

# The Q-Match

The Newsletter of the Warren Amateur Radio Association  
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## A WORD FROM THE PREZ

### Radio Footprinting

Well I finally have been able to get things back on track to be able to provide Pete Kozup, K8OUA with some information for the Q-Match. However I can not speak in this issue about either the last race the Club supported, or our annual Bill Craiger QSO party, both of which I sadly missed. I am hoping that some other correspondent will fill us in. Instead I am going to speak about a little unknown technique of Radio Intelligence used in World War II. That is what was called “Radio Footprinting”.

The term “Radio Footprinting” was a most fascinating and little known method of identifying a particular transmitter by displaying the signal on a cathode ray tube display. In this sense it is somewhat like we do today with matching a crime, using a persons fingerprints, to an object for positive identification. Once a transmitter’s signal was displayed on a CRT and a picture taken, it would be easily recognizable in the future. The QTH, operator’s fist, call sign, frequency and even the mode of operation may all change, but the transmitter, and its Military organization, or ship it may belong to, would be known for certainty.

The technique was known as early as the 1920’s. In WW II it was used by both the U.S. and British Navies to track and identify ships of the enemy. Surprisingly there has been very little published on this valuable technique. There was no mention (probably on purpose) of this tool at all in the standard bible of British Intelligence of WW II.

The technical details of “Radio Footprinting” are common and know by most ham operators. The details are the unintended transmission of spurious emissions and other unique signal characteristics from the transmitters of those days. The secrecy seems to be around how these emissions were used and how they were detected at the receiving end.

When the transmitters of WW II were keyed they would emit a spurious signal know as a “chirp”. This happened in even the best radios of the day, but posed no problem with communications as the “chirp” was suppressed below the threshold of normal detection. A second unique component of the signal was the “hum” or ripple from the power supply. The last component was the amplitude of the signal which combined with the other two made the transmitted signal susceptible to identifying and cataloging. The image of the received signal was displayed on a CRT and then recorded at high speed using a special camera with high speed film. The other components mentioned were noted and cataloged forming a permanent record of identification.

By the end of WW II the British had cataloged every major Japanese vessel so that there could be identified using this technique, wherever they transmitted from. It’s probably because it was so successful during the war that almost nothing has been published about it. So just think of this bit of information the next time you are tempted to “key” up your HF transmitter without an I.D. Even today “Radio Footprinting” is being used to identify cell phones that are either stolen or are being used for illegal purposes.

Until the next time

73, Bob M., KC8PVB

## REPEATER NEWS

Last month I talked about some of the noise that pops up now and then on our repeater. I have been waiting for weather to break so I can make a trip to check out the mechanical connections. Also need to make a round of tune-ups on the receivers. I have been working lots of over-time so not much has been done in this area either.

The noise problem has increased some. The cold damp environment has taken its toll on the receiver at my house. I have put this receiver in "PL". (Continuous Sub Audible Tone.) PL is a patented Motorola trade name. I plan to leave this receiver site in PL until the "inter-mod" problem is solved. Users will need to make sure they have a one hundred Hertz Sub audible tone turned on if they need to get into the north link. The other two receive sites are still in the open mode. A better location for this site would be nice. (Hertz means cycles per second. It was named Hertz to honor the person defining it.)

None of these problems are serious, popping up every year. They are just part of having a repeater on the air, especially a multi-site open repeater.

Not sure if the error got corrected but, last month I incorrectly said GE calls their sub audible tone Private Line. PL stands for Private Line, GE calls their version Channel Guard. My version of Windows did not open Q-Match last month.

If you have a question about your audio try testing it on the air using our Digital Voice Recorder. To do so key the repeater, identify, enter Touch Tones 4\*\*\* and un-key, in one operation. The next transmission into the repeater will be recorded and played back. So key up, and talk into the microphone as you normally would. When you un-key you will hear the test played back. Of course signal quality will also be tested.

Remember, FCC rules in the definition of Control Operators and License Trustee say, "Shall also be responsible." We feel if we are "also responsible" then we need to know who is using the repeater. So please identify when coming on the repeater, especially when using touch tones. If someone decides he or she knows the rules, and that FCC rules say you don't need to identify until after ten minutes or at the end of a transmission, then don't be surprised if some nervous control operator turns off the repeater. Also remember when using Touch tones more often than not we get preoccupied by the process and our voice is very low. So it might not be heard by a preoccupied control operator. I have had this happen to me. After identifying three times while making a command change I heard someone say they heard no ID. We too are human.

73

Dave kz8t

## BILL CRAIGER, K8UV, MEMORIAL QSO PARTY

From my short time operating in the Bill Craiger Memorial QSO Party last month (short only due to my failure to have my batteries charged sufficiently) and from reports I've heard, it sounds as though the contest was quite successful. This year, though, we're going to try to get some results in to the Awards Chair-men so that we can find out about the results BEFORE the Awards banquet. Richard Bell, KC8TAP and Gail Wells, KC8LRH, are asking that all those who participated get their results in to either of them as soon as possible, but no later than April 15. Richard can be reached by email at [kc8tap@neo.rr.com](mailto:kc8tap@neo.rr.com) or by phone at 330 898-6539 and Gail can be reached by email at [lwells1@neo.rr.com](mailto:lwells1@neo.rr.com) or by phone at 330 393-4795.

## SKYWARN TRAINING SESSION

Almost one hundred participants took part in the annual Skywarn Training exercise held on March 15 at K.S.U. Trumbull Campus. The session was delivered by Gary Garnett of the Cleveland Office of the National Weather Service. As usual, new registrants were presented with their weather spotter numbers and cards.

## CLASSIFIEDS

WANTED: Looking for a place for those old VHS tapes? I'll be glad to take them off your hands. Fred Olver, N9BSO, email [creacher@onecom.com](mailto:creacher@onecom.com).

## HAPPY BIRTHDAY

Here's wishing the best of birthday greetings to the following members who celebrate their birthdays during April.

4/4	Coralyn "Corky" Clisby	Associate
4/11	Nixon O'Neil	KB8YWZ
4/14	Sam Bickel	KC8LMB
4/16	Eileen Gabele	Associate
4/27	Al Johnson	WD8KNJ
4/29	Keith Sawyer	NA8Z

To each of our birthday members we wish a hearty ARL FORTY-SIX. May your day be a great one for you, and only one of many many more.

I remind each of you, if I've left your name off the list or have the date wrong, it hasn't been intentional!! Don't take it personal! Please let me know and I'll be more than happy to add or change it. Email me at [k8oua@yahoo.com](mailto:k8oua@yahoo.com).

## YOUTH REPORT

First let me say that I hope everyone had a great Easter. I am looking forward to our next youth event which will be in June. Kids Day is June 18. I am beginning to make plans with local department stores to see if we could set up a station or stations outside of a public spot like Super-K, or The Eastwood Mall.

All is going well in the Youth world. We have been in touch with the Boy Scouts and there are several that are interested in their license. We will be following up with them very soon. I have finally been scheduled for the classes required by the Boy scouts to become a merit badge counselor. These will take place on April 9<sup>th</sup>. Once this is complete I will only be waiting on the council to complete the background check and authorize me in their database. Sadly, I have no other news to share with you about youth who have excelled in areas either pertaining to or not pertaining to HAM Radio. So, for now,

73,

Roger Dean, KC8VYS

Youth Coordinator

## NET NEWS

The WARA sponsors two nets each week. Both are on Wednesday night. The WARA ARES/RACES net meets on ten meters at 28.375 MHz at 8.00 PM local time, and the W8VTD two meter net meets on the club repeater at 146.97 MHz at 9.00 PM local time. Ken Williams, KC8TML, is usually the NCS of the ten meter net, though he'd like some assistance now and then. Anyone interested in taking the ten meter net either on a regular schedule or just occasionally should contact either Ken or Net Coordinator Fred Olver, N9BSO. The two meter net welcomes a new net control in Ruth Roessler, KD8AFZ. Glad to have you in control Ruth. Here is the two meter net schedule for April and May.

- April 6 Emily KC8RAL
- April 13 Bob KC8PVB
- April 20 Lisa KC8VHB
- April 27 Ruth KD8AFZ
- May 4 Sherman KC8YHJ
- May 11 Andy N8YR
- May 18 Emily KC8RAL
- May 25 Bob KC8PVB

If you haven't checked into one of our nets recently, why not try it out. You might even work some DX on ten meters – stranger things have happened!!

## TEN UNDENIABLE HAM TRUTHS

Thanks to Chuck, N8HKA, for these.

- That antenna is only temporary . . .
- "If my wife ever finds out what this stuff cost, I'm a dead man...."
- The worthless stuff thrown away today shows up on eBay tomorrow.
- If you can't sneak it in through the basement window, bring it in through the front door wrapped in a fur coat.
- You have absolutely no trouble finding your car in a crowded parking lot. (Unless you're at a Hamfest).
- One of your antennas or piece of gear that you seldom ever if at all use develops a problem, now all of a sudden you must get it fixed as if you use it daily.
- The XYL will ALWAYS need help with something DURING a QSO, never before or after the QSO.
- During tornado watches and warnings, we are more concerned about our antennas coming down than we are about our house being blown up.
- Computer Nerds think that Hams are the real weirdo's.
- "Christmas" and or "birthday" come about 15 times per year (or whenever an unbudgeted radio purchase comes up). Technically, I shouldn't be getting any more "presents" for the next 10 years!

## CLASSIFIEDS

FOR SALE – Tubes, tubes, tubes. A wide variety of vacuum tubes. These were part of the collection owned by Don Lovett, K8BXT (SK). Contact Delbert Shafer, WD8KXD at 330 394-6429.

FOR SALE -- One Compaq Presario Model 4550 233 MHz AMD-K6<sup>(tm)</sup> MMX<sup>(tm)</sup> Enhanced Processor, 4.0 GB hard drive, New CD Drive, Approx 40 meg System Memory, Internal Modem, Includes: Keyboard, Mouse, Windows ME Operating System, All Documentation, Speakers, Epson Stylus Color Printer 400, No Monitor or Printer Cable, 100 Meg Zip Drive

\$100.00

One Toshiba V3100 566 Mhz Processor Celeron, 64 Meg Ram, 10 Gig Hard Drive, MS-DOS Operating System -- \$45.00

1978 SHASTA Travel Trailer -- 25 ft. Sleeps 7 - 9. Good Condition. Refrigerator and Stove Work. Bathroom Winterized. "Ham Friendly" with 4 through the wall cable connections. New tires and running lights. No leaks. Electric heater included. \$1200.00 OBO.

Contact Bob Maurer, KC8PVB, Phone 440 548-4312, or email to [rmaurer@sprynet.com](mailto:rmaurer@sprynet.com).

## OHIO SECTION NEWS

SM: Joe Phillips, K8QOE, Fairfield, (to contact me, see QST page 16 or on the Web at [www.iarc.ws](http://www.iarc.ws)); ASM-NE: Bob Winston, W2THU, Cleveland; SEC: John Chapman, WB8INY, Gahanna; ACC: Joanne Solak, KJ3O, Mantua; TC: Tom Holmes, N8ZM, Tipp City; PIC: Scott Yonally, N8SY, Mansfield; OOC: Rick Swain, KK8O, Galion; SGL: Reuben Meeks, W8GUC, Vandalia.

APRIL SECTION NEWS - It is April - month of WARN, weather spotting training and, of course, tornados. Support your WARN group.

OHIO SECTION CONVENTIONS - In May, the ARRL National Convention will be part of Dayton Hamvention - May 20-22 - which completes the two major conventions in Ohio for 2005. At Toledo, the Great Lakes Division Convention (Kentucky-Michigan-Ohio) honored several amateurs; most notable is the George Wilson III W4OYI Life Time Achievement Award to Ron Moorfield, W8ILC, of Huber Heights. The District 3 District Emergency Coordinator (DEC) and long time DXer; Ron was a

super choice for this honor named for the former ARRL president and division director. Ron's ham radio passion is CW. Another distinguished Ohio winner was Hank Greeb, N8XX, of Cincinnati, who received the special Division Director's Award of Merit for his work on amateur radio antenna tower protection.

OHIO SECTION CLUB NEWS - (1) New ACC Joanne Solak, KJ3O, has by letter contacted all Ohio clubs. At least those in the ARRL Database. If her letter did not arrive by now, it is possible the database has an outdated contact person or outdated address. Check for your club. If your club did not get this letter, contact her ([kj3o@arrl.net](mailto:kj3o@arrl.net)) or SM Joe Phillips ([k8qoe@arrl.org](mailto:k8qoe@arrl.org)).

OHIO SECTION REMEMBERS - Peter W. Drake, 61, former Dayton resident, who for ten years was president and CEO of the R. L. Drake Co. in Miamisburg. He died in March. Not a ham radio operator, Mr. Drake nonetheless oversaw the development of many fine ham radio products during his tenure at that popular company.

OHIO SECTION SUGGESTS - Many local clubs and ARES groups are offering Dayton Hamvention specials for the May 20-22 event. These include bus trips and possible lodging. Check these out. Great way to attend the big event which is also the ARRL National Convention this year.

OHIO SECTION SUGGESTS - checking the ARRL Web Site <[www.arrl.org](http://www.arrl.org)> for details on ARRL EXPO at the National Convention at Hamvention in 2005. Many interesting features which make this the best convention yet.

OHIO SECTION NET OPERATING NEWS - The Queen City Emergency Net (QCEN), who run communications for Cincinnati's major marathon event - The Flying Pigs Marathon - will be running a special event station on race day, Saturday, April 30th. Frequencies: CW: 14.040, 7.040 SSB 14.265, 7.235. QSL and #10 SASE for certificate to: W8VND C/O K8DV/QCEN, 2934 Rontina Dr. Goshen, Oh 45122. More info: Contact, [k8dv@fuse.net](mailto:k8dv@fuse.net).

OHIO SECTION SUGGESTS across Ohio clubs invite the local power company to do a meeting program. Power utilities are all set up with speaker's bureau. Tell your power company to come prepared to discuss BPL and the local power company. Should be an interesting time.

OHIO SECTION CONGRATS (a) TO Ken Bird, W8SMK, of Delaware, who has managed the database of the Ohio Area Repeater Council "since dirt was invented." Spectrum management is one of the least popular areas of Ham Radio leadership. Ken is the very definition of dedication...(B) TO Skip Howell, KC8HIN, of Columbus, for his three years as events manager for the Central Ohio Amateur Radio Emergency Service (COARES).

OHIO SECTION APRIL HAMFESTS - (3) Lake County ARA, at Madison; Contact: Rocky, KB8WFD, phone: 440-209-8953 or E-mail: [kb8wfd@adelphia.net](mailto:kb8wfd@adelphia.net) (9) Jackson County ARC, At Coalton - Rhodes Community Center, Ohio RT. 93 South. Contact F. Edgar Dempsey, KD8XL, phone: 740-286-3239 or E-mail: [kd8xl@bright.net](mailto:kd8xl@bright.net) (17) Cuyahoga Falls ARC at Cuyahoga Falls. Contact Ted, W8TTS, Phone: 330-688-2013 or E-mail: [w8tts@w8tts.com](mailto:w8tts@w8tts.com) (24) Athens County ARA at Athens. Contact: Drew McDaniel, W8MHV, phone: 740-592-2106 or fax: 740-593-9184 or E-mail: [dmcdaniel1@ohiou.edu](mailto:dmcdaniel1@ohiou.edu)

De Joe Phillips, K8QOE, Ohio Section Manager

Now for the February, 2005 traffic reports.

#### OHIO SECTION NETS:

	QNI	QTC	QTR	SESSIONS	FREQ	NM
BN (E)					3.577	WA8ZGL
BN (L)	154	38	229	28	3.577	NY8V
OSN	192	33	648	28	3.708	WD8Q
OSSBN	1952	565	2832	84	3.9725	N8IO

## WEAVER'S WORDS

From the desk of Jim Weaver, K8JE, Great Lakes Division Director.

### FCC ACTION

We often complain about the apparent slowness of enforcement action by the FCC. These complaints no doubt result from the vast majority of members not being aware of the cumbersome legal hurdles our society has demanded to protect the innocent, and the limited funding for FCC action and staffing. Individually, these issues cause the wheels of regulatory enforcement to turn slowly.

Nonetheless, the wheels of the vehicle driven by Riley Hollingsworth continue to move. During recent months, he and his people have issued various forms of citations to a number of power companies that have been interfering with Amateur Radio reception, various industrial operations whose mistuned equipment has been radiating excessively on our bands, unlicensed operators who have been using 2M HTs to coordinate their hunting expeditions, manufacturers whose equipment is made to generate more power on ham bands than Part 15 allows, and, yes a variety of licensed amateurs who seem to take relish in inappropriate and illegal operations.

Many of the actions of the FCC have been assisted the ARRL OO Corps. This Corps has often done the initial spade work to identify who, when, where and what. Because this effort most generally is conducted without fanfare, OOs and the FCC often are derided as "do nothings." This is far from the truth, though. These people, whether OOs or FCC staffers, go about their business as unsung heroes.

Remember, if there is a problem with unlicensed operators, illegally-irradiating power lines or equipment, or illegally-operating amateurs in your area, work through the OO Corps and get the issue solved.

You don't have any OOs in your vicinity? Contact your Section OO Coordinator or Section Manager and offer to become an OO. Become part of the resolution. Remember that "It is better to light one little candle than to curse the darkness."

### REFLECTING

I don't mean the type of reflecting we count on for bouncing signals in Earth-Moon-Earth communication or even the Earth-Ionosphere-Earth-Ionosphere, etc. The reflecting to which I refer is on the past. Even at @\$ years young, I don't dwell much on the past, except to try to learn from it. There is too much to do now and in the future. On the other hand it is rather useful to think of where I've been, where I am and where I want to go.

With the above background laid, I will apply reflection to Amateur Radio. On a personal plane, my reflection reminded me I had absolutely no aspiration to become even a little fish in the pool of a small ham club. My objectives changed, though, and I moved up the positions to hold a number of leadership positions in clubs and, surprise of all surprises, in ARRL. I even told one of my friends (an SK now) I had absolutely no aspiration to run for any form of office in the League. This was 100% true at the time, but my interests and objectives changed.

At one time, I told anyone who would listen that DXing may be a nice thing to do, but it offered no particular value to the community. The real game, I said again and again, was "emergency communication." I spent 20 years working as a leader in ARES/ARPS and Civil Defense (now the EMA). But, now, I am a DXer. I still say Emergency Communications is THE most important phase of Amateur Radio, but I've learned it isn't the only thing. So, after redirecting my Amateur Radio career, I hold 5 Band DXCC and am on the list of hams who have earned a DX Challenge plaque. Things change. We do not stay the same year after year.

About DX offering no particular value to the community: The recent VU4 DXpedition has caused me to eat my words about the value of DXing to the community. This DXpedition party was the first to report the devastating tsunami in the Far East. This group as well as other DXers in and out of the

stricken area stayed on the air as the only contacts between victimized areas and relief forces for several days after the incident. Thank goodness for DXers!

OK, so what is the point of all this waste of bytes? It is simple. One major fact of life is that nearly each of us goes through changes in interests over the years. As a result, we individuals do not dare to make fun of the interests of anyone else. It just could be that we may see our preferences redirected sometime in the future to the very activity that we deride today. Exercise -- even enjoy -- legitimate differences.

Fine tuning this, don't go around bashing others because they have no desire to communicate beyond the range of VHF and UHF repeaters. They are hams just as much as DXers or public service-oriented folks.

Similarly, don't put Techs down because you have a higher license class; put no code licensees down because you passed 13 or 20 wpm. They are just as much radio amateurs as those of us who became Extras under the 20 wpm requirement. Laws and regulations change. People change. Situations change.

Rather than dividing the ham ranks into no code vs. coded licensees, or Old Timers vs. newbies, or traffic handlers vs. DXers, ad nauseum, let's pull together in a never-before-seen manner for the good of AmateurRadio.

OK. I'm off my Ivory Soap box.

2005 MICHIGAN QSO PARTY -- From Mark Hinkelman, NU8Z -- Michigan QSO Party, sponsored by the Mad River Radio Club, and will be held from 1600Z April 16th until 0400Z April 17th. (12 hours). See the MiQP website for more information at <http://www.miqp.org>.

REGULATION BY BANDWIDTH -- This concept is still alive and well. The Board of Directors reviewed its status during the January Board meeting and referred it back to the Board's Executive Committee for further work and to be brought back to our July meeting. In the meantime, I've been hearing all sorts of unfounded rumors about this still-developing proposal, such as: "You are trying to do away with (you can fill in this blank with AM, RTTY, DIGITAL, ATV, CW, SSB, etc.). I hate to go around bursting people's bubbles, but none of this is true. The Board is working diligently to enable our members to have more freedom to experiment without detracting from current operating privileges. To do this requires much thought and considerable time.

THE ARRL AMATEUR RADIO SPECTRUM PROTECTION ACT has been introduced to the US House for the current term. This means we will soon want to ask each of our Representatives to cosponsor and vote for the act. I've received several volunteers who are willing to meet with their Congressmen or their aides "back home." We still need a quite a number of additional volunteers. If you have not yet notified me of your willingness to help, please contact me ASAP with your name, call, address, telephone number, E-mail address, Congressional District and the name of your Congressman. You will not be requested to devote any great amount of time and effort and we will provide you with instructions on making contacts.

ARRL NATIONAL CONVENTION -- ARRL EXPO -- is being held at the Dayton Hamvention(R). This year, the addition of the ARRL National alongside the Hamvention is a double-must! There will be special activities and presentations throughout the extended weekend. Check out <http://www.arrl.org/announce/nc/2005/> frequently as details are presented. This site also has a link to the Hamvention. ARRL Expo will have a large, special Expo area inside HARA Arena.

Tnx for your support of ARRL, your SM and staff, and of Dick and me.

73, Jim, K8JE,

Director, ARRL Great Lakes Division

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## BRIEF NOTES

The club will begin holding fundraising yard sales at the home of President Bob Maurer, KC8PVB, on Rt. 422 in Parkman. For more information contact Bob at [rmaurer@sprynet.com](mailto:rmaurer@sprynet.com) or 440 548-4312, or Sue Wagner at [sweetannie62@onecom.com](mailto:sweetannie62@onecom.com) or 330 898-6626.

Hamfest Chairman Richard Bell, KC8TAP, would like it known that no club member will be kept out of the hamfest because he or she can not afford the entry fee. The club tradition is that members pay for admission the same as anyone else, whether they work the hamfest or not. Richard wants all to know, however, that if a member can not afford to pay he or she should tell ticket sellers that they wish to enter free and they will be allowed in free of charge.

Richard would also like to publicly thank those members who showed up to provide communications for two area fundraising races held in March. According to Richard the turnout was great and a good job done by all.

## APRIL CALENDAR

4/1 April Fools Day

4/2 Breakfast Wayside Inn 9  
AM

4/4 Brunch Farmington Sr  
Ctr 11 AM

4/5 WARA mtg 7.30 PM  
Grace Baptist Church

4/6 10 & 2 mtr nets 8 & 9 PM

4/11 Brunch Farmington Sr  
Ctr 11 AM

4/13 10 & 2 mt nets 8 & 9PM

4/16 Breakfast Wayside Inn  
9AM

4/18 Brunch FarmingtonSr  
Ctr

4/19 WARA mtg 7.30PM  
Grace Baptist Church

4/20 10 & 2 mtr nets 8 & 9PM

4/25 Brunch Farmington Sr  
Ctr 11 AM

4/27 10 & 2 mtr nets 8 & 9PM  
4/29 No students for K8OJA

4/30 Lunch Covered Bridge  
Rest Newton Falls 12 N