

Review of the Yaesu FT 470 Dual Band Handheld FM Transceiver

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Description

On first examination of the Yaesu FT470, you will be amazed at its compact size. Without the battery pack attached, it is slightly larger than a packet of cigarettes. However, this little device contains some amazing features.

Primarily it is a Dual Band, 2 metres and 70 centimetres handheld FM Amateur transceiver. It is difficult to comprehend that such miniaturisation actually exists. A comparison is being made of the features to a model five years older, being a single band (2 metres) and operated by thumb wheel switches, and nearly twice the size. In several dual band transceivers, the second band is an option; not so with the Yaesu FT470. BOTH 2 metres AND 70 centimetres are available ready for use.

The transceiver is controlled by a miniaturised computer system, complete with backlit Liquid Crystal Display (LCD) and numeric key pad. Operators purchasing this type of equipment are well advised to read the instructions first. Gone are the

days where you just connect the antenna, switch on, and then start operating. This transceiver requires the operator to become fully conversant with ALL of the functions PRIOR to commencing operations. Failure to push the correct buttons and initialize the transceiver first, could create some remarkable headaches, even for the most experienced operator. However, all is not as dismal as the above statement appears. The instruction manual is very well written and documented, and very easy to follow. There are even "prompt" cards supplied for the forgetful.

The transceiver covers 4 MHz of two metres - 144.000MHz to 148.000 MHz, and 20 MHz of 70 centimetres - 430.000 MHz to 450.000 MHz. It has a total of 42 memory channels, 21 for each band, including three "special" memories. It also contains scanning and priority call channel facilities, and dual VFO control.

Initially, the operator enters the favourite frequencies and bands desired via the numeric key pad. These are stored permanently in the selected memory channel, and are able to be amended at any time. When power is disconnected, such as when removing or changing the battery pack, it is most pleasing to note that the contents of the memory channels are NOT lost.

Although not specifically mentioned in the instruction manual, it is obviously that either non-volatile Random Access Memory (RAM), or separate memory backup facilities are contained within the transceiver. This is a most welcome and advantageous feature, and alleviates the necessity to re-key the memory each time the power pack is removed.

Cross band operation is a major feature of the Yaesu FT470 transceiver. The LCD contains a host of information. The primary frequency to which the transceiver is tuned is shown in large figures, and the second band, or "sub-band" is displayed alongside in smaller figures. Pressing the "BAND" button on the key pad swaps bands. The "sub-band" now becomes the primary band and vice-versa.

The transceiver comes equipped with a special "dual band" helical antenna. This contains matching for both bands in the

form of a duplexer type of matching arrangement. It is very neat and compact, and no larger than most stubby helicals to which we are currently accustomed. There is no need to change the antenna when using the alternate band during normal or portable operation. However, for Base Station use, it is preferable to change antennas, unless the Base Station installation also contains dual band features, and/or a duplexer. The same would be applicable for mobile operation. Naturally, separate high-gain antennas are more reliable for long distance work, but the supplied dual-band helix certainly provides satisfactory communications in "line-of-sight" conditions on both bands.

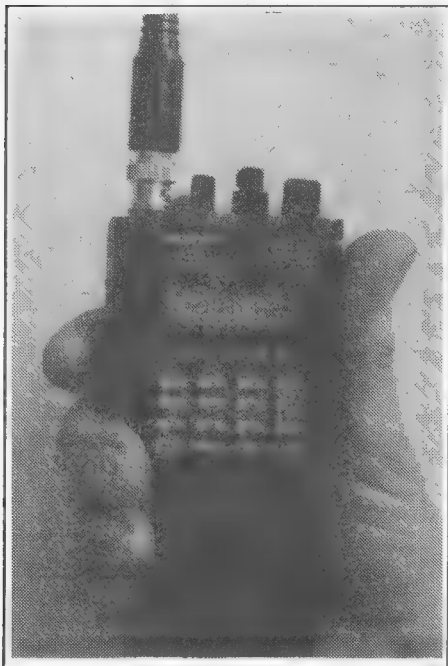
A "fader" type of control allows you to monitor both primary and sub-channels at the same time, with the audio level for each band being able to be adjusted to your own personal listening level. Quite a neat innovation!!

On-Air Tests

The first on-air transmission turned out to be a dismal failure. There was a healthy carrier being transmitted, but it lacked audio modulation and deviation. This disturbed the reviewer somewhat, as transmission is fairly straight forward. He became concerned that he had inadvertently caused some damage to the unit. It was later discovered that the test unit contained an internal fault.

The transceiver was returned to the distributors, and it was discovered that a metal clip had been installed incorrectly, and was shorting out the audio circuitry. This was subsequently repaired and the test/review procedures were re-commenced. The frequency response of the received audio is of a very high quality. The internal speaker is well balanced, albeit quite small, and the audio output level was quite satisfactory to fill a normal room. It was not tested for noise comparison in a mobile situation, but from previous experiences in similar circumstances, the reviewer has no doubts that the received audio output in that situation would be able to cope quite admirably.

Transmission reports on both 2 metres



Yaesu FT 470

REVIEW

and 70 centimetres proved most satisfactory. A good level of deviation and microphone sensitivity was evident, and no distortion was apparent. The review transceiver was supplied with a 7.2 volt, 600 mAh nickel-cadmium battery pack (Model FNB 10), and charger. This produced 2 watts of RF output on both bands.

Purchasers will be supplied with a heavier duty battery pack, (Model FNB 14) rated at 7.2 volts and 1000 mAh, and carrying case.

Conclusion

In general, the Yaesu FT470 is a most compact and sophisticated dual band amateur FM hand-held transceiver. For someone who has large fingers, its physical size does create a small level of difficulty in operating the controls and keypad, but in spite of this, the controls are well situated.

One may have a little difficulty in reading some of the information shown on the LCD, such as repeater offset indications, as the display itself is only one centimetre in height. Nevertheless, the LCD is quite readable in normal light conditions, and there is a facility to "back light" the display if need be. There are several options available, such as higher voltage (12 volts, 5 watts) battery packs and chargers, external speaker/microphone, earpiece/microphone, and mobile mounting hardware (the options were not supplied for the review).

For the amateur who is looking for a compact dual band 2 metre and 70 centimetre hand-held transceiver, with almost every conceivable operating facility available, the Yaesu FT470 is going to be hard to beat.

The review set was kindly supplied by Dick Smith Electronics, and supplies should be available shortly through their normal outlets as advertised in "Amateur Radio" magazine. ar

Morseword No. 29

SOLUTION PAGE 56

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Clues

Across

- 1 Cut
- 2 Globule
- 3 Experienced
- 4 Rage
- 5 Scottish garment
- 6 Queensland town
- 7 Item of property
- 8 Santa's exclamation
- 9 Passive protest (3-2)
- 10 Hurries

Down

- 1 Attack
- 2 Podium
- 3 Nobleman
- 4 Chooks
- 5 Rips
- 6 Set of rooms
- 7 The _____ have it
- 8 Skin
- 9 Fat cat
- 10 Cornet

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