

idea of the high level performance of a preamp, which is what I intended my quoted figures to show.

For the record book, though, I quote the following intercept points calculated just from the -60dB point, and note the apparent dramatic improvement in the figure quoted for the Datong. Dressler VV200 -17.2 dBm, Moulding MPA-2 -8.7dBm, Wood & Douglas PA3 -9.7, Wood & Douglas PA4 -0.2dBm. It would be most interesting to see if any of your readers have strong feelings about how RF intercept points should be calculated to give readers a truer indication of performance which is relevant.

ANGUS MCKENZIE, G3OSS

YAESU FT980

Sir, May I comment on G3WPO's statement on the back of RIT flexibility on the FT980 (Reviewed September 1983).

Initially, I too thought it was a pity the offset frequency could not be returned to. But it can! The technique is to press both RX and TX buttons. In this way you can key the offset frequency automatically after returning to the original and by pressing the button again, go back to the offset channel.

This provides the ultimate capability in DX hunting. First locate the wanted station. Press RX and TX and move up to find the calling stations. Then clear RX — which puts you back to the DX station. With TX still ON you key the offset frequency. To check if the pile up has moved and zero beat with the actual successful calling station, simply press again RX button, which puts you back to the original offset frequency — and tune. The TX frequency will automatically follow.

The above is not made clear in the Handbook and I only discovered it by accident after some few weeks use.

STAN CRABTREE, GM30XC

ALIAS SB-2X?

Sir, I was looking forward to seeing this review (of the Mizuho SB-2X). I recently purchased the Totsuko TR-2100M (the supplier advertises in your mag.) and this is very similar indeed to the SB-2X, the block diagram is virtually identical, except that there is a 2SC2102 10W PA which can be switch out of circuit for low-power operation or running off batteries. In fact, the rig is made by Mizuho, as I discovered when the Totsuko label peeled off to reveal a Mizuho one underneath. It has a slightly larger case, of the same style as the SB-2X, there are five 200kHz ranges, selected by push-buttons rather than a rotary switch, there is an additional switch for fixed channel/VXQ and on the rear, switches for NB ON/OFF, SSB/CW (surely either of these would have been more use on the front panel than FIX/VXO?), 10W/1W, and dial lamp ON/OFF. Like the SB-2X, the TR2100M is designed to run with NiCads, unlike the smaller rig, not only is there no charging circuit, but there is not even any way of plugging in a

charger, the NiCads must be removed and charged externally.

Like your reviewer, my transceiver had a fault on delivery. In my case, it was obviously oscillating on transmit, although it took some time to trace, and was found to be a maladjusted core in one of the pre-driver stage tuned circuits. Once this was cured, and all the other tuned circuit adjustments checked (all the others were more or less spot-on) power output on a whistle was 0.75W on low power and 7.7W on high power, both substantially lower than the specification of 1W/10W.

This is my criticism of your review — I would like to have seen some measurements of the rig. It interesting to read about its facilities, and to learn that the reviewer worked fifteen miles with the rig on the kitchen window-sill, but any amateur who knows what he is talking about and who has experience of a few different rigs can write that sort of review. Angus McKenzie is probably expensive, but he does find faults in RF performance of rigs which are important if you intend to use them under stringent conditions, such as during a contest.

To return to the TR-2100M, then, while testing power output at different supply voltages, to see what I would get out when running it from a car battery, for example, I found that I got 6W out on CW at 12V but only 3.5W out at 13.8V! Investigating further, gradually increasing the voltage with the key down, I found the output power would gradually increase to about 6W then suddenly drop to 3.5W at about 13V. This happened only on CW, and only on high power, so it must be something in the PA (which is switched out in the low power position).

Turning to the receiver, all the points your reviewer found found with the SB-2X applied equally with the TR-2100M. It seemed quite sensitive, but lacking in IF gain, in fact I could hear on it any weak station that I could hear on my transverter-with its coaxial change-over relay and BF981 front end, which means that I would be interested in an article by Angus McKenzie going into greater details on how the ordinary ham-on-the-air campaign VHF preamps for minimum noise figure without the aid of batteries of test equipment! But I digress.

The strong signal performance of this receiver was the worst I have ever come across, which again is another reason why I would have liked to see some measurements. Perhaps it is the old JFET mixer which is at fault, although my old IC201 uses a JFET mixer (come to that, I must think the FDK Multi 750E did) and they were both quite good receivers. Perhaps the problem is due to the back-to-back diodes across the first RF amp input. I have never seen these in any other circuit, but am reluctant to remove them in case they really are necessary — perhaps the isolation of the change-over relay is poor.

Nevertheless, I am very happy with the TR-2100M; I have had contacts well into Germany from a parked car using HB9CV, and get good reports on the transmitted audio. I am not afraid to delve inside, and at the price one is not deterred from doing so. It offers better

performance than a Liner 2 in a more versatile, compact package and at much less cost than I paid for the Liner 2 seven years ago. The TR-2100M, with 10W PA costs £115, compared with Lowe's normal price you quote of £165 for the SB-2X.

JULIAN V. MOSS

(Note that this letter has been shortened) You hit the nail on the head when you say that it's probably expensive to get Angus McKenzie to do full technical reviews; that sort of work requires a large, well-equipped laboratory and a lot of careful work to get accurate, repeatable results that are not going to land us in the libel court! (Or, if they do, ones' that can be reproduced elsewhere). So, what do we do — do we take a few measurements and hope that we've picked the right parameters to check, and do this on lots of equipment — or do we do, as we do at present: pick a few items of gear to give 'the works' and do essentially user-tests on the remainder? Our present opinion is that the latter is the better course — at least we don't give the false impression that we've checked everything on items that have only had a reasonably cursory 'inspection' — as might be the case in the limited technical tests.

BOOKS FOR BEGINNERS

Sir, I have been interested in Ham Radio for some time and became even more interested after reading the November issue of 'Ham Radio Today', but being a complete novice to ham radio I find it hard to understand the electronics and mathematics which go into it.

Could you please advise me on any books which may help me to learn about these aspects of amateur radio in layman's terms.

A J COX (Miss)

There is a problem in recommending books, and that is that one person may find a book superbly helpful while another may find exactly the same book too simple or much too difficult. Therefore, we suggest that you visit the local library to see what they have on offer first, as this won't cost you anything! Alternatively, try a book shop in a large town (towns with large technical colleges generally have at least one reasonably well-stocked bookshop) and spend some time looking through the books they have on offer to see which on suits you.

When you're choosing a book, do make sure that it has sections covering how all the basic components work — in particular resistors, capacitors, transistors and inductors. Avoid like the plague any book that devotes any great space to valves! (Heresy! — Ass. Ed) Also check that any maths is at a level you can handle, at least in the earlier chapters.

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