Our observations

1) This is the problem of using digital readout for what is basically an analogue function. It should prevent no problem in normal circumstances though.

2) The sensitivity of the FT-102 receiver section is sufficient in that you would probably not need to use the RF pre-amp function available with this set.

3) The receiver sensitivity in the CW mode was measured only at 14.2MHz. The result is satisfactory and in accordance with the reduced bandwith required for CW.

4) The figure shown here and in Table 1 indicated the strong signal performance of the FT-102. The test simulated the ability to copy a weak SSB signal in the presence of strong signals on a nearby frequency. Although the results are satisfactory by the standards of most HF amateur radio gear, they fall short of the manufacturer's claim for more than 100dB dynamic range. The results we obtained were a little over 90dB at best. Furthermore, the strong signal performance appears to fall off on the two highest bands. It must be said that the precise measuring technique affects the results obtained, particularly the frequency difference separating the two signals. Our yardstick of 50kHz is perhaps more stringent than Yaesu's. However,we feel it reflects better the conditions likely to be encountered on, say, the 40m band at night.

5) Strong signal performance on CW, 14.2MHz only. Very good, but still not the 100dB claimed by Yaesu.

6) Given the effectiveness of the noise blanking system in practice, the lack of degradation in dynamic range is outstanding. Highest possible marks. Curious though as to why the 50% setting on 14.2MHz should actually improve the dynamic range of the receiver.

7) This test simulates the adjacent channel performance: how much a strong neighbouring signal will interfere with the reception of a weak one. The results are satisfactory but not outstanding. However, the shift/width IF system would considerably enhance the performance in a real life situation.

8) This test shows the receiver's sensitivity to transmissions which it isn't actually tuned to. As can be seen from the results the receiver would be liable to interference from a wide range of off-frequency signals. We suspect that these responses are a direct result of the large number of control loops in the digital VCO. However the typical ATU/aerial system would attenuate off-frequency signals well below the level simulated in this test. But even so . . .

9,10,11) Every aspect of transmitter operation was outstandingly good. The measured intermod levels (see graphs) had more in common with professional than amateur equipment standards. Excellent.

OUR CONCLUSIONS

While the FT102 in transmit mode is outstandingly good, the receiver section doesn't really match up. If it hadn't been for the publicity blurb with which Yaesu decided to launch the transceiver, then we probably would not have been so critical. However, we did find some rough edges in the receiver having gone out of our way to look. In fairness, Tony Bailey G3WPO, our practical reviewer, experienced no difficulties in practice save for a receive sprog in the 10m band. In all, I would be very happy if I owned one. **G4JST**

designed primarily for SSB, the CW operator has to make do with the facilities provided, or build something specifically aimed at the mode. However, the FT-102 is no worse in this respect than any other transceiver of its type and will give perfectly satisfactory results in this mode.

Summary

Reviewing a rig is like reviewing a car — one reviewer will swear by it, another will swear at it, with personal preference showing through at times (you will have guessed that I like CW). What may be a bad or good point with one person could be totally irrelevant to another. Bear in mind that you can find something wrong with virtually anything, especially if you are looking for it, and such comments have to be taken in context. The fact that, for instance, a receiver has a horrible sproggle on 28.056MHz that bends the S-Meter against the end stop (not the FT-102 I hasten to add) may be indicative of bad design in various areas, but it becomes unimportant if you never use CW or 10 metres itself.

The major question to ask is "Does it provide what I want for the money?"

From an overall viewpoint, the FT-102 is a pleasant rig to use, and impressive to look at, with no major problems apparent and has the benefit of extensive signal processing available on receive. With options fitted, the transceiver should be very useful to the HF and transverting VHF operator, with sensible extra facilities taking the place of some of the more less-used and exotic features found in this price range. The completely controllable power output was liked, and essential with the varying licence restrictions for the new bands. If additional features are required, they can be obtained with the FV-102 remote VFO, which offers scanning and memory facilities, together with split frequency operation.

The valve PA should withstand abuse and will be an advantage for those wary of solid state equivalents — certainly it could not be faulted on quality of the transmitted signal. With some shopping around. it should be possible to obtain the FT-102 for around £700, at which it represents good value at its position in the market. ●