

a contact ("CQ JOTA" is also used).

It is recommended that stations monitor the agreed World Scout Frequencies and call around the dog pile to find each other. This process helps to avoid losing a contact in a QSY away from a spot frequency, but please QSY if you do "spot" on these frequencies. Please leave intervals for DX stations to come in.

World Scout Calling Frequencies

Band	CW	DX Phone	VK Phone
80 metres	3.590MHz	3.740MHz<*	3.590MHz
40 metres	7.030MHz	7.090MHz	7.090MHz
20 metres	14.070MHz	14.290MHz	14.190MHz
17 metres	18.080MHz	18.180MHz	
15 metres	21.140MHz	21.360MHz	21.190MHz
12 metres	24.910MHz	24.960MHz	
10 metres	28.190MHz	28.990MHz	28.590MHz

(<* — not legal in Australia)

(VK frequencies are also advertised in ZL)

Official Opening of 37th JOTA

The official opening of JOTA for Australia will be broadcast as usual over VK1BP from Government House Canberra at 0400z on Saturday, 15 October 1994 on frequencies of 7.090 MHz, 14.190 MHz and 21.190 MHz. Testing is necessary, so it would be appreciated if the broadcast frequencies were kept clear from 0330z. Following the broadcast a "callback" is taken to give our dignitaries some idea of the enormous scope of JOTA in Australia. I will take this on each frequency in turn, returning to the frequencies in turn until there are no more callers or by 0500z.

Good luck with JOTA and 73

*58 Preston Street, Como WA 6152

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Repeaters — additions, deletions, alterations. Have you advised the WIA of changes needed to the repeater list?

Equipment Review

ICOM IC-2700H VHF/UHF FM Transceiver

Reviewed by Paul McMahon VK3DIP

What is it?

The IC-2700H is a feature packed dual-band 2 metre/70 cm FM transceiver, offering 50 watts out on 2 metres, and 35 watts out on 70 cm. It is intended for mobile operation, but would also be at home on the shack bench.

First Impressions

The IC-2700H comes packed in the standard type foam box inside a cardboard box. The first thing to be noticed with the IC-2700H is the sparseness of the front panel. Those controls that are on the main unit are symmetrically placed befitting the dual band role. This effect is supported by the display which also has two halves, one for each band. The controls on the panel offer the basic for each band; that is, there are

two each of volume, squelch, and frequency/memory knobs, plus a couple of buttons. There are also a few other buttons such as power, Tx low power, duplex, and scan, which have a common function and are thus not duplicated. It should also be noted that the knobs also function as buttons if pushed.

The microphone is also pretty remarkable. It has the most buttons, etc on a microphone I have ever seen. There are some 30 buttons on the microphone compared to the 10 buttons and 4 knobs on the main box! Basically, anything you can do from the front panel you can do from the microphone. This includes power, volume and squelch settings. However, there are, in fact, quite a few functions which can only be done from the microphone.



IC-2700H VHF/UHF FM transceiver. Note the uncluttered front panel compared to the many facilities offered by this rig.

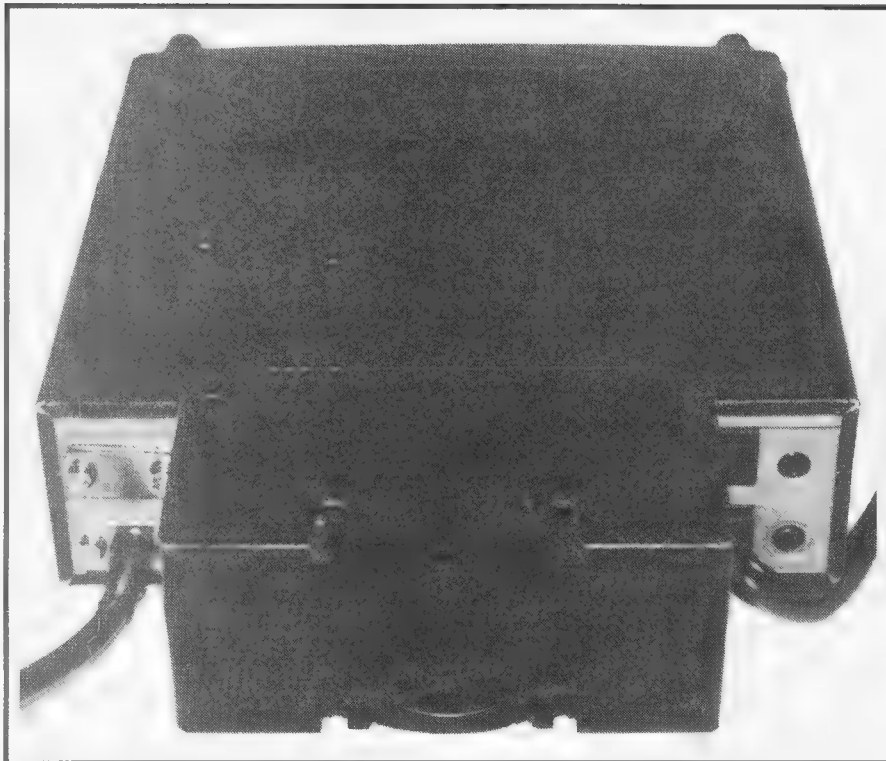
The internal speaker is mounted on the top of the set, and the single antenna connector shared by both bands has a PL259 connector on a short length of coax. The microphone is connected via a flat plastic connector similar to the RJ11 type of click-on connector commonly used on telephones. The microphone socket is hidden behind the removable front panel. This is something I actually had to look up in the manual to find out, as it had me stumped for a while. There is actually a good reason for this as one of the options is an infra-red remote wireless microphone and, if you chose this option, you wouldn't want the front panel left with a gaping hole. The LCD display is large and shows all there is to know about the transceiver in stereo (information for both bands is shown simultaneously). Unusually this includes the current setting of both volume and squelch controls.

The back of the unit has two standard 3.5 mm speaker jacks which can be programmed to provide one or both audio channels. Completing the back is a reasonably small heat sink with attached fan. This fan can be set to be on continuously or only while transmitting. When on the fan is fairly quiet and maintains the heat sink at a tolerable temperature.

The IC-2700H is functionally similar to the older IC-2400. The main differences being a much cleaner layout with the dual controls and symmetry mentioned above, slightly improved receive sensitivity (0.16 μ V for 12 dB SINAD vs 0.18 μ V), slightly higher power out on 2 metres (50 vs 45 Watts), more memories (50 per band [100 total] vs 40), and smaller size (140 x 40 x 175 mm vs 150 x 50 x 195 mm).

Technical Bits

As appears usual these days there is very little technical content in the manual. Details are restricted to the usual sketchy specs hidden up the back, from which you can glean that the receiver is a dual conversion with the first IF at 41.8 MHz (42.25 MHz at 70 cm) and the second IF at 455 kHz. The 88 page manual is, however, a detailed instruction book explaining clearly how to use any of the functions. This doesn't help, however,



The rear view of the IC-2700H shows the comparatively small heat sink and cooling fan.

if you are interested in how ICOM has achieved some of the magic functions of this rig.

In the review set the frequency display showed a receive frequency range from 118 MHz to 174 MHz and 320 MHz to 999 MHz in 5 kHz steps. Time and equipment restricted my exploration of the actual receive limits of the set, but transmit was limited to the relevant amateur band segment as noted in the specifications.

One of the bits of magic I would be interested in some details of, is the ability of the set to program both halves as either band. By this I don't mean just swapping which side of the display and knobs are which band; I mean that each half can be independently set to either of the bands or off. This leads to the basically useless ability to turn one half off, and the very useful ability to have both halves on the same band at the same time! ICOM calls this the para-watch mode. I tested this by putting both halves on 2 metres, and lo and behold I was listening to two frequencies on the same band at the same time with the same radio.

This is not the more common priority-watch function (which is also

available on this set) where the receiver switches every so often back and forward between two channels. In the para-watch mode, as far as I could determine, it was exactly as if you had two 2 metre boxes in the same shell. If both frequencies were in use you heard both stations at once, and you could talk to both as well. The only difference I could find between the two halves when on the same band was that one half was a couple of S-meter points down on the other, which was easily seen by setting both to the same frequency. This mode could be very useful. Imagine talking to someone on the band, while scanning the same band.

Another bit of more useless, but never-the-less eye catching, gimmickry is the demo mode. In this mode the display cycles through a series of pretty patterns, and effects. This is stopped as soon as a button is pressed, but is activated again after 2 minutes inactivity. If you are into screen savers on your PC then this mode is just what you want in a radio.

Some of the other more useful features are:

- The programmable time-out for transmit, just like a repeater time-

out except that it beeps at you ten seconds before it is going to cut you off.

- One touch PTT, ie effectively a locking PTT key. If you use it, however, its probably a good idea to also set up the time-out.
- Auto power-off. Good for people who leave the radio on in the car and flatten the car battery.
- Scratch pad memories. The transceiver remembers the last three frequencies you used, similar to a last number redial on a telephone.

The IR (infrared) wireless microphone option sounds like a useful option too. The range quoted is around 2 metres, with greater distances possible with an optional extension receiver. The only problem with this is that if you have a messy shack bench you may end up misplacing the microphone! At least with the normal approach you can find it by following the curly cord. If you are the type who likes to pace about while talking, or has a curly cord that has been stretched to twice normal length by having people in the back seat of the car wanting to talk, then this could be a very useful option to consider. It appears you can set up to 8 different microphone addresses also, so if you have more than one of these sets, say at a field day or similar, you can determine which box goes with which microphone.

Operation

Operation is pretty straight forward. Basic things, like turning the power on, or setting volume, squelch, and frequency, of each band, at least via the front panel, are fairly obvious. The microphone is another story. This is one complex microphone! Most of the quite large manual deals with the use of the microphone and its buttons. The microphone feels a little strange in the hand with all those buttons (as previously mentioned there are 30 of them, most with two functions and some with three). However, some thought has gone into the placement of the buttons to minimise possible problems. To help with this there are two different lock buttons on the microphone to lock the buttons on either side of the microphone independently.

Another difference to get used to is the need to look at the microphone as well as needing to use some care when selecting features. There are a couple of multi-colour LEDs indicating which buttons have been pressed, etc, although I must say I would probably never remember what the difference was between the mode LED being red, green, or orange. At least if you were in a car you could hold it up in front of you rather than taking your eyes off the road. The IR wireless microphone also has all of these buttons, as well as the nicads, etc to power it. This would make for a solid microphone and I suspect that the standard microphone that is supplied actually has some weights included to match it to the feel of the wireless one.

The scanning features are well explained in the manual, with diagrammatic, as well as written, descriptions. These features are pretty much standard these days and can just about be taken for granted. Various repeater needs that are not really required or useful in Australia are also present, such as tone access, auto offset, and DTMF dialling with memories.

Despite all the bits on the microphone, audio quality was good, and setting up the memories, etc was quite simple, or at least it seemed so when following the manual. Switching between bands, and setting the main

and sub band, was also fairly obvious. As far as main and sub band are concerned the only reasons I could see for designating the bands as such was to facilitate which band the buttons on the microphone were active upon. In all other respects the two halves of the set seemed to be equal.

Power supply requirements should be looked at carefully, especially if you are intending to use this as a base rig. The 12 amps maximum required on transmit is easily in the league usually reserved for HF boxes. Likewise this could make quite a mess of a car battery if the engine was not going for a while. If you were, for instance, to park on a hill for an all day field day, make sure you leave the car facing downhill.

Conclusion

This is a set with which to really impress your friends. It has virtually everything you could ever ask for, and a bit more for luck. The decision to keep the front panel simple, and to put everything on the microphone is a bit different but it does have some advantages. This is not really a dual-bander. It is much more like two separate transceivers in the same box.

The review transceiver was supplied by Duncan Baxter from ICOM Australia Pty Ltd.

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WIA News

Radio Direction Finding Championships

Frank Sleep VK4CAU has provided an update on our July WIA News item on the upcoming radio direction finding championships in Europe.

This competition is to be the 7th World Championships, not the Region 1 Championships, as previously stated. Frank VK4CAU will be attending as Australia's only competitor, apparently the first time

Australia has been represented in any world championships.

Radio Sport is coming to Australia, says Frank, probably first to VK4. It seems the Townsville Amateur Radio Club is considering submitting a proposal to conduct the next Region III ARDF games here. Frank suggests we need a Federal ARDF Coordinator, saying it would be a tremendous boost to the WIA if the Year 2000 World Championships could be held in Australia, perhaps as a demonstration sport for the Olympics.