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**Author:** John H. Dilks III, K2TQN

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## OLD RADIO

### The National NC-81X

When I was 14 my mother had a small soda and hot dog stand at a local lake. That summer I made almost 60 dollars working in the store and renting old automobile inner-tubes at 10 cents a half hour to the kids that swam there. That was big money for a kid back in 1955. It was a good summer.

Entering high school that fall and finding they had a ham radio club, I joined. One of the members, a senior, was already a general class ham and had his old receiver for sale. It was a National NC-81X. He wanted \$35. Since my mother was helping me save for college, I had my work cut out for me getting the money from her. Luckily my father intervened and I bought my first receiver.

What a wonderful receiver for a Novice back then. It was a ham band only receiver that covered 160, 80, 40, 20 and 10 meters. It had over 1/2 inch spread on the dial in the 80-meter novice band, and a similar amount on 40.

I first put it to work copying the ARRL code practice on W1AW every other night. Before long I was up to 7 wpm and was ready for my test. I learned to use the Crystal filter to remove the QRM that always seemed to be close to the W1AW frequency.

On the other nights, I would listen to the local hams on 160 AM phone. I heard about antennas, electronics, building equipment and I absorbed the proper ham radio operating procedures from them. Later one of them would give me my Novice exam.

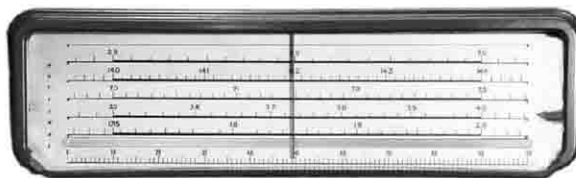
Rare today, the 1937 NC-81X and the NC-80X, its general coverage twin, still make good CW and AM receivers. My original was traded away to a friend when I found a newer receiver in 1956. Since the mid-1990s I searched for several years before finding the replacement I now have. Robert Enemark, W1EC, a well-known collector in Massachusetts had restored it. I'm grateful he sold it to me when he was thinning out his collection.

These two receivers were designed to be less expensive but still work well like the rest of the National line. To accomplish this National's designer, James Millen, eliminated the expensive "HRO" type dial, the big plug-in coils, the S meter and the power transformer. These sets were ac-dc powered, and designed to run at a lower B+ voltage.

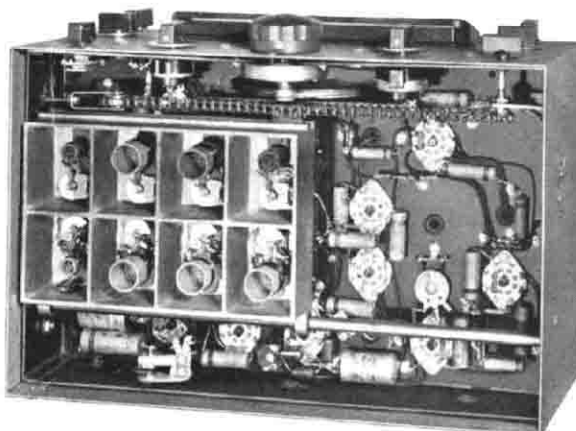
Millen also designed a new "slide-rule" type dial with a dual vernier reduction drive knob, which provided a 55 to 1 re-



The replicated 1956 station of KN2TQN. The transmitter is from ARRL's *How to Become a Radio Amateur*. It was built by Ray Morgenweck, K2QQF.



The NC81-X dial showing about 1/2 inch on the old 80-meter Novice band, 3700-3750 kHz. With the 55:1 reduction dial it really separated the stations.



Bottom view of the NC-80X, with RF coil shield removed. As shown, the broadcast coils are plugged in.

duction over any narrow band of frequencies with an automatic shift to 11 to 1 reduction for rapid moving of the pointer to another section of the dial. This was quite an innovation. It made fine-tuning a snap.

The large plug-in coils were replaced with a sliding coil tray, under the receiver. This provided a high quality plug-in type of coil system for less money.

The big addition to this receiver was a new Crystal filter designed to cover a range of selectivity from 300 Hz to 7 kHz and to work with a higher intermediate frequency of 1560 kHz, instead of the normal 456 kHz.

I found that the combination of the reduction dial and the sharp crystal filter allowed me to really separate the CW signals. My early Novice days and hundreds

of QSOs were most enjoyable with this receiver.

If you find one of these ac-dc sets, it is well worth bringing home. It seems the dial escutcheon is usually broken because someone lifted it wrong. There are no replacements for them, so you'll have to glue the pieces back together. Try to get the original speaker, too. The radio will not run without it, as the transformer is mounted within the speaker box.

I'm still looking for your vintage station photos for my Old Radio Profile. Send them to my address below, or my e-mail address.

I'll see you at the hamfests. Look for my call letters on my hat and say hello.  
—K2TQN

QST