there's adventure in pulling in

TV Over the Horizon

By Thomas J. Hidley

Stuck with local TV? These happy folk make a hobby

of logging distant video stations on their home sets.



A Classic DX Reprint

This article originally appeared in the August 1959 issue of Electronics Illustrated



SATISFIED with your local TV fare? Happy with three, four —maybe even seven channels? Perhaps you are, but did you know that there is a small army of devoted viewers who receive eighty, ninety, even 300 different stations on their home sets? With a little effort they get excellent reception at 125 air miles, depending on location, and at least one fan managed to bring in a station 5100 miles distant! They call themselves TV DX'ers. Video reception is normally limited to the line-of-sight horizon.

Video reception is normally limited to the line-of-sight horizon. Maximum distance for line-of-sight reception depends on the height of both the transmitting and receiving antennas. What makes reception possible over greater distances—hundreds, even thousands of miles—is what is called the "sporadic-E," a layer of patchy "clouds" of ionized particles that encircle the earth at about 50 miles. These ionized clouds are most common in spring and summer months, and especially in the morning and early evening hours. But the sporadic-E's talent for reflecting television signals may occur (and often does) at any time or season. What's more, "double hops" (earth-to-sporadic-E, back-to-earth, and a repeat of the cycle) are not uncommon.

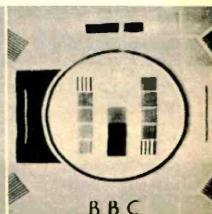
The American Ionospheric Propagation Association (AIPA) is an organization of persons devoted to the hobby of picking up as many TV stations as possible from one receiver. The ultimate

One DX fan went to the trouble of building this heavy wooden scaffold alongside rotor antenna in order to facilitate servicing.

Carl Lupton, of Shelbyville, Ill., has over 200 television stations logged on his home set. He credits good reception to his crank-up antenna. Proof positive of reception over long distance is photo of test pattern taken off the screen. Camera must be kept handy, loaded with film.







Electronics Illustrated



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proof is a photo of the stations' call letters, test pattern, or program. Each picture is inscribed with date and time, and carefully logged. Some TV DX'ers request QSL notes from the faraway stations, and the station engineers are generally happy to hear about their signals' hops.

The typical video DX'er has been an over-the-horizon addict since receiving Steubenville, Ohio, Channel 9, with only a pair of rabbit ears. And his set sat in Syracuse, N. Y.! The only thing that would take the TV monkey off of his back was to receive a new station. So he erected a 50' tower with double stacked VHF and 12 bay UHF antennas, to say nothing about a rotor for directional tuning.

As he climbed the platform to erect the tower, his wife was sure he would become a basket case. The neighbors were no comfort, shouting that the tower would steal their signals. But his spirit never faltered. He purchased the latest model full four megacycle bandwidth TV set, and soon found himself walking toward it day and night. Once knob twisting and precision tuning entered his blood, he set a goal of 100 stations by New Year's Day. It was hard for him to cry "uncle," but the First of the Year, rolled around and his log showed only 97 stations to his credit.

Now he says 200 by the Fourth of July!

Mrs. Doris Dee Johnson of Longview, Wash., has a nine-year-old son who says: "When Mom started DXing it was only a once-in-a-while hobby. Then she got a new antenna, then a rotor for the antenna, then another set for us kids, then she had her set reworked so she could try for BBC. Then she got a tape recorder to tape the DX sound portions. Who knows what next?"

Mrs. Johnson has received KONA, Channel 2, Honolulu, Hawaii, 2700 miles from her home. She has also pulled in San Juan, Puerto Rico, 3650 miles from Longview. She now has over 120 stations to her credit.

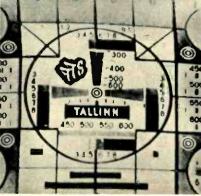
Robert Seybold, president of the American Ionospheric Propagation Association, has 318 TV stations logged. Living in the hills of Dunkirk, N. Y., he has the advantage of a 1200' elevation. With a 60' crank-up tower, it's nowonder his DXing has been a great success. The tower may be serviced at roof level and can be cranked down when high winds are predicted.

Interest in TV DX is not limited to the United States. Behind the Iron Curtain, Heiner Tamment of Tallinn, Estonia, USSR, is an avid long distance viewer and has corresponded with hobbyists in this country. He has received

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Pretty girl is Ann Curcer, television personality from Helsinki, Finland. Photo was sent to New Yorker by a DX'er behind Iron Curtain. Here's an elaborate test pattern from Estonia, U.S.-S.R. Overseas TV varies from country to country in lines per inch, frequency. This strictly American test pattern traveled 1060 miles to Dunkirk, N. Y., where Bob Seybold, AiPA president, photographed it.









Tape Recorder On Vacation

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your opportunity for collecting interesting sounds and conversations. Portables may be rented from some camera stores. If you use an inverter, you had better be prepared with a long, heavy-duty extension cord since many good opportunities will occur outside your car. Don't try to extend the microphone cable if you are using a crystal, ceramic, or other high-impedance mike. Cables longer than the 6'-12' lengths that come with such microphones may cause a sharp drop in the high-frequency response of your recording.

Whether this limit on microphone "stretch" will seriously limit your use of a recorder depends, of course, on the things you want to tape.

One solution is to get a low-impedance dynamic or ribbon microphone on which you can use cable extensions of practically any length. With such a microphone, however, you'll have to invest an extra \$10 or \$15 on a cable transformer to match the mike's output to the high-impedance input that is standard on most tape recorders.

With a truly portable battery-operated recorder you virtually have unlimited freedom to make tape recordings anywhere, anytime. You will want to carry it with you when you take photos or movies to make immediate recordings of background information to go with the pictures—as well as notes on lighting and exposure.

Sound doesn't have the same lively bounce out-of-doors as it does surrounded by four walls. Extraneous background noises and wind may also pose a problem. But you can keep these down to a minimum by speaking clearly and distinctly when you record in the open, and asking others to do the same. Hold the mike a little closer to your lips than you would ordinarily, though not so close as to record breathing sounds. The combination of a closer mike and a slightly louder voice allows you to keep the recording volume control turned down so that the mike won't

pick up too many undesirable background sounds.

Even a slight breeze may cause the diaphragm of the microphone to move and crackle. But you can minimize this by wrapping a handkerchief over the mike. A thin piece of nylon or silk may be better than cotton or linen, though the difference probably won't be enough to worry about.

Tapes and recorders are pretty rugged, but it's a good idea to shield them from heat as much as possible. Reasonable care is enough. Don't leave tapes on the rear window shelf of your auto, and don't allow them to remain exposed to direct sunlight for extended periods. Reels should be stored flat, preferably in their original boxes or an 8 mm movie reel tin can.

Rewind each tape after you get home to relieve tension that may have built up in the spool from extreme temperature variations.

Rewinding is no problem, however, because you'll undoubtedly play your tapes promptly—and often—after you get home. Vacation snapshots in sound are fascinating while you make them, and they'll keep the fun alive through the winter ahead.

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TV programs from Sweden, Finland, Italy and other European countries.

Each year the AIPA holds a convention to exchange ideas on improving antennas, TV sets and tuning techniques. Should you be further interested in this fascinating hobby, you can get a free bulletin on TV DX by writing to Art Collins, 68 Amber Street, Buffalo, N. Y.

The Top Ten of the AIPA

Name	Home Town	Stations Rec'd
B. Brown, Jr.	Austin, Tex	334
	Dunkirk, N. Y.	
A. Collins	Buffalo, N. Y	270
B. Rauch	Peoria, Ill.	266
C. Rareshide	New Orleans, L	a263
E. Bourgeois	Narco, La.	253
K. Schafer	Kenmore, N. Y.	
J. D. Burch	Little Rock, Ark	232
C. Lupton	Shelbyville, Ill.	226
	Speedway, Ind.	