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# WAVELENGTH

Official bulletin of  
Scarborough Amateur Radio Club, Inc.  
[www.ve3we.org](http://www.ve3we.org)

PARTICIPATE – LEARN – ENJOY

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Sunday

Tuesday

Thursday

Saturday

## SARC Nets

28.730 MHz  
CW 10:00 AM  
SSB 10:30 AM  
147.060 MHz (VE3RPT)  
7:30 PM  
Alternate frequency  
146.520 MHz simplex  
28.730 MHz  
SSB 7:00 PM  
14.125 MHz  
SSB 10:00 AM (VE1EBK)

Everyone is invited to check in on CW before the nets start.

These are open nets. All licensed hams are welcome. Come and join us.

We also want to emphasize that 28.730 MHz is our calling frequency. Please monitor and/or call your friends. 7:00 PM is a good time.

## Hamfests & Flea Markets

Saturday, February 2 - Big Event 35 (Niagara Peninsula ARC) – Merritton Community Centre, 7 Park Ave, St Catharines

Saturday, February 23 – Burlington Spring Flea Market – Royal Canadian Legion, 828 Legion Rd, Burlington

Saturday, March 23 – HAM-EX (Peel & Mississauga ARC) – Brampton Fairgrounds, 12942 Heart Lake Rd, Brampton

# Long-Delayed Echoes

Hello All SARC Members and Alumni:

Well Christmas has come and gone for another year and, as I write this, we have had our first good snowfall of the season. Hope your Christmas was enjoyable and that Santa was good to you.

This month's subject is some old, 35 mm slides taken in 1955 at the annual "Northern Ontario Hamfest" that was probably held at North Bay, Ontario in that year. This "Hamfest" continues to the present day.

The first photo is of a Ford 2 door and please note the mobile whip! Clearly, this was long before repeater operation and from my memory, that antenna was probably used on 75 meters. Yes, mobile on HF was common in that era and I can recall the name of "Master Mobile" the company that supplied the loading coil(s) located half-way up the whip antenna. They also supplied coils for each HF band. I think that they also supplied the antenna itself and all the attachment parts and hardware. Bandwidth was around 25 Khz only on '75 for transmit, and many mobile transmitters were crystal controlled. Transmitters and receivers used all tubes. Each tube filament required around .5 amps plus the High Voltage. Heavy duty alternators were made by Leece-Neville to keep batteries charged and were installed by some mobile hams. Most mobiles used AM and later SSB and some CW !!! Talk about distracted driving, but what fun.

The second photo shows two hams with high levels of concentration and appear to be operating CW on HF.

The third photo is of a "Ham Shack", probably in North Bay. I feel certain that the boys in North Bay would have an open house to show their visitors around their radio room. The receiver is a Hallicrafters, possibly a "Super Defiant" model. Note the homebrew transmitter in the relay rack to the operator's right and the pennants on the wall from previous Northern Ontario Hamfests. Kind of looks familiar doesn't it. Anyone recognize the operator?

There are other photographs on the [Long-Delayed Echoes website](#) of this hamfest. Enjoy browsing through them.

Thanks go to Bob Chrysler, VE3IEL, now of Peterborough, who loaned me the slide scanner so that I can share these images with you.

My best wishes go out to everyone for a Happy, Healthy and Prosperous New Year.

73 de Gord, VE3CNA





# How Do You Choose an Antenna Analyzer?

By Dan Romanchik, KB6NU

A reader recently e-mailed me:

"In the past you told me you started with the Autek RF-1, and later moved to the Palstar ZM-30. I am finally getting around to thinking about purchasing an antenna analyzer, but I am stumped by the choices. In order of increasing purchase price this is what I've turned up:

- Autek RF-1 - \$139.95
- Autek RF-5 - \$229.95
- Rig Expert AA-54 – \$340.00
- Palstar ZM-30 \$399.99
- W4RT Electronics MiniVNA \$399.99
- Rig Expert AA-230PRO \$690.00
- Timewave Technology TZ-900S \$899.99

"How does one decide? Where does one go to find out the differences? Other than asking a fellow ham, how does one find out which one is the best antenna analyzer without paying an arm and a leg (unless the feature(s) so purchased are deemed worth the cost)?

"Thanks! 73"

When I replied, I noted that he had actually missed several other good choices:

- Autek VA1 – \$199.
- MFJ 259B - \$240.
- YouKits FG-01 – \$250.
- Comet CAA500 – \$450.

The Autek VA1 is actually the antenna analyzer that I first purchased. The MFJ 259B is arguably the most popular antenna analyzer on the market. MFJ has several other models with different feature sets. The YouKits FG-01 is a very cute, little analyzer with a small graphical display. It is made in China and sold in the U.S. by TenTec.

So, how do you choose just one from this list? Well, I think the first thing that you have to ask yourself is how you're going to use the analyzer. If all you're going to do is to check the SWR of your HF dipoles, then buy the Autek RF-1. It's the least expensive unit, is reasonably accurate, and is small and lightweight, making it easy to use outside where your antennas are located.

If you want to do some more serious frequency analysis, then you should be looking at the W4RT miniVNA or, if you have more cash, the Timewave TZ-900s. These instruments can help you do a lot

more in-depth analysis of your antenna system. The software for the miniVNA, for example, will easily plot the SWR of a multi-band vertical antenna from 3 – 33 MHz.

Some antenna analyzers do more than just SWR. For example, what sold me first on the Autek VA1 and then on the Palstar was that they also measured reactance. So, you can use the antenna analyzer as an LC meter as well. Palstar also says that you can use the ZM-3 as a low-level signal source. While I have used my Palstar to measure inductance and capacitance, I have yet to use it as a signal source.

Next, you need to consider what bands you'll be using it on. Many antenna analyzers only cover the HF bands. That's a bummer if you like operating 6m, or like to experiment with VHF/UHF antennas. A friend of mine bought the Palstar antenna analyzer after talking to the company at Dayton. At the time, they said that they were planning to come out with a model that covered 6m, as well as the HF bands.

Unfortunately, they never did come out with a 6m version, and he was sorely disappointed. He ended up buying a miniVNA instead. The miniVNA can be used up to 170 MHz right out of the box, and up to 1.5 GHz with an optional extender.

Asking your fellow hams about the antenna analyzers they have is actually a good way to figure out what's best for you. If you ask nicely, they might even let you borrow their analyzers or come over and show you how it works on your antennas.

Reading the reviews on eHam is also a good way to gather information before making a purchase like this. You certainly have to take the reviews there with a grain of salt, but if several reviewers mention a particularly good or particularly bad feature of a product, then it's certainly something worth taking a hard look at.

If you're new to the hobby, starting out small and working your way up might be a good strategy. You could buy one of the less expensive models and get used to how they work, then sell it and make the leap to a more sophisticated unit. The way things are going, you should be able to sell your first antenna analyzer for at least 80% of what you paid for it.

The March 2012 QST contains an in-depth review of four analyzers (available online to ARRL members), including the Comet CAA-500, MFJ-266, RigExpert AA-54, and the Youkits FG-01. Each analyzer reviewed had various pluses and minuses. Even if the unit you are considering was not reviewed, the article provides a guide to the kinds of questions you should be asking as you go through the selection process.

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When he's not analyzing antennas, Dan, KB6NU blogs about amateur radio at KB6NU.Com, writes and publishes the "No-Nonsense" series of amateur radio license study guides, and just has fun with amateur radio. You can reach him by e-mail at [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com), @kb6nu on Twitter, or on 40m CW many evenings.