



www.marc-radio.org

PO BOX 2154
SOUTHEASTERN, PA
19399-2154

REMARCS

April 2007

NEW MARC BOARD MEMBERS!

We are pleased to announce that two additional hams were recently nominated to the MARC Board and have accepted the positions of Secretary and Membership Services Chairman.

They are: **Ed Oswald KB3JGU** - Secretary and, **James Biddle W3DCL** - Membership Services Chairman.

The MARC Board is pleased to have Ed and Jim involved with running the club and we look forward to their assistance and ideas. Thank You!

Open Positions:

There are still 3 other open positions on the MARC Board.

- President
- Vice President
- Public Relations Chairman

If you have an interest in serving, please don't hesitate to contact: **Lou Ruh WX3I** (610 630-9146) or **Foster Schucker K3FXS** (302 363-7347). We are looking for a commitment on filling these positions until at least September 2007. Please consider it.

PTT

(You know, the manual version – VOX will return)

Congratulations to **Yak N3MQM** and **Ed KB3JGU** on upgrading to General class tickets. Ask **Mike KF3CD** about the fun he's having working mobile CW and especially HF pedestrian radio with 10 watts. He now has 28 countries worked... on foot!

Dennis K3DS recently published a book on Digital Communications Systems Using "System Vue" and his book was reviewed in the ARRL March/April issue of QEX magazine.

Remote MARC members **Gene N3HG** and **Judy N3MBW** say hello to all from Maryland. Thanks to **Sam WA3LGL** who recently came on board as a Net Control Op. Thanks to **Ed KB3JGU** for assisting with recording sales at the recent MARC Junque Auction. **Josy WQ3E** helped to distribute our hamfest flyers earlier at the Timonium and York Hamfests. Want to talk to **Carter N3AO**? Well then, get that General ticket and you can say hello to him on the early morning Rooster Net (LSB 3.990 MHz)! Cock-a-Doodle Dooo!!

To: **Dori Lawson W3IBH** and **Joe Ames W3JY**... Thanks to both of you for your previous service on the MARC board.

KUDOS TO K4BF!

A tip of the hat and many thanks to **Bart Feroe K4BF** for once again being our auctioneer and working the tables at the recent MARC Junque Auction!

His rapier-like wit, humor and quick actions helped to keep the evening fun, enjoyable and memorable for all that attended - never a dull moment!

Most of the equipment was successfully auctioned and MARC received \$146.50 as a share of the proceeds. Well done Bart!

72

QRP Operating by Bob Woish, WR3K

"Life's too short for QRP." That's the word on the street amongst serious DX'ers. After all, how many contacts can you make using only five watts? One watt? Milliwatts?

The answer is *a lot more than you think*. In fact, using low power can be a distinct advantage in a pileup (more on this later). I have been working QRP since 1975 and it's been the lion's share of my HF operating. Before you tune me out in favor of perusing the kilo-linear amps on Ebay or at the local candy store, let me do a little math for you.

Let's take the example of a typical 100-watt HF station vs. the typical 5-watt station. That's 20 times the power, right? OK, so far so good. An S-unit is 6 dB, and +6 dB is four times the power. For those of you who are not familiar with the log scale (on which dB is based), +3 dB is twice the power, while -3 dB is half the power. So $(-3) + (-3) = (-6)$, which is half and half again, or $\frac{1}{4}$ the power. Therefore, a station emitting 25 watts is exactly 6 dB, or one S-Unit below the 100-watt station, all other things being equal. A quarter of 25 is 6.25, so a five-watt station is a smidge (undetectable really) more than two S-Units below the 100-watt station. The end result is that if the big guy (or gal) is S-9 at the receiving station, the QRP operator is going to get a 5-7 report! So let's consider the question once again: how many contacts can a QRP operator make? LOTS!

But golly gee whiz willikers Batman, why would I want to run that little power anyway? I'm SO glad you asked! Let me enumerate...

72 is continued on page 3...

MARC INFO

[HTTP://WWW.MARC-RADIO.ORG](http://www.marc-radio.org)

MEMBERSHIP MEETINGS:

3rd Tuesdays, 7:30 PM
Tredyffrin Twp. Bldg.
Berwyn, PA – Guests Welcome
Smoke Free, Handicapped-accessible

BOARD MEETINGS:

2nd Tuesdays of even months, 7:30 PM (Willistown Room)
Paoli Hospital, Members may attend as observers.

WB3JOE REPEATERS (CTCSS or PL = 131.8 hz):

145.130 - / 147.060 + / 224.420 - / 445.675 -
Dennis Silage K3DS is trustee for WB3JOE.
The 2 meter repeaters are linked.

WEBMASTER:

Foster Schucker K3FXS k3fxs@arrl.net 302-363-7347

MARC BOARD:

PRESIDENT / VICE PRESIDENT / PUBLIC RELATIONS
(Above positions are open)

TREASURER

Dieter Hauer K3DK dhauer@gis.net 610-489-1920
Trustee for W3NWA.

SECRETARY

Ed Oswald KB3JGU kb3jgu@arrl.net 267-241-9067

PUBLIC SERVICE

Bob Palin N3JIZ 610-687-4587

TECHNICAL

Dennis Silage K3DS silage@temple.edu 610-353-4829

MEMBERSHIP SERVICES CHAIRMAN

Jim Biddle W3DCL w3dcl@arrl.net 610 353-0880

MEMBERS-AT-LARGE

To 9/30/2008 -
Lou Ruh WX3I lou@wx3i.net 610-630-9146

To 9/30/2007 -

Foster Schucker K3FXS k3fxs@arrl.net 302-363-7347

NETS

- Club Net, Sunday, 8:30 PM
- Traffic Net, M/W/F, 8:30 PM
- Roundtable, Thursdays, 8:30 PM
Net Manager: Lou WX3I lou@wx3i.net 610-630-9146
Nets occur on linked 145.13 R / 147.06 R

DUES

\$15 Full (licensed Amateurs)
\$5 Associate (unlicensed persons)
Family rate \$5/ham (after first member pays full dues)

NEWSLETTER

The REMARCS editor is Dieter K3DK.
610-489-1920 dhauer@gis.net
Do you have anything for REMARCS? Please let me know.

FROM THE EDITOR'S SHACK

A Guest Editorial by Ed Oswald KB3JGU

A memorable commercial for a popular restaurant back in the 1980's once asked "Where's the beef?" in response to what seemed to be the ever-shrinking size of burgers in fast-food restaurants those days. I'm beginning to think we could say nearly the same about the current state of our traffic nets.

When I came into this hobby back in the spring of 2003, some of the first nets I listened to on my HT in the weeks leading up to me getting my license were the MARC traffic nets. It amazed me in this day and age of instantaneous communications that people were still using radio and good old pen and paper to move messages across the country and around the world.

After checking in a few times and listening a bit more (along with some coaxing from MARC's traffic king **Carter N3AO**), I soon got the courage to try it out myself. After the willies were gone, I found it fun and soon was sending messages to friends and family through the system around the country.

Our traffic nets seemed then to be our biggest source of pride -- I remember some months looking at the monthly traffic reports and chuckling to myself as we had nearly beaten out the REGIONAL nets. They also gave our club great visibility and exposed dozens to a facet of this hobby that can prove to be an invaluable skill in emergencies.

Nowadays, that seems to not be the case. Even though I have done my share of moving around over the past two years away from the area, I still took time to check the traffic reports and noticed an alarming trend. Some months we are passing an average of less than one piece per net. This is not a national trend: for the most part traffic levels have stayed the same.

We must all ask ourselves the question, why am I not participating? Is it out of nerves? Not understanding how to pass traffic? Not wanting to hold up the net? Later on in REMARCS we have posted some common questions and tips to get started passing traffic.

So lets make it an effort to check into our nets more "with traffic" than without. Trust me, it's a good skill to learn -- we saw its value following Katrina -- and its fun to do at the same time!

- 73 Ed KB3JGU

[Please see Ed's article "On Sending Traffic" on Page 4.]

AMATEUR LICENSE EXAMS

The next test session is on May 5th at Bryn Mawr Presbyterian Church.

You must contact **Bob Lees W3ZQN** if you want to take a test. Bob may be reached at RJLees@aol.com or, 610 265-6032 to schedule.

72 (continued from page 1)

- 1) **You can easily build your own transmitting gear**, and if you really get the homebrewing bug, the receiver or transceiver as well. There are immeasurable thrills in making contacts the way our radio forefathers did – with equipment you have built yourself.
- 2) **Used commercial equipment can be had by saving your lunch money**. I just scored a used Heathkit HW-8 (a classic four-band QRP transceiver) in February for a mere \$53 including shipping, and in the first weekend I worked 15 countries on two watts at the bottom of the sunspot cycle, using nothing more than a ground-mounted vertical. Yeee-HAH! I have actually seen new and used single-band QRP transceivers at lower cost than this. And can you imagine what you can do when the sun's activity *peaks*?
- 3) **The equipment is far more portable**, opening up a myriad of possibilities for backpacking and vacation operating with small, lightweight equipment and an easy-to-erect minimalist antenna. A perennial favorite is a pocket-sized transceiver housed in an Altoids box. With rolled up antenna, key, and battery the whole works fits inside a cigar box and can be deployed in minutes. There are clubs specific not only to QRP, but to backpacking too. The Adventure Radio Society is just one.

in the first weekend I worked 15 countries on two watts at the bottom of the sunspot cycle, using nothing more than a ground mounted vertical. Yeee-HAH!

- 4) **There are awards galore for QRP operating**. The ARRL honors winners in this category in many annual contests. QRP Amateur Radio International (QRP ARC) and other QRP clubs issue awards specific to QRP. My favorite is the "Thousand-Miles-Per-Watt Award." This is calculated by *dividing* the miles covered by a contact by the output power of the transmitter. Since the award is based on a ratio, it doesn't necessarily have to be 1,000 miles or one watt. For example, my personal best is 544,600 miles per watt – by contacting N2SXB in Watertown, NY with only 2.6 mW going to the antenna! The world record is held by N2XE and W4ZV, who copied the former, who was transmitting under 41 microwatts and covered a distance of 547 miles, for a ratio of over 13 million miles per watt! Since very-low-power communication requires skill on the part of both parties, the receiving station qualifies for the award as well. More on other awards in future columns.
- 5) **Your power requirements go through the floor!** PECO will not get any richer on your kilowatt-hour consumption, and you'll actually save a bit of cash. To increase the benefits of this factor even further, my portable station is solar powered. Look for me on or around the international QRP calling frequencies on 40m (7.040), 30m (10.106), and 20m (14.060) on Field Day!

- 6) **The airwaves will in fact be less crowded**. I can't tell you how many times I've lurked on a QSO between those hoo-has on 75m phone, who say the silliest things, e.g. "Well yer 40 over here Bubba." And Cletus chimes in, "Yep, 30 over here too." Bubba replies, "Yeah well I got me a new pair of 3-500Z's and my kilowatt's cooking just fine." A quick visit to qrz.com reveals these guys are all within 5 miles of each other down there in Pixley. Meanwhile there's a station receiving all three of these spectrum hogs at S9 5 kHz up and 1,000 miles away in the far-off land of Trooper, and they're clobbering what would have been her 328th DX contact (wink, wink). What's the point in 40 over if +15 at 100 Watts will be just as readable and allow the rest of us a little bandwidth? Or even 10 watts at S9?
- 7) **Stealth operation** – this is particularly important for apartment or restricted community dwellers. The covenants in many townhouse neighborhoods do not allow towers, wires, or antennas of any kind. You can, however, install thin magnet wire outdoor antennas as long as your voice or code emissions don't call attention to your QTH by interfering with TV, radio, or cordless phone reception. QRP operation lowers the risk of tipping your hand by 10 – 20 times or more. I know, I once lived in an apartment for 14 years with a 75-foot long wire antenna made of #24 magnet wire running five watts, and nobody was ever the wiser. I had absolutely no problem maintaining a scheduled weekly 40-meter rag chew with a buddy in Rhode Island, as well as working across the country and around the globe, usually at will.
- 8) **RF exposure** – let's face it, lower power is safer for you, your family, your neighbors, and your pets in many cases where living beings are in reasonably close proximity to the transmitting antenna – whether they're indoors or in the yard. As with #7, this is especially important for apartment dwellers, who by necessity often set up the transmitting antenna inside the living area.
- 9) **You will improve your operating skills** and knowledge of antennas, matching, and radiation patterns. Meeting the challenges of DXing, contesting, and even casual armchair rag chewing using low power will encourage you to learn new on-the-air techniques and improve the skills you already had. Before long, you'll be enjoying just as many QSOs as before – but now it's because you're a polished, practiced amateur. Power is no substitute for skill.
- 10) **Oh, and how is QRP an advantage in a pileup?** Just yell QRP! And listen while the DX station tells everyone to clear the frequency until he gets your call. If you learn to time your call well, he'll hear you and take the extra points you're worth in many contests. I know this technique works – I have occasionally turned my power down to five watts and used this approach successfully in a pileup I could not otherwise overcome.

Please see Bob's final comments, on Page 5...

ON SENDING TRAFFIC

By Ed Oswald KB3JGU

The Preamble

This is the part of the message where we learn the specifics about the origin of the message. It includes the number, precedence, handling code, originating station, the check, place of origin, and the date.

Number: Simply, the number of the message sent. Most stations will cycle these annually, but you can do it any way you see fit. For our example, we'll use #1.

Precedence: This could be any one of four items: Emergency, having to do with life or death urgency; Priority, for time-sensitive or important messages not emergency related; Welfare, for inquiries of the health and welfare of an individual; and Routine, for standard messages. Our message would be routine, since it is not time sensitive or an emergency.

Handling Instructions (HX): These are instructions on how the message should be handled. This gets somewhat complex, so we'll leave it for the traffic nets if someone wants to learn more about it.

Station of Origin: Self-explanatory. You're the station that is sending the message, so it's your call sign. For the example we'll use WB3JOE.

Check: Used to ensure the receiving station copied the message right. It's the number of words in the text of the message. Ours is going to be 15.

Place of Origin: This is your location. If you're at home, it would be there. But if you're out in the field, it would be that location. If you're a third party, it's their location. We'll say it is our own message, so let's put Paoli, PA.

Date: Some put the time, but really it's not necessary. So here we're going to say April 1.

So on voice, our preamble would read like this: "Please copy number one, routine, WB3JOE, Check of 15, Paoli, Pennsylvania, April 1." Simple enough, right?

The Address

This can vary. If you're sending it to another ham that is regularly on a traffic net, there's no need to include his full address, just his first name and call should do it. However, if it's a non-ham or a ham that isn't a traffic handler, you at least need the address or it will more than likely never get to its destination. Let's pretend that I don't come on the nets and my address is the club's address and my phone number is (610) 555-1212.

On the net, it would sound like this "Addressed to Ed Oswald KB3JGU, P-O BOX 2-1-5-4, Southeastern, Pennsylvania, zipcode 1-9-3-9-9. Telephone number 6-1-0-5-5-5-1-2-1-2." If you think a word is hard to spell, after saying the word say "I spell..." and spell it out phonetically -- this procedure goes for words in the text too. See, this is not hard at all!

Text

Our text is going to be: "Glad to see you are sending traffic. Hope to hear from you soon. 73". Note that in traffic handling, periods are sent as 'X,' said 'x-ray' in voice. Groups of numbers are preceded by the phrase 'figures' (while letters are preceded by the phrase 'initials'). Other prowords exist, but like I've said previously, ask about them on the traffic net, that is what they are there for!

So we'd say here "Glad to see you are sending traffic x-ray hope to hear from you soon x-ray figures 7-3" Notice from the check that the 'X-ray' is counted as a word, don't forget this!

Signature

This is simply your name (or the party you're sending the message for). So all you would need to say here is your name and callsign. So, "MARC WB3JOE." You can also send additional handling instructions in the signature called an "op note."

Wrapping it All Up

Congratulations, you've just sent your first piece of traffic! Now you have to make sure the receiving station got it. We commonly say, "End of message, no more, how did you do/QLS?" If you sent slowly, you should be fine. If the receiving station needs fills, they'll ask for it.

With practice, you will be sending messages in no time. There are other aspects, such as receiving and delivering messages, but learning how to send them first will help you out dramatically in the other areas. We'll cover that at a later date.

Now we'll wait for you to check into the next MARC Traffic Net "with traffic."

- 73 Ed KB3JGU

72 (continued from page 3)

Well that's a bite-sized intro to the basics of QRP. Next time, I'll cover some equipment ideas, QRP organizations, list some well known QRP manufacturers and supply houses for all budgets, and suggest a simple starter project.

Meanwhile, why not Google "QRP" or try an Ebay search? Hint: if you don't have a soldering iron, a 25-Watt unit might be a good place to start! See? You're already going to sharpen your skills! After all, life's too short to miss all the fun, challenge, and excitement of QRP!

72,
Bob WR3K
wr3k@aol.com

PUBLIC SERVICE

On April 29th, Sunday morning, MARC provided radio communications for the Multiple Sclerosis 5K Run and 2K Fun Walk that was held at West Goshen Park.

Bob Palin N3JIZ was the Net Control Op. **Foster K3FXS** and **Dieter K3DK** assisted Bob with communications from key checkpoints along the designated route. Everything went smoothly and only one runner was unable to finish and declined any assistance.

The next upcoming Public Service Event is the Radnor Memorial Day Parade and is quite popular and fun to work. Will you assist? Bob needs more volunteers for this fun event. Please call him ASAP at 610 687-4587.

Radnor Memorial Day Parade – May 28, Monday

- Volunteers Assemble at: 8:00 AM
- Location: Micro Center Parking Lot – Radnor

MARC HAMFEST & KIMBERTON FAIR

Please remember, It's not too early to sign up to help at the MARC Hamfest and Kimberton Fair. Planning in advance and getting commitments is important. Pretty soon, the Hamfest and Fair will be just around the corner...

Mike Pilotti KF3CD is heading up the coordination and staffing for these two critical events and has reported that response from club members has been weak.

We hope that you'll seriously consider helping out wherever you can. Many hands makes light work. Below is a reprint of the Hamfest and Kimberton Fair Schedules. Keep in mind that a friend or family member can also assist with these events (volunteers do not have to be hams).

MARC Hamfest –

Set up for the MARC Hamfest starts on Saturday, July 14th at 12 noon. Jobs include setting up tables, laying out the parking and tailgate areas and putting out signs.

We need even more help on hamfest day, Sunday, July 15th. Jobs include selling tickets, directing cars, helping with talk-in etc. We especially need a lot of help early in the morning, starting at 6 am.

We also need people to help clean up after the event, which begins shortly after 12 noon.

Kimberton Fair -

If MARC is able to get enough people to assist with the Kimberton Fair, then we will get the Hamfest site rent free and that will save us \$900. This is important to the club's bottom line.

If you volunteer to help at the fair, it is very important that you arrive on time. The times we need to fill are as follows, we need to supply 4 ticket sellers and at least 6 parking people for each time slot below.

THURSDAY JULY 26th

Parking 6 to 10 pm

FRIDAY JULY 27th

Parking 6 to 10 pm
Ticket Sales 6 to 10 pm+

SATURDAY JULY 28th

Parking 1 to 5 pm
Parking 5 to 10 pm
Ticket Sales 1 to 5 pm
Ticket Sales 5 to 10 pm+

Mike KF3CD may be reached at KF3CD@arrl.net or 610 935-4429. Thank You

ARRL FIELD DAY APPROACHING...

UPDATE....

We have received confirmation from Verizon that MARC may once again hold its Field Day operations at Verizon's Training Field in Audubon, PA.

This will be MARC's 25th anniversary holding Field Day operations and we once again extend our gratitude towards **Bob Haase W3SA** for establishing this wonderful and cooperative relationship between MARC and Verizon.

Verizon will again loan us their bucket truck and another truck that contains a 5 KW generator. They will also string some of the telephone poles with tape for our dipole antennas. What more could one ask for?

If you've never been to a MARC Field Day, then, you should "take the plunge" and do so. This ARRL sponsored event always takes place during the last full weekend in June. This year, Field Day will occur on June 23rd and 24th.

Your Field Day captain will be **Dieter K3DK**. Does anyone want to assist as co-captain? We will need club members to assist with transporting equipment from the nearby storage locker (in Oaks) and, to assist with food, drinks, setup, tear-down and operations. Please call Dieter K3DK if you can help at: 610 489-1920 or DHauer@gis.net. Thanks!

>> EQUIPMENT NEEDED <<

Ed Oswald KB3JGU lives in a fringe area regarding access to MARC's 2 meter repeaters, so, he is looking for a decent beam antenna to enhance his signal. If you have a 2 meter beam that is in decent condition, please contact Ed at 267 241-9067 or kb3jgu@arrl.net.

<< EQUIPMENT AVAILABLE >>

Bill Owen W3KRB has an inventory of equipment that he is looking to get rid of on a no-cost basis and is offering it to MARC members. Please see the list below and note that Bill may have some other odds and ends that are not listed. All gear may be seen at his QTH. Please contact Bill at 610 356-5149 or w3krb@comcast.net.

- MFJ Versa Tuner III 962B
- MFJ Portable Antenna 1621
- Metz 2 Meter Mag. Mount
- Santec 2 Meter FM HT
- Alliance HD-73 Rotator
- Swan 1200x Linear Amplifier (for HF)

DAYTON OR BUST

Have you ever been to the Dayton Hamvention? If so, then I won't have to say too much. If not, then here are some things to do and see, if you ever do get there some day. Hamvention will be held on May 18, 19 and 20 and usually gets around 15,000-20,000 (or more) hams in attendance.

Visit the MFJ booth in the arena and say hello to Martin F. Jue K5FLU. Better yet, call him with a nearby demo keyer and watch him smirk as he is a CW buff. Martin... You're 599+!

Go to Audio Alley and check out Heil Sound and some of the other booths. See Bob Heil and ask him any questions about his wonderful products. Better yet, participate in their hourly T-shirt or hat toss (if they're still doing this), and you might catch the lucky shirt or hat that contains a coupon for 1 item (anything behind their counter!).

Locate your favorite DXer, such as Bob Allphin Jr. K4UEE. Then ask him which DXpedition video is the best one to buy. He should know... after all, he's probably starring in half of them!

Go to US Towers and oogle the massive tall tower packages that they sell (and that I can't use here at the QTH - CC&R, grrr!). Get your US Tower stick-on badge with the red blinking LED's. See the pretty girls place these "badges of honor" on your fellow hams and watch the sea of red blinking LEDs flow around the arena.

Remember to fill out your entrance ticket and immediately make a bee-line to the big ticket drum where your ticket stub will roll around with approximately 20,000 other wishful ticket stubs. Door prizes are announced hourly and the stub numbers are shown on closed-circuit monitors in some of the hallways. On Sunday morning is when they draw stubs out of the drum for really nice prizes. Yes!

Get your Hamvention ticket laminated and attach it to a lanyard around your neck. Next, go to the Yaesu booth and get your free Yaesu hat.

DO NOT FORGET TO SEE THE TECHNICAL FORUMS. Most are very interesting and many topics are covered. If you like QRP, then you will be pleased to see a forum for that. If you have RFI problems or, like emergency communications, then there's probably a forum or two on those as well. The DXer forum is extremely popular and gets up to 300+ DXer's in attendance.

Check out the beef jerkey at some of the indoor stands. Yes, it may be mystery meat as they call it, but some of the honey cured deer jerkey hits the spot.

Visit HRO and AES in the main arena as they will offer special "Dayton discounts".

Go to the ICOM, Kenwood, Yaesu and Ten Tec booths to check out their new hardware and grill their techs with questions.

You must go to the ACOM booth as they will probably have an HF amp cranked up and keyed down (with a brick) for the duration of Hamvention (into a dummy load of course).

For crying out loud!!!... Don't neglect to check out the many tailgaters that are outside.

Have an eyeball QSO with that chap that you worked across the pond' or elsewhere.

If you're a QRP enthusiast, go to the Elecraft booth, half of the customers standing around end up helping to sell their wares.

Visit the ARRL booth. You never know WHO you might come across.

Look for other MARC members.

Renew your FISTS and Ten Ten memberships. Don't forget to raid their candy jars.

For more info:

<http://www.hamvention.org>

GET CONNECTED!

Mike KF3CD lists the following website for those that may be interested in HF pedestrian operations: www.hfpack.com

UPCOMING MEETINGS

On Tuesday, May 15, **Ray Kiesel K3RIZ** will provide an interesting presentation on a Navy Radio Communications installation in Iceland (from 1971).

There will be no meeting in June since we will be concentrating our efforts on Field Day 2007 on June 23 and 24.

SCARBOROUGH REEF - BS7H

The most wanted DXCC entity, in the South China Sea, has finally been activated as BS7H, effective April 30. DXer's please keep an ear open and your antennas directed towards Scarborough Reef! This particular entity has been extremely elusive for even the most seasoned DXer's. When this DXpedition ends is unknown.