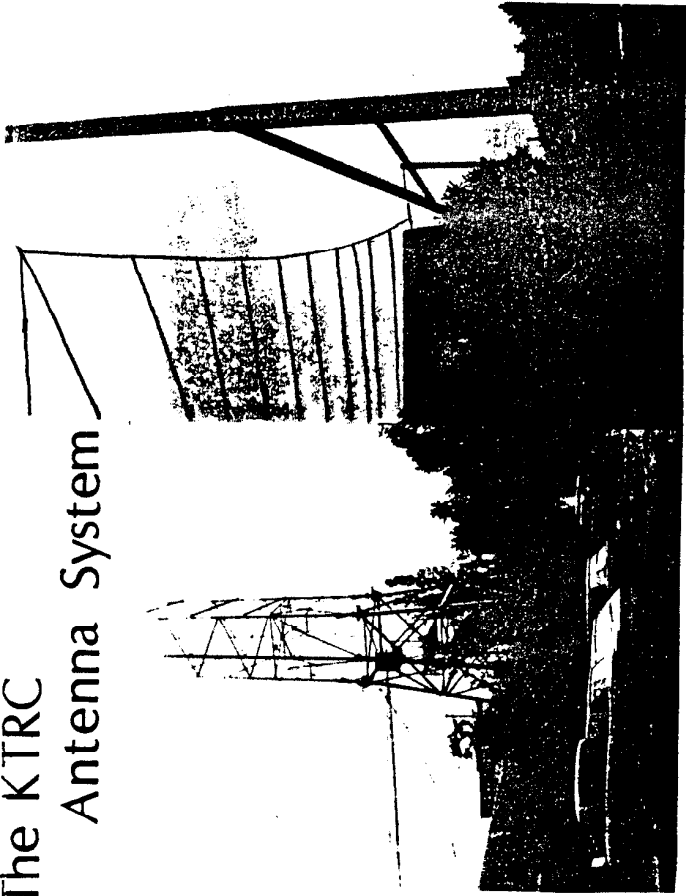


The KTRC Antenna System



One of the more interesting tower installations is at KTRC, Santa Fe, New Mexico, which operates on 1100 KHz with 1 kW fulltime. They faced a problem that a number of AM stations have had to deal with - the real estate where their ground system is plowed into the ground becomes almost as valuable as the radio station itself.

KTRC is located in downtown Santa Fe, and has a self-supporting tower beside its building. But, within the half-block surrounding the tower, only a small part is undeveloped and used as a parking lot. The rest has been built up like the rest of Santa Fe, with single-story buildings. The station's ground system, under these buildings, would have been so inefficient that the station would have had severe signal problems.

So, a unique system was designed and built. The ground system was installed as a counterpoise above the buildings. Metal poles were erected at the corners of the property, along the sidewalks, forming a square, with a couple extra poles on each side between the corners. Then, a heavy wire was run around the perimeter of the block. The outer ends of the ground wires are attached to this heavy wire, about each 2 feet along the entire outer ends. The inside ends of each ground wire join a thick bus that is at the tower base, and about 25 feet in the air.

It appears that insulators were inserted in the tower legs at the 25 foot level, so the tower is "hot" from there up.

The metal poles look exactly like streetlight poles until you notice the counterpoise wires. This is the first AM tower sitting on the ground that I've seen that uses a counterpoise ground system. All rooftop tower installations must use some sort of counterpoise. Some are extremely rudimentary, perhaps consisting of a few wires stretched over the roof of the building on which the tower is erected, plus a connection to the metal structure of the building or the water pipes. Others are virtually identical to a "plowed-in" ground system, with 120 or more radials extending across as many roofs as they could get permission to do so. Of course, the efficiency of the ground system is equally important in determining the field of a radio station to that of the tower itself. Rooftop antennas traditionally have resulted in poor radiation compared to ground installations with good ground systems, clear of obstructions.

Many AM stations have lost parts of their ground system, as buildings are built over them, or as vandals steal the copper wire. These stations suffer dramatic losses in coverage. We know of no other station that has reacted to this problem as well as KTRC. A Class IV station can't afford to relocate out to a distant suburb because of extremely limited night-time coverage, so this was one solution that others may have to investigate.

Gary Simpson, 601 Fifth Street, Tyrone, PA 16686
Right-hand photo retouched to emphasize ground wires. bp

tips or who had bad experiences in the past in reporting tips to send in your reports. You will notice a difference, as I'm one of those DX'ers who consider this hobby a science, when one a totals of over 1,000 heard it turns into a science. However, I haven't forgotten my starting with KFI on a small portable back in April of 1962. I joined the NRC later that year. I'm a Charter Member of IRCA, understanding it's organization. I later logged many stations using an old Hallcrafters SX-16 in Sheridan, Wyoming. Much later in life I was able to afford my ICOM IC-R71A, and recently started using a Radio West loop as the condo association prohibits outside antennas. I'm 41, have been a master control operator at KTVU channel 2 since May of 1972.

Most recent varies are from CKEF 700, KROL 870, CKBY 1170, WCAU 1210, CHQM 1320, KHBI 1330, KOHU 1360 and CJVR 1420. KROL said my report was the third they had received. WCAU was for a report in 1985. WCAU had never varied my Sheridan loggings; a much welcomed verie for me. 73. (Congrats on your appointment to CDR editorship. I'll be looking forward to reading it-Rth.)

PAUL SWEARINGEN, P.O. BOX 4812, PANORAMA CITY, CA 91412-4812

All right, all right, I'll "fesse" up. This I with the BCBDEXER license plates. I couldn't resist using them. Also, NRC's Bruce Conti has used "BCB DX" on his plates in both Rhode Island and New Hampshire and NRC'er Ralph Luton told me a couple of years ago that he has "BCB DXER" in North Carolina. I wonder who else in both clubs has taken advantage of some states personalized plates program to tout the hobby on their cars? (I believe the Hardys in Washington have "DXERS"-Rth.)

ERIC HEALD, 8539 BELLAMY WAY, SACRAMENTO, CA 95828 Tele-Forum: (916) Evergreen 6-8677 to 2200 P11 & ppd

Ah yes, the power of the press, no matter how large or small the circulation, hi. Now, doggone it, I've got to shop around for a different set of license plates, hi. And no, I'm not moving to Nevada, hi.

Not much cooking on the radio front, or putting it bluntly, I haven't had it on. Last week I mentioned I'd found the source of my noise. Well, I "thought" I had. Must have been pure coincidence that after turning off the back door light, the other source was turned off simultaneously. So the noise is back, but not as strong indicating my light one one of the sources. One thing I don't understand, this neighborhood has all underground wiring.

John, remembering first catches before "catching on" to the hobby reminds me that I had used a coat hanger for an antenna on a 5-tube Packard Bell portable back in 1959 and thought I was really hearing something when I ID KMJ 580 Fresno (daytime) from Oakland. Then again, nowadays that practically IS a good catch, hi.

Have tracked down exact (almost) QTH of KXOA 1470's towers. Had only spotted them from across the river at KSAC and glimpsed them from Buess I-80. They're south of Hwy. 160, east of the river crossing (about three-quarters mile) and just north of the American River between the levee and the river, in other words, in a flood plain. No wonder they kept going off the air last February, hi.

Remember, if you live west of the Mississippi, you're in WDXF Country. Love to hear from all of you. Until next week, hope all had a great Turkey Day (Canada's was last month) and best of DX to all. 73 de Rth. .

BRUCE PORTZER 6546 19th Avenue N.E. Seattle, WA 98115

Hi gang. This past week has been a good one DX-wise. There was TA reception for at least three nights in a row. Best signal was from Norway-1314 which produced audio all three nights, and was in as late as 12:30 AM PST on SM SM 11/23. That's by far the latest I've ever heard a TA, but given the very high latitude path, it's understandable how they could still be in that late. In fact, the path is also viable just before Seattle sunrise from now until late January -- sunset there will occur before sunrise occurs here for the next several weeks.

SM 11/23 also produced WOH0-1470. Not a new catch, but the first east-of-the-Mississippi regional channel logging in ages. It's really great to be hearing good DX again!

Re the current discussion on which loggings belong in DXR: the proposed programming column may very well be what is needed to separate the "real" DX from the non-DX. Some people are inclined to report a nearby 50kwr to DXR because it runs old-time radio broadcasts or Swahili programs at 2 a.m. That sort of logging would qualify as interesting reading and probably even interesting listening, but it's really not DX as such. As for the non-program DX, it all boils down to the reader's perceptions. One person's hot DX is old stuff for some readers; good DX for some is out of reach for others. In the end, everyone has to comb through the columns to find the stuff that interests them --- there's no other really practical alternative.