indications were a little squashed between S9 and 9 + 40dB, the 40dB indication being 26dB in reality. Note that S9 is, however, around 10uV, which is about 10dB higher than the RF level required for an S9 indication on some other VHF rigs. On FM, matters are dramatically different, the S units representing an average of 1dB per S point, so that not only will it dance about like the clappers on many mobile signals, but most signals will either not read, or be above the S9 mark, the +40dB representing a mere 15dB over S9.

The fast AGC was extremely fast, and I cannot imagine a reasonable circumstance in which you would want to use it. If you note the slow AGC penchart, you will see that the equipment employs an AGC hang circuit, and the pen chart does look rather odd. It indicates that the main gain recovery takes place between 0.5 and 0.8 seconds after the end of a transient. I personally think this is too fast, but I also point out that hang AGC is an acquired taste, and most of my friends and I hate it. I previously found a similar characteristic on a Plessey receiver and found the sudden pumping up of noise very irritating every time someone the other end paused for just a moment.

Appalling

What is more important, though, is the appalling audio SSB audio quality of this receiver, judging by the review sample. Herein lies the danger of judging something by looking at only one sample, so a friend of mine who has this rig, and a signal generator, checked his, and found the selectivity curve to be only marginally less pointed. On examination, it would seem that Icom are not properly adjusting the loading of their SSB filters, and it would be comparitively simple to put matters right. We felt that audio distortion at an intermediate output level was about average, although higher than I like to see, and maximum output was reached at about 2W. In my opinion this is not really sufficient, unless you are using a fairly nasty but efficent loudspeaker (most efficent small speakers do seem to be rather nasty, and less efficent ones are often much less coloured).

Receiver measurements

Sensitivity, FM for 12dB SINAD 1kHz mod., 4kHz dev. at 144.000 / 145.000 / 145.975 MHz (µV pd)	0.10 / 0.10 / 0.10
Sensitivity, USB for 12dB SINAD 1kHz beat. at 144.000 / 145.000 / 145.999 MHz (µV pd)	0.04 / 0.04 / 0.04
Selectivity, FM. Ratio off channel / on channel to degrade from 15dB SINAD to 12dB SINAD. Above / below channel at following offsets:-	
12.5 kHz (dB)	68 66
25 kHz (dB)	77 / 76
50 kHz (dB)	82 / 81
Selectivity, USB 3dB / 6dB / 60 dB bandwidths (kHz)	0.35 / 1.2 / 4.9
Shape factor (60dB / 3dB bandwidth)	14
RF 3rd order intermodulation distortion, FM. RF level required from each frequency to give: 12 dB SINAD / S3 (equiv. to 1.1 µV signal) / S9 (eqiv. to 2.0 µV signal) products. Causatory carriers at following offsets:	
+25, +50 kHz (mV pd)	1.7 / 2.7 / 3.7
−25, −50 kHz (mV pd)	2.6 / 3.3 / 4.3
+50, +100 kHz (mV pd)	2.0 / 3.1 / 3.5
−50, −100 kHz (mV pd)	2.6 / 3.2 / 4.4
+100, +200 kHz (mV pd)	1.7 / 2.6 / 3.4
−100, −200 kHz (mV pd)	2.3 / 4.5 / 4.9
RF 3rd order intermod. distortion, USB. RF levels of each causatory carrier to give: 12 dB SINAD (equiv. 0.04 µV signal) / S3 (equiv. 0.2 µV signal) / S9 (equiv. 9.8 µV signal) products with the causatory carriers at the following offsets:	
+25, +50 kHz (mV pd)	1.4 / 1.7 / 6.4
−25, −50 kHz (mV pd)	1.4 / 1.9 / 7.9
+50, +100 kHz (mV pd)	1.0 / 1.7 / 6.3
−50, −100 kHz (mV pd)	1.4 / 2.1 / 8.2
+100, +200 kHz (mV pd)	1.4 / 1.8 / 7.8
−100, −200 kHz (mV pd)	1.5 / 2.8 / 9.5
Approximate 3rd order intercept point estimated from above data (mV pd)	200
Reciprocal mixing. Level required off channel to degrade from 15dB to 12 dB SINAD. +20kHz / +100kHz offset (mV pd)	1.3 / 4.2
S meter, FM. RF levels for:	
S1 / S3 / S5 (µV pd)	0.7 / 1.2 / 1.5
S9 / S9+20dB (µV pd)	2.1 / 3.7