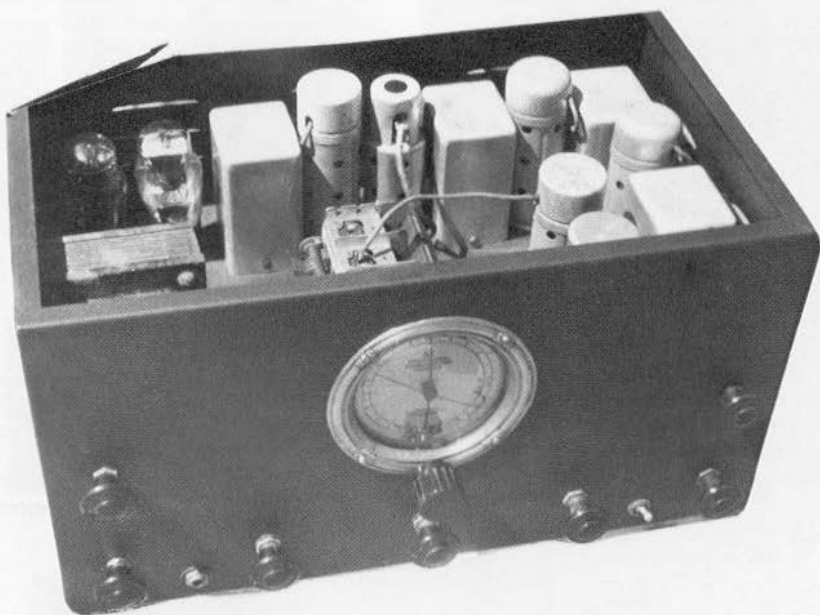


The COMMUNICATION RECEIVER

Editor: Bill Fizette, K3ZJW
R.D. 1, Box 55, Henryville, Pennsylvania 18332
All correspondence requires SASE for reply



THE McMURDO SILVER 5C COMMUNICATIONS RECEIVER



At the AWA Communications Receiver Auction in 1985, a rather unnoteworthy receiver of the SWL variety, which had remained unsold in the flea market, came under the gavel. Because of its immediate lack of identity and relatively poor condition, coupled with only little interest and a rather high minimum, it still brought no bids. With the plain black cabinet and no panel markings it resembled a kit and hardly warranted a second look. Fortunately, W4OTN recognized it as one of the rarely seen receivers marketed by McMurdo Silver during the early 1930's, and was able to purchase it after the auction. It is now restored and in working condition.

This story began in March 1933, when Silver introduced the "Ham Super", designed around a unique plug-in coil system (QST February 1933). Unfortunately, it ran head on into the National FB 7, also announced the same month. By September,

Silver was promoting the 5A, a totally different short wave receiver without plug-in coils. This was followed shortly by the 5B, which the ads proclaimed was used exclusively at W9USA at the 1933-34 Chicago World's Fair, and in due course, the 5C and the 5D.

The McMurdo Silver 5C Profession Communications Receiver, as it was termed, was promoted and sold by the Wilcox Sales Company of Chicago. The receiver identification is contained on the four inch airplane type dial, a style which was popular at the time on sets with short wave bands being sold to the general public; there are no control nameplates or other identification on the receiver.

The round main dial is fitted with a two-speed tuning mechanism with two pointers. The readout is only approximate, with resettability typical of the style, i.e., relatively poor. While in the past this characteristic had not been considered too impor-

tant for shortwave gear, forward thinkers were then in the process of designing new dials for commercial and amateur use with excellent readouts, as witness the HRO PW dial, soon to appear. The three tuning ranges, covering the frequencies from 1.5 to 23 mc, are color coded on the dial and on the bandswitch. There is no broadcast band on the 5C.

The receiver is housed in a black crackle finish metal cabinet, 17" x 11" x 9". Components for the most part are those used in good quality BC receivers of the day, with perhaps some cost cutting. As an example, the original filter condensers were of the dry electrolytic cardboard type which were cheap and easy to mount under the chassis, in contrast to the aluminum cans used by Hammarlund and National. Similarly, the tube sockets were phenolic, as opposed to the Isolantite used by the other two in the oscillator, RF, and IF stages. Although a critical eye might pick up points such as these, the receiver when new probably worked just as well as if the more expensive components had been used. On the other hand, the IF transformers in the 5C used air tuned trimmer capacitors, considered a mark of quality in those days.

The RF and OSC coils and associated band-switch were well made and contained in a three section compartment in the bottom of the chassis. The tuning capacitor is interesting in that it is a composite, strongly resembling those later used by Hallicrafters; both the high-capacity general coverage/bandset capacitor and the low-capacity/band-spread unit are mounted on the same frame. By pulling the tuning knob out from the panel, a string drive to the band-spread capacitor is engaged, while with the knob pushed in a spring clutch engages the GC dial.

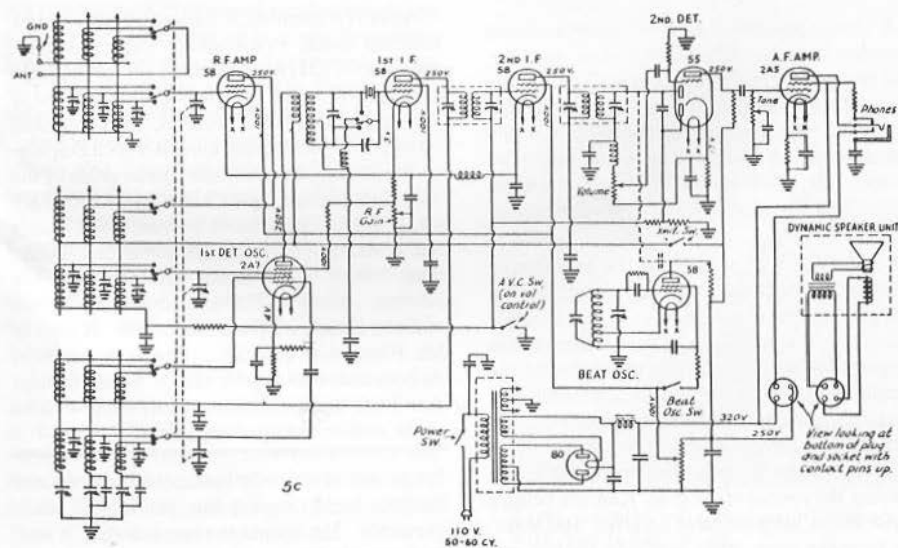
The electrical circuit was reviewed in QST for May, 1935. A 58 RF amplifier is followed by a 2A7 first detector/oscillator and a variable bandwidth crystal filter with a three section switch for series, parallel, or out-of-circuit modes. The two 58 IF stages at 465 kc are in turn followed by a 55 second detector/first audio/AVC stage which is resistance coupled to the 2A5 audio output.

Len followed the usual restoration procedures. After a good look-see and a general cleanup, he replaced the power supply filters and verified that he had B+ voltage at the proper level. The original receiver used wire-wound cathode resistors, and most of these were found open, probably due to corrosion. Replacing these brought the set to life. He concluded with voltage checks and a general alignment. The audio fidelity was noted to be quite good, perhaps better today than in the 30's, probably due to advances in broadcasting and audio techniques.

The original Jensen dynamic speaker had long since vanished, but a suitable replacement which worked well was found in an old Philco. A rough measurement of receiver sensitivity estimated it to be no worse than 2 microvolts.

The promotion of the 5C receiver was minimal and short lived. While the Wilcox Sales Company billed it as the "Famous 5C Single Signal Super", they did not use the name "PROFESSIONAL COMMUNICATION RECEIVER" which appeared so prominently on the dial, possibly because they felt the only claim the receiver had to being professional was that it was in a metal cabinet, had many unmarked knobs, and required an experienced radio operator at the controls. In all fairness, however, in the hands of a skilled person the 5C

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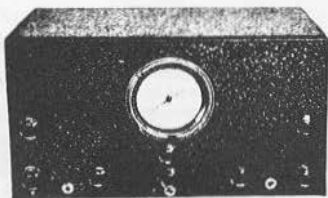
probably worked as well or perhaps even better than the FB 7, especially since the latter did not have an RF stage/preselector. All of the circuits and controls required of a good communications receiver were indeed present.

Silver was a busy person; at the time he was promoting the 5A, he was also marketing the Masterpiece II all-wave voice receiver, with emphasis on audio fidelity. Another receiver being sold was named the *WORLD-WIDE 9*, with a BC band and two short wave bands. The tube lineup and circuit were almost identical to the 5C.

Delaware Radio Sales also sold the 5C, but we have found none of their ads which pictured the receiver. The emphasis seemed to be on Hammarlund and National. With minimal promotion and without an effective dealer organization, beset with competition and constantly changing technology, and with the depression still going strong, Silver could not have sold many of each receiver model, thus making them today rather rare in comparison to those of the more well-known manufacturers with larger production runs and market share. One is left with the strong impression that Silver never really broke into the short-wave communications field on a continuing or meaningful basis. Price information has not been found, another indication of poor marketing strategy.

Other less-popular short wave sets of the era included those manufactured by Patterson, Ross, and Breting. If readers have any of these receivers, as well as others by McMurdo Silver, we would welcome information relative to design, restoration, performance, and general overall impressions.

McMurdo-Silver's famous 5C SINGLE SIGNAL SUPER



"In my opinion, McMurdo-Silver's 5C Professional Single Signal Super is away out in front of all competition. It's the choice of many who have tried them all. I offer the 5C on the most interesting easy TIME PAYMENTS you ever heard of. Write me at once for complete technical details of the 5C . . . and for particulars of my time payment offer for Chicago Amateurs. Hurry!"

WILCOX RADIO SALES

506 S. Wabash Ave. Phone Webster 4101 Chicago, U.S.A.

AWA member Leonard Nole, W4OTN, of Alexandria, Virginia, by his purchase and restoration of a McMurdo Silver 5C receiver, has opened an interesting and not too well known chapter of the turbulent and often chaotic radio market place of the early 1930's. Len, who was first licensed as W2FKL in 1933, worked as a radio repairman for several years before beginning a 30 year career in US Navy communications. He has thoughtfully provided most of the information and some of the text for this review. K3ZJW

REMOVING DRIFT FROM THE HRO

A classic problem with HRO receivers is the tendency for many of them to drift excessively, and the experience of chasing a signal across the dial can be frustrating. Ken Gardner, W2BGN, was faced with this situation and wanted to use the receiver on the air in the OT contest. He resolved the problem to his satisfaction and was kind enough to send in the details.

Paul, W3VVS, pinpointed the problem as being in the oscillator trimmer capacitors inside the oscillator can (the far right can when facing the receiver) in the plug-in coil tray. He suggests taking the unit apart and dosing the capacitor liberally with contact cleaner and working it back and forth at the same time, after first making careful note of the setting. This will remove the accumulated corrosion in the bearing, the source of the drift. Ken, not being a purist about his particular receiver, and wanting to make sure, went one step further and

DATING THE EARLY HRO

An AWA member, Charles P. Fisher of 161 Belknap Road, Framingham Centre, Massachusetts 01701, has initiated a project with the objective of more precisely dating the many versions of the HRO receiver, with emphasis on the early production models which employed the plug-in crystal filter. Since some of the very early models (late 1934 to early 1935) are rarely seen, it may be of interest to collectors and students of the HRO phenomenon to determine where a particular unit fits into the scheme. Many of the distinctions are subtle and can escape a casual inspection. A note to Mr. Fisher with a SASE will bring information on how to evaluate your HRO. When enough data have been assembled, the results will be made available to participants.

borrowing an old technique, soldered a piece of flexible braid around the bearing on each capacitor. He reports the receiver drift is now to a useable level.