



Radio Procedures

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Radio Procedures

Introduction

- ✦ These procedures supplement and/or replace normal Amateur Radio operating practice.
- ✦ Some are designed for operational situations which may involve the protection of life and physical assets, and therefore are of a more formal nature and must be adhered to in such circumstances.
- ✦ They recognise, and in part incorporate, some of the procedures of the Tasmania Fire Service.

Use of Microphone

- ✦ Speak across the face of the microphone, *not* directly into it.
- ✦ Keep the microphone at a constant distance from your mouth to ensure a consistent signal. The easiest way to achieve this is to hold the microphone in the palm of the hand with the thumb touching the cheek at all times so, as the head moves, the position of the microphone remains constant.

Voice Procedure

✦ Rhythm

- Any phrase spoken in ordinary conversation has a natural rhythm which helps to make it understandable. This rhythm must be preserved when the phrase is spoken on the radio.
- The message must be spoken in short complete phrases that make sense and not word by word.
- Care must be taken not to say "er" after a word or insert it between phrases

✦ Speed

The user must speak steadily at medium speed.

- If spoken too quickly speech will be received as an unintelligible jumble of words. If spoken too slowly time will be wasted and the listener may be unable to maintain focus.
- The speed must be constant.
- If the message has to be written down the pauses between phrases must be longer.

✦ Volume

The mouth must be a constant distance from the microphone (5cm). If the head is turned whilst speaking, the volume received will drop and words may be lost (*see use of microphone above*)

✦ Pitch

High pitched voices are often transmitted more successfully than those of a lower pitch. In normal conversation, the voice is allowed to drop in pitch on the last syllable of each word and on the last word in a phrase. This should be avoided by keeping a constant pitch.

✦ Words

Short and easily recognisable words of one or two syllables should be used. Words likely to cause confusion should be spelt, e.g. weather, whether. When it is necessary to use letters, they should be spoken as set down in the phonetic alphabet.



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Effective Communications

Messages need to:

- ✦ be Clear and Concise - carefully consider what is to be said before transmitting and by limiting to essential information. Do not engage in lengthy conversations; other operators may be waiting to use the network
- ✦ include Prowords

✦ "Prowords" are used to keep transmissions clear and brief. (*T.F.S. prowords shown in italics*)

Proword	Meaning
ACKNOWLEDGE	Instruction to a station to acknowledge that it has heard a message
<i>AFFIRMATIVE</i>	<i>Yes or Correct or I agree</i>
ALL AFTER ALL BEFORE	Used for making repetitions
ALL STATIONS	<i>General or collective call to all stations in the network</i>
CALL SIGN	<i>Station identification</i>
CANCEL	<i>Ignore my previous message. Cancel a message or part of a message or transmission</i>
CLEAR AIR	<i>Used by Base to instruct all stations on the Net to stop further transmissions until advised otherwise</i>
CLOSE DOWN	Stations are to close down when indicated
<i>CLOSING DOWN</i>	<i>This station is closing down</i>
CODE X	Confidential message - don headphones
CONFIRM	<i>Confirm message or portion indicated</i>
CORRECT	You are correct or what you have transmitted is correct
<i>CORRECTION</i>	<i>an error has been made in transmission. The correct version follows.</i>
<i>DISREGARD</i>	<i>Ignore the last transmission or specified part</i>
<i>EMERGENCY EMERGENCY</i>	<i>I am threatened by grave or immediate danger and require immediate assistance, or is in grave danger etc. NOTE: This signal has absolute priority and over-rides all other transmissions.</i>
E.T.A.	<i>Estimated time of arrival</i>
E.T.D.	<i>Estimated time of departure</i>
FETCH	Used in conjunction with a name or appointment.
FIGURES	<i>Used before every group of figures in spoken messages before sending figures digit by digit. Not used for Call sign, map square or grid references.</i>
GRID REF	<i>Used before every group of grid references</i>
I SAY AGAIN	<i>Used for repetitions or emphasis</i>
I SPELL	<i>Used when spelling out a word</i>



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LONG MESSAGE	<i>I am about to relay a message, are you ready to receive it</i>
MESSAGE	<i>I am about to relay a message, are you ready to receive it</i>
NEGATIVE	<i>No or That is incorrect or Permission not granted</i>
NO DUFF	<i>Used in exercise situations when a message needs to be overridden</i>
NOTHING HEARD	<i>Indication that no signals have been heard from a particular station</i>
OUT	<i>This is the end of my transmission. No response required</i>
OUT TO YOU	<i>This is the end of my transmission to you and a call to another station follows immediately</i>
OVER	<i>This is the end of my transmission to you and a reply is expected.</i>
RADIO CHECK	<i>Report how you receive my transmission.</i>
READ BACK	<i>Repeat this entire transmission back to me exactly as you received it.</i>
RELAY TO	<i>Instruction to a station to relay a message.</i>
ROGER	<i>I have received your last transmission satisfactorily.</i>
SAY AGAIN	<i>Say again all or portion indicated of your last transmission</i>
STAND BY	<i>I am not ready to receive your transmission or I will call again shortly</i>
SEND	<i>I am ready to receive your message.</i>
THIS IS	<i>Transmission is from</i>
THROUGH ME	<i>Your transmission can be relayed to the other station by me. (Can be used by base to inform the station that the net is being controlled by base.)</i>
URGENT MESSAGE	<i>I have a message requiring priority but I am not in any personal danger.</i>
VERIFY	<i>Verify portion indicated with originator and send correct version.</i>
WAIT	<i>I must pause for a few seconds. No other station to transmit even though I am not.</i>
WAIT OUT	<i>Your transmission is received. A further transmission on the same subject will follow later. Other stations may transmit as normal.</i>
WILCO	<i>Your last message (or message indicated) is understood and will be complied with.</i>
WORD AFTER WORD BEFORE	<i>Used to identify part of a message.</i>
WORDS TWICE	<i>Communication is difficult. Transmit (or I am transmitting) each phrase twice. (May be used as an order, request or for information purposes).</i>
WRONG	<i>What you have said is wrong. Correct version is</i>



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READABILITY PROWORDS		
<i>Proword</i>	<i>Signal Strength</i>	<i>Readability</i>
UNREADABLE	Barely perceptible	Unreadable
VERY WEAK	Very Weak	Reading Intermittently
WEAK	Fair to Good	Readable with difficulty
READABLE	Good Signal	Readable
LOUD AND CLEAR	Very Good Signal	Perfectly Readable
T.F.S. VEHICLE MOVEMENT PROWORDS		
MOBILE	On way to incident	
ARRIVED	Arrived at incident	
IN SERVICE	Able to respond to another incident if required	
RETURNING	Returning from an incident	
STATIONED	Returned to station	
OUT IN AREA	Vehicle on radio contact in own brigade area	

+ Call Signs

The nature of call signs varies with organisation. Tasmania Fire Service normally use Brigade name followed by a number indicating appliance type followed by a second number e.g. "KINGSTON FIVE ONE" (details can be found [here](#)). Regional officers have call signs e.g. "EAST COAST ONE". Personal names are also sometimes used e.g. "JOHN SMITH". This is also usually the case with Forestry Tasmania and Parks. Use whichever is in customary use on the net, favouring the more formal if initiating the transmission.

+ Call Sequence

➤ Calling another station

Always first state the call sign of the other station and **then** identify yourself, e.g.

- "Mobile One this is Base over"
- "VK7ABC this is VK7XYZ over"

➤ Receiving

You will be responding to someone calling you (Base)

- "Base this is Mobile One over"

You respond

- "Mobile One this is Base over"

➤ It is acceptable practice, after initial contact has been made and providing the message is clearly understood, to not repeat your own call sign except for the closing transmission.

- "Mobile One this is Base Over"
- Base this is Mobile One Over"
- "Mobile One Have you delivered the fuel Over"
- "Base Affirmative Over"
- "Mobile One Return to stores Over"
- "Base this is Mobile One Wilco Out"



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Messages

- Always think about what has to be said before going to air.
- Listen before transmitting so as not to interfere with another station already on air.
- Listen/pause for three seconds between transmissions allowing other stations with traffic of a greater priority to break in.
- Keep as short and clear as possible.
- Use short easily recognisable words of one or two syllables.
- Spell out easily confusable words using phonetics.
- Use phonetics when conveying alpha characters.
- Use the phonetic pronunciation of numbers - preceded by the proword "*Figures*".
- When messages include several details, check that you have properly heard and understood by feeding back a brief summary of the key details and requesting confirmation.
- If you feel that a message you have passed may not have been properly understood, request a brief summary of the key details be fed back to you.

T.F.S. Call Signs

Brigade Vehicles

Call signs are the brigade's name followed by a two digit number e.g. "*Kingston 51*". Digits are pronounced separately e.g. "*Kingston Five One*".

- The first digit denotes vehicle type
 - 0 - Cars (sedans, station wagons)
 - 1 - Heavy pumpers (>55 litres per sec.)
 - 2 - Pumpers (<55 litres per sec.)
 - 3 - Heavy Tankers (>2200 litres)
 - 4 - Medium Tankers (800 - 2200 litres)
 - 5 - Light Tankers (<800 litres)
 - 6 - Aerial appliances (Snorkel, Tele-boom, Metz etc)
 - 7 - Other four wheel drives (personnel carriers, group vehicles, flat trays etc)
 - 8 - Miscellaneous vehicles (special equipment vehicle, canteen wagon, tanker trailer etc)
- The second digit identifies whether the 1st, 2nd, 3rd etc vehicle of that type in the brigade e.g. "*Hobart 53*" is Hobart's 3rd light tanker

Division Vehicles

Vehicles attached to Commission Divisions are similarly numbered e.g. A pumper at the Training Division might be "*Training 21*".

Personnel

Commission Officers, senior brigade personnel and group officers have personal call signs to avoid confusion that may arise if travelling in different vehicles. e.g. "*East Coast 1*" refers to the the East Coast District Officer.

Base Stations

Description	Example
Statewide Communication Centre	" <i>Firecomm</i> "
Regional Control Room	" <i>Northern Base</i> "
Group Headquarters (e.g. Westbury)	" <i>Westbury Group</i> "
Brigade Station (e.g. Kingston)	" <i>Kingston Station</i> "



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Figures

Figures sent by voice are preceded by the proword "*Figures*" except for call signs and grid references. Each digit is pronounced separately, except in exact multiples of a hundred or a thousand.

	Zero	Examples
1	wun	10 wun zero
2	too	25 too fife
3	three	79 sev-en niner
4	fower	100 wun hundred
5	fife	108 wun zero ate
6	six	1,000 wun tousend
7	sev-en	1,100 wun wun hundred
8	ate	20,000 too zero tousend
9	niner	20,804 too zero ate zero fower