

Northwest Indiana DX CLUB

Volume 9, Issue 2

February 2021

President's Corner

Winter has arrived.

I hope no one lost any antennas in the ice storm we had this past week.

And I hope now in the big snow storm no one had any trouble. This is a "widow-maker" snow.

Work some DX!

Please be safe and stay well.

73

John W3ML

Good DXing!

"Working the World from the Black Hole"

NWI DX Club Website

<http://nwidxclub.weebly.com/>



Don't forget Steve is our new QSL Card Checker.

DXCC Card Checking is available by appointment and may be available at meetings. E-Mail kd9hl@arrl.net for an appointment or to make other arrangements.

INSIDE THIS ISSUE

- 1 President Speaks
- 2- Member News/DX News

Reminder, the NWIDX Club has a club call W9NWI.

The call is available to members for use during contests, special events, Field Day, etc. To schedule dates for its use, contact the trustee, Steve Mollman – KD9HL. kd9hl@arri.net

QSL cards are available.

Notice:

Articles in the Northwest Indiana DX Club Newsletter (except for those separately copyrighted) may be reprinted, provided proper credit is given.

W9ORW

W9ORW operating OE1SY Wein, Austria, back in 1960 while delivering a box of old QST and CQ magazines under a program called Magazines for Peace sponsored by CQ Magazine.

Colonel Charles Showers wrote for CQ, and also paid a visit to my radio van while I was serving with the 541 Signal Support Co. HQ in Pirmasens, Germany.

I recently checked my old German 1961 call book, and found DJ6RD, now N9RD, and I, were in the same call-book.

I later worked with Jürgen when he first arrived in America at a little-known Electronics Co. in Chesterton.

Jürgen ended up at Inland Steel and I retired from USS Gary Works.

For radio people, it's really a small world.



W9ORW , January 2021



Tom, W8FIB, who moved down south this past year, sent in some links.

LED RFI noise detection and fix

<https://www.youtube.com/watch?v=tvjRwZTNLHs>

A really good explanation of “why 50 ohms?” There are some good comments to read too.

<https://www.youtube.com/watch?v=I-OnQZJv35I&feature=youtu.be>

Amateur Radio vs. Cheap Chinese LED Lights

<https://www.youtube.com/watch?v=SI6w0hk685w>

Everything You Need to Know About USB and Serial Interfaces

https://www.kkn.net/~n6tv/N6TV_Dayton_2020_Everything_USB.pdf

Over-the-Horizon Radars, Pirates and Fishing Buoys

Illegal interference continues to clutter amateur bands.

The International Amateur Radio Union Region 1 Monitoring Service ([IARUMS](#)) reports that OTH-Rs have increasingly been finding spectrum on 17 and 15 meters. "Above all, the Russian OTH-R 'Contayner,' as well as OTH-Rs from China affect amateur radio more and more, sometimes quite massively," said IARUMS [newsletter](#) Editor Peter Jost, HB9CET, said in the December edition, with three or four such signals showing in the same band.

Significantly fewer FSK transmissions as well as the characteristic CIS12 signals from the Commonwealth of Independent States were to be found. "For some time now, a broadcast station is active every day at 1100 - 1258 UTC at 7200 kHz," Jost said, adding that the signal appears to be coming from Taiwan. "The broadcast station 'Voice of Broad Masses' from Eritrea can be heard daily on 7140 kHz (VOBM1) and increasingly also on 7180 kHz (VOBM2)," he added.

Occasionally, better conditions during November 2020 revealed fishing buoy signals and an Iranian OTH-R on 10 meters. The Chinese OTH-R nicknamed "Foghorn" "was and is a daily troublemaker," Jost reported in November. (Adapted from The ARRL Letter for January 21, 2021)



An Introduction to Operating on 160m

Carl Luetzelschwab K9LA k9la@arrl.net

[this is the web version of the article that appeared in the November 2006 and February 2007 issues of CQ]

Operating on 160 meters has always been a challenge. Two of the biggest challenges are the physical size of efficient antennas and noise when receiving. The purpose of this article is to provide appropriate information to address these two challenges, along with general information about other issues necessary to get your feet wet on topband (also known as the Gentleman's Band).

A Short History of 160m

The 160m band has been around for a long time. In the First Edition of the Radio Amateur's Handbook (1926, published by the ARRL), Amateurs had an allocation from 150 meters to 200 meters in wavelength (that's 2 MHz down to 1.5 MHz). Due to AM broadcast stations and other services, the 160m band was eventually narrowed up to 1.8 – 2.0 MHz.

Because of LORAN issues (LORAN is a radio location service), there have been power and frequency restrictions over the years. For example, during my early years in Amateur Radio in northwest Indiana (early 1960s) I could only operate from 1800 to 1825 KHz with a maximum power of 200 W during the day and 50 W during the night. There were similar restrictions in other areas of the country.

Nowadays those of us in the US can operate anywhere from 1.8 to 2.0 MHz at up to 1500 W PEP output. Of course, you should always strive to use the minimum power to make the QSO.

The first order of business for an introduction to 160m is to look at the band plan for 160m – what frequencies should we use for CW, what frequencies should we use for SSB, what frequencies should we use for AM, etc.

160m Band Plan

Unlike our HF bands, the FCC (Federal Communications Commission) does not regulate 160m with respect to band segmentation by mode. Legally any mode can operate anywhere. But obviously this could cause (and has caused) conflicts.

To impart order to this issue, a “Gentleman's Agreement” band plan was developed by an ARRL Ad Hoc committee with input from users of 160m. The recommended band plan is shown in Table 1. You are strongly encouraged to adhere to this plan. A little cooperation among fellow Amateurs can go a long way!

| | |
|---------------|------------------------------------|
| 1.800 - 2.000 | CW |
| 1.800 - 1.810 | Digital Modes |
| 1.810 | CW QRP |
| 1.843-2.000 | SSB, SSTV and other wideband modes |
| 1.910 | SSB QRP |
| 1.995 - 2.000 | Experimental |
| 1.999 - 2.000 | Beacons |

Table 1 – 160m Band Plan

With the band plan outlined, a couple comments on where ‘common’ activities take place is in order. Rag chewing on 160m starts around 1.843 MHz and extends all the way up to 2.0 MHz. There's a lot of spectrum above 1.9 MHz that is relatively lightly used, so you might want to consider moving up there for your rag chewing activities. AM aficionados hang out around 1.885 MHz, and it's an enjoyable side hobby to fix up old radios and put them on the air (I can vouch for this through my efforts with my Viking Ranger II and Drake 2B with a homebrew converter). Finally, most DXing on 160m outside of contests is done on CW in the lower 35 KHz or so of the band. If you want to work DX on 160m, knowing code is almost a must due to CW's inherent weak signal advantage over SSB and the CW bandwidth letting in less noise (more on this latter aspect in a bit).

Since LSB (lower side band) is normally used on 160m, note that 1.843 MHz refers to the carrier frequency for LSB. The intent here is to keep the side bands at 1.840 MHz and above (since the bandwidth of an SSB signal is about 3 KHz). And there is no segmentation by license class – General, Advanced, and Extra class licenses have equal access to the entire band.

When Is 160m Good?

Now that we know where we should operate in the 160m band, the next issue to address is when should we operate – that is, when is 160m good?

If your interest is only for local QSOs (rag chewing, nets, etc), then 160m is good anytime – day or night, summer or winter. And where we are in a solar cycle won't matter, either.

If your interest in 160m is DXing, then there are times, seasons, and phases of a sunspot cycle when 160m is best. Due to excessive daytime D region absorption, 160m is useful for DXing when the path is in darkness or very near darkness. Because of geomagnetic field activity considerations, 160m is best during the winter months and from solar minimum to a couple years thereafter. The latter portion of the previous sentence says now is the time to get on 160m if you're pursuing DXCC or WAZ. We are at solar minimum between Cycles 24 and 25, and the initial rise of Cycle 25 should offer excellent opportunities for the DX minded.

Simple Transmitting Antennas

As stated in the introduction to this article, the first biggest challenge for operating on 160m is the physical size of an efficient transmitting antenna. The length of a half wavelength dipole at 1.85 MHz is approximately 253 feet (each side would be about 127 feet). That's quite a bit of a horizontal span for those on small lots.

An easy way to overcome this horizontal span requirement is to make the dipole into an inverted-vee. For example, the top of a 50 foot tower or 50 foot support could be used as the center point for the inverted-vee. The sloping portion of each side of the inverted-vee could be approximately 70 feet, with the remaining 57 feet running horizontal to the ground and even snaked around a bit to fit the lot. Figure 1 shows this configuration. This would make an excellent antenna for local activity on 160m (but don't be surprised if you work DX with it – the ionosphere can be the great equalizer among different stations).

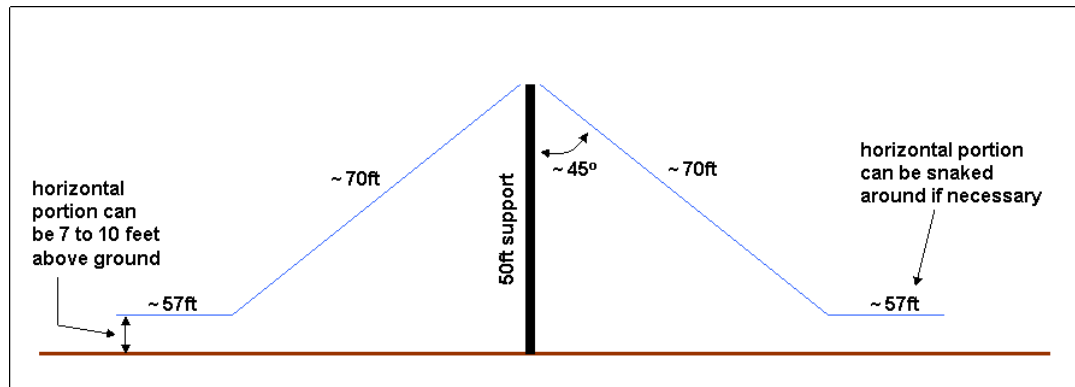


Figure 1 – Inverted-Vee Installation

If your interest is DXing, generally you'll want an antenna that puts more of its energy at the lower elevation angles. Perhaps the simplest antenna to fit this bill is the inverted-L. The total radiator length needed would only be about 127 feet, as this is essentially a vertical antenna operated against ground. A tree could be used to support the vertical portion of the inverted-L, with the remaining length (127 feet minus the vertical portion) sloping down to a convenient support. Figure 2 shows this configuration using a tree for the support. Either buried radials, radials lying on the ground, or elevated radials could be used to provide the ground image for this antenna.

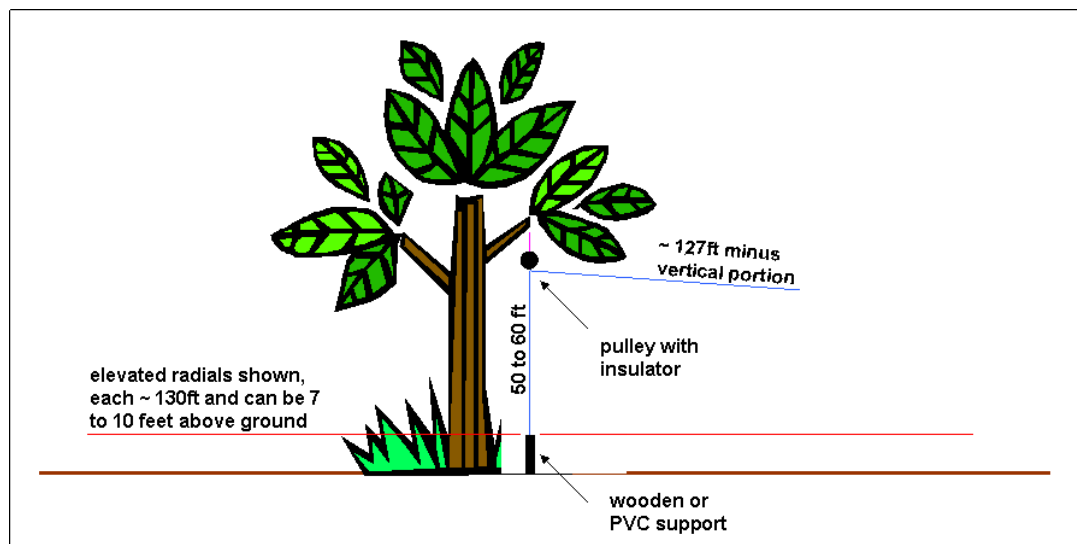


Figure 2 – Inverted-L Installation

Figure 2 is what I have used on 160m, with a pulley in a nice tall oak tree anchoring the vertical portion and four elevated radials at about 7 feet to keep the deer from running into them.

Noise

The second biggest challenge noted in the opening paragraph (mostly affecting those interested in DXing) is noise and its impact on the ability to hear weak signals. There are two sources of noise that make receiving on 160m difficult: man-made noise (machinery, appliances, lights, and so forth) and atmospheric noise (static from lightning discharges propagating into your QTH). Figure 3 shows the magnitude of the noise problem (from data in the International Telecommunications Union document Rec. ITU-R P.372-7).

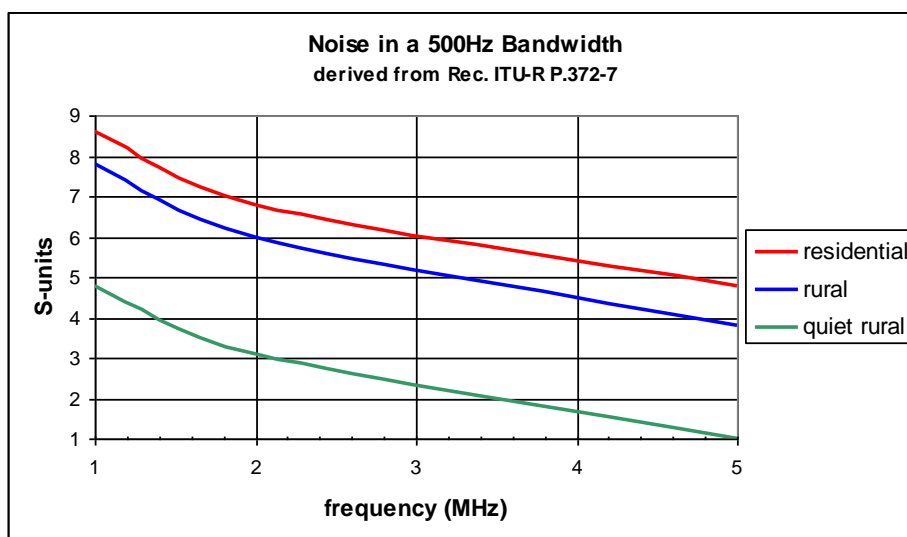


Figure 3 – Expected Noise Levels

The three curves in Figure 3 are the expected noise from a short monopole antenna in a CW bandwidth (500Hz) in terms of S-units for three noise environments: residential, rural, and quiet rural. This plot should be used as a ballpark guideline, as your mileage may vary according to your specific local conditions. I would expect the noise received by the inverted-L in Figure 2 to roughly agree with the short monopole data in Figure 3, with the inverted-vee of Figure 1 maybe a bit better due to some directivity (see the next section). For the data in Figure 3, I assumed S9 was -73 dBm (50 microvolts) and an S-unit was 5 dB (based on my measurements, this is typical of current receivers).

In a residential area, the expected noise on 160m in a CW bandwidth is around S7. Wow! Even moving to a rural area only knocks this down to S6. Heading out into the country puts the noise at S3. That S3 value is the level of noise in a CW bandwidth on my OMNI VI Plus using my inverted-L.

The S3 value doesn't sound like much, but remember that the noise floor of a modern receiver is around -130 dBm. Using a signal generator, the S3 value on my OMNI VI translates to about -103 dBm. Thus I am giving up almost 30 dB of "hear-ability", which is the difference between my external noise level and my receiver's noise floor when using my inverted-L for receive.

Be aware that the data in Figure 3 assumes you don't have a particularly troublesome local man-made noise source that masks everything else (for example, a noisy utility line). If you do, then you have your work cut out to eliminate it. On a personal note, the most interesting noise source I've had to find and resolve was an electric blanket used by our neighbors to keep their cat warm.

Simple Receiving Antennas

When you first start out on 160m, you'll probably use your transmit antenna for receive. As you progress with your 160m activities, you may need to work weaker signals that are at or even below the noise level resulting from using your transmit antenna.

This is where low-noise receiving antennas come into play. Regardless of the category of the low-noise antenna, they all work on the same principle – increase the directivity of the antenna (make front-to-back and front-to-side ratios larger) to reduce the total amount of noise being received from around the compass. This assumes the arriving noise is not a localized source as mentioned in the previous section. And if there is a noise source in the direction you want to receive, you have a real problem.

The improvement in "hear-ability" for a given low-noise receiving antenna will generally follow the narrowness of the pattern – a narrower pattern will let less noise into your receiver and lower your noise level, and thus will thus allow you to hear closer to your receiver's noise floor. From this consideration, we can make a first-order list of how effective some of the common low-noise receiving antennas will be. In order of least effective to most effective, they are:

- Short Beverage (80m long)
- 200 foot BOG (Beverage on Ground)
- Shared Apex Loop
- Elongated terminated loops (EWE, Flag, K9AY, etc)
- Standard Beverage (160m long)
- 4-Square (quarter wavelength spacing)
- Long Beverage (300m long)

Remember that new layers of DX may be heard with noise reductions of as little as 3 dB. So don't rule out the antennas in the first two categories. Even though they are small, they will probably fit on almost any lot. And they might just make the difference for you in making a QSO.

If your only problem is that of a troublesome localized noise source mentioned earlier that defies elimination, consider using a small loop antenna to null out that direction.

Propagation and Predictions

If we look at worldwide electron densities, we'll see that the ionosphere always has enough ionization to refract 160m back to Earth for multi-hop propagation – even during the dead of night at solar minimum. Thus the problem on 160m is not with the MUF (maximum usable frequency) – it's with the amount of absorption and the resulting signal strength. This was the basic premise mentioned previously in the “When Is 160m Good?” section – due to absorption, the best place for 160m RF is in the dark ionosphere.

Now if you've used propagation predictions on our HF bands, you've probably noticed that most of them do not include 160m. There's a very good reason for this – it's because of the impact of the Earth's magnetic field on three basic propagation parameters. With 160m being so close to the electron gyro-frequency, the magnitude of the magnetic field and the direction of propagation with respect to the direction of the magnetic field modify the amount of absorption incurred, the amount of refraction incurred, and the polarization of the wave(s). This can get very complicated very quickly over long paths, and the proper way to address this rigorously is with full-blown ray tracing software.

Over the years there have been several studies by 160m enthusiasts to come up with a simple method to predict whether 160m is going to be good on a given night. These studies have usually been based on solar flux and K or A indices. These efforts have not met with much success, as they do not consider all the variables that appear to be involved with propagation on 160m – especially events that happen in the lower ionosphere to enable ducting mechanisms and reduce absorption. In general a quiet geomagnetic field seems to be a requisite, but it doesn't appear to be the only requisite.

This all comes down to two simple pieces of advice with respect to propagation on 160m:

1. Use the excellent mapping feature in many of our propagation prediction programs to determine the best times for 160m propagation over the desired path with respect to darkness along the path. Pay particular attention to sunrise and sunset times at your QTH and at the other end of the path for possible signal strength enhancements.
2. Get on the band to check it out in real-time. Watching PackerCluster spots also helps to get a real-time assessment.

Worldwide Allocations

If your goal on 160m is to work DX, then it would be helpful to know where all the DX entities can operate on 160m. Search the web for an up-to-date list of these allocations.

Aids for 160m Operating

The side bar accompanying this article lists several sources of information to learn more about 160m – from more effective transmitting antennas (better than those described earlier) to low-noise receiving antennas (like those mentioned earlier) to the intricacies of propagation on 160m to planned DXpeditions to general topics. If you have the desire to go deeper into any of these areas, check out those references.

Summary

As mentioned several times in this article, 160m is also known as the Gentleman's Band. The current users of 160m would like it to stay that way. So regardless of your operating preference (rag chewer, DXer, contester, digital enthusiast, QRPer, or whatever) please strive to uphold the reputation of 160m.

The advice and solutions offered in this article probably won't get you to the Top of the DXCC Honor Roll on 160m. But they will allow you to sample the challenge and adventure of 160m. Where you go from there is up to you.

160m Tips

The following is a list of tips, slanted toward the DX aspect of operation on 160m, to help you enjoy your experience on 160m.

Station issues

- Put out as much wire as possible for your transmit antenna
- Work with the utility company and/or neighbors to fix noise sources
- Further improve your ability to hear by using low-noise receive antennas

Operating issues

- Listen, listen, listen
- Don't call incessantly in a DX pile-up
- Be courteous and uphold the reputation of 160m as the Gentleman's Band

Propagation issues

- Know when the desired path is in or very near darkness
- Pay particular attention to sunrise and sunset times
- Don't shy away from elevated K indices – there may be skewed paths
- Check paths to the southwest at your sunrise and southeast at your sunset

Aids for 160m Operating

ON4UN's Low-Band DXing by John Devoldere ON4UN (Fifth Edition, published by the ARRL)

This book is an excellent source of vast technical information for serious 160m aficionados. It covers propagation, transmitting antennas, receiving antennas, receiver performance, transmitter performance, and more. The RDF of various Beverage antenna configurations can be found on page 7-99 of this book.

DXing on the Edge – The Thrill of 160 Meters by Jeff Briggs K1ZM (published by the ARRL)

This is an easy-read book with a chronology of 160m DXing from the 1930s to the present, many operator biographies and station descriptions, descriptions of simple antenna systems, and general operating information. It includes a CD with memorable moments on 160m.

The TopBand reflector

The TopBand reflector, moderated by Tree, N6TR, is an on-line source of 160m information. It includes help information, operating practices, early announcements of 160m DXpeditions, and technical discussions. You can subscribe to it by going to www.contesting.com, and then clicking on Other Lists on the left.

Editor Note: The contesting page dropped the lists on the left side. New link:

<http://lists.contesting.com/mailman/listinfo/topband>

W8JI website

Tom Rauch W8JI maintains a website (www.w8ji.com) dedicated to many low band topics, with many informative technical discussions.

The Low Band Monitor (*no longer in print*)

This was a monthly periodical edited and published by Steve Gecewicz K0CS (under the pen name Lance Johnson) devoted to 160m, 80m, and 40m operating. Several annual operating awards were offered to low band enthusiasts.

Signals wild...signals caged

By Wayne Burdick-N6KR

My son is an avid birdwatcher. As his understudy, I've learned the names of the birds that hang out in our yard and gather at local wetlands.

On a recent walk we saw one of our favorites, an American kestrel, a small raptor that terrorizes lizards and mice in the foothills on both sides of the San Francisco Bay. The bird's coloration is a surprising mix of blue, brown, orange, yellow, and white, adorned with an array of black dots.

Finding a kestrel in the wild is like stumbling upon a rare gem, lying on the ground.

The bird reminded me that when I was a kid, I often hunted for gems of a different sort: DX. I was a novice, and in the early 1970s, novices were limited to working DX of the First Kind. CW.

Like brightly colored birds, each CW signal arriving from a distant land was unique. Several factors were involved. In those days most ops used bugs or straight keys, so each operator had an identifiable fist. Rigs were not as stable as they are now, yielding timbres with a motley mix of buzz, drift, and chirp. Add fading and noise to the mix, and you had no shortage of audible intrigue.



Military J-38



Vibroflex "Bug"

In fact -- trust me on this one -- RST reports haven't always ended with a dependable "9" or "5NN". I once gave out an RST of 332. I'll never forget that poor soul's chaotic whoop, best described as a singular blend of yodel and kazoo.

Over time I became something of a CW pathologist, keenly aware of each station's affliction, including my own. These variations were useful. You could tell who you'd already worked. If you were a regular on the novice bands, you'd even get to know fellow travelers by their frequencies, since many, like me, were "rock-bound" -- slaves to a handful of crystals. VFOs were starting to make an appearance in novice gear...but see "chirp," above.

Now, in 2021, the chirp is gone.

CW signals still have many distinguishing traits, though. These include speed, keying weight, the operator's affectations and favored prosigns, and direction-specific propagation anomalies.

Here's where we stretch the central metaphor to just about max.

If randomly occurring CW signals on our bands are creatures of the wild, then...are FT8 stations the occupants of an urban zoo? Don't get me wrong: It's a pleasant place, with free tram rides, open 24 hours a day. The diversity of species is unprecedented.

But imagine, on a given day, that you've sampled the zoo's exotic offerings, memorized the brochure, bought the t-shirt, and partaken of the sumptuous snack bar. What next?

Take a walk on the wild side.

Yank the cord and jump off the tram at an unmarked stop. Hop the fence. Work your way down the unpaved trail from the upper mesa to the open savannah, then sit on the ten-foot wall and dangle your feet over the edge.

Welcome to the ecosystem of beings who are free to roam. They may be camouflaged, blending into the background. And if you listen carefully, you'll hear a hundred variations on their timeless song...CQ.

Wayne Burdick-N6KR is one of the principals of Elecraft, Inc., the manufacturer of the popular K Line series of transceivers. This article was originally published in the Elecraft Reflector elecraft-request@mailman.qth.net



From David Chasey, N9FN

Here's a great one for the next newsletter.....

I was walking down the street when I was accosted by a particularly dirty and shabby-looking homeless man who asked me for a couple of dollars for dinner.

I took out my wallet, extracted twenty dollars and asked, "If I give you this money, will you buy booze with it instead of dinner?"

"No, I had to stop drinking years ago," the homeless man replied....

"Will you use it to go fishing instead of buying food?" I asked.

"No, I don't waste time fishing," the homeless man said, "I need to spend all my time trying to stay alive."

"Will you spend this on radio equipment?" I asked.

"Are you NUTS!" replied the homeless man. "I haven't owned a rig in 30 years!"

"Well," I said, "I'm not going to give you money. Instead, I'm going to take you home for a dinner cooked by my wife."

The homeless man was astounded. "Won't your wife be furious with you for doing that?"

I replied, "Don't worry about that. It's important for her to see what a man looks like after he has given up drinking, fishing and ham radio."

ARRL DX LISTINGS **FOR FEBRUARY 2021**

By

Jerry Hess, W9KTP

This week's bulletin was made possible with information provided by I0IJ, The Daily DX, the OPDX Bulletin, 425 DX News, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites. Thanks to all.

KINGDOM OF ESWATINI, 3DA0. Hans, 3DA0AQ has been active on 20 meters using CW around 2035z. QSL via EA5GL.

TUNISIA, 3V. Ash, KF5EYY will be QRV as 3V8SF from the Scout Radio Club of Sfax city club station during the CQ World Wide 160 Meter CW contest as a Single Op/Low Power entry. QSL via LX1NO.

AZERBAIJAN, 4K. Special event station 4K1AZI is QRV until February 2 in remembrance of Hazi Ahad oglu Aslanov, a major general of tank division. QSL via DC9RI.

GEORGIA, 4L. Look for 4L2M to be a Single Op entry in the CQ World Wide 160 Meter CW contest. QSL direct to EA7FTR.

ISRAEL, 4X. Special event station 4X0RMN will be QRV from January 30 to February 1 to recognize the Land of Craters programme from Ramon Crater. QSL via 4X6ZM.

BARBADOS, 8P. Charles, 8P6ET will QRV as 8P1W in the CQ World Wide 160 Meter CW contest. QSL via KU9C.

FRANCE, F. Special event station TM1CCA will be QRV from January 30 to March 20 to draw attention to a charity supporting research into pediatric cancers. Activity will be on the HF bands using CW, SSB, RTTY, FT8 and FT4. QSL via LoTW.

ENGLAND, G. Special call sign GB75ISWL is QRV during all of 2021 to celebrate the 75th anniversary of the International Short Wave League. Activity will be on most HF bands and modes. QSL via bureau.

GUERNSEY, GU. Look for GU4YOX to be QRV as a Single Op/High Power entry in the CQ World Wide 160 Meter CW contest. QSL direct to GU4YOX.

ANTARCTICA. Takumi, JG3PLH will be QRV as 8J1RL beginning in February as a member of the 62nd Japanese Antarctic Research Expedition team stationed at Syowa base on East Ongul Island, IOTA AN-015. He is here until January 2022. QSL via bureau.

ARGENTINA, LU. Special event station L21RCA is QRV during 2021 to celebrate the 100th anniversary of the Radio Club Argentino. QSL via bureau.

BULGARIA, LZ. Members of the Bulgarian Radio Club Blagovestnik will be QRV as LZ544SG during February to honor the memory of Orthodox saints. QSL via bureau.

ALAND ISLANDS, OH0. A group of operators will be QRV as OH0W in the CQ World Wide 160 Meter CW contest. They plan to be active a few days after the contest. QSL via operators' instructions.

NETHERLANDS, PA. Special event station PA21BP will be QRV during February to celebrate the Scouts' Thinking Day on the Air. QSL via PA3EFR.

BONAIRE, PJ4. Operator K4BAI will be QRV as PJ4A in the CQ World Wide 160 Meter CW contest. QSL to home call.

POLAND, SP. Special event station HF100LEM is QRV from Krakow during all of 2021 to mark the 100th birthday celebration of the Polish writer Stanislaw Lem. QSL via SP9PKZ.

SOMALIA, T5. Ali, 60100 has been QRV on 40 meters using FT8 around 1340 and 2230z. QSL via QRZ.com.

INDONESIA, YB. A large group of operators will be QRV as 7A1A as a Multi/Single entry in the CQ World Wide 160 Meter CW contest. QSL via EA7FTR direct or LoTW.

IRAQ, YI. Giorgio, IU5HWS is QRV as YI9WS until March while on assignment. Activity is in his spare time on 80 to 15 meters. QSL direct to home call.

ST. HELENA ISLAND, ZD7. Peter, ZD7FT has been QRV on 17 meters using SSB around 1440 to 1505z. Barrie, ZD7MY has been active on 15 meters using FT8 just after 1500z. QSL direct to home calls.

CAYMAN ISLANDS, ZF. Stan, K5GO plans to be QRV as ZF5T in the CQ World Wide 160 Meter CW contest. QSL to home call.

NEW ZEALAND, ZL. Members of the Christchurch Amateur Radio Club will be QRV as ZL100RSC during February to celebrate its 100th anniversary. QSL via bureau.

ANTARCTICA. Oleg, ZS1ANF plans to be QRV as ZS7ANF from Wolf's Fang Camp beginning in February. QSL via RK1PWA.

THIS WEEKEND ON THE RADIO. The **CQ 160-Meter CW Contest**, Winter Field Day, NCCC RTTY Sprint, QRP 80-Meter CW Fox Hunt, NCCC CW Sprint Ladder, Feld Hell Sprint, REF CW Contest, UBA DX SSB Contest and the RTTYOPS Weekend Sprint are all on tap for this weekend. The RSGB 80-meter Club SSB Championship, K1USN Slow Speed CW Test and OK1WC Memorial are scheduled for February 1. The RTTYOPS Weeksprint, Worldwide Sideband Activity Contest and ARS Spartan CW Sprint are scheduled for February 2. The CWops Mini-CWT Test, UKEICC 80-Meter SSB Contest, VHF-UHF FT8 Activity Contest, QRP 40-Meter CW Fox Hunt and Phone Fray are scheduled for February 3.

Please see January 2021 QST, page 75, February 2021 QST, page 73, and the ARRL and WA7BNM contest web sites for details.

ARRL DX CONTEST

By

Jerry Hess, W9KTP

Coming up on February 20-21, 2021 will be the CW portion of the ARRL DX Contest. The Phone portion will be in March. I've participated in the CW part since the early 1980's and found it to be fun and very rewarding. No, you don't have to be a hot-shot operator, I certainly am not. The exchange is simple for US stations, just a signal report and your state, i.e. 599 IN. Logging is a lot simpler with a computer, particularly if it is connected to your transceiver. Up loading logs is a lot easier these days with special sites at ARRL.ORG for that purpose.

Hope to hear you on the air.

73's,

Jerry

Editor Note: Please mark [NORTHWEST INDIANA DX CLUB](#) as your club in your log program. The club will get credit and may score good in the rankings. Thanks.

From Tom W8FIB

One of many reasons you are told to stay 500 feet back when following a plow truck!!!
If the blade digs into the road it will stop on the spot!!



From Dave – K9FN

I have decided to sell my remote antenna tuner. This is NOT an automatic tuner. It currently sits at the base of my vertical controlled by a box sitting on my desk.

The tuner is a Model AT-615U, made by Hamware.de in Germany. I bought mine from Array Solutions in 2016. My total investment is about \$2800, including 125 feet of control cable.

Here is a link to the manual:

<http://www.hamware.de/hardware/tuner615U/short%20form%20manual%20615U-E.pdf>

As an unbalanced tuner, this can be used to feed a long wire, a vertical, inverted L etc. It could be used to feed an open wire fed loop or dipole with a balun at the output of the tuner. The tuner has both a coax output, and a single wire output.

I confirmed more than 85 countries on 160 meters, with just a 30' vertical after putting this tuner into service.

I would prefer to not ship the unit but can do so at additional cost. My guess is that packing and shipping will total \$50 to \$75.

I will gladly answer any questions I can and would be very happy to demonstrate the unit here at my home in West Lafayette.

I am asking \$1200 and, being a ham, will certainly entertain SERIOUS offers.

Thanks, de Dave – K9FN
765-714-7618

You may call, but if I don't recognize your number I may not answer. If interested email first and we can arrange to talk on the phone if appropriate.

Please email me directly: dpbunte@gmail.com

If you have ham items for sale, email me a list along with prices and contact information. I will put it in the next newsletter.

I want to thank those that have been sending in articles for the newsletter. All items are appreciated.



Until Next Time,
73

John
W3ML

<http://nwidxclub.weebly.com/>



DX

