

The MARA-VARA *Monitor*

MARCH 1996 -- Volume 96:03

This is the web page version of the MARA/VARA *Monitor*.

The *Monitor* is published monthly by the Massanutten Amateur Radio Association, Inc.,
(a non-profit organization under the IRS regulations),
for radio amateurs in the central Shenandoah Valley of Virginia.

Weather Cancels January VARA and February MARA Meetings

The Blizzards and Floods of 1996 have taken their toll on the Massanutten and Valley Amateur Radio Associations. The January meeting of the VARA group, and the February meeting of the MARA group, were both canceled due to the inclement weather.

This doesn't mean that the hams weren't out in the weather -- they were! ARES and Skywarn were both alive and active during the storms. But the groups were unable to hold the regularly-scheduled meetings because of difficulty getting to the meeting restaurants. Hopefully, the spring thaw will enable both groups to get back to the old grind for their March meetings.

VARA President's Message

Hello to all, it was good to see everyone at the February meeting, which was held one day early (on February 13th) because the 14th was Valentine's Day. Next month we will be back to our old schedule. The January meeting was called off due to bad weather (snow, sleet, ice, etc.) and as we all know the December meeting was the joint Christmas party, which I hope all enjoyed (--I sure did!).

At the February meeting, Joe, W4XD, gave a presentation on Ten-Tec equipment, and it was enjoyed by all. I would like to thank Joe for that. Bill, KC4TQF, announced that on March 6th, he and Alby, AD4KZ, will start a new Novice-Tech class at the Mary Switzer building at the Woodrow Wilson Rehabilitation Center in Fishersville. Anyone who may be interested in helping teach the class is welcome and appreciated -- please contact Bill to make the arrangements.

We also had seven (7) new amateurs make application to the club for membership. We welcome them all.

I would like to thank the members of VARA for the flowers while I was in the hospital, and everyone else for the cards, calls, and concern for me. Things like that mean a lot. Thanks again.

Our next meeting will be held on March 13th, at Kathy's Restaurant in Staunton, at 7:30 pm. Come early and enjoy a meal and the fellowship. That's all for now, and I hope to see you at the meeting if not before,

73 to all,
Ken Harris, KE4GKD

T-Hunt Coordinator Needed

Bill, KC4TQF, is looking for someone to take over the organizing of the monthly hidden-transmitter hunts. These events (also known variously as "fox hunts", "egg hunts", or "turkey hunts", depending on the season and who is doing the hiding!) are monthly events designed to give local amateurs practice in finding transmitters. A side benefit of the practice is the enormous amount of fun had by the hiding ham as well as the hunting hams.

This has been a real fun event on both sides of the Blue Ridge. The VARA club was starting to build a real reputation with this event, and we hate to see it die on our side of the mountain. If anyone is interested, please contact Bill, KC4TQF, at (540) 337-5179 for more information. If you don't get an answer, please leave a message and Bill will get back to you. The coordinator's position does not take up much time, but is a lot of fun.

*Thanks,
Bill, KC4TQF*

KB4LCI -- West Virginia News

Dave Gordon, KB4LCI, would like to assemble the packet addresses, home BBS, and other information of the area ARES officials, ARRL Emergency Coordinators, and others who might be active during emergency situations. Dave's packet mail address is KB4LCI @ WB4QOJ.VA.USA.NA. You might also be able to connect directly to him at POCAEC via POCAWV via PENDWV on 145.690 Mhz.

Dave also would like information on area hams who are active on 2-meter SSB, or 6-m SSB. Are you active in this mode on these bands? If so, drop Dave a line and let him know, or contact the Monitor editor and he will pass the message along.

The situation involving hunters illegally using 2-m ham bands is getting worse in West Virginia. In an effort to determine just how widespread the problem is, Dave has issued a nationwide call for reports involving hunters using ham bands -- any ham band. If you have any information to provide or reports to give, contact Dave at the above packet address.

As readers may know, Dave is an official at the National Radio Astronomy Observatory (NRAO) in West Virginia. He says that any time a ham radio group would like a tour of the facility (it's a really neat, universe-class radio receiver!), contact him to schedule a date.

Kenwood Information

Kenwood Corporation has a 24-hour bulletin board offering information on radios, parts, and service, along with hints, helps, and do-it-yourself information on their products. The number (310) 761-8284. Except for the phone call, the board is completely free. The board is up 24-hours a day, 7 days a week for your convenience. It uses the usual 8-N-1 datacommunication parameters.

Kenwood's East Coast amateur repair center is located at 829 Lynnhaven Parkway, Suite 130, Virginia Beach, VA 23452. The phone number is (804) 340-1702. It is open Monday through Friday, 9:30 am to 5:30 pm Eastern time.

Kenwood's special customer service Hot-Line is (310) 639-5300, open 8:30 am to 4:00 pm Pacific time

(11:30 to 7 pm Eastern). The parts service center toll-free line is (800) 637-0388, open Monday to Friday, 9 am to 5:30 pm Eastern time.

those of you with internet access, Kenwood's web site is: <http://www.kenwood.net>.

*from the Kenwood Report,
courtesy of Dale, KD4DAI*

Directory of Ham Mail-Order Suppliers Now Available

The fifth edition of the Amateur Radio Mail Order Catalog and Resource Directory is now available from the ARRL. The directory is a complete "who's who" of the mail-order business serving amateur radio and related electronics suppliers. If it's related to ham radio and is offered by mail, it will be in this directory, according to the ARRL. The 256-page, soft-bound directory is item 5242, available from ARRL dealers or from ARRL Publication Sales, 225 Main St., Newington, CT 06111-1494, for \$15.95 plus \$4 for shipping and handling. You can also order by phone (860) 594-0200, or fax (860) 594-0303.

from the ARRL Letter

Who's Who Over the Mountain

The Charlottesville club (Albemarle Amateur Radio Club, or AARC) posts the following for our information:

AARC 1996 President: Pete Wildman, AD4TU
Vice-President: Greg Faust, N4PGS
Secretary: Joe Fritz, KD4RWX
Treasurer: Sharon Duvall, KO4OC

Directors:

Rick Berman, KO4WQ
Mike Duvall, AC4ZQ
Hein Hvatum, N4FWA
Jessi Preston, KE4OID
Ron Richey, K4RKA

Albemarle County EC: Kay Harden, KE4UKW

NOAA Snow Definitions

The Eskimo language has 32 different words for "snow". When you live with it as much as they do, you learn to distinguish between the various types and kinds of snow and ice. To help those of us in the lower-48 cope with the differences, NOAA has published the following definitions, used in official weather reports and forecasts:

- Snow Flurries -- Light snow falling for short durations. No accumulation, or only light dusting. Ground might turn white in some places, but will not be completely covered.

- Trace of Snow -- Snow that melts as it falls, no accumulation even though the snow may fall for some time.
- Snow Shower -- Snow falling at varying intensities for brief periods of time. Some accumulation is possible, where ground will be almost totally covered.
- Snow Squalls -- Very brief, intense show showers accompanied by strong, gusty winds. Snow Squalls are generally found in the Great Lakes regions.
- Blowing Snow -- Wind-driven snow that reduces visibility and causes significant drifting. Blowing snow may be snow that is falling, or it may be loose snow on the ground picked up by wind.
- Blizzard -- Winds over 35 miles per hour with falling snow and blowing snow, reducing visibility to near-zero.
- Sleet -- Rain drops that freeze into ice pellets before reaching the ground. Sleet usually bounces when it hits a surface and does not stick to objects. However, it can accumulate on the ground like snow, and cause hazardous driving.
- Freezing Rain -- The worst of the bunch. Rain that falls onto a surface whose temperature is below freezing. This causes the rain to freeze to surfaces, such as trees, cars, power lines, and roads, forming a glazing or even a coating of ice. Even small accumulations of freezing rain can pose significant hazards.

furnished by Dick, W4JZC

April Monitor Deadline: Friday, March 22

Be sure to get your news, announcements, minutes, advertisements, hot air, or whatever, to David before Friday, March 22nd, to get in the April issue. Thanks.

GPS, Space, Time, and the Radio Amateur

Most hams are aware that there are over a dozen orbiting satellites carrying ham radio experiments in one form or another. Some of these are voice repeaters, operating on SSB frequencies from 10 meters through the microwaves. Others are digital birds using store-and-forward packet technology. Some even have CCD cameras on-board and send back digitized photographs of the earth. Some of these satellites can be received with nothing more than a hand-held HT, although transmitting to most of them requires a slightly higher power level and directional antenna.

Many hams are also aware that there is a series of satellites called the GPS, or Global Positioning System. These satellites send out continuous signals in the microwave region which can be received and decoded by special GPS receivers. The receivers are available from a multitude of manufacturers, including Motorola, Sony, and even Radio Shack, at prices starting around \$300. The receivers automatically tune to several GPS satellites, and by decoding the special signals, can triangulate their position with respect to the satellites' position. Since part of a satellite's transmission is its own position, the GPS receiver can then determine the latitude and longitude of the user, to within a resolution of about 50 feet. (Actually, the system allows for

resolutions down to 3 feet, but the signals have been deliberately degraded for national security reasons!)

So what does this mean to you as a ham? Well, for starters, if you can buy or borrow a GPS receiver, you can determine the location of your shack in latitude and longitude, and even elevation, to within a hundredth of a minute or about 200 feet. This is nice to know for HF work and grid-square counting on the VHF bands, and essential for accurate plotting of beam headings if you work the ham satellites.

The GPS system also allows you to transmit your coordinates to other hams, giving them information on your position. You will notice that more and more ads for packet TNC's (terminal node controllers, the radio modems allowing you to connect your computer to a ham radio and communicate digitally with other hams via packet radio) are including the words "GPS-ready" or "GPS-compatible". This means that the TNC has a connection for a serial digital link to a GPS receiver, and contains the firmware to decode the data stream from the GPS receiver and transmit location data in the APRS format.

Okay, so again, what does this mean in practical terms? Well, for one thing, it means that you can build yourself an auto-locator for your car or boat or even your back-pack. Simply install a ham radio, a TNC, and a GPS receiver, properly wired together, of course, in your vehicle. Set the parameters, and voila! Your vehicle will automatically report its position digitally on the ham bands. Using public domain software, other hams can receive the signals, and plot your position on a map on their computer screens. As one ham put it, it's sort of like looking at an air-traffic controller's radar screen, only the blips represent hams instead of planes.

If your car is ever stolen, the auto-location system can help locate your vehicle, at a price much cheaper than the Lo-Jack location system, which basically performs a similar function on the commercial radio bands. (Lo-Jack is essentially just a beacon and homing methodology, whereas the APRS actually transmits the latitude, longitude, and elevation of the transmitter!)

Such a system can be carried by hikers and search-and-rescue teams, enabling them to be tracked by base and control stations. A recent shuttle mission carried ham-radio-based APRS location hardware for experimental purposes in locating orbiting vehicles. The APRS system, modified to eliminate some of the terrestrial-only information, is expected to assist in tracking new ham satellites, reducing dependence on the NORAD/NASA keplerian tracking elements. Additionally, as ground-based stations beacon their position to the APRS satellite, it re-transmits the ground-station position information. This allows any ground station to display a map showing the position of all other ground stations in communication with the satellite.

The possibilities for the GPS-based APRS system, like most ham radio facets, are limited only by the imaginations of the hams who use it. Mapping, tracking, tracing, routing, guidance of emergency teams, all are potential uses.

An innovative use of the GPS system is to test out the propagation profiles of new home-made antenna designs. WB4APR has written a public-domain computer program called SIGPLOT.BAS which will plot a complete elevation profile of your omni antenna. It uses the RF from the constellation of GPS satellites as a signal source, and analyzes the incoming signal to create the profile. It can be used with any cheap GPS receiver to give you AZ, EL and signal strength to the satellites! Just scale any antenna design to 1575 MHz and place it outside, hook up a GPS receiver to your serial COM port, and watch the profile develop.

The GPS constellation is a slow moving source of RF that in only an hour or so will provide you with a signal from all angles and elevations. Most GPS receivers output a data format to their serial port which tells your computer the AZ, EL and SIGNAL strength from all satellites in view. Simply plot the signal strength against elevation, and in an hour or so you will have a beautiful propagation profile of your antenna.

Locally, Vic, KE4LKQ, is active in APRS. If you would like more information, give him a call on the 146.625 repeater in the mornings around 8:00 am.

*compiled from
AMRAD, ARRL, and other sources*

Dual Band HT Antenna For Sale

Gene, WA4NUF, has a Comet SH55 dual-band hand-held transceiver antenna for sale. The antenna can handle up to 10 watts, and is fitted with the standard BNC connector. This antenna offers 1.5 dbi gain on 144 Mhz, and 3.2 dbi on 440 Mhz. It is in excellent condition. For only \$30 you can extend the range and effectiveness of your dual-band HT. And if you don't have \$30, Gene will entertain offers! Call him at (540) 249-4609 (Grottoes, east of Weyers Cave, local number to Rockingham County) evenings after 5 pm.

NASA HF Frequency Listing

The HF bands are still one of the cheapest and simplest ways to conduct long-range radio communication. Because of the vagaries of the atmosphere, organizations relying on HF communication utilize many different bands so that no matter what time of day or night, a reliable radio link can be established. NASA's shuttle program, in spite of its high-tech equipment, still heavily utilizes the HF bands for a good bit of its communications needs between ground stations. Jeff Bishop, KB8FRW, has provided a listing of frequencies used by NASA during shuttle missions. If your HF rig has a general coverage receiver, you might want to "listen in" on some interesting traffic. (Frequencies given in Megahertz)

- 2.622 Booster Recovery Operations
- 2.678 General Cape Canaveral Radio Channel
- 3.385 Tracking Network Voice Links
- 3.395 Tracking Network Voice Links
- 5.190 Tracking Vessels
- 5.518 Tracking Vessels
- 5.810 Booster Recovery Operations
- 6.693 NASA Aircraft Long-Range Radio
- 6.708 NASA Aircraft Long-Range Radio
- 6.783 Tracking
- 6.896 NASA Aircraft
- 6.983 Tracking

- 7.461 NASA Airport
- 7.675 NASA Kennedy operations frequency
- 7.765 Tracking
- 10.780 USAF Cape Radio Primary Channel
- 11.205 Pacific Operations
- 11.407 Booster Recovery Alternate channel
- 13.170 Aircraft general
- 14.456 Tracking Voice and Data
- 20.186 Tracking Voice and Data
- 20.191 Tracking - Ascencion Island station
- 20.197 Tracking - Ascencion Island and other stations
- 20.390 Tracking - Ascencion Island and other stations

W3MMC: An Intermod Primer

Two types of interference affect radio communications, regardless of frequency: unwanted signals from other users sharing the same frequency (user interference, jamming, channel sharing), and interaction of other signals on difference frequencies that produce an unwanted signal on the receiving frequency (intermodulation interference, or intermod).

Intermod can be caused by other radio transmitters (often nearby), or by one's own equipment. It results when radio signals on two or more frequencies mix together to produce signals on additional frequencies. For example, when signals on frequency A mix with signals on frequency B, they produce signals on the following frequencies, among others: $(A+B)$, $(A-B)$, $(2A+B)$, $(2A-B)$, $(A+2B)$, $(A-2B)$, etc.

If a third frequency is added, many new combinations are possible: $(A+B+C)$, $(A-B+C)$, $(A+B-C)$, $(2A+2B-C)$, etc. Because the energy content of RF signals tends to be much greater for odd harmonics, intermod products such as $5A-4B$ (which is a 9th-order harmonic) can affect reception if they fall on a desired frequency. Intermod can be serious at locations where many transmitters and receivers may operate simultaneously. Intermod effects drop off significantly with distance, but can still be sufficient to cause problems in communication at distances up to several miles from the mixing transmitter(s).

Intermod can be eliminated in several ways. The best way is to select frequencies carefully to avoid frequencies with intermod potential. Another method is to separate the antennas of the transmitters so that the signal of one transmitter is attenuated by distance before it associates with the signals of the other transmitter.

Separation can be either horizontally or vertically. Because most land-mobile service antennas concentrate power towards the horizon, vertical separation is often more effective at reducing intermod than horizontal separation.

Reducing transmitter power also reduces intermod. Installing filters including isolators or circulators or both, will help prevent signal mixing at its source. Another method is to restrict, either administratively or electronically, the simultaneous operation of the interfering transmitters. This approach may work with non-critical radio traffic, but may pose unacceptable constraints on systems handling emergency or other urgent communications.

Sometimes, well-engineered systems, free of intermod when first activated, may be affected by later installations of additional radio equipment at the same antenna site. If adequate precautions are not taken when adding frequencies, the existing equipment may suffer from intermod.

In summary, intermod is a serious and difficult problem to remedy. Frequency selection, filtering, and other methods are about the only way to effectively deal with it.

*excerpted from "An Introduction to Intermod",
written by Sam Ruffin, KM4OI,
printed in the NVFMA Watts New newsletter,
courtesy of Bob Niemeyer, W3MMC*

An Introduction to the Internet

"Connect requests, nodes, packet switching --- hmmm, sounds like ham radio to me!"

Do you have a computer, a telephone line, and phone modem? If you do, then you have the technical capability to connect to the Internet. The Internet is simply a collection of computers (hundreds of thousands of them, to be exact) which are connected together in such a way as to allow a user to communicate with any one of them simply by connecting to the computer closest to the user. In other words, you can dial into a local Harrisonburg or Staunton computer, and if that computer is connected to the internet as a node, you can connect to, and download information from, any of the hundreds of thousands of Internet computers anywhere in the world.

In a nutshell, the Internet is like a world-wide packet radio network. It uses the exact same packet-switching technology as used by our local packet LAN. The difference is that instead of radio frequencies, the Internet uses dedicated high-speed fiber-optic links. Instead of transferring data at 1200 bps, or even 9600 bps, today's typical T3 internet links use 5,500,000 bps speeds (5.5 Mbps). Needless to say, the delay between the connect request and the acknowledgment is negligible. And you don't generally need to worry about busy channels unless you are trying to connect to a very popular computer, one that is already serving hundreds of other users.

What is available on the Internet? The easiest sites to use are surprisingly similar to the familiar packet-radio BBSs. These sites are known as "gopher" sites (because you GO to them FOR information). Gopher sites hold databases of useful information for free downloading. Gopher databases are available at the Library of Congress, the NOAA weather center, the FCC, and thousands of other organizations. Simply connect to a Gopher server, and you will receive a main menu listing the information available and giving directions on how to download it to your PC. Operation is as simple (or even simpler!) than a packet BBS.

Another feature of the Internet is known as the "World-Wide Web". The World-Wide Web is a subset of the Internet computers which are capable of doing "selective" searches of their database, and transmitting only

the search results, not an entire file. This is known as "client-server" computing.

For example, say you log into a local PBBS (such as WAYBBS or N8YIB). These systems let you download messages and files, the same as a Gopher server. But some of these local PBBS systems also let you look up a callbook entry -- you send the server the callsign you want looked up, and the server computer itself does the lookup, and sends you only the result. This is similar to "client-server" computing.

Most World-Wide Web sites are intended to let the user specify exactly which information the user wants. The web site will then send only the information asked for by the user (unlike a gopher site which sends whole files). Of course, web sites are capable of sending whole files, too. And web sites can send more than just plain text. Most web sites contain digitized graphics, pictures, photographs, and even sound and animation files.

Let's take a World-Wide Web example. Every morning, I turn on my computer and start a communications program known as a "web browser". This program acts just like a communications package (such as Pro-Comm, Bit-Com, or Pak-Ratt) but is tailored for use on the Internet web. Using this communications package, I dial into an Internet access computer. Once connect to that computer, I issue a connect request asking for a connection with a web site in Boston. The "callsign" of this website (or, more accurately, its Internet web URL address or "phone number") is "http://www.intellicast.com". The Boston computer holds digitized composite pictures of Doppler radar images (the colorful images of the precipitation you see on the TV, where rain shows up in green, snow in pink, etc.). In addition to specifying the node I want to connect to, I include the actual image name in my connect request. When the connection is established, the remote computer automatically sends the digitized file containing the radar picture. The transmission is made using packet technology, the exact same technology used on the WAYBBS. As my computer receives the picture, my web browser automatically converts the digitized data into a graphics file, and displays the picture on my screen, in much the same way that your TNC converts WAYBBS data into text on your screen.

World-wide web sites can transmit pictures, movies, live television pictures, and even sound over the Internet lines. There are pictures taken by ham satellites, pictures of ham satellites, up-to-the-hour weather pictures, weather maps, and satellite photos, available over the web. All of this stuff is completely free for the taking. There is no charge beyond the fee charged by the company which gives you access to the Internet.

What is the catch? Speed. Lack of speed. In order to access Gopher sites, which contain text information, any speed modem is adequate, depending on how much text you want to download. (For example, downloading the FCC amateur callsign database from the FCC gopher server at 1200 baud would take you about two days!) With the World-Wide Web, it is recommended that you have at least a 14.4 kbps modem, with the new V.34 modems (28.8kbps) strongly recommended. If you have that kind of speed, even complex color pictures should be yours in just a matter of seconds. If you don't have a fast modem, you will probably want to stick with gopher sites and other text-based information. But there is still plenty out there. The ARRL, the TAPR, and even some radio clubs maintain their own "web sites". These computers are chock full of information on ham radio.

How do you go about getting started? The first step is to make arrangements with someone who owns a computer connected to the Internet. It is possible to connect your own computer up permanently, but this is too costly for most hams. A better way would be to contract with one of the valley Internet providers. Shentel, and CFW, both offer high-speed dial-in internet service for as little as \$30 per month with 15 free hours. America On-Line also has a local dial-up number in Harrisonburg, and offers Internet access. These companies generally will provide you with your web-browser software free of charge.

Once you pay your fee, you are given a password to log onto the local dial-up line. You dial in, logon, and then simply type in the URL address of the web site you want to visit (just as you issue a connect request on packet radio). For example, my web browser has a field called "URL address". I enter: "http://www.intellicast.com/weather/roa/radar.gif" and press return, and about 5 seconds later, I have a radar

picture centered on the Roanoke Doppler site, showing a 500-mile radius. Neat, huh?

David Fordham, KD9LA

HF Station For Sale

Pat Moran, N4AOP, became a Silent Key in December. His son Paul is trying to sell Pat's ham equipment. He is looking for a fair price, and has the following to offer:

- Kenwood HF Transceiver TS-140S
- Kenwood DC Power Supply PS-430
- Kenwood 2M FM Transceiver TR-7950
- Daiwa SWR & Power Meter CN-720

If you are interested in this equipment, call Paul Moran at 540-949-7006

*info provided by
KB4OLM*

DXAFTON Coming Soon...

There will soon be another gateway into the DX Cluster network. Thanks to John, N4SYH, for providing electricity and space to test a node site on Afton Mountain. Early observations show that it serves the target area of Charlottesville and vicinity quite well. Equipment for this node (and the respective donor) includes:

- Alinco transceiver - WF3L
- MFJ TNC - KD4DDI
- Ringo Ranger Ant. - KB4OLM
- 12 Amp. Astron - WB4PJW

The callsign of this node is KB4OLM-1. The alias is currently WILDA, but a new chip will be burned for the Afton site with a new name - probably DXAFTON. Thanks to John and Clint for installing this node Monday evening in the rain and fog.

*info from
KB4OLM DX Cluster announcement*

WB4PJW Top Mobile Winner in the Virginia QSO Party ---W4XD Tops in Augusta County---

The winners of the individual and club plaques for the 20th annual Virginia QSO Party are as follows:

Category	Winner	Points
High VA All-Mode	Ron Bolton WU4G	143,178

High CW	Tom Jones K4JM	22,770
High VA Mobile	Jeffrey Rinehart, WB4PJW/M	28,614
High Out-of-State	Hal Offutt K8HVT/1	11,327
High QRP	John Shannon, K3WWP	2,525
High VA Club	Central VA Contest Club	198,469

In addition, W4XD was the top scorer in Augusta County. Rockingham County was not included in the listing of top entries received by the Monitor. Congratulations to these hams on a job well done!

(Results compiled by W3FTG)

Ham Satellites to be featured on Discovery Channel program

For those of you with cable TV, the Discovery Channel will air a 2-hour program called "Eyes in the Sky". One of the segments of this program will feature amateur radio satellites, specifically Phase 3D, the new generation of ham birds. The program will air several times: Sunday March 10th at 9 pm; Sunday March 17 at 3 pm; Wednesday March 20 at 1 am; and again March 20 at 9 pm. All times are EST. If you are interested in getting an advance peek at the upcoming ham sats, be sure to tune in.

MIR Partially QRT

German cosmonaut Thomas Reiter, DF4TR/DP0MIR, aboard the Mir orbital complex, reports that a power supply used for some of the spacecraft's ham radio equipment failed last month. The remaining, older power supply is only capable of powering the old Icom 2-meter transceiver and one 1200-baud TNC. The digital voice module also has failed, so there will be no more automatic voice recordings in the near future. Reiter reports all four fuses in the two connected transceivers have blown and only two spare fuses remain. MIR will continue voice QSO's on an occasional basis unless additional fuses also blow. The fact that the astronauts have no way of telling why the fuses blew in the first place is not encouraging news.

UHF/Microwave Survey Will Help Protect Upper Bands

Dennis Bodson (W4PWF), ARRL Roanoke Division Vice-Director, is requesting assistance in a survey for the ARRL to collect information on amateur usage of frequencies 420-MHz and above. He needs input from any amateur using the 70cm band, and any and all bands above this frequency, such as the 902 Mhz, the 1200 Mhz, and any of the ham microwave and radar bands. The intent is to prepare a database for the ARRL as a research tool to combat claims that certain amateur frequencies are unused. Dennis would appreciate anyone forwarding any knowledge they have of such amateur usage 420-MHz and above. Dennis also asked for plans & intentions, i.e., activity which would be happening in the not-too-distant future. If you are on the Internet, you can email reports to dvrogers@seas.gwu.edu. Otherwise, you can call a report in to Dave, N4JGO, at (703) 204-2684. Thanks for the assistance.

P5RS7 DX Operation Disqualified for Unethical Behavior

The ARRL Awards Committee met recently to review submitted documentation for the 1992-93 P5RS7 operation submitted by Romeo Stepanenko. After a review of all material available, the Awards Committee voted unanimously to disqualify Romeo Stepanenko from participation in the DXCC program. This disqualification is based upon Rule 12, Operations Ethics, and Rule 13. The disqualification means that Stepanenko is not eligible to participate in the DXCC program in any manner. This includes, as provided for under Rule 12, paragraph (b) disallowance of contacts made with any station or DXpedition operated by him from the time of this action. If you have worked P5RS7, you will not receive credit for ARRL awards for the contact.

1996 ARRL Bulletin Summaries

- 1 -- 12 Jan -- FCC Closed by Government Shutdown
- 2 -- 12 Jan -- Ham License Issuance Still Stalled by Government Shutdown
- 3 -- 16 Jan -- FCC Proposes to Suspend Amateur Use of 76-77 GigaHertz Band for other users
- 4 -- 17 Jan -- FCC License Backlog Shrinks
- 5 -- 22 Jan -- ARRL Board Meeting Report
- 6 -- 25 Jan -- FCC Callsign update as of Jan 1
- 7 -- 26 Jan -- FCC Changes Hearing Date for..
- 8 -- 31 Jan -- FCC Affirms Amateur Use of 219-220 Mhz over objections of marine radio services
- 9 -- 15 Feb -- PRB-1 Change Sought (see related article in this issue of the Monitor)
- 10 -- 15 Feb -- Callsign update as of Feb 1 (see related article below)
- 11 -- 15 Feb -- Vanity Callsign Program Delayed (see related article in this issue of the Monitor)
- 13 -- 23 Feb -- Question Pool Committee (see related article in this issue of the Monitor)

Latest Callsigns Issued by FCC

As of February 1st, the latest callsigns issued by the FCC for the Fourth Call District were: AE4QB (extra), KT4KE (advanced), and KF4GNF (all others). Wow! All the way to KF4Gnn! For the Eighth Call District the corresponding calls were AA8VV, KG8VF, and KC4CGD.

Packet: Who's Where

(today, at least)

Valley Packet Frequencies as of 28 Feb 96

144.93 ELKBBS, SFEBBS, KC4SFE-7

145.01 ARESBBS, ELKBBS, SFEBBS, N4YRZ-1

145.03 N4WVY (temporarily being handled by
N3UHJ)

145.07 GNOB, BBSYIB, N8YIB, FBG1

145.61 BLDLAN ENOB, WAYBBS, KC4MZN

145.67 DXBRDN, KB4OLM Cluster

145.75 DXHBG (access to KB4OLM Cluster)

145.77 MADVA (access to SEDAN)

Thanks to WB4PJW for some of this information

ARRL Bulletin 9: PRB-1 Change Sought by ARRL

ARRL Bulletin 009, issued February 15, 1996: The ARRL wants the FCC to take additional steps to compel state and local governments to make reasonable accommodation for Amateur Radio under PRB-1 and apply the least restrictive means to regulate amateur antennas and activity. In a Petition for Rulemaking filed February 7, the League calls on the FCC to amend Section 97.15(e) to say that any state or local ordinances restricting ham radio antennas to heights below 70 feet would be presumed unreasonable, unless the state or local authority could show its restrictions support a clearly defined health, safety or aesthetic objective. State and local governments also could not impose substantial application costs on amateur service licensees.

The League also wants the FCC to acknowledge that it has an interest in the effective performance of Amateur Radio stations in areas regulated by deed restrictions or restrictive covenants rather than by local zoning ordinances.

The League says clarifying the preemption policy (PRB-1) would help guide municipalities to enact provisions that make fair accommodation for amateurs and avoid highly divisive litigation between hams and localities.

Under the suggested changes, state and local governments could apply to the Commission for a full or partial waiver of the amended rules in unusual circumstances.

The FCC has not assigned a rulemaking petition (RM) number.

ARRL Bulletin 11: Vanity Call System Delayed

ARRL Bulletin 011, issued February 15, 1996: The ARRL has learned that the FCC may delay until mid-1996 the announcement of when it plans to open the first gate or gates of the vanity call sign program. A Commission spokesman says the FCC first wants to deal with remaining Petitions for Reconsideration it has received. The FCC had been expected to announce opening dates early this year. FCC vanity call sign application Form 610V is now available, but the FCC will not accept completed forms until it opens the appropriate filing gates.

Prospective applicants can get the FCC Form 610V package by writing ARRL, 225 Main Street, Newington, CT 06111. Please include an SASE. Form 610V also is available from the FCC via the Internet at the following URL address: <http://www.fcc.gov/Forms/Form610V>, or <ftp://ftp.fcc.gov/pub/Forms/Form610V/>, or by fax at 202-418-0177. Ask for Form 006108.

The FCC's Forms Distribution Center also accepts orders for Form 610V at 800-418-3676.

ARRL Bulletin 13: FCC Exam Question Pool Committee

ARRL Bulletin 013, issued February 13, 1996: ARRL Executive Vice President David Sumner, K1ZZ, advised FCC Private Wireless Division Chief Robert H. McNamara on February 23, 1996 that the mechanism to maintain question pools for FCC Amateur Radio examination elements has broken down and no longer operates as FCC rules require. ARRL wants the FCC to issue a public notice to that effect, clearing the way for the creation of a substitute mechanism.

The League's request stems from last year's decision by a majority of the Volunteer Examiner Coordinators to incorporate a previously informal organization as the National Conference of Volunteer Examiner Coordinators Inc. ARRL/VEC and some other VECs chose to not participate in the corporation. At that time, Sumner emphasized that ARRL Volunteer Examiner Department Manager Bart Jahnke, KB9NM, would continue to participate with other VECs on issues of common interest, and that the League did not want to change the cooperative relationship that existed between the ARRL and other VECs. NCVEC Inc later removed Jahnke from the question pool committee (QPC), which had been the mechanism for VECs to cooperate in maintaining question pools for written ham radio examination elements.

In October, FCC Wireless Telecommunications Bureau Deputy Chief Ralph Haller confirmed that the NCVEC has no recognition in the Communications Act or the FCC Rules, and that the FCC views each VEC individually. He said the FCC expected all VECs to be able to participate in question pool activities. In December, the FCC's McNamara asked NCVEC Inc president, Dalton H. Tunstill, WB4HOK, to immediately reinstate the ARRL/VEC to a seat on the QPC. The conference so far has refused, but stated that, if certain conditions were met, Jahnke would be eligible for election to the QPC when the conference meets in July. The League now formally requests the FCC to advise Tunstill that the question pool committee operating exclusively under the NCVEC Inc is no longer the mechanism through which question pools for Amateur Radio Service examinations are maintained and to issue public notice to that effect.

The League asks the FCC to terminate its agreement with any VEC that took part in the decision to exclude the ARRL/VEC or other VEC from cooperating in the maintenance of the question pools, as their action violated Section 97.523 of the FCC's rules. The League has invited all VECs to cooperate in creating a replacement Question Pool Committee, which would be open to all FCC-recognized VECs.

ARRL said its exclusion from the QPC caused material appropriate for study by prospective Technician Class applicants to be left out of the Novice (element 2) and Technician (element 3A) syllabi the committee released February 1, 1996. The present syllabi are not acceptable to the ARRL because study guides prepared for these examinations won't include the missing material, and applicants won't be tested on it. The ARRL said its exclusion also resulted in errors in the revised question pool for the Amateur Extra Class written examination, element 4B, released by the Question Pool Committee December 1 for use starting July 1, 1996. The League said VECs can correct this by simply not using the defective questions in their examinations.

The ARRL/VEC coordinates approximately two-thirds of all FCC Amateur Radio examinations.

Briefs

- Gerry Brunk, K4RBZ, still has his Clipperton amplifier for sale, including the extra tubes, for only \$450. Call Gerry at 540-434-0440 or leave a message for him on the DX cluster.

- The roster project has been temporarily shelved due to the busy schedule of your Newsletter editor.
- Both MARA and VARA are using their renewal membership lists for mailing this month's newsletter. If you know a ham who says he or she did not receive a newsletter, ask if they renewed their club membership prior to February 15th. If so, have them contact their respective club treasurer.
- The sun has been spotless for almost a month. Predictions show that the sunspot minimum will most likely occur around April or May of this year. However, the 10.7cm solar flux (which has more impact on atmospheric ionization) won't reach its minimum until around January or February 1997. A dramatic increase in solar activity is expected in late 1997, which should bring the HF bands back to life.
- If you are a MARA member and are joining or renewing your membership in ARRL, remember to contact Dick Weaver, W4JZC about how you can earn a rebate for the club treasury.

VARA SECRETARY'S REPORT

February 13, 1996 Meeting

The VARA club meeting was held at Kathy's Restaurant on February 13th, 1996. It was opened by Ken Harris (KE4GKD) at 7:35 pm. Present were 31 members and guests.

The 50/50 drawing was won by Bill Shott (W2ZVM).

Because of the weather-related cancellation of last month's meeting, no secretary's report appeared in last month's newsletter. Because of this absence of the report, a vote was not necessary to approve the report. Also, there was no secretary's report carried over to this meeting from December's meeting. The annual Christmas Banquet replaced December's meeting, consequently eliminating a report for that month to be approved at this time.

Due to some delays in changing over information from last year's treasurer, Christy Osterloh (KC4PKK) to newly elected treasurer Charlie Garner (WA4ITY), no treasurer's report was given.

A new call was announced. Gary Thompson, Jr., (KF4CZH). The next local testing session will be held April 13 at Massanutten Vo-Tech.

New club members to be voted in next month include: Betty Roston (KF4EKU), Jerry Moats (WD4ITN), Kay Cook (KF4GZL), Benny Cook (KF4CZK), Jeff Colvin (KD4SYW), Joan Pitsenbarger (KF4CWR), and Melody Moats (no call, still waiting).

Jeff Rinehart (WB4PJW) reported on Skywarn. Bad weather check-ins should be conducted on 146.625 and 146.850 repeaters. "Bad" conditions should be analyzed with some common sense before reporting them. For this time of year, snow in excess of four inches can be considered "bad" weather. However, if the weather service is reporting an expected 12 inches, then a current snowfall reading of four inches wouldn't be all that useful. Unusual conditions are what the weather service is looking for. In this example, unusual conditions might be: closed roads, downed trees and powerlines, or possibly power outages.

Mike Dillon (KO4EA) reported on ARES. People's help at Waynesboro's First Night event was greatly appreciated. They were short on people, however, and many of the volunteers that did help out were non-club-members. These conditions brought up a question as to whether this should be held next year as a club

function or a non-club function. There will be more discussion on this later. The club also has been asked if they could provide communicators for an upcoming MS Walk in Staunton on April 13. Due to prior club commitments, the club decided not to accept the invitation to help.

Ken reminded anyone wishing to get an article into the newsletter to get them in to the proper people by their due dates. You can send them to Ken Harris by the 17th of the month, or to Dave Fordham by the 21st.

New business, Bill Bearden (KC4TQF) announced a novice-tech class at the Woodrow Wilson Rehabilitation Center. Class times and dates are Wednesdays, 6:30 pm to 9:00 pm, starting March 6th and ending June 5th.

The 1996 officers were announced and are as follows: President, Ken Harris (KE4GKD); Vice-President, Mike Dillon (KO4EA); Treasurer, Charlie Garner (WA4ITY); and Secretary, Doug Zirk (KE4RMD).

A motion to adjourn the meeting was made by Mike Dillon (KO4EA), and seconded by Charlie Garner (WA4ITY). The meeting closed at 8:06 pm.

At this time, Joe Moomaw (W4XD) gave a video tape presentation on Ten-Tec.

*submitted by
Doug Zirk, KE4RMD,
VARA Secretary*

End of this month's issue.

MASSANUTTEN ARA

President: Dale Showalter, KD4DAI
Vice-President: Vic Alger, KE4LKQ
Secretary: David Tanks, AD4TJ
Treasurer: Richard Weaver, W4JZC
Board (exp 96): John Nelson, WA4KQX
Board (exp 97): Bill Edmundson, W4IMS

THE VALLEY ARA

President: Kenny Harris, KE4GKD
Vice-President: Jeff Rinehart, WB4PJW
Secretary: June Waldmuller, KC4PKJ
Treasurer: Christy Osterloh, KC4PKK

The Monitor is published monthly by the Massanutten Amateur Radio Association, Inc., a non-profit organization under the Internal Revenue Service regulations. The Monitor is distributed to all full current members of the MARA and the Valley Amateur Radio Association under reciprocal agreements of the two clubs. All articles, comments, and material for the Monitor should be sent to the Editor, David R. Fordham, KD9LA, Route 1 Box 615, Weyers Cave, VA 24486.

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