

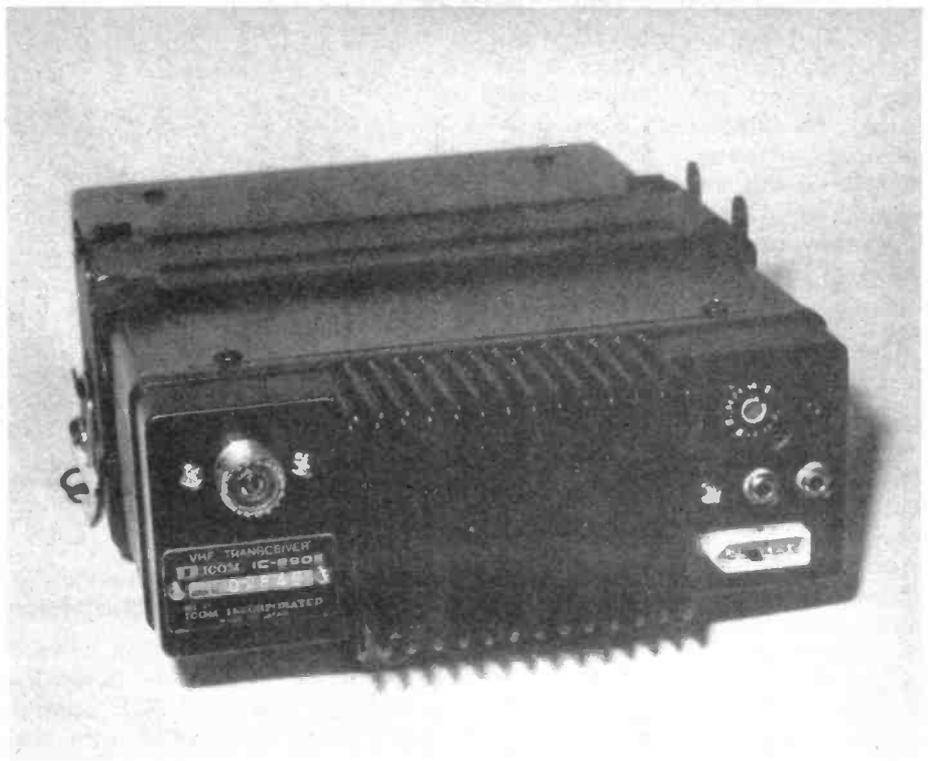
or the 'Sunday afternoon hilltop/P' jaunt where 100W linears would make restarting your car a source of physical exercise. Also the easily varied power would mean that one could drive any of the currently available linears if one should so desire it (yes, I do like working QRP).

Bells and whistles

The general impression one gets nowadays is that the manufacturers have got the RF side pretty well sewn up. All three rigs were practically inseparable in performance, their main differences lying in their synthesiser 'frills'. With the advent of the digitally synthesised VFO, the door was opened to the control of functions by microprocessors. However, this technology is still in its infancy when applied to transceivers and the various manufacturers are avidly vying with each other to produce more and more sales gimmicks. (*I couldn't agree more — Ed*). I look forward to the rig that boasts a Z80 or 6502 chip along with programs stored in ROM or EPROM which can be either factory or user programmed. After all, not everyone wants the same functions, and interests often change at a later date (witness the number of 'mods' which proliferate in skeds, user clubs, magazines etc). With this in mind, I tackled the 'ease of operation' section of this review with trepidation. So what does one get for £350 odd? On the face of it all the desirable functions appear on all three rigs (dual VFO, repeater shift, up/down stepping, RIT (clarify) scanning and memories), but apart from the names, all similarity ends!

A/B VFO

On the 480R, VFOB is for receive only and when in this position pushing the PTT will transmit on the frequency set by VFOA. Using this feature allows for odd repeat shifts, eg 1.6MHz when used with a 70cm transverter, but for sideband operation there is effectively only one VFO. The 290E does have two separate VFOs and they can be used independently but problems then arise with using the memories and repeater shift, for example. In all the time I had the 290E for review, I still could not work out the logic of the VFO and VFO/memory func-



Rearview: Icom IC290E

tions! The manual doesn't help a lot in this area and I quote just one short paragraph from the two pages devoted to this combination:

"When 'A' VFO is 144.255.5MHz and 'B' VFO is 144.355.0MHz, pushing the VFO switch to select 'B' VFO, then the MEMORY/VFO WRITE button, 'B' VFO's frequency becomes the same as 'A' VFO's (144.255.5MHz). Now the 'A' VFO's frequency is memorized in the 'B' VFO, and you can operate anywhere with 'A' VFO or 'B' VFO. When you want to return to the previous frequency (144.255.5MHz), switch back to the other VFO. To reverse this (A the same as B), select 'A' VFO first, then push the MEMORY/VFO WRITE button".

The manual goes on like this for about six pages. The 9130 on the other hand is simplicity itself with the two VFOs behaving totally independently and consistently.

One of the most desirable features, to my mind, especially on SSB is the ability to 'quick QSY' up or down, along with quick changes from SSB to FM and back again, for example, when checking channels. The three rigs behave very differently as far as this is concerned.

The FT 480R has frequency steps of 25kHz, 5kHz and 1kHz on FM and 1kHz, 100Hz and 10Hz (clarify) on SSB/CW, all selected by

a single 3-way rotary control. If you wish to change frequency steps or mode (eg from SSB to FM), the VFO continues in the new step length from the old frequency. This can be a little disconcerting when you find yourself on 145.502.4MHz, FM mode. However, there is an F-set button which restores the correct base frequency (145.502.4MHz reverts to 145.500 MHz on FM with 25kHz steps). This button naturally gets a lot of use, so it seems strange that it should be placed in the middle of a long line of similar-looking controls, and it's very small. It is even more fun trying to find it when mobile! Quick QSYs on SSB can be a little awkward with only 1kHz steps but one soon becomes adept at switching to FM, QSYing in 25kHz steps, switching back to SSB and then continuing (tricky but effective!). I found the 'Clarify' function not very easy to use. It operates in the 10kHz step position with the main tuning dial acting as control and, although you have infinite control (not limited to ± 800 Hz, for example), there is no indication of the 10 Hz steps on the display, so you could be ± 90 Hz without knowing it. Furthermore, if any adjustment is made to the main dial tuning, all clarify information is lost on return to the original frequency.

The 9130 synthesiser steps are 25kHz (FMI), 12½kHz, 1kHz (FM2)