



SEPTEMBER / OCTOBER 2002

REMARCS

www.marc-radio.org

MESSAGE-HANDLING TRAINING

MARC's VHF traffic nets are re-emphasizing training in the skills of composing, sending, receiving, and delivering formal messages. Although many served agencies do not use the National Traffic System format we teach, the skills carry over into any context where accurate message relay is important.

Net Manager **Carter N3AO** is sending training messages to the nets. He has encouraged net members to originate at least 1 radiogram per month and hints at a certificate for those who rise to the challenge. For more information, check into the MARC traffic nets (M/W/F, 8:30 PM, 147.06/R).

FIELD DAY 2002 REPORT

By Dieter Hauer WB3JWU

Our MARC Field Day 2002 event was bigger and better this year due to enhanced VHF capability. We also had two 100 watt HF stations (one digital and one phone) and a QRP-Natural Power HF station with solar power.

This year's event was headed by Field Day Captains **Dieter WB3JWU** and **Susan K3SUE**. An extra amount of effort was required for this year's event in order to assemble and elevate high-performance quad antennas for 2 meters and 6 meters.

Many of our Field Day participants were present from previous years, but, some were also missing. Were you there to grab a piece of the action? There were also some new participants from the younger generation who helped increase our score

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HAMFEST MAKES PROFIT DESPITE RAIN

Yes, there's a drought . . . we just didn't need the rain on the morning of our hamfest! MARC volunteers still came out to put on the show, and fortunately so did enough customers to put a significant profit in our treasury.

Set-up on Saturday was dry, so the outdoor workers were okay. Indoors, the feeling was that we were going to do very well with table sales.

When the weather went wrong during the night and didn't go right the next morning, the rest of the indoor tables quickly sold out. Of course the tailgate space sales didn't do very well, but a few brave tailgaters did set up and try. Our new food vendor, Chuck's Wagon, has some of the best chow you'll ever eat at a hamfest. Fortunately, he was happy with his sales and is expected back next year.

In fact, all the vendors we talked to felt good about the day,
(Continued on page 5)

ELECTION FOR 2002/2003 BOARD

Election of the 2002/2003 MARC board will take place at the September club meeting. Ballots are being sent to all licensed members of the club, by e-mail if you get the newsletter electronically, or inserted in this newsletter if you get it on paper.

Ballots will be opened and counted at the club meeting. You may vote in person at the meeting or by mail. Mailed ballots must be in the club's P.O. box not later than the morning of the membership meeting. Instructions for voting are printed on the ballot. Voting by e-mail is not allowed under the By-Laws.

A nail-biter, it isn't. All incumbents are seeking re-election, there are no contested races, and no one is running for Programs (that's 3 years in a row). The new board's term begins October 1.

You may write-in any licensed member of the club for any office. However, before starting up a serious write-in campaign for someone, please get his or her consent. And ask yourself why you didn't nominate the person during the open nominations period, too, so the name could appear on the ballot.

CTCSS ON '06 SEPT. 15

When the repeaters are linked for nets, ops using '06 without a 131.8 CTCSS tone are not heard on '13. To make the link fully functional, a 131.8 CTCSS tone will soon be required to access '06. This will be effective September 15, but you can start using CTCSS now if you want to.

For help, contact **Dennis K3DS**, Technical Chairman.

HOMEBREWER NETS ON MARC REPEATERS

Starting on Sept. 14, the repeaters will be linked on Saturdays at 9 AM for a homebrewer net organized by **Leland KB3HWY**. Everyone who wants to talk about homebrewing (construction of ham gear) is welcome to check in for discussion and Q & A.

MEETING PROGRAMS: PECO'S AUTOMATIC METER READING SYSTEM

Remember when the electric company had meter readers who walked around the neighborhood reading the meters? Today, PECO reads meters automatically using radio. Our September 17 program will explain the technology and economics of the system. Our presenter will be **Mike Asbury** of Schlumberger/Sema. This company is the one actually installing and maintaining the system. Mike heads their local RF group and is familiar with the technical details. He will be accompanied by **Mike Thompson** of PECO Energy, who is Project Lead for PECO. The presentation will include a video. **Bob W3ZQN** set up the program for us.

The October program topic is a work in progress. (Hey, you could have run for program chairman . . .)

ABOUT MARC

wb3joe@marc-radio.org
http://www.marc-radio.org

MEMBERSHIP MEETINGS

3rd Tuesdays, 8 PM, Radnor Township Building, St. Davids. Guests welcome. Smoke-free. Handicapped-accessible.

BOARD MEETINGS

4th Thursdays, 7:30 PM, Paoli Hospital. Members may attend as observers.

SYSTEMS

145.13/R, 147.06/R, 224.42/R
145.13 and 147.06 CTCSS 131.8 Hz
Webmaster: Steve N3ORH (610-313-8080, smaslin@marc-radio.org)

NETS

Club Net, Sunday, 8:30 PM 147.06/145.13
Traffic net, M/W/F, 8:30 PM 147.06/145.13
Net Manager: Carter N3AO
(610-993-9623, n3ao@arrl.net)

DUES

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

NEWSLETTER

REMARCS is published in the odd months, edited by Kay WT3P (610-993-9623, wt3p@arrl.net)

BRING A FRIEND
TO A MARC MEETING!

GET ADOBE ACROBAT READER
FREE & LEGAL ON CD

Would you like to get REMARCS electronically, but you don't exactly know how to download and install the necessary software on your computer?

MARC will give you the Adobe Acrobat software on a CD-ROM, free of charge, with instructions for how to install it on your computer. It is legal for us to do this . . . there's no copyright violation.

Contact **Gene N3HG** (n3hg@pol.net) or **Kay WT3P** (wt3p@arrl.net) to arrange to get a CD.

If you have the Acrobat Reader on your computer but don't know how to open a file attachment so as to read the document, please send e-mail to **Kay WT3P**. Include the name of your e-mail program (Outlook Express, Eudora, Netscape Messenger, AOL, Earthlink's e-mail program, etc.). We'll find somebody in the club who uses that software and knows how to open attached files.

Get the latest ham radio news, updated daily, at www.arrl.org. Also click on your Section's news link, which will appear on the ARRL home page once you have registered for members-only services and logged in.

VOX

Congratulations to **Steve N3ORH** and wife **Natalie**, on the birth of **Hunter Michael Maslin** on June 28. The junior operator's grandparents are **Marlene WA3UOC** and **Al N3EA**.

Link W3IVS became a Silent Key on June 28. **Norm N3KNW** became a Silent Key on August 1. We will miss these two gentlemen.

Welcome new members **Ray KB3IGL** (recent upgrade to Extra), **Dick KB3IIN**, and **Adam KB3EDK**, plus returning member **Steve N3LJZ**. Camping in Ricketts Glen State Park, **Carter N3AO** logged QRP QSO's with **Owen N3WO**, **Bob W3ZQN**, **Josy WQ3E**, **Kay WT3P**, and **Mike KF3CD**. **Bart K4BF** helped with set-up. **Kay WT3P** received the ARRL DXCC Challenge award in July (see p. 41, September QST). **Dennis K3DS** vacationed in Italy, and **Dan W3DI** visited Alaska. **Ron W3ZV** won 1st place in Eastern PA, low power, in the 2002 ARRL RTTY Roundup and ditto in the 2001 ARRL Phone November Sweepstakes . . . shellacking the 2nd place ops by over 10,000 points in each case! **Leland KB3HWY** is now an ARRL Official Relay Station, a message-handling appointment. **Dieter WB3JWU** qualified for single-band DXCC's on 10 and 20 meters; he has been DXing on 17 meters, too. **Dennis KA3QOT** has been working good DX from his mobile HF station.

Do you know any new hams or hams new to the area? It's easy to have information about the club sent to these people. Contact **Kay WT3P**.

PUBLIC SERVICE EVENTS FOR THE FALL

- October 27:** Wyeth-Ayerst 5 mile Radnor Run (American Lung Association), 8 AM, meet in Radnor Township administration building parking lot, talk-in on 147.06. Very important to have a good turnout for this, because we use the township building for meetings free of charge!
- November 9:** Penn Wynne Library 5k run, 8 AM, Wynnewood. Meet at library. Talk-in on 147.06.
- November 17:** Vietnam Vets 5k Run, 8 AM, Norristown. Meet at Norristown Farm Park. Talk-in on 145.13.

For information on all events, contact **Bob N3JIZ** (610-687-4587).

Scenes from the 2002 Field Day and Hamfest at
<http://home.earthlink.net/~wt3p/SUMMERFUN.html>

AUGUST LICENSE TEST SESSION REPORT

Nine people took exams at our August 3 test session, and everyone went home happy. Four people earned Technician licenses, one Technician class operator passed the CW test, one person upgraded to Extra, and three people with old Technician + HF licenses did paperwork upgrades to General.

The examiners were **Bob W3ZQN**, **Bob W3SA**, **Bob KA3NIQ**, **Susan K3SUE**, **Paul NX3Q**, **David KB3CRY**, **Steve KD0VA**, and **Dick K3ITH**.

MARC's next session will be November 2. Contact **Bob W3ZQN** (rjlees@aol.com, 610-265-6032) for details and pre-registration information.

FREE EXAMS FOR CLUB MEMBERS

Every MARC member can participate free of charge in one club-sponsored license test session per year. The club pays your test fee, which is currently \$10. If you'd like to take advantage of this membership benefit, please let **Bob W3ZQN** know you're a member when you register for your exam.

FROM THE EDITOR'S JUNK BOX

Of course I knew they aren't there any more. I watched them collapse on live TV. I've seen the horrifying scenes replayed a hundred times since. And yet . . .

From an airplane at 19,000 feet over New York City, the Statue of Liberty is indistinguishable and Central Park is the length of my index finger, but you can pick stuff out if you know where to look. Passing over the bristle of buildings that's lower Manhattan, I couldn't stop staring at what isn't there any more.

"[Expletive deleted]," I said to myself. "They're really gone."

For months after September 11, as I fell asleep each night my half-conscious mind told me it wasn't true, that everything would be all right in the morning, that I would look at Carter over the orange juice and say, "You won't believe the godawful dream I had last night."

In the airplane flying up to Hartford, I guess I was having a long-delayed echo of that denial. But . . . they really aren't there any more.

What's here any more is us, and we don't get to choose our challenges. We only get to choose to stand up and meet them.

It has been a year since our world turned wrong-side-out. Let us all take time to give thanks for everyone who has sacrificed normal life, and even life itself, to put things right again. - 73, Kay WT3P

HIGHLIGHTS OF THE BOARD MEETINGS

At the July 27th meeting, the board received detailed financial reports on Field Day and the hamfest as well as the usual treasurer's report. The treasury balance was \$12,406.63. Extensive discussion of Field Day and the hamfest followed, with compliments for the leaders of both events. A nominating committee report was received. Problems with the repeaters and the link between '06 and '13 will be addressed when the Technical Chairman is home from vacation. A member's proposal for a home-brewer net on Saturday morning on a MARC repeater was approved enthusiastically. The next public service event is in October, and a plan was announced to encourage net members to originate radiograms. Comments and suggestions from members were received and discussed. There will be a primary election day conflict with the May club meeting again this year; alternatives are under discussion. Future program ideas were noted.

At the August 22 meeting, the board discussed repeater linking. Because the link is not fully functional with CTCSS on only one repeater, it was voted to implement CTCSS on '06 on September 15, 2002, instead of January 1, 2003. The board decided it is too soon to decide about linking the repeaters at times other than nets and other official operating events. Input from members is welcomed on this issue. The board authorized purchase of a new antenna for '13, because the existing one is unreliable. Spare gear is to be obtained, as inexpensively as possible, for swapping out repeater system elements that require repair. Reports were received from the public service, membership services, and nominating committees. There was discussion of uniform caps for public service event communicators. Future programs were reviewed, and the lack of a candidate for Program chairman was noted. A twelve-month revenue and expense statement will be submitted to the board in October. The treasury balance was \$12,279.39.

Members may attend board meetings as observers. Input to the board should be sent to one of the Members-at-Large.

BOARD OF DIRECTORS, 2002

PRESIDENT

Steve Maslin N3ORH 610-313-8080
smaslin@marc-radio.org

VICE PRESIDENT

Bart Feroe K4BF 610-367-4288
k4bf@arri.net

SECRETARY

Bob Haase W3SA 610-293-1919
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TREASURER

Carter Craigie N3AO 610-993-9623
n3ao@arri.net

MEMBERSHIP SERVICES

Kay Craigie WT3P 610-993-9623
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PUBLIC RELATIONS

Bob Weiss KB3FSQ 215-477-6475
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PUBLIC SERVICE

Bob Palin N3JIZ 610-687-4587
rjpelectric@worldlynx.net

TECHNICAL

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

PROGRAMS

MEMBERS-AT-LARGE

To 9/30/2002: Al Maslin N3EA
610-446-4936, amaslin@earthlink.net
To 9/30/2003: Gene Hoenig N3HG
610-353-3281, ehoenig@pol.net

CALLSIGN TRUSTEES

WB3JOE: Al Maslin N3EA
610-446-4936, amaslin@earthlink.net
W3NWA: Kay Craigie WT3P
610-993-9623, wt3p@arri.net

FLEA MARKET

Gene N3HG has the following items for sale. Prices are highly negotiable, and he invites you to make a reasonable offer. Contact him at 610-353-3281 or ehoenig@pol.net.

1. Butternut HF-2V 80/40 meter vertical antenna, with 160 meter coil and roof radial kit. New, never assembled or used. (Catalog price is \$504.97.)
2. Boom-mounted Heil HC-5 element in boom microphone. Luxo articulated boom with your choice of clamp-on, screw-down, or wall-mount. Will wire to suit your rig.
3. Heil HC-3 microphone element in hand-microphone case. Wired for Kenwood.
4. Larsen 2 meter + 70 cm on-glass antenna with new re-mount kit.

Hams from many clubs will communicate for the MS 150 City to Shore Bike Tour on Sept. 28-29. This is a big regional event, and you must register by September 10 in order to participate. Details are posted at www.phil-mont.org.

FIELD DAY 2002 WRAP-UP

(Continued from page 1)

over last year and helped MARC maintain a respectable showing in this year's event. MARC ran a "4-Alpha" configuration and racked up 1160 bonus points plus 1010 QSO's!

Thanks to **Dan KA3KHR**, **Dieter WB3JWU** and **Leland KB3HWY** for providing some of the food as well as **Dennis KA3QOT**, **David KB3CRY**, **Kurt KB3EJS**, and **Ray K3RIZ** for refreshments, etc. **Susan K3SUE** also brought her gas grill, while **Owen N3WO**, **David KB3CRY**, and **Dan KA3KHR** assisted with food prep and cooking duties. **Carter N3AO**, **Leland KB3HWY**, and **Dieter WB3JWU** brought laptop computers for logging. Dieter afterwards compiled logs and prepared the paperwork to report to the League. **Carter N3AO** made sure that people were reimbursed for expenses. **Gene N3HG** designed the eye-catching new Burma-Shave type roadside publicity signs.

Carter N3AO, **Mitch W2MBH**, **Dan KA3KHR**, **Bob N3JIZ**, and **Dennis K3DS** brought along rigs for Field Day operations. **Carter N3AO** and **Josy WQ3E** handled the "Al Maslin facilities." Many hands were involved in the installation of antennas, tents and stations, including **Steve KD0VA**, **Bob N3JIZ**, **Bob W3ZQN**, **Ron W3ZV**, **Dan K3OU**, **Josy WQ3E**, **Dave K3DAT**, **Dennis K3DS**, **Susan K3SUE**, **Owen N3WO**, **Leland KB3HWY**, **Rick N3AGS**, **Ned WQ3Z**, and **David KB3CRY**. Shutterbugs **Gene N3HG**, **Dick K3ITH**, **Lynette KB3GZZ**, and **Jeff WA3RIZ** were present to document the event. **Bob KB3FSQ** handled the press and also provided a guided tour to guests and VIPs. Special thanks to **Susan K3SUE** for the extra effort to order, assemble, and test (in advance) the new quad antennas for 2 meters and 6 meters – plus hauling much cargo from the storage shed with her truck. **Bob N3JIZ** and **Dan KA3KHR** also helped transport the gear.

This year, MARC did particularly well in HF phone operations due to dedicated operators: **Mitch W2MBH**, **Carter N3AO**, **Susan K3SUE**, **Leland KB3HWY** and **Owen N3WO**. We also achieved a respectable VHF score, thanks to **Susan K3SUE**, **Dan KA3KHR** and **Bob N3JIZ**. **Josy WQ3E**, **Carter N3AO** and **Dieter WB3JWU** rounded out as CW operators, and, some PSK31 contacts were made by **Leland KB3HWY**.

Thank you everyone!

Bonus Points! Bonus Thanks!

Many thanks to these individuals for scoring bonus points:

- **Leland KB3HWY** for sending 6 formal NTS radiograms and an NTS message to our ARRL Section Manager.
- **Carter N3AO**, **Gene N3HG**, and **Leland KB3HWY** for copying and transcribing the W1AW Field Day Message.
- **Bob KB3FSQ** for arranging the Media Publicity, road signs, and getting VIP visitors **Bill Wilfong** (Fire Marshal) and **Bud Carrol** (Chief of Police) on site.
- **Carter N3AO** for completing at least 5 natural power QSO's.
- **Kay WT3P** for supplying MARC-Amateur Radio information handouts for visitors.
- **Bob W3SA** for arranging (AGAIN) use of Verizon's training field and their bucket truck and 5 KW generator.

SEE YOU NEXT FIELD DAY
JUNE 28 - 29, 2003

BAND	2002 CW	2001 CW	2002 SSB	2001 SSB	2002 DIGI	2001 DIGI
80	0	61	103	0	0	0
40	44	90	88	133	2	2
20	82	86	373	75	1	8
15	104	62	62	99	0	6
10	33	6	54	3	0	0
50	0	0	54	17	0	0
144	0	0	10	8	0	0
TOTAL	263	305	744	335	3	16

2002 Q's 1010

2001 Q's 656

All 15m CW contacts were made on QRP and a dipole. Over half the 15m SSB contacts were also made on QRP and a dipole.

WHAT ABOUT FUTURE FIELD DAYS?

By Kay Craigie WT3P

Field Day does not just happen! It takes planning.

In a club with 150 members, why should Field Day preparation fall on the shoulders of one or two people? Would you serve on a committee to plan Field Day 2003? This approach has worked very well for the hamfest and could make Field Day logistics much less of a chore. How about it? Contact a Member-at-Large or Public Service chairman **Bob N3JIZ**.

FIELD DAY EXPENSES

Field Day this year was more expensive than usual for a variety of reasons. One is that we bought some nice new quad antennas for 2m and 6m.

Then the HF antenna rotor decided to die at the last minute. **Dieter WB3JWU** was able to find a dealer who would not only sell us a replacement and ship quickly but also buy the old dead rotor.

We purchased a legal copy of the NA logging program for the club, so members don't have to put their own licensed software on others' computers.

In addition, Burma-Shave type roadside publicity signs were ordered from **Rudy N3EBG**. They're good. If you missed them at Field Day, you can see them on the web page that goes with this issue of *REMARCS*.

The gross expense for Field Day was \$1,121.64. We received \$130.58 for the dead rotor, making the net expense \$991.06.

This was an expensive Field Day, but our in new stuff will be appreciated for many years to come. **Dieter WB3JWU** and **Susan K3SUE** did a fine job. Please be sure to tell them so.

HAMFEST MAKES PROFIT DESPITE RAIN

Continued from page 1

despite the reduced crowd of buyers. MARC leaders made a point of thanking vendors and exhibitors for their participation.

Fighting severe back pain, chairman **Mike KF3CD** did a grand job again this year. **Rick N3AGS**, in his first year as indoor table sales chairman, made everything go as smoothly as if he had done it for years. **Gene N3HG** and **Judy N3MBW** ran the club members' gear sales table again this year, wonderfully-organized. Members donated \$579 to the club from sales at this table.

As usual, we were short of volunteers to sell tickets, even though some new people came out to help with this job. Next year, how about you for a couple of hours? If you can add, subtract, stand there, and smile, you can do this.

Vic N3IO, a friend of the club, presented an IRLP demo. What ham radio mode do you think we should demonstrate in 2003? Want to help?

New hamfest direction signs were designed this year by **Bob N3JIZ**. Between the new signs and the outstanding talk-in handled by **Dieter WB3JWU**, **Bob KB3FSQ**, and **Dennis KA3QOT**, buyers gave us a load of compliments for bringing them into the hamfest very efficiently. That's despite a last-minute road closing that wasn't helpful. A big thank-you is due to the sign placement crew, some of whom were still at work late on Saturday to get the job done.

Jon N3VZG borrowed a ticket cage from his fire company when **Judy N3MBW** noticed there wasn't one at the fairgrounds. **Dan KA3KHR** and **Steve KD0VA** were indispensable at set-up, and Steve even brought a watch-dog to keep everybody on the straight-up. Public address announcement duties were shared by **Bart K4BF** and **Bob W3ZQN**. **Carter N3AO** prepared all the ticket and change aprons for the gate crew. A number of people took flyers to other hamfests, including **Harry W3FM** and **Josy WQ3E**. **Dieter WB3JWU** went to the July 4 Harrisburg hamfest in brutal heat just to pass out flyers. **Bob KB3FSQ** got the publicity out on deadline. We were needing **Jim W3MO** (a.k.a. Father Jim) about how come The Boss wasn't listening when he put in the request for good weather . . . until we realized that without Jim's efforts, maybe the weather would have been even worse. Who knows?

HAMFEST FINANCIAL REPORT

The hamfest's gross revenue was \$4,878, made up of \$579 in donations from the members' gear table and \$4,299 from ticket, tailgate space, and table sales. Last year, with excellent weather, our gross was only \$611 more.

Expenses were \$2,205.35. This breaks down into \$200 for door prizes, \$90 for electrician expenses, \$900 for fairground rent, \$549.90 for flyer postage, \$5.44 for additional printing expense, and \$460.01 for materials for the new direction signs and sign-installing tools.

Fortunately, all but one or two of the new signs were recovered (a few are always removed or stolen) and we already have materials on hand to replace the lost ones. Thus, the signs are a one-time expense. We could apportion the cost of the signs out over the projected useful life of the objects, but we don't get that technical in our processes.

The net for the event was \$2,672.65. The net in 2001 was \$3550.21, so we went down in 2002 by \$877.56. Considering the weather, that is a good comparative outcome.

The hamfest committee is already thinking about 2003. This committee is NOT a closed group. Anybody who wants on is welcome. If you have ideas for how to make our 2003 event better and would like to help do the work of the hamfest, please contact Mike now (mpilotti@anro.com, 610-935-4439).

Despite the rain, we sold 75% of the number of buyer tickets purchased last year. Tailgate ticket sales were cut almost in half. However, the indoor tables were sold out, with 43 indoor vendors compared to last year's 23.

2002 HAMFEST HONOR ROLL

MARC wants to recognize every member and friend of the club who worked for the hamfest on or before H-day. If you helped, but your name doesn't appear on the list below, please contact Kay WT3P so we can complete the record in the next newsletter.

Mike KF3CD	Jim W3MO
Rick N3AGS	Charlie N3NQX
Dieter WB3JWU	Al N3EA
Bart K4BF	Dan K3OU
Gene N3HG	Ned WQ3Z
Judy N3MBW	Bob W3ZQN
Carter N3AO	Bob W3SA
Kay WT3P	Bob N1RH / VR2IE
Dan KA3KHR	David KB3CRY
Bob N3JIZ	Owen N3WO
Steve N3ORH	Leland KB3HWY
Mitch W2MBH	Dave K3IX
Steve N1HDP	Josy WQ3Z
Jon N3VZG	Harry W3FM
Steve KD0VA & Zelda	Bob KB3FSQ
Paul WB3CEZ	Dennis KA3QOT
Susan K3SUE	

Special thanks to
ANRO, Inc. Printing / Direct Mail
Devon, PA

For their generous assistance with preparation and distribution of MARC hamfest flyers

DOOR PRIZE DONORS

Amateur & Advanced Communications
American Radio Relay League
Buckmaster
CQ Publications
Radio Amateur Callbook
West Mountain Radio
Walt's Computer
WorldRadio

Free handout literature was donated by ICOM, Ham Radio Outlet, and Vintage Manuals.

New ticket and change aprons have been donated for the 2003 MARC hamfest by Berwyn Hardware, Lancaster Avenue, Berwyn, PA.

MARC HAMFEST
JULY 13, 2003
KIMBERTON, PA

UNDERSTANDING WWV

www.boulder.nist.gov/timefreq/stations/wwv.html

Hams want to set our station clocks to the correct time so we can log contacts accurately. We are interested in geophysical conditions because they affect radio propagation. For both kinds of information, we turn to WWV, a station operated by the National Institute of Standards and Technology. The vocabulary and format of WWV's announcements have changed in the last few years, so we who've been around for a while must become familiar with the new system. The information in this article is based on material posted on NIST's web site.

WWV operates in the HF portion of the radio spectrum. The station radiates 10,000 Watts on 5, 10, and 15 MHz; and 2500 Watts on 2.5 and 20 MHz. Although each frequency carries the same information, multiple frequencies are used because the quality of HF reception depends on many factors, such as location, time of year, time of day, and atmospheric and ionospheric propagation conditions. The variety of frequencies makes it likely that at least one frequency will be usable at all times.

If your HF rig includes a general coverage receiver or you have a shortwave receiver, you can tune to WWV for time signals and geophysical alerts. The modulation used is AM, not SSB. A boiled-down version of the alerts is posted on DX PacketCluster nodes. Display the information by typing SHOW/WWV. Some DX specialty web sites such as www.dx-central.com also post the WWV data.

Time

Voice announcements of the time are made from WWV once every minute, starting at about 7.5 seconds before the minute. The announced time is Coordinated Universal Time (UTC). UTC was established by international agreement and is governed by the International Bureau of Weights and Measures in Paris. Hams sometimes call this time by its old name, Greenwich Mean Time (GMT).

Geophysical alerts

The National Oceanic and Atmospheric Administration (NOAA) uses WWV to transmit geophysical alert messages that provide information about solar terrestrial conditions. Geophysical alerts are broadcast from WWV at 18 minutes after the hour. The messages are updated every 3 hours (typically at 0000, 0300, 0600, 0900, 1200, 1500, 1800, and 2100 UTC). The alerts provide information about the current conditions for long-distance HF radio communications.

Hams are interested in solar flux, the A index, and the K index.

Here is what you need to know about these numbers to figure out if they are good news or bad news for your radio fun today.

"Understanding Solar Indices" in September QST has good diagrams and more explanation.

Solar flux is a measurement of the intensity of solar radio emissions. The value is in solar flux units that range from a

theoretical minimum of about 50 to more than 300. During the early part of the 11-year sunspot cycle, the flux numbers are low, but they rise and fall in a curve as the cycle proceeds. The numbers will remain high for extended periods around sunspot maximum. Hams want the solar flux number to be high.

The A and K indices are a measurement of the behavior of the magnetic field in and around the earth. The *K index* uses a scale from 0 to 9 to measure the change in the horizontal component of the geomagnetic field. A new K index is determined and added to the broadcast every 3 hours. The *A index* is a daily value on a scale from 0 to 400 to express the range of disturbance of the geomagnetic field. It is obtained by converting and averaging the eight 3-hour K index values. Hams want both the A and the K indices to be low for best HF propagation.

Space weather describes the conditions in space that affect earth and its technological systems. Space weather is a consequence of the behavior of the sun, the nature of earth's magnetic field and atmosphere, and our location in the solar system. Space weather storms observed and expected are characterized using the NOAA Space Weather scales. Radio blackout levels, the space weather that affects us most directly, are determined by the X-ray level measured by the primary GOES satellite. Levels range from R1 (Minor) to R5 (Extreme).

Geophysical alert messages have three parts: (1) The solar-terrestrial indices for the day: specifically the solar flux, the A index, and the K index. (2) Space weather storms observed during the previous 24 hours. This includes all observed geomagnetic storms, solar radiation storms (proton events) and radio blackouts (class M1 and greater flares). (3) Space weather expected during the following 24 hours.

Conclusion

We are on the downslope of the current sunspot cycle. When conditions are bad, having any fun on HF takes skill, persistence, and knowledge. Understanding how to use the information transmitted by WWV repays the effort put into study.

OPERATING AWARDS SHOW & TELL

Members who brought awards to show at the July meeting were **Dieter WB3JWU**, **Josy WQ3E**, **Steve K3KFD**, **Bob W3ZQN**, **Carter N3AO**, and **Kay WT3P**. **Harry W3FM** couldn't attend but offers to show his large collection of awards to anyone who'd like to visit his shack. He's always happy to talk award-hunting.

One of Dieter's special event certificates had to do with Route 66. **Dave K3IX** found a web page for this year's Route 66 event at www.qsl.net/w6jbt/Route66/. Calendars of special event stations are published in the ham radio major magazines. Some special events are cool, some dippy, but all are ways to enjoy the ham bands.

WHAT'S THE DXCC CHALLENGE AWARD?

The ARRL DXCC Challenge award is for confirming at least 1,000 DXCC entities on 160, 80, 40, 20, 17, 15, 12, 10, and 6 meters combined. Mode is irrelevant. No minimum number per band. Deleted entities do not count. The station with the top score of the year receives the Clinton B. DeSoto Challenge Cup. Standings are published in the *DXCC Yearbook*. It's a cumulative thing; you don't start over again each year.

Is this only for mega-stations? Nope. Your editor, who has never used more than 200 watts into a modest antenna system, qualified for the award. Get on the air, work DX, send out lots of QSL cards, and you can do it, too!

VANITY CALLSIGN FEE RISES SEPTEMBER 9

The FCC has officially set \$14.50 as the cost to apply for, renew, or reinstate an Amateur Radio vanity call sign. According to a *Report and Order* adopted July 3, the new fee will become effective for applications received on or after September 9. *That's RECEIVED, not POSTMARKED!* The current vanity fee is \$12 for the 10-year license term. The FCC had proposed the new, higher fee in a *Notice of Proposed Rulemaking* (MD Docket No. 02-64) released March 27 to set Fiscal Year 2002 fees.

In its *R&O*, the FCC took the opportunity to justify its charging the vanity fee for vanity renewals as well as for initial applications. Bureaucratic baffle-gab? Read the *R&O* online at the FCC web site and make up your own mind.

PENNSYLVANIA QSO PARTY OCT. 12-13

Get on the air in the PAQP and enjoy the friendly competition. Be sure to put Mid-Atlantic ARC on your entry, so MARC will get credit for your points in the club competition. For more info about the event, contact Kay WT3P or Carter N3AO, and check the web page at www.nittany-arc.org/paqso.html. Be a PA Party animal!

HAMFESTS IN THE REGION

Go to www.arrl.org and click on "Hamfests" for details and more events

- Sep. 7-8: Foundation for Amateur Radio / Columbia ARA (Maryland/DC ARRL Section Convention) - West Friendship, MD
- Sep. 12: Delaware-Lehigh ARC - Schnecksville, PA
- Sep. 28: Delaware Valley RA - Lawrenceville, NJ
- Oct. 5: Red Rose Repeater Assn - Brownstown, PA
- Oct. 13: Pack Rats - Wrightstown, PA
- Oct. 20: RF Hill ARC - Sellersville, PA

There will be a contested election for ARRL Atlantic Division Director this fall. The Directors establish the League's policies, so electing well-qualified people is essential. Your right to vote is important. Use it!

HAM RADIO SCHOLARSHIP WINNERS

The Foundation For Amateur Radio has announced winners of its 57 scholarships for the 2002-03 academic year. FAR is a non-profit organization incorporated in the District of Columbia, representing more than seventy-five Amateur Radio clubs in Maryland, the District of Columbia, and northern Virginia. FAR funds some scholarships and administers others at no charge to the donors.

Two Philadelphia-area student hams are among this year's FAR scholarship winners.

- **Phil-Mont Mobile Radio Club (in memory of Jack Haring W3IIM) - \$2000** - Michael Taraborrelli N3MT - Philadelphia, PA
- **Murgas Amateur Radio Club Scholarship - \$500** - Thomas Reber KB3FCH - Coatesville, PA

PREFIX FUN QUIZ

How many of these can you answer correctly without peeking at the answers below?

1. What do S5, 9A, T9, and Z3 have in common?
2. Why was YA off the ham bands for quite a few years?
3. How many of the states in the 9th call district can you name?
4. If you visited PY, what language would it be handy to speak?
5. If you're sipping your Starbucks in Seattle, what call district are you visiting?

Answers:

1. S5 (Slovenia), 9A (Croatia), T9 (Bosnia), and Z3 (Macedonia) used to be part of Yugoslavia (YU) but are now independent.
2. YA is Afghanistan, which was off the ham bands (not to mention off its rocker) during the Taliban regime. Stations operating in Afghanistan now are foreign aid workers.
3. States in 9-land are Illinois, Indiana, and Wisconsin.
4. It would be useful to learn a few words of Portuguese, because PY is Brazil.
5. Seattle, Washington, is in the 7th call district.

FLEA MARKET

Wanted: Wall wart power supply, 24V, 550 mA with positive center, to power a PC scanner to be sent to **Nick UX0ZZ**. Contact **Mike KF3CD** (mpilotti@anro.com, 610-935-4429).

For sale: Fairly new Kenwood TS-450AT, with 500 Hz and 250 Hz CW filters, 2.1 kHz SSB filter, speech synthesizer frequency read-out (owner is blind). Has automatic antenna tuner and hand mic. Also for sale: MFJ keyer and a set of Bencher paddles. Sold as a complete station, \$750. Contact **Bill Sallander N3ETC** (610-722-9915, wsallander@hotmail.com). Bill is a former club member who's temporarily off the air.

HONDURAS MEDICAL MISSION LOOKING FOR HAM OPS

The International Health Service (IHS) of Minnesota is a non-profit organization that provides free health care to the people of Honduras. Each year IHS sends teams to various parts of Honduras to provide health care to people who desperately need it. IHS has been doing this work for over 20 years. In February, 2002, the mission trip included 111 people assigned to ten teams that set up temporary clinics to serve over 10,000 medical and dental patients.

A typical team includes doctors, nurses, a pharmacist, a dentist, a radio operator, an engineer, a language translator and a few general helpers. These teams are spread out, often into remote parts of the country, so the role of radio operator is critical to providing communications that link the teams together. Most villages have no phones, electricity, or even roads. The typical radio setup at each location is similar to a basic Field Day operation — an HF transceiver powered by a gasoline generator, driving a wire antenna hung on the nearest tree or building.

IHS needs Amateur Radio operators with HF portable operating experience who are interested in this type of volunteer work. The next mission to Honduras is scheduled for February 14 to March 2, 2003. Applications are being taken now through the beginning of October 2002. For more info, contact **Lor W3QA** (w3qa@arrl.net) or check out the August 23 story on www.arrl.org. Lor will present our November club meeting program about his experiences in Honduras.