM (NZ) staff member responsible for the activities they will undertake in MFM (NZ) managed estate – “MFM (NZ) Channel Application Form”.
3. These radio channels are provided for use on legitimate MFM (NZ) /TPL related business only and will be used strictly in accordance with the Radio Procedures in this handbook.
4. When the individual or organisation ceases to have a legitimate need to use the TPL RT Network, the RT will be returned to a service provider to have all associated channels and related configurations removed at the RT owner's expense. A written statement is required from the service provider in each case, verifying that this work has been carried out.
5. MFM (NZ) reserves the right at its discretion, to allocate channels to or require removal of channels from any RT, or to specify configuration changes in line with radio network management at any time. Any costs incurred in such reconfiguring of RTs will be met by the RT owner.

Channels

Type	Channel Number	Purpose	Coverage
Repeater	41, 42, 43, 44, 45, 71, 72, 73, 75, 77, 79 & 80	Engineering, Dispatch, Stock and General Emergencies	Refer Maps
Simplex	68	Radio to Radio, Road Safety	
Simplex	69	Radio to Radio, Road Safety (Only controlled areas marked with signage and/or areas of heightened risk)	
Simplex	401 - 439	Operational crews, road closure and call in channels	Operational Area
Simplex	440	MFM (NZ)(NZ) owned and controlled. Used by Heli A1 for forestry operations	Operational Area
Simplex	76	Radio to Radio for Fire ground use	Fire ground area
Portable Repeater	50	For Fire and Emergencies	Emergency Area

NETWORK OVERVIEW

DEFINITIONS

‘Repeater channel’ refers to a radio channel that is transmitted by the RT transmitter and which is received and immediately rebroadcast over a wide area by radio systems located at hilltop sites. Other RTs that are set to the same channel and in range will receive these transmissions. This provides long range communications between RTs that cannot ‘see’ each other directly, for example because of a range of hills in the way.

‘Simplex channel’ refers to a radio channel that provides communications directly from one RT to another RT which is set to the same channel, without using a repeater system. The range that can be achieved using simplex is dramatically affected by terrain. The frequency bands used by forestry radio systems should be considered to provide ‘line of sight’ communications only. While simplex signals can travel great distances when transmitted from high points, they might only travel a few hundred meters when transmitted from the bottom of gullies for example.

Simplex channels must be used for road position calling when in a controlled area, if roads are not in a controlled area, then simplex channels may be used to assist in location calling but all drivers are to expect the unexpected and drive accordingly.

REPEATER NETWORKS.

The TPL system comprises two networks, one for Dispatch use and one for Forest Operations/ Engineering use. Maps are provided elsewhere in this booklet to assist you with selection of the correct channel on your RT, to suit the network you wish to use at the geographical area you are in.

Dispatch Network (See Map) Truck communications

The Dispatch network is made up of repeater channels 73, 75, 77 and 80. These channels are monitored from the Dispatch office. The radio repeaters are strategically located on hilltops to provide the best possible radio coverage over the TPL Waikato / King Country Forest estates. The channels are linked together so that callers can hear each other over large areas of the Forest estates and this also helps with call queuing.

Channel 75 should be used for communications in the Kinleith / Central area.

Channel 73 is linked to **Ch 75** and should be used once the user has moved beyond the coverage of Ch 75.

Channel 77 provides coverage in the Taumarunui / King Country areas and **Ch 80** to be used when 77 moves out beyond coverage.

Stock channels

Channels 71, 72 and 80 are the dedicated stock channels for the Kinleith / Central area. This channel is shared with Forest Operations.

Channel 77 is the dedicated stock channel for the greater King Country area e.g. (Waituhi Forest). This channel is linked to Ch 73 (Tangitu Hilltop repeater) then routed to Ch 72 (Kinleith / Central) to provide communications back to Dispatch.

General Use Network

This Network is made up of Channels 71, 72 and 80 (shared with Stocks) and Ch 77 (shared with Dispatch).

Channel 72 should be used in the Kinleith / Central area.

Channel 71 is linked to Ch 72 and should be used once the user has moved beyond the coverage area of Ch 72.

Channel 80 should be used in the King Country area – see coverage map to see desired channel for your location.

These channels are linked together so that callers can hear each other over large areas of the Forest estates and this also helps with call queuing.

Channel 77 (King Country – Waituhi Forest) is shared with Dispatch. This channel is linked to Ch 73 (Tangitu Hilltop repeater) then routed to Ch 72 (Kinleith / Central) and hence, if required it can be monitored by Athol Depot and the Manulife offices in Tokoroa on Ch 72.

Engineering Network

This is made up of Ch 41, 42, 43, 44 & 45 depending on what part of estate you are in at the time. They are all linked together. Refer to map for coverage selection.

Dead spots

There are coverage dead spots all over the estate, e.g. you could be in the Kinleith / Central area and have difficulty transmitting and or receiving over the network on the appropriate channel for that area (Ch 72), it could be that you are in an area where your transmission cannot trigger the repeater; if this is the case, either change to the linked channel (Ch 71) or move to an area where your transmission can trigger the repeater.

Atmospheric Conditions

Network coverage can be affected by atmospheric conditions. e.g. severe storm weather, electrical storms. Transmission and/or reception in these conditions will be inconsistent. There is no solution to this problem – moving to a high point may improve coverage. **Note:** do not move to higher ground in an electrical storm (wait until conditions improve).

SIMPLEX CHANNELS

Channel 68 is used for "road position calling" to assist with road safety. Where signage instructs all heavy vehicles **must** call in their position using markers or road names. Light vehicle calling is optional but **recommended**.

Channel 69 can be used for temporary traffic control in some situations or in controlled areas where there is heightened risk. There may be from time-to-time sections of road that have been identified as areas of heightened risk and deemed necessary for compulsory radio calling by ALL vehicles. These decisions must be supported by robust risk analysis and agreed to by all MFM (NZ) National Managers prior to implementation.

Roads designated for "compulsory road position calling" will have signage at the entry points advising drivers of this requirement and identifying the simplex channel number to be used.

Upon exiting from the controlled area, signage must be installed to remind drivers to switch back to the normal radio channel if using Channel 69.

Radio calling guidelines:

- All vehicles monitoring channel 68 should position call at appropriate intervals when travelling on secondary roads within the forest estate. This is a courtesy to warn other road users of your position even in uncontrolled radio areas. Most roads are not genuine 2 lane roads so for additional safety require some form of advice that another vehicle is approaching.
- Vehicles calling should detail their location, destination and vehicle class.
e.g. Hamana Rd, Heading to Hamana 1, light vehicle.
- Once position calling, the vehicle should make progressive calls giving their location and destination.
e.g. Hamana 1 to Hamana 2, light vehicle.
- If another vehicle replies, then it is up to the two drivers to organize the safest way to manage both vehicles being on the road.
- Always drive assuming there is someone else on the road.

- Hard barriers such as banners or equivalent may be installed across all entry points to a controlled area to minimize unauthorized access. All tree falling and road control signage must be obeyed.
- A radio check after any channel change is recommended.

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USE OF THE RADIO ON THE RADIO NETWORK

To send a message

Transmission needs to be clear and concise. Callers should think about whom they are calling and what they want to say before starting to send a message.

The steps for sending a message are:

1. Listen first to see if the channel is being used.
2. Call by giving the call-sign of who you want to talk to, then
3. Give your own call-sign.
4. Call acknowledged, proceed with message.
5. Call again giving the call-sign of who you want to talk to, then
6. Give your own call-sign again before
7. Proceeding with your message.

Example:

Calling: "Athol Depot from MFM (NZ) one one eight (118), Over "

Receiving: "MFM (NZ) one one eight (118) from Athol Depot, Over "

Message: "Athol Depot from MFM (NZ) one one eight (118), ____ "Message "_____, Over "

NOTE. Procedures should be practiced until everyone is familiar with them.

PHRASES TO USE:

- | | |
|-----------------------------------|---|
| • Affirmative | That is correct |
| • Negative | That is <u>not</u> correct |
| • Say again | Please repeat |
| • I Say again | Repeat your own message |
| • Out | Transmission complete. No reply expected |
| • Over | Transmission complete. Reply <u>is</u> expected |
| • Read back | Please read back to check for errors |
| • Roger | Message received and understood. <u>Does not mean yes.</u> |
| • Standby | Wait until called |
| • Correction | An error was made. The correct version is |
| • Wilco | Will comply with your request |
| • Station Calling | Please say your call sign |
| • How do you read (1 - 5) | 5 is loud and clear, 1 is poor and hardly readable |

USE OF THE RADIO

Follow these simple rules:

- 1. Listen before calling** Someone else may be using the channel for a more important message.
- 2. Plan what to say** Keep to the point.
- 3. Speak Clearly** Use normal voice, not too fast. Hold the microphone to one Side of your mouth, speak across it.
- 4. Identify Callers** Use designated call signs not names.
- 5. Repeat if in Doubt** It only takes a few seconds to check and make sure.
- 6. Repeat Important** It is easy to forget a message. Use a notebook.

Messages:

- 7. Use Briefly** Radio communications should be as brief as possible to conserve air time and battery power.
- 8. Use the correct Channel** If you are having difficulty getting through, you may be on the wrong channel

NATO Phonetic Alphabet		
A - Alpha	N - November	. - Decimal (Point)
B - Bravo	O - Oscar	. - Stop (Full stop)
C - Charlie	P - Papa	
D - Delta	Q - Quebec	0 - Zero
E - Echo	R - Romeo	1 - Wun (One)
F - Foxtrot	S - Sierra	2 - Two
G - Golf	T - Tango	3 - Tree (Three)
H - Hotel	U - Uniform	4 - Fower (Four)
I - India	V - Victor	5 - Fife (Five)
J - Juliet	W - Whiskey	6 - Six
K - Kilo	X - X-ray	7 - Seven
L - Lima	Y - Yankee	8 - Ait (Eight)
M - Mike	Z - Zulu	9 - Niner (Nine)

CALL LOGGING

All calls are logged to provide a record of crew location and to assist with rapid deployment of resources in the event of a Forest emergency

RELAYING A MESSAGE

Emergency calls are sometimes not received because the signal is too weak. It is the responsibility of any person hearing an unanswered call to relay any message.

The person who offers to relay a message becomes responsible for delivering the correct information to the right person. Write down the message if necessary and read it back to the sender to be sure it is correct.

PRIORITY OF USE

When the radio channel is busy a person who needs to transmit an important message has to indicate to other users that immediate use of the channel is required.

PRIORITY MESSAGE

The words "PRIORITY MESSAGE" are to be used to clear a channel. All other radio operators must cease transmission until the priority message has been given.

EMERGENCY MESSAGE

The word "EMERGENCY" is only to be used when reporting a serious accident or fire. It has priority over all other messages.

All users must cease transmission immediately and listen to the message.

A radio operator on the fire line would only answer an "EMERGENCY" call when no one else is likely to be receiving the message. A fire line operator hearing an unanswered "EMERGENCY" call should answer, record the message, and then pass it on (by whatever means), to the person it is meant for.

All other operators should continue to listen in case they are required to give assistance at any time.

PROFANE LANGUAGE

Profane language is not to be used on the Radio Network or Simplex channels.

CENTRAL AREA EMERGENCY PROCEDURE

RADIO OPERATING HOURS

DISPATCH 5.00am to 07.30am

ATHOL DEPOT 7.30am to 4.30pm

Channels 71, 72, 73, 75 or King County 77, 80

After hours or without a Radio, CALL 111

1. Select the appropriate Radio Channel.
2. REMAIN CALM and SPEAK CLEARLY.
3. To clear the Radio, say:

EMERGENCY, EMERGENCY, EMERGENCY

Use Radio Callsign to Identify Yourself

4. Repeat every 10 seconds until answered.
5. Give your location, i.e.: Forest, road, and compartment.

ACCIDENT

FIRE

Provide Details

- | | |
|-------------------------------------|-----------------------|
| a. How Serious | a. Size of fire |
| b. Number of People | b. What is burning |
| c. Do NOT mention names | c. Weather conditions |
| d. Type of Injuries | |
| e. Ambulance or Helicopter required | |
| f. Freeze the Scene | |
6. Meet the Ambulance on the nearest **MAIN ROAD**.
 7. **DRIVE SAFELY TO THE CONDITIONS**
 8. Stay in Radio Contact at ALL times.

DON'T PANIC – HELP US HELP YOU