



Rearview: Trio 9130

There is nothing more frustrating than having one of these sealed units go dead on you. But having said this, I look forward to the days when manufacturers make 10W or 25W drive modules more readily available to the general market.

Operating impressions

The first obvious difference when switching on the rigs, is in the type of display. The Icom display consists of five large 7-segment LEDs, Trio has five large green LEDs and Yaesu a 9-digit blue phosphorescent package. Being wary of the problems with reading various types of display under strong sunlight and knowing that one of Trio's claimed improvements on the 9130 over the 9000 was the display colour, I checked this out. The results were: Icom terrible, hardly visible; Trio, not much better (think again chaps!); Yaesu, best of the three. Having nine digits on the 480R took quite some getting used to however, and perhaps this is a case of too much information being presented to the operator.

Listening tests seemed to show that all three rigs performed about equally as far as sensitivity was concerned, on both FM and SSB. However, they were very different when one takes into account ease of

listening. On strong signals, both FM and SSB, the only difference is in the general audio tone, this ranging from a rather richer tone on the 290E to a more reedy tone on the 9130. Now preferences on this characteristic will be totally subjective, of course, just as the position of the tone controls on your hi-fi, but when this affects the intelligibility it is a rather different matter. Under weak signal or noisy environmental (mobile) conditions, I found the 9130 and 480R both excellent but the 290E was practically impossible to use. When carrying out tests with weak sideband stations (reports 4-1) it was necessary to change to either the 9130 or 480R to make any sense of the signal. A partial cure for this poor audio quality on the 290E was found and consisted of turning the set upside down and opening the case! Perhaps with an external speaker or even a changed internal one, many of these criticisms could be ignored. Quite fortuitously, while testing the rigs a very strong aurora occurred. Great fun was had with both the 480R and 9130 but, after initial attempts, the 290E was switched off and pushed to the back of the bench! Another rather disconcerting feature of the 290E is the fact that on FM the squelch does not completely mute the audio. As I sit writing this in an otherwise quiet

room, waiting for a local sked, I can hear weak stations breaking through causing initial confusion as to where the sounds were coming from!

On the subject of squelch, the 290E and 9130 both have this facility on SSB and CW. I suppose that this could be considered useful to reduce noise on local sideband contacts, although I didn't take advantage of this as local contacts are more easily made on FM, horizontally polarised especially. The 9130 goes one step further in this craze for redundant features and provides an RF gain control. Possibly the only real use for this is if you operate under crowded contest conditions, where the weaker QRM could be eliminated. However I found it more of a nuisance than a boon especially as the knob was concentric with the receiver incremental tune (RIT) control and could easily be knocked off maximum gain.

Both the 480R and 290E employ an LED S/power meter whereas the 9130 has the more conventional moving coil meter. While I see the point in LED meters as far as ruggedness is concerned, I found them most unresponsive with weaker signals. For example, a S2 on the 9130 gave no indication on the other two meters even though they all agreed at S7 to '40 over 9'. Which one can you believe? (Moral: watch out for all those signal reports!)

Reports

Before transmitting, the low power setting on the 9130 was adjusted to 10W (see circuit description) so that a fair comparison could be made. The extra 15W of power on both FM and SSB is an obvious bonus with the 9130. Reports received were of very good audio from all three rigs with nice clean RF on both FM and SSB. Close as they were, the ranking seems to be: the 480R has slightly more 'top' and therefore is rather easier to read when the signal strength is low (both FM and SSB), the 9130 on FM is better than the 290E but the opposite is true on SSB where the 9130 is rather 'bassy' and a little difficult to pick out (however, switching to 25W is the obvious solution to obtain best readability). The flexibility of 0 to 25W (assuming you perform the modification for SSB low power) seems to make the 9130 an excellent choice for the ardent QRP operator