

ANDEX



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DXer OF THE MONTH



Scott McLean with his homemade receiver

The DXer we are featuring in this issue of ANDEX International is one who should have no lack of electrical power to operate his shortwave receiver. Scott McLean lives in Tonawanda, New York, in the United States. This city is situated on the Niagara River which flows from Lake Erie to Lake Ontario, a distance of some forty miles. About fifteen miles north of Scott's home, the Niagara River provides the water for Niagara Falls, one of the most spectacular sights to be seen anywhere in the world. At the same time the water is used to generate huge quantities of electrical power. Many people travel for long distances to see the famous falls, but Scott is fortunate to live close to them.

Scott became interested in DXing about two-and-a-half years ago. The first time he heard HCJB was in February of 1978. He uses a Heathkit SW-717 receiver which he built himself. He has a strong natural interest in electronics. This background helped him assemble the Heathkit receiver. He also uses a homemade shortwave preselector. The circuit appeared in a radio magazine and he built the preselector from old parts he had on hand. It functions beautifully and really improves recep-

tion. A cassette recorder is always on hand in case Scott wants to keep any of the programs or identifications he hears.

Four antennas have been erected in Scott's yard. Three of these are random wires of varying lengths and directions. The fourth sky wire is a twenty-foot citizen's band variety. Scott built an antenna-switching box which makes it possible to use any single antenna or combination he may desire. A little experimentation quickly tells him what gives the best reception for a particular station.

Scott is still going to school so does most of his listening during the afternoon and evening hours, between 2200 and 0900 GMT. He has found staying up late to do some serious DXing has really paid off on several occasions. During his first year of DXing he received fifty-seven stations in a total of forty-nine countries. He received verifications from thirty-seven of them. He considers the following among his best catches: ELWA, Radio Vilnius, Voice of Nigeria, and Radio New Zealand.

A number of shortwave clubs have claimed Scott as one of their members. Included are those operated by Radio Moscow, Radio Budapest, Radio Prague, Radio Kiev, the BBC, and Radio Bucharest. However, Scott adds, "But most of all, and most important, I am a proud member of ANDEX." His membership number is 3228.

Scott is active in several hobbies which include coin collecting, fishing, baseball, ice hockey, and, of course, "DXing which is no doubt my favorite." With his Heathkit SW-717 he says he can hear the words of the world. He feels that, "Shortwave listening is a fantastic geography lesson and has great educational value." We agree and trust Scott will continue to pursue this form of education for many more years.

APARTMENT-HOUSE DXING

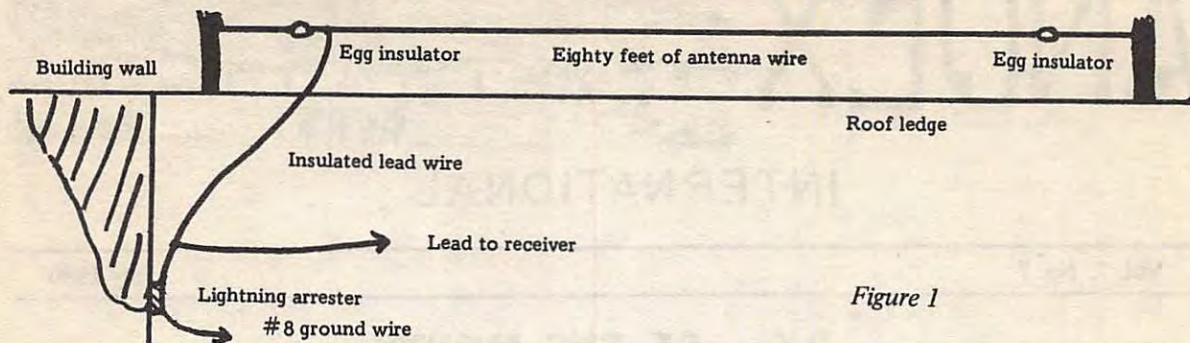


Figure 1

By Richard Varron Part 2

Once a radio signal comes through the noise it may seem too weak for good copy. This is particularly experienced by DXers who have had to change from a good outdoor installation to a restricted-space indoor antenna. This lack of area-filling sound can be helped a great deal by some enhancement at the audio end of the receiver. A sensitive headset is one solution. To be effective it should require less power to produce a given audibility level than the receiver's usual speaker. The writer's favorite is a pair of 4,000-ohm Trimm ear-phones. For the DXer who wants a room full of sound, a patch cable from the receiver's headphone jack to the auxiliary-input jack of a good stereo system provides a substantial increase in audibility. Be sure to set the stereo amplifier for monaural operation. Those who have a tape output from the receiver's rear apron may prefer to connect this to the tape input of the amplifier. Either way, the stereo trick adds a quality to the sound that reminds one of the days when most home receivers were contained in large wood consoles.

In the type of apartment building where an outdoor antenna is allowed, either radio or television installations can be constructed. Even CB or ham operation will be permitted just as long as no interference is given to reception by other tenants, the local building and fire rules are followed to the letter, and access is allowed to the roof. Restricted-space antennas must be used because, even if there is room for the required length, such wires cannot be erected sufficiently far above the ground plane formed by the roof so as not to require tuning at the feed point. Horizontal antennas like the random-length wire strung three feet or more off the surface of the roof can usually be connected directly to a sensitive DX receiver. A pi-coupler will help, and so will a preselector, especially if the radio is one of the less sensitive portable models.

A sketch of the writer's principle antenna is shown in the drawing. This wire is three feet above the roof of a Los Angeles apartment house. Note that the horizontal leg of the inverted-L is eighty feet long. This gives enough signal-gathering power, even at the reduced height, for driving a good receiver directly without enhancement. Prior to September, 1979, the horizontal leg was operated with a coaxial feeder, a coupler, and a preselector. An ancient Zenith Transoceanic receiver gave reception from all continents. Rainfall will cause a problem with signal deterioration of as much as one "S" unit. This is because the rainwater provides a good signal path to ground. It also demonstrates that no system is perfect, even in southern California!

Random-length vertical antennas, fed by coaxial cable grounded at the receiver end or by plain wire, act like a vertically-placed random wire and can be tuned with a pi-coupler or L-coupler in the shack. Ground-plane verticals of the CB type should be avoided unless one wishes to DX only in

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HCJB



International Program Director — David Manney
English Program Director — Richard Lemon
ANDEX Executive Director — Clayton Howard

Address all mail to: ANDEX International
Casilla 691
Quito, Ecuador

the CB band. One vertical antenna that deserves special mention is the active vertical. This very effective unit uses a short vertical rod mounted on a box which contains a built-in amplifier. Power to operate the amplifier is fed to the box through the connecting coaxial cable. These antennas are available commercially through shortwave shops or the home builder can make his own. Loops are effective up to the 41-meter band. They can be stacked or made rotary, as desired. Rotary beams and quads are very good for frequencies of 15 MHz and higher, but must be cut to the proper dimensions for the band desired. The writer's preference is still for the random-wire antenna since he feels it gives more signal and less problems per dollar invested.

To be continued

From American Shortwave Listeners Club
16182 Ballad Lane, Huntington Beach, CA
92649, Used by permission

HCJB STUDIOS

By John Tocknell

Probably few people realize that HCJB has ten audio-control rooms that the Quito operations group is responsible to keep in good operating condition. Let's take a brief look at each of these controls.

Control 1 is attached to one of our larger studios. This room has just recently been completely rebuilt and new technical equipment installed. However, the studio is in need of further acoustical treatment. The combination provides good reproduction and is used mostly for recording shortwave programs in a variety of languages.

Control 2 is another installation which still uses an RCA console over thirty years old. The small studio used with this control room has been treated acoustically and repainted quite recently. It is expected that within the near future this control will be completely refurbished and more up-to-date equipment installed. At present it is used principally for recording shortwave programs.

Control 3 is our most modern installation and is attached to our largest acoustically-treated studio, The World Radio Chapel. It is used almost exclusively for the production of stereo tapes and records. It is also used each Sunday evening for the



HCJB Control Room #1

live broadcast of the HCJB Hour. This control contains a solid-state Neve console. To take full advantage of our highly-talented musical staff here at HCJB, we would like to see some newer recording equipment for Control 3.

Control rooms 4, 5, and 6 are all without adjoining studios and all three have old tube-type control boards. Control 5 is in good condition having been recently updated. Control 4 is used mostly by our Quichua-Language Service. Controls 5 and 6 are used by our Spanish-Language Service. Control 6, which has not yet been acoustically treated, is in constant use from early morning until late at night. All of our Spanish medium-wave programming comes from this control room and is broadcast over a 50 kW transmitter on 690 kHz.

Control 7, along with its small studio, is one of our most recently updated combinations. It seems to be a favorite with the different language services. This is possibly because of its bright color scheme and good quality capabilities.

Our next stop on this tour is Control 9 with its adjoining studio. Having been recently updated, this control is one of our busiest at HCJB. The English-Language Service uses this studio for almost all of its live programming as well as for making many recordings for future broadcast. There is hardly a minute during the day when this equipment is not being used. It has one of the latest control panels which is a pleasure to operate. The board is completely solid state including most of its switches and even its LED VU meters.

Another stop takes us to the Bible Institute of the Air. Here we find a small control room with a

fairly large adjoining studio. Both studio and control need to be updated. This equipment is used primarily for producing Spanish programs for the Bible Institute. This is probably our least-used control room.

The last stop in our tour brings us to the FM stereo control. This has a modern solid-state control panel. The walls are lined with shelves filled with record albums reserved for use only in this control. The equipment and records are used to produce quality programming for our stereo FM transmitter.

If you were to examine the equipment used in the various controls and studios you would find many well-known names. Some of these include RCA, Gates, Neve, Ampex, Uher, Philips, Bogen, Shure, Telefunken, and Crown. These names will be found on the audio consoles, recorders, turntables, microphones, and speakers. Most of the control rooms have a minimum of three reel-to-reel recorders, two turntables, and one or two tape cartridge machines. It all adds up to a lot of valuable equipment which the Lord has provided for HCJB. And almost all of it is in constant daily use to provide the many programs you look forward to hearing when you tune in HCJB!

DXing DANGERS

By Rose Alice Akers

DXing is a fascinating hobby for people of all ages. On the whole, it is a very safe hobby. However, the average DXer may not realize that there are some dangers involved. Recently Rose Alice Akers, of Urbana, IN, in the USA, ANDEX member No. 2749, wrote to us and pointed out one of these very few dangerous parts of the hobby. We feel it is worthwhile to pass this information on to all of our ANDEX members.

"Recently an article appeared in our local newspaper concerning two men who were electrocuted while working on an antenna tower which was located close to some power lines." We have seen other articles on similar happenings in the past. The same thing could easily happen to a DXer working on an antenna for shotwave listening. Rose Alice adds these suggestions. "Spring has sprung and it is now summer in the USA. Many people, including DXers, will be climbing on their roofs to repair, replace, or install new antennas.

Follow these ideas so you can avoid becoming a statistic:

- 1 - Get several other people to help you with the job.
- 2 - Don't work on a windy or wet day.
- 3 - Assemble as much of the antenna or tower as possible on the ground.
- 4 - If an antenna or tower slips from your grasp, LET IT DROP. Don't try to rescue the remains if they are near a power line. Call the power company for their help.
- 5 - Do your work and installation as far away from power lines as possible. It is not only safer, but will make a better functioning antenna as well.

Remember that you are dealing with power lines that carry several-thousand volts of electricity. It can kill! We want you to continue as an enthusiastic DXer and not become another statistic!"

We second Rose Alice's warnings. When you work on antennas, whether it is for DXing, CB, or TV, be careful. Don't take any unnecessary chances. You'll live longer and have a lot more fun at the same time.

POINTS TO PONDER

The fire of anger toward another often burns you more than him!

When looking for faults, use a mirror, not a telescope!

Fear God and you will have nothing else to fear!

We are saved by God's mercy, not by our merit; by Christ's dying, not by our doing!

Perfect peace can only be found in Jesus Christ!

God's way of salvation by grace is like a parachute, there just isn't any substitute!

Ignorance of the Bible is the fertile soil on which false doctrine thrives!

What you do with Christ here will determine what He will do with you in the hereafter!