



# REMARKS

P.O. Box 2154, Southeastern, PA 19399



## MARC HAMFEST IS JULY 16!

Without the income from our annual hamfest, MARC would dry up and blow away. No sensible person would pay the dues we'd have to charge to maintain our programs and services, if we didn't have this annual infusion of money.

To make the event work, we need volunteers to work ... that's YOU!

A lot of people have already contributed many hours to preparing for the event. We need more volunteers now to do the actual event. Please contact event chairman **Mike KF3CD** (610-935-4429, [mpilotti@anro.com](mailto:mpilotti@anro.com)) to find out what jobs are not yet filled. Most of them involve just several hours' work ... we are not asking you to join the Army, folks, just give your club a little of your time.

Set-up will be on Saturday, July 15, at 1 P.M. Wear your work clothes. We also need people to assist with clean-up early on Sunday afternoon. Traditionally, we leave the fairgrounds even cleaner than we find them, so trash bags, cleaning supplies, and people to operate them are needed.

We need you to talk up the hamfest on the air and at other radio clubs you belong to. We need you to bring kids, prospective hams, and new hams, to the event. We need good attendance.

A members' gear sales table will be managed by **Gene WB3FTJ** and **Judy N3MBW**. Reasonable quantities of your unwanted ham and computer equipment can be sold there. You choose whether to keep the proceeds or donate the money to the club. No commission is charged for sales.

License exams are not administered at the MARC hamfest.

Even if you've never been to a hamfest before in your life, you can be very helpful. Be part of the hamfest team this year!

## MAIN LINE VOLUNTEER FORCE "CHRISTMAS IN JULY" CAMPAIGN

By mid-summer, area food cupboards and shelters have used up their holiday-season donations. That's why the Main Line Volunteer Force sponsors their "Christmas in July" campaign to re-stock the pantries. MLVF is a group of 20 companies organized by Sovereign Bank to make a difference in the lives of our less-fortunate neighbors. MARC's donations are routed to volunteer-based charities located in our community.

You can donate in two ways. One is to purchase some items such as non-perishable foods, household paper products, disposable diapers and other basic baby supplies, and household cleaning supplies. The other is to donate cash. Your donations can be brought to the MARC hamfest (set-up day or hamfest day) or brought to the July 20 club meeting. MARC's contact people for MLVF are **Kay WT3P** (610-993-9623,

[wt3p@arri.net](mailto:wt3p@arri.net)) and **Mike KF3CD** (610-935-4429, [mpilotti@anro.com](mailto:mpilotti@anro.com)). Either person would be happy to talk with you about this project. No club funds are spent on it, and member participation is entirely voluntary.

If your business or another organization you belong to would like info about joining MLVF (there are no dues or other fees), please contact Kay or Mike. Wawa, Desmond Hotel, ANRO Printing, Prudential Fox Roach Realtors, and Anthony Wayne Buick-Ford are among the companies participating in MLVF. As a community service organization, MARC fits right in.

Please help MARC lend a hand to local families, senior citizens, and children who are in need.

### Some Door Prize Donors

Amateur Radio Trader  
American Radio Relay League  
Buckmaster  
CQ Publications  
QRZ  
Radio Amateur Callbook  
Worldradio  
W4MPY QSL Cards

### Other Door Prizes

MFJ 259B HF/VHF SWR Analyzer  
MFJ 120 Atomic Clock  
MFJ 152B Indoor/Outdoor Thermometer  
with clock  
Antron 40 meter mobile antenna  
Antron 17 meter mobile antenna  
Callbook CD-ROMs

### Some Expected Vendors / Info Tables

Amateur & Advanced Communications  
American Radio Relay League  
Navy - Marine Corps MARS  
CQ Publications  
Holmesburg Amateur Radio Club  
Philadelphia Area Repeater Association  
Gene's Computer Outlet

## ABOUT MARC

**wb3joe@marc-radio.org**  
<http://www.marc-radio.org>

## MEMBERSHIP MEETINGS

3<sup>rd</sup> Thursdays, 8 PM, Memorial  
 Library of Radnor Township,  
 Wayne. Guests welcome. Smoke-  
 free. Handicapped-accessible.

## BOARD MEETINGS

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

## SYSTEMS

145.13/R, 147.06/R, 224.42/R  
**WB3JOE** packet BBS 145.090  
 Packet sysop and Webmaster:  
**Steve N3ORH** (610-313-8080,  
[smaslin@fast.net](mailto:smaslin@fast.net))

## NETS

Club Net, Sundays, 8:30 PM  
 Traffic net, M/W/F, 8:30 PM  
 All nets on 147.06  
 Net Manager: **Carter N3AO**  
 (610-993-9623, [n3ao@arrl.net](mailto: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](mailto:wt3p@arrl.net))

**BRING A FRIEND  
 TO A MARC MEETING!**

## FROM THE EDITOR'S JUNK BOX

Wherever the dinosaurs hang out, you will hear grouching about "dumbing down" ham radio. News flash to Jurassic Park: theory exams under the VE system have always been harder than tests given in the last years of FCC administration. There is technical subject matter on the Technician test today that I was never required to learn, from Novice through Extra, and I took most of my tests from the FCC. A MARC member who has substantial technical chops told me he considers the new Extra question pool very demanding ... he was having to study hard for his upgrade. "Good," I said, "we want it tough." Extra should be an achievement, not an entitlement. When the 20 wpm code test was dropped, the theory test was beefed up to maintain the challenge.

I have recently been getting on 12 and 17 meters just for fun. **Carter N3AO** has gone for PSK31 in a big way. I installed the 32-bit version of DX4WIN. Carter's eagerly awaiting arrival of the Elecraft K-1 for more adventures in QRP kit-building. I got into the June VHF QSO Party for the first time in I-don't-know-when and discovered that Frodo the Jack Russell Terror had chewed the 2m / 432 MHz antenna rotor cable in two. There is always something new and/or different in ham radio.

That's why it just doesn't add up for me, when some hams insist that others' radio fun should be severely restricted or even banned. Follow that logic, and we'd all be sitting here listening to the static crackle: some hams loathe contests, some think ragchews are banal, some resent traffic nets, some think DXing is dumb, some think digital modes are QRM, some think FM repeaters are slums, and so on and so on. C'mon, didn't Mommy teach us to share our toys?

If contesting chafes you, for example, remember that there's no contesting on 12, 17, and 30 meters. If your present skills don't allow you to change modes to avoid whatever you don't like and seek out something to have fun with, go learn.

*The other day I met a guy who said he's so old he remembers when the Dead Sea was just feeling a little under the weather.*

Should you require proof that geniuses seldom go into politics, consider a bill dropped in the hopper in Harrisburg. Many of you would recognize the legislator who introduced this work of art, so I won't mention the name. According to my sources, "the use of hand-held devices while operating a motor vehicle would be prohibited" by this proposal. "Hand-held devices." Let's see ... that would include toothpicks, coffee cups, Kleenex, cigarettes, candy bars, road maps, and ... ohhhh yeahhhhh: wireless telephones!

Enjoy the summer and see you at the MARC hamfest! — **73 de Kay WT3P**

## FIELD DAY 2000

Our 18<sup>th</sup> Field Day in Audubon was well attended, and many people had a chance to operate the stations. Several people deserve special thanks for their effort: **Josy WQ3E** for helping **Carter N3AO** load and transport the stuff formerly stored at N3AO/WT3P. **Steve N1HDP** and **Maria Hurley** for managing the food and **John N3MDF** for bringing those to-die-for Italian veal meatballs. **Bob W3SA** for arranging the field and the generators. **Dan KA3KHR**, **Dave K3DAT**, **Bob WA2POW**, **Bob N3JIZ**, **Kay WT3P**, and **Carter N3AO** for hauling the gear to the storage locker and stowing it after the event. Last, but certainly not least, we thank **Janet KA3VTQ** and **Rob WI3S** for

chairing Field Day this year. Everyone who brought equipment, helped with the set-up and tear-down, operated the stations, took photographs, who contributed in any way whatsoever ... thank you!

Preparing the report takes time, so we don't have many numbers for you. We heard **Mitch W2MBH** talking about 1,000 QSO's at his station, and we know that 40 CW made 232 Q's and 40 SSB made 78 Q's. Our PSK31 set-up didn't produce any QSO's, but just seeing this new mode copied was enough to get some club members ready to take the plunge.

**MARC Hamfest July 16**

## VOX

People don't stay put. **Jenny KA3WVD** is living in Greensboro, NC. **Brian WD0HBG** has moved to California. Seen at Dayton: **Josy WQ3E**, **Nat W3JS**, **Gene WB3FTJ**, **Carter N3AO**, **Charlie N3NQX**. Worked in the June VHF QSO Party: **Ron WA2SJW** and **Nat W3JS** (tnx for 432 MHz, Nat!). There won't be any more QSO's with **WA2SJW** ... his new callsign is **W3ZV**. Also enjoying new callsigns are **Dave K3DAT**(ex-N3MDG) and **Sue K3SUE** (ex-KB3EPQ).

**Chuck N3GKW** became a Silent Key at the age of 80. MARC sends condolences to **Bob KA3NIQ**, whose wife passed away in June. **Marco KB3CXS** is moving back to Italy. We just learned about the death of his year-old baby, a terrible loss indeed. Marco wants to remain a club member, and we sincerely hope that life will be kinder to his family in the future.

## PUBLIC SERVICE REPORT

The MS Society walk-a-thon took place on May 7 in Downingtown. The weather was great, and no emergencies took place. MARC members among the hams communicating for this event were **Bob N3JIZ** and **Dave WB3EHS**. Dave walked the route to help raise money for the charity, too.

Once again, MARC communicated for the Radnor Township Memorial Day Parade and had a car in the parade, too. **Bob N3JIZ** was Net Control, with **Ned WQ3Z**, **Rick N3AGS**, **Dave WB3EHS**, **Jeff WA3RIZ**, **Bob W3ZQN**, **Rich KC2EFA**, **Steve KD0VA**, **Roger N3VBZ**, **Beth KA3GKI**, and **Bob W3SA** working communications. Ned's son **Justin Smith** also attended and helped. **Carter N3AO** drove his car in the parade, with the vehicle decked out in new colorful banners giving the club's name and Web address.

**Bob N3JIZ**, **Dave WB3EHS**, **Bob W3ZQN**, **Rick N3AGS**, and **Roger N3VBZ** were our communicators for the Tel-Hai run / walk on June 10.

If you are aware of community events that could benefit from Amateur Radio communications, please contact **Bob N3JIZ** (610-687-4587).

The Military Affiliate Radio System (MARS) provides emergency communications and also handles message traffic to / from people in the armed services. **Bill Freiler KW3JF**, a regional official of Navy-Marine Corps MARS, lives in the Philadelphia suburbs. He plans to have a table at our hamfest. His web page ([http://pages.prodigy.net/bill\\_freiler/mars.htm](http://pages.prodigy.net/bill_freiler/mars.htm)) explains what MARS is. Why don't you check out the web page and then chat with Bill at the hamfest, to see if MARS and you have a future together.

## HIGHLIGHTS OF THE BOARD MEETINGS

At their May 25 meeting, the Board discussed logistics for moving 145.13/R to Paoli Hospital for a trial period. The Technical Committee was authorized to spend money necessary for the move. Field Day will be chaired by **Rob WI3S** and **Janet KA3VTQ**. A storage facility will be rented in time to hold equipment after its use at Field Day. Backup repeaters and other technical equipment owned by the club will be inventoried, so a decision can be made about what gear to store and what to sell. Public service events were reported and a June program topic was selected. Arrangements will be made to present the VCR we purchased to the officials of the library in Wayne. The treasury balance was \$8,485.15.

At the June 22 meeting, the Board discussed the impending move of 145.13/R to Paoli Hospital. After this is done, the 220 repeater will be attended to, and efforts will be made to re-establish the WB3JOE packet BBS at another location. A report on rental of a storage locker in Frazer was received, and it was decided that the two Board members who will hold the keys to the locker are **Al N3EA** and **Kay WT3P**. Review of the By-Laws is in process, though it was not possible to report in June as originally planned. The treasury balance was \$7,995.95.

## BOARD OF DIRECTORS, 2000

## PRESIDENT

**Steve Maslin N3ORH 610-313-8080**  
smaslin@fast.net

## VICE PRESIDENT

**Bart Feroe K4BF 610-367-4288**  
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## SECRETARY

**Bob Haase W3SA 610-293-1919**  
rhaase@bellatlantic.net

## TREASURER

**David DelPizzo KB3CRY 610-630-0129**  
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## MEMBERSHIP SERVICES

**Kay Craigie WT3P 610-993-9623**  
wt3p@arri.net

## PUBLIC RELATIONS

**Bill Owen W3KRB 610-325-3995**  
gem@op.net

## PUBLIC SERVICE

**Bob Palin N3JIZ 610-687-4587**

## TECHNICAL

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

## PROGRAMS

## MEMBERS-AT-LARGE

**2000-2001: Al Maslin N3EA 610-446-4936**  
amaslin@earthlink.net

**1999-2000: Janet Vann KA3VTQ**  
610-384-3163, jvann@ccis.net

## CALLSIGN TRUSTEES

**WB3JOE: Al Maslin N3EA 610-446-4936**, amaslin@earthlink.net

**W3NWA: Kay Craigie WT3P 610-993-9623**, wt3p@arri.net

## FCC DEBUTS ULS INTERNET FILING!

We now can file Universal Licensing System applications via the Web. With little fanfare, the FCC opened ULS to Internet filers on April 29.

ULS users now can file applications and notifications via the Internet for all services previously only available by dial-up connection to the FCC's Wide Area Network. To access the new capability, visit the ULS home page <http://www.fcc.gov/wtb/uls> and click on "Online Filing." Applicants must first be registered with ULS and use their ULS password to log onto the system.

The ULS — the FCC's interactive on-line licensing application, modification and renewal system for wireless telecommunications services — was deployed for the Amateur Service last August 16. ULS also lets users research the status of applications filed in ULS and licenses issued by the Wireless Telecommunications Bureau.

The FCC said that many ULS users had requested the ability to access ULS through the Internet in order to utilize their high speed Internet connectivity. Well, that's one way of putting it. "Screaming their heads off" corresponds more closely to hams' reaction to the torture of using FCC's user-hostile dial-up service.

The FCC told the ARRL that making online payments — to file a vanity callsign application and pay on line, for example — requires that users be running the 128-bit encryption version of Netscape Communicator Ver 4.73 or later. The FCC says Netscape 4.7, 4.61 and 4.51 have been tested and are compatible with the ULS. While different browsers and platforms other than Windows-based systems may work for some ULS functions, the FCC currently supports only these recent versions of Netscape for online filing tasks. Netscape 4.6 and versions

earlier than 4.51 are not compatible with ULS. Explorer works for ULS registration, but not for other filing.

Filers should configure browsers to enable Java and Java Script and to accept all cookies. Some hams have reported that anti-virus software may need to be disabled in order to use the FCC's web-based filing. Users will need to Adobe Acrobat Reader 3.0 or later as a plug-in to their Web browser. Netscape and Acrobat are available free via the Internet.

The FCC will continue to provide dial-up access to the ULS. Information on making a dial-up connection is available via the ULS home page by clicking on "Connecting to ULS." The FCC advises that anyone experiencing problems logging onto the ULS should contact ULS Tech Support at 202-414-1250. **Dennis K3DS** has experience doing Internet filing for vanity callsigns and has offered to advise members about on-line ULS filing.

## THREE CHEERS FOR OUR UPGRADERS!

Brian WD0HBG - Extra	Rick WB3BSA - Extra	Dan KA3KHR - General
Bob WA2CDI - Extra	Bob KA3NIQ - Extra	Gary WA3BXE - General
Dan W3LKD - Extra	Charlie KC3DS - Extra	Steve N1HDP - General
Ron WA2SJW - Extra	George N3ORC - Extra	Rick N3AGS - General
Roger N3GHJ - Extra	Edie KA3NKP - General	Alex KA2VLP - General

Congratulations! We would like to salute all members' upgrades. Please send word to **Kay WT3P**, if your recent upgrade is not listed here.

Privacy guidelines don't allow the VE team to give your information to the newsletter editor, and I can't report it without your permission even if I was a VE who tested you. If I don't spot it on the Internet (where it's a matter of public record) or

hear about it from you, your good news may slip under the noise level. Don't be modest!

For information about MARC's next VE test session, see page 7 of this newsletter.

ARRL's new Technician and General study manuals came out at Dayton. The new Extra book will be out ASAP.

## 145.13 REPEATER MOVES TO PAOLI FOR TEST RUN

The 145.13 repeater has been without a good site for a while. Because 147.07/R in Media does not adequately serve MARC members in the Great Valley / Norristown / K of P area, we really needed a '13 site that would provide repeater coverage for this segment of the membership. Because of the explosive growth of wireless communications and the profits to be made from antenna sites, finding a site we could afford (i.e., free) was next to impossible.

The Board approved placing the repeater at Paoli Hospital for a test, replacing the seldom-used packet BBS. It is hoped that

'13 at this location will be useful in the Great Valley / Norristown / K of P area, and signal reports are encouraged. Please pass them to **Steve N3ORH** (smaslin@fast.net, 610-313-8080).

The work party who moved the repeater from its temporary home in Norristown to Paoli on July 1 included **Dennis K3DS**, **Steve N3ORH**, **Bob W3ZQN**, **Rick N3AGS**, **David KB3CRY**, **Bob N3JIZ**, **Ron W3ZV**, and **Steve K3KFD**, who had kindly donated the temporary Norristown location. Thanks!



## TRY PSK31 — THE NEW DIGITAL MODE

Articles in May '99 and May '00 QST introduce PSK31, a new digital mode that's booming in popularity on HF. It has amazingly narrow bandwidth and is useful at imperceptible signal strengths. It is true that CW gets through when SSB can't. PSK31 is even better. It copies data at signal strengths where the human ear hears nothing. Nothing. At. All.

Unlike AX.25 packet and the TOR modes, PSK31 is not a handshaking (error-correcting) mode. Nevertheless, it works for QSO's and international emergency officials are looking seriously at it for applications where 100% error-free copy isn't required.

As the QST articles explain, you can get on PSK31 at little expense. You can get on this mode with cables you may already own and maybe a few minutes at the workbench with components from Radio Shack. If the output from your computer sound card will trigger the vox on your rig, you may not even need to build a circuit or tie up a COM port.

When the audio output from **Carter N3AO's** laptop proved insufficient to trip the vox on his Kenwood TS-440S, we bought the components for the little COM port circuit, but stuff happened and we just never got it built.

So at Dayton, we decided to pick up West Mountain Radio's RIGblaster (\$79.95 plus shipping ... see ad on page 168 of June '00 QST). This tiny box, smaller than a TNC, does other modes in addition to PSK31 and comes with a cable customized for your brand of HF rig. Though you have to set some internal jumpers, the manual has clear diagrams. A CD-ROM of digital mode software is included. All you need that isn't included is an RS232 cable and a shielded audio cable with mini-plugs.

Let's back up a minute. Suppose you want to monitor PSK31 to see if it interests you. That's easy. First, read the May '00 QST article to get the concept. Then you'll need that audio cable I just mentioned, which you connect to your rig's audio output jack and your computer's line input or mic input jack. You'll need some software, which you can download from the Internet free. The May '00 article lists several free programs you can try out. We are using DigiPan 1.2 (<http://members.home.com/hteller/digipan/>), a Windows 95/98 program that's very user-friendly and quite popular.

Install your program, hook up the audio cable, and tune to 14.070 MHz, upper sideband. Set your filters to a normal SSB bandwidth. Right off the

bat you will be copying PSK31 signals, though eventually you'll want to fiddle with some of the program controls for optimum copy. If you like digital modes and can resist getting set up to transmit after you've copied a bit, then you're made of sterner stuff than I am!

The only difficult part was pushing through the crowd at the West Mountain Radio booth at Dayton to buy the RIGblaster. It was easy to set up and next thing you know, Carter was having rag chews on PSK31. Soon he had logged contacts with Illinois, Indiana, California, Alabama, Italy, and (*drum roll*) St. Helena Island (ZD7) in the south Atlantic Ocean.

A lot of QRPers are enthusiastic about PSK31, because you do not need much juice to make this mode work just fine. Since PSK31 is 100% duty-cycle, you really don't want to drive it hard. That keeps your finals happy and makes your signal narrow and clean.

Using 40 watts, I worked a Mexican station who was using 10 watts, and copy was good even though my beam wasn't aimed straight at him.

I'm not shelving my Bencher paddles or bidding adieu to Baudot, but this PSK31 really rocks!

## TIPS

Interested in computer-controlling your older Kenwood HF rig, like **Carter N3AO's** TS-440S? The Kenwood IF-232 interface box was discontinued last winter. Why? Because too many people were rolling their own instead of buying Kenwood's. What if my TS-950SD's interface box up and dies? The Kenwood rep's suggestion to me at Dayton was to buy a new rig with the circuitry built in. If looks could kill, that guy would be sausage! We were thinking about homebrewing the interface for Carter's rig but then discovered that MFJ sells interface cables for not a reasonable price. Build it or buy it, you probably can achieve computer control for an older rig for a tolerable amount of money.

When designing a QSL card, PLEASE make sure that all the QSO data (including your callsign) appears on one side of the card. I just keystroked over 700 DX contacts for my Significant Other. Having to flip a lot of the cards over (and over) to ferret out the relevant data was a pain in the ... well, it was not entertaining. We're wise not to annoy the people we want a QSL card from.

A recent QST product review mentions that current mobile VHF rigs use the whole case as a heat-sink, not just the fins on the back side. The writer cautions us to install these rigs so there will be ample air circulation ... we shouldn't stuff them into confined spaces that seem like such obvious spots to tuck a little rig into the car. My experience with a new 2m mobile rig confirms that advice. Although I supposed I had plenty of space around the rig, it still overheated and was one unhappy little machine. Air. LOTS of air!

As you do antenna work this summer, think about safety. Cutting corners could mean spending time in the emergency room instead of the radio room.

**Do not try to renew more than 90 days before your license expires.** The FCC will reject your application and send you a rather scary form letter. If you are submitting a change of address or other administrative update, do not check license renewal also, unless you're within the 90 day window. Otherwise, the whole application gets booted and you must start all over again.

## OPERATING FUN

One of the rarest countries on the DXCC list was on the air this spring! Bhutan, a micro-country in the Himalayas north of India, finally granted licenses to some foreign hams to operate after many years of zero ham radio. **Ron WA2SJW** (now **W3ZV**) worked them on 15m RTTY, which made your editor's envy meter bounce off the scale ... so I worked 'em on 15m RTTY and CW. Much to my astonishment, I might add.

Here's hoping you also caught some of the nice DX that has been on the air. By the way, "Nice DX" means anything you don't have yet.

### *Up, Up, and Away*

Can you imagine what a DX pile-up sounds like from the other end? People who have operated from rare DX countries say it's an avalanche of noise. Picking callsigns out of such bedlam requires operating skills that are absolutely awesome.

One way DX ops maintain order is by operating split frequency. That is, they transmit on one frequency but listen on a different frequency or range of frequencies. They usually "listen up" — that is, on a frequency higher than where they're transmitting. Keeping the pile-up off the DX's transmit frequency means you can hear the DX and know who he's come back to.

The rarer the DX, the more likely that operation will be split frequency. The DX doesn't get drowned out by the mobs who're calling him.

That's the theory. In practice, you always have a few people who call on the DX's transmit frequency, either because they do not know any better or because they are knuckleheads. I assume you are not one of the latter, so let's make sure you aren't one of the former.

Modern HF rigs have dual VFOs. You set one of them (I always use VFO A) to receive on the frequency where the

DX is transmitting. Let's say he's transmitting on 14.195 MHz, so that's where I set VFO A to receive his signals.

Where should I transmit? On phone, most DX working split will listen at least 5 kHz above the transmit frequency. Good operators will tell us where they are listening: "Up 5," or "Listening 200 to 210" are the kinds of phrases you'll hear. I always use VFO B for transmitting, so I set it where I believe the DX will be listening.

For example, if the DX transmitting on 14.195 says, "Listening 200 to 210," then I'll pick a frequency somewhere between 14.200 and 14.210 for my transmit VFO.

Listening over a range of frequencies spreads the calling stations out, so the DX may be able to pick something out of the cacophony a little faster.

On CW, good DX ops will send something like "FW/G3SXW UP" or "A52A UP 2." On any mode, tune slowly above the DX's transmit frequency and you'll soon locate the pile-up of stations calling him. That (yikes!) is your competition. Be brave. Go for it!

How to set up to receive on this VFO and transmit on that VFO differs from one rig to another. In the manual for your HF rig, read about using the dual VFOs for split frequency operation. Play with it a little, so you'll be ready to do the Freddy when some desirable DX shows up working split frequency.

When you hear a DX station on the bands, take a minute to figure out if he is working split, or transmitting and receiving on the same frequency (called "working simplex" or "working transceive"). The minutes you spend listening and thinking will be time you won't waste transmitting where the DX isn't listening.

Better yet, you won't feel like a horse's caboose after being bawled out for QRming the DX.

### *What the WWV reports mean*

When you hear the WWV reports or read the summaries on the DX packet cluster (SHOW/WWV), what do the numbers mean? WWV reports include a statement of present conditions and a prediction of conditions to come.

The SFI number represents solar flux. The higher, the better, because higher numbers mean more ionization and better propagation. At the bottom of a sunspot cycle, SFI numbers go way below 100, and you might as well go to the grocery store or read a book. With higher SFI numbers, propagation improves, and so does fun on HF.

The A and K indices reflect geomagnetic activity. The A index (scale 0 to 400) is a 24-hour average representing overall geomagnetic field conditions for the UTC day. An A index from 0 to 9 is described as very quiet to quiet and represents an S-meter noise level of S1 or S2. As the A index moves into double digits (12 - 32), conditions may be described as unsettled to active, representing a noise level of S2 to S4. Higher A indices can mean yard work instead of playing radio, but read on.

The K index (scale 0 to 9) is a 3-hour average that reflects current conditions. The K index of 0 to 2 is in the very quiet to quiet range. In the 3 to 4 range, the K index corresponds to unsettled to active conditions, with noise levels of S4 or lower.

If the A index is high and the K index is 5 or more, there's a geomagnetic storm, and you should gas up the lawn mower. However, if the A index is high but the K index is dropping, conditions are improving in recent hours and you might want to check the bands before heading for the mall or the tool shed.

When you use the SHOW/WWV command on the packet cluster, you are given the last 5 WWV reports, so you can see what the trend is. This is more useful than the single report broadcast by WWV itself. [WWV info *tnx National Radio Astronomy Laboratory and NA5NJ*]

## NATIONAL WEATHER SERVICE LISTSERVERS

The Mount Holly National Weather Service SKYWARN Technical Committee announces the reconfiguration of their two listservers. Both servers are owned and moderated by Joe Miketta of the Mount Holly Forecast Office. Anyone is welcome to subscribe to either one or both lists.

The Mount Holly Severe Weather list is configured to automatically post direct downlink NWS products from GOES-8. If you are interested in receiving a heads-up on severe weather watches and warnings, you may wish to subscribe to this list. The list covers all of the 34 county forecast coverage area. To subscribe go to the following URL and follow the directions: <http://www.egroups.com/group/MTHOLLYSVRWX>. This is a read-only list.

The Mount Holly Weather Discussion List is configured so anyone can post as long as he or she is signed up as a

member of the list. The list's purpose is to disseminate information of interest on weather, SKYWARN, the SKYWARN Technical Committee, training, severe storm preliminary reports, a quarterly newsletter, storm discussions and severe weather awareness issues. On this list you can post anything as long as you stay on topic and remain respectful to the other list members. To subscribe to this list go to <http://www.egroups.com/group/MTHOLLYSVRWX>

SKYWARN is made up of a group of trained, dedicated amateur weather enthusiasts who work in conjunction with the National Weather Service by observing and reporting adverse weather conditions to promote public safety and minimize property damage. For more information on SKYWARN or the SKYWARN Technical Committee contact [wx2phi@skywarn.net](mailto:wx2phi@skywarn.net) or [deborah@warwick.net](mailto:deborah@warwick.net). [tnx ARRL Atlantic Division News]

## JUNE VE TEST SESSION RESULTS

Our test session on June 17 served 11 applicants, 10 of whom went home happy. Although one person did not pass his Technician exam, two people did pass Technician and became new hams. Six people did paperwork-only upgrades from Tech Plus to General. Two people earned the Extra license, one via paperwork and one via an examination.

Eight VE's worked at the session: **Bob W3ZQN**, **Bob W3SA**, **Bob KA3NIQ**, **Dennis K3DS**, **Dick K3ITH**, **Walt WA3PPW**,

**Ned WQ3Z**, and **Kay WT3P**. **Tom K3YPO** handled logistics and liaison with the church.

The next MARC test session will be on Saturday, August 5, at Bryn Mawr Presbyterian Church on Montgomery Avenue in Bryn Mawr. Applicants should arrive by 9:15 to begin the paperwork. Pre-registration is very strongly advised. If no one pre-registers, we cancel the session so as not to waste the examiners' Saturday morning. Pre-register and get all details by contacting **Bob W3ZQN** ([rjlees@aol.com](mailto:rjlees@aol.com), 610-265-6032).

## MESSAGE-HANDLING NETS ON THE MARC REPEATERS

The National Traffic System (NTS) is ARRL's network for relaying formal message traffic, also called radio-grams. MARC's tri-weekly traffic nets are affiliated with the NTS as local nets. Very few radio clubs in eastern Pennsylvania operate NTS VHF nets

With the Internet and wireless phones and all, is there still any need to learn how to handle traffic? Yes! Even though the importance of long-haul message relay on HF has diminished considerably, hams still need to know how to send and receive formal messages. In an emergency, hams must relay messages efficiently and accurately for served agencies. The messages are probably not in NTS format, but the concept is the same.

It is sad to listen to an important emergency drill when hams are obviously scared spitless, blither the messages much too fast, mumble or yell into the microphone, can't

remember standard phonetics, don't copy competently even when a message is well transmitted, and do not understand how to control or participate in a directed net. All while agency officials are listening and thinking who-knows-what!

A person doesn't want to be unsympathetic, but public service communication can be life-and-death stuff. Simply meaning well isn't enough. We have to master the operating skills, in order to be useful emergency communicators.

We can't master these skills by reading a book, attending a seminar, or turning out for two or three drills every year. We do it by regularly participating in formal nets, sending and receiving messages, and imitating the procedure used by more experienced operators. It's ham radio, not fire-eating or lion-taming. It just takes practice.

MARC's traffic nets are Monday, Wednesday, and Friday at 8:30 PM on 147.06/R. The Net Manager is **Carter N3AO**. He would be happy to send you some training literature on formal message handling and to answer any questions you may have. These are training nets, where it's no biggie if you make a mistake or need some help. What, do you think anybody was born knowing how to do this stuff?

Usually there is time for a round of comments, through which we get to know one another better. Once you have gotten the hang of things, you may want to try your hand at being Net Control. We never have enough Net Control stations! When you think you might be ready to try it, ask Carter for the "read-me" (the "preamble" in net lingo). Nobody has ever died while trying this ... it even gets to be fun!