

ANDEX



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DXer OF THE MONTH



Steve relaxing with his DX-160

"My name is Stephen Heyman, and I am 16 years of age. I live in Kenmore, New York, just north of Buffalo, and not very far from Niagara Falls. Besides being a student, I work at a local grocery store." This is the way Steve introduces himself to other ANDEX members. A few months ago we chose Scott McLean as DXer of the Month. Scott lives in Tonawanda, New York, which is very close to Kenmore. In fact, Steve and Scott are very close friends and share the hobby of DXing with each other. Now they can also share the distinction of being chosen as DXer of the Month by ANDEX.

Steve uses one of the popular Realistic DX-160 receivers at his home location. His antenna is a random-wire about fifty feet long. He also has a smaller Realistic DX-60 which he takes with him when traveling away from home. This keeps him in touch with the shortwave scene wherever he might be. His plans include the purchase of a new Drake R7/DR7 super-receiver sometime in the near future. The precise frequency readout on the Drake receiver should be a tremendous help after using the DX-160. Perhaps by this time the new Drake has become a reality. We

would be interested to hear Steve's comments after using the new receiver for a few weeks. Steve also uses a Sankyo ST-45 cassette recorder as an aid to DXing along with a good pair of ear-phones.

"I do most of my DXing between the hours of 2300 and 0400 GMT on weekdays, and as late as 0700 GMT on weekends. Most of my DXing has been done on the 19, 25, 31, and 49-meter bands. However, lately I've been doing quite a bit of listening on the tropical bands, 60 and 90 meters. In my two years of DXing I have received 115 stations in 82 countries. QSL cards have been received from 70 stations in 62 countries. I rate my best catches as Radio Garoua, Radio Ghana, Radio Mauritania, Radio Pakistan, and Radio Senegal. My most prized QSL cards have come from the Solomon Islands, Uganda, Ghana, Indonesia, Malaysia, and the Seychelles. I sent a self-prepared QSL card to the Seychelles which they stamped, signed, and returned to me. They usually don't verify reports outside their target area with full-data cards."

Steve joined ANDEX nearly two years ago and is member No. 3141. He is also a member of SPEEDX and several station-operated DX clubs. Other interests besides DXing include coin collecting, music, and sports, especially hockey. In addition to QSL cards, Steve likes to collect station stickers, pennants, etc.

"I have decided to make radio my career and hope to work as an engineer for a medium-wave station. I hope that some day soon I'll come home and find my picture in ANDEX International as the DXer of the Month." When you get this issue of our club bulletin, Steve, you will find your wish come true. Congratulations and may you have many more years of joyful shortwave listening. Your new Drake R7/DR7 should be a big help in the right direction!

APARTMENT-HOUSE DXING

Part 3

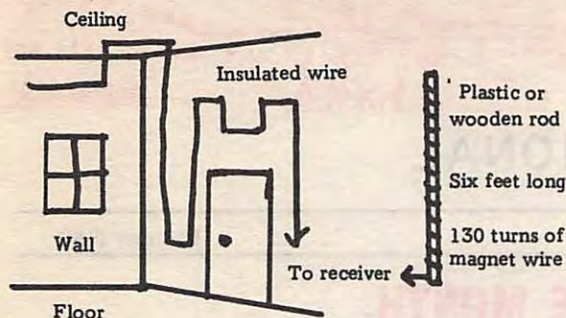


Figure 1

Structural materials used in non-metallic buildings provide some degree of attenuation of the signals received inside the building. However, this is nowhere near the amount of signal loss that can be encountered in a metallic building. The random wire is the most effective of the passive types of antennas that can be used. The idea is to string forty or fifty feet of insulated, stranded wire along the wall and ceiling of the receiving shack. Number 22 stranded speaker wire can be split apart and is ideal. The wire can be run up and down the wall, if necessary, so long as it progresses forward, but it is better to install the wire along the length of two adjacent walls if there is room for forty feet in all. An antenna coupler should be used and a preselector will prove helpful, particularly when using one of the less-sensitive portable receivers.

Helically-wound verticals can be used but they are not as effective as a random wire, even when operated with a ground. Such a ground could be constructed and hidden under a carpet. However,

such a setup would be more expensive and time consuming to install than a simple random-wire antenna. If the vertical is preferred, it could be hidden inside of a pole-type planter with the ground hidden under the rug. The planter, pots, and hangers must be made of non-metallic materials. Both the random-wire and vertical types of antennas are shown in figure 1.

Both short-wire and vertical active antennas can be used inside the non-metallic building. These can be purchased from shortwave shops or even constructed at home. Signal enhancement should be used as recommended by the manufacturer or the designer.

The most difficult case is that of an antenna to be used inside a metallic building. The grounded metal cage so severely attenuates radio signals received inside it that reception of even the strongest stations is very weak or impossible. Some rather weird solutions will be presented here and, if these don't work, you may have to move in order to continue with your shortwave activity.

It is possible, but not usual, that the metallic cage of the building is not grounded well enough to act as a shield. Tap into the cage and use a battery portable receiver to test the cage as an antenna. Do this at the lowest frequency you plan to use. The use of an ac receiver may result in the destruction of the receiver front end, so be careful. If the cage is found to be effective, coupling to your set should be made through an isolated connection. If the cage is grounded, then a battery-operated receiver should be used. A preselector will be helpful with an antenna of this type. If the structural cage of the building cannot be used, then it may be possible to use a window screen or window frame. Again a coupler and preselector will improve the results. Test for a grounded condition using a battery-operated receiver as previously described. The best coupler for this type of antenna is a pi-network and it is good to do some experimenting with a home-constructed version to see what gives the best results.

In the next installment of this series we will include some other possible solutions for the DXer living in a metallic-type apartment building.

To be continued

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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

500-KW PROGRESS



Final testing of completed transmitter

The first half of 1980 was a busy time for the team of engineers in Elkhart, Indiana, as the 500-kW shortwave transmitter reached its final stages of construction, testing, tear down, packing, and shipping. It was a hectic period with one thing following another in quick succession. Here is a brief outline of the major events as they took place.

FEBRUARY — The new blocking capacitor was completed, tested, and installed. It worked beautifully!

MARCH — Testing was carried on at full power and modulation. Transmitter trim was completed. Open house was held for friends in the Elkhart area at the month's end.

APRIL — Problems developed in the modulation circuit which caused delays in the testing. The solution was elusive and required many long days and nights of engineering time. On the 18th the modulation problem was solved! Full-power tests continued until the radio-frequency load resistor failed and testing was stopped on the 24th. Transmitter tear down began immediately.

MAY — Power-supply building and cooling system were dismantled first. Packing of the first trailer was completed by the 10th. On the 14th it left for Miami by rail. Modulator section was removed and packed by the 12th. Radio-frequency section and balun were packed by the 17th. Second and third trailers were completely packed on the 24th. Nick Noblock and friends arrived with three trucks to haul the remaining two containers and substation transformer to Miami. On the 28th all trailers had arrived in



Transmitter tear down begins



Containers being loaded



Preparing for the trip to Miami

Miami and were delivered to the ship. One final shipment was prepared on the 30th to go to Quito by air. This contained the large tubes and other delicate equipment.

JUNE — The transmitter left Miami by ship on the 2nd and arrived at the port city of Manta about two weeks later. The four trailers arrived at HCJB's transmitter site near Pifo on the 28th, after customs clearance in Manta and the long 250-mile trip by road.

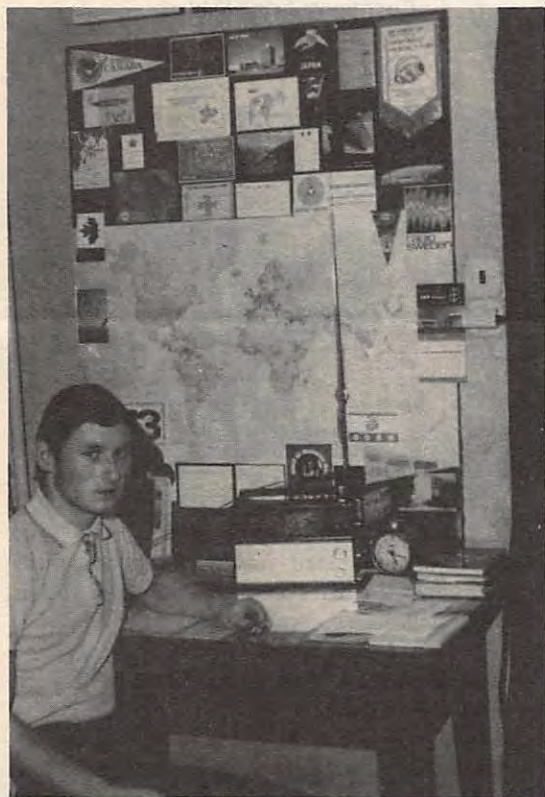
JULY to SEPTEMBER — The transmitter was being reassembled in Pifo and prepared for the first power testing. The project team from Elkhart arrived in Quito to carry out this work.

OCTOBER to NOVEMBER — It is anticipated that the 500-kW transmitter will be running in program tests during these months.

DECEMBER — The transmitter checkout should be completed and the new equipment will be incorporated into the normal broadcasting schedule.

As we approach the end of 1980 and enter into HCJB's 50th anniversary year, 1981, we advise you to keep your ears open and your receivers tuned for our new 500-kW voice. This new transmitter has been in development for several years so we are happy to be able to say that it will soon be in regular daily service carrying HCJB's programs with greater strength and clarity to some of the more difficult target areas. We'll be interested in receiving your reception reports and comments once you begin to hear the new transmitter.

MEET THE MEMBERS



Václav Dosoudil of Czechoslovakia, No. 208



Charles S. Rollins of Mediden, Connecticut, No. 2118

SCIENCE SPEAKS

The following thoughts were written by an outstanding research scientist, Dr. Edward J. Matson, PH.D. When he wrote these words, Dr. Matson was Director of Scientific Relations for Abbott Laboratories, North Chicago, Illinois. What Dr. Watson found to be true in his life can help you as well.

"As a young child I was brought by my godly parents to the realization that even I fell short of the glory of God. Yet they reassured me that a little child, if he or she is willing, can be transformed by the renewing Spirit of God, as revealed in Jesus Christ.

"Willing I was, and one night on my knees I met the Lord face to face and knew Him thenceforth in my heart."

"Each day since, I have found myself knowing Him more. I soon discovered, as every Christian must, that the life hid with Christ in God does not end in the atoning sacrifice of Christ on the Cross, but simply begins there. As God's redeeming grace was revealed through the person of Christ into the depths of my life, I discovered there was a Center within, which was His own Holy Temple. No matter how exacting, how tiring my life as a scientist, business man, citizen, husband, or father, I had only to return to this Center to meet Jesus Christ, demonstrating His keeping power as well as His saving power."

"He saved us—not because we were good enough to be saved, but because of His kindness and pity—by washing away our sins and giving us the new joy of the indwelling Holy Spirit whom He poured out upon us with wonderful fullness—and all because of what Jesus Christ our Savior did so that He could declare us good in God's eyes" (Titus 3:5,6).