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The Monthly Newsletter of the Monongalia Wireless Association Morgantown, West Virginia

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President: Mike Palmer, K8LG
Vice President: Jack Averill, N8NQW
Secretary/Treasurer: Norene Arnold, N8TJM
Newsletter Editors: Jack Coster, WF8X
Bill Jacobs, WA8YCG

New Officers Elected

Elections for MWA officers to serve during 2003 were held at the regular October meeting. Our new President will be Al Heck, W3GEG. Jack Averill, N8NQW, will continue as Vice President and Norene Arnold, N8TJM, will continue as Secretary/Treasurer. Terms are effective January 1, 2003. Congratulations to all and thank you for serving the club.

Holiday Dinner

As the weather turns seasonably colder and the year draws to an end, it's time once again for the annual MWA/MARA Christmas Dinner. This has been a tradition for many years, providing fellowship and fun for all.

This year it is MARA's turn to sponsor the dinner, and the venue will be the Tygart Lake Lodge at Tygart Lake State Park. If you have not tried the dining facility there, it should be a pleasant surprise for you. The dining room will be open to the public until 8:00 PM but we will have a separate room.

Included in the evening will be a social hour from 6:00 to 7:00 in a separate room, including hors d'ouerves, followed by dinner at 7:00. The entree choices are stuffed chicken breast and tender sliced roast beef. Also included are a garden salad, baked potato, green beans, and beverage (coffee, iced or hot tea, soft drinks). A specialty dessert is planned. The price for the dinner is $17.00 per person (tax and gratuity included).

The attached form can be sent with a check payable to M.A.R.A. to indicate the entree choices. Reservations are needed by November 30.

To get to the Lodge, head to Grafton (From Morgantown, US 119 South) (From Fairmont, US 250 East then US 50 East). At "Four Corners" take US 119 into Grafton. Just before the B&O Railroad Depot, cross the Railroad Street Bridge (left) and left again at the other end. Then follow the signs to Tygart Lake Lodge.

We're looking forward to a pleasant evening for everyone, and hope you can join us.

Next Meeting
November 19, 7:30PM
Rm. G084, WVU Engineering Bldg.

Basics – Frequency Units

The characteristic of our radio signals that is called *frequency* conveys how many cycles occur in *one second.* We honor radio pioneer Heinrich Hertz by naming the basic unit of frequency (one cycle in one second) the *hertz.*

Radio signals have such a large number of radio-signal cycles occurring during one second that talking about them in terms of hertz (written and spoken the same way, and abbreviated *Hz*, in singular and plural) is pretty clumsy. So. We express radio frequencies in terms of larger units made up of *multiples* of hertz. We name these multiple-of-hertz units with the help of internationally agreed upon prefixes as show in Table 1.

Table 1
Multiples-of-Hertz Frequency Units

Prefix	Multiple	Meaning
kilo	1,000	1,000 Hz = 1 kilohertz = 1 kHz
mega	1,000,000	1,000,000 Hz = 1 megahertz = 1 MHz
giga	1,000,000,000	1,000,000,000 Hz = 1 gigahertz = 1 GHz

Useful practical equivalents:
10 Hz = 0.01 kHz
100 Hz = 0.1 kHz
1,000 kHz = 1 MHz
1,000 MHz = 1 GHz

--David Newkirk. *QST*. September 1991.

November Program
Comparison of Ham Radio Practices In Russia and the U.S.
By Elizabeth, AB8HO

Soft Stuff

Software – there is scads of it around for ham and ham-related activities. We use everything from word processing programs to CW-keying programs, to rig-control programs, to computer clocks, to – well you get the idea. To help MWA members become aware of potentially useful programs, we are going to feature, from time to time, short reviews of programs here in Soft Stuff. We will focus on ham and ham-related programs, and on freeware and shareware. Send us your notes on a program that you think we should all know about.
To start off, here is a review of GPSTime, a neat freeware program for laptop and GPS users.

Do you use a GPS receiver? And do you use it with a laptop computer? Would you like to have your computer=s system clock to be Adead on@ accurate while you are at Field Day, operating portable, or just traveling? If so, then *GPSTime* is the program for you.

Each satellite signal coming to your GPS receiver has in it=s continuous string of data, a segment that includes UTC time as determined from the satellite=s on-board atomic clock. Your GPS receiver uses this to report time in its display, usually to the nearest one-hundredth of a second.

GPSTime parses out the time segment of the satellite signal, sends the time string to the computer, and updates the computer's system time. Wahla -- time from outer space right to your computer! You have the option of having a one-shot update, or having the computer updated every minute.

Your GPS receiver is interfaced to the computer in the same way that you interface it for any other GPS-capable program. Normally, this means a cable from the receiver to a serial port on the computer. Be sure that the GPS receiver is configured to send NMEA data strings out of its data port. This configuration is done by menu within the GPS itself.

The program can be downloaded from http://www.ip.pt/coaa/gpstime.htm . It is freeware. I installed it in its own directory, C:\GPSTime. The first time that you run the program, go to the Config menu and set the Com Port where your GPS is attached and select the baud rate at which the GPS is sending its data (normally 4800 baud).

-- Jack, WF8X

MWA Repeaters III

Much of the information in this article on repeater use is found in the ARRL's Technical Information Service web site.

Courtesy counts, even on radio repeaters. If you are in a conversation and a third station transmits his or her call sign between transmissions, the next station in line to transmit should acknowledge the new station and permit the new arrival to make a call or join the conversation. It is impolite not to acknowledge new stations, or to acknowledge them but not let them speak.

The calling station may need to use the repeater immediately. He or she may have an emergency to handle, so let him or her make a transmission promptly. A brief pause before you begin each transmission allows other stations to break in -- there could be an emergency. Don't key your microphone as soon as someone else un-keys his or her mic. If your exchanges are too quick, you can prevent other stations from getting in.

The *courtesy tones* on MWA repeaters are there to prompt users to leave a space between transmissions. The beeper sounds a second or two after each transmission to permit new stations to transmit their call signs in the intervening time. The repeater time-out timer is also reset during this period. If you don't wait, see the next item.

Keep transmissions short. Long transmissions could prevent someone with an emergency from getting the chance to call for help through the repeater. All repeaters encourage short transmissions by "timing out" (shutting down for a few minutes) when someone gets longwinded. The *time-out timer* also prevents the repeater from transmitting continuously, due to distant signals or interference. The time out timer is set to three minutes by regulation. If you transmit longer than three minutes or if the second person transmits before the timer can reset, the repeater transmitter will be shut down

and will stay that way until the signal on the input frequency stops. W8MWA has such a wide coverage area that a continuously transmitting repeater could cause unnecessary interference.

You must transmit your call sign at the end of a contact and at least every 10 minutes during the course of any communication. Hopefully, there will not be too many 10-minute identifications needed! By the way, you do not have to transmit, or even remember, the call sign of the other station.

Never transmit without identifying. Keying your microphone to turn on the repeater without saying your station call sign is illegal. This is called "kerchunking." If you do not want to engage in conversation, but simply want to check if you are able to access the repeater, simply say, "N8KB (use your own call sign!) testing."

Repeaters were originally intended to enhance mobile communications. During commuter rush hours, mobile stations still have preference over fixed stations on some repeaters. During mobile prime time, fixed stations should generally yield to mobile stations. But remember, *keep transmissions short.* This is especially true during the rush traffic hour. When you're operating as a fixed station, don't abandon the repeater completely, though. Monitor the mobiles: your assistance may be needed in an emergency. Use good judgment. Rush hours are not the time to test your radio extensively or to join a net that doesn't deal with the weather, highway conditions or other subjects related to commuting. Third-party communications nets probably should not be conducted on a repeater during prime commuting hours.

Next month in Part 4, we will talk about operating on simplex frequencies.

-- Norton, WD8AFJ

The HF Operator

This month's HF Question comes from Jack, WF8X: "If the 5mHz band becomes a reality, what kind of operating would you expect there? How about propagation, and what antennas would do well?"

W8PT: 5 mHz, or 60 Meters, is located almost midway between 80M (3.5 to 4.0 mHz) and 40M (7.0 to 7.3 mHz) so this band should be considered a low band, and as such we'd expect band conditions on 60M to be similar to those found on 80M and 40M.

If 60M operation is allowed by the FCC, don't expect lots of activity there. First, most amateurs don't have radios that transmit on those frequencies, and not many radios on the market even have 60M capabilities! The newer Ten-Tec software-based models have the ability to download firmware updates to allow the rig to operate at 60M.

Secondly, it is hard to know if other countries or IARU regions will incorporate 60M in their own band plans: we'll just have to wait and see. We might only be talking to ourselves. Maybe 60M will be exclusively LSB, or exclusively digital, or maybe the maximum power allowed will be 100 watts or less -- but I suspect that the US

60M Band Plan will be similar to what is on the other low bands.

60M could offer some exciting new amateur radio possibilities. If you have a general coverage receiver, scan 5 to 6 mHz after dark. You'll discover that you can hear all kinds of stuff from all over the world. For long distance communications (DX), this band would be primarily a nighttime band, but like 80M and 40M, daytime local coverage would be very good. Don't forget possible long haul QSOs at sunrise and/or sunset. It could be a very good all-around band for ARES/RACES.

As far as antennas go, you might want to start with a simple half-wave dipole (which would be around 100 feet in length). Try and raise it to about 50 feet: you'll be competitive! Dipoles and other simple wire antennas will be what virtually everyone else will be using. You could also stick up a 50-foot tall vertical with a decent ground system.

Eventually, though, some folks will build 2 and 3 element yagis or stick up an array of verticals. That's just the nature of our hobby.

Good Luck!

-- 73 Rich, W8PT

FOR SALE: FT 1000MP ('96 vintage - DC only) excellent condx, everything functional. Includes add-ons of the 2nd 500hz Collins filter and 1800hz INRAD filter, both for main receiver, plus the 15M INRAD mod. Worked 300+ countries with this rig from an "average" location. I have the original box, manuals, and Yaesu hand mic. $1525.

Also, FT 920 ('99 vintage). This is my backup and 6M rig. Hardly used, very clean. I also have the original box and manual. $800. You can operate either or both of these rigs right now from my new hilltop QTH near Friendsville, MD. Why am I selling? I'm upgrading to a new Ten-Tec Orion. Rich, W8PT. 304-285-6127.

Merry Christmas

M.A.R.A./M.W.A.

Christmas Dinner/Meeting

Where: Tygart Lake State Park Lodge - Grafton, WV
Follow Rt 119 into town. Near the B&O Depot at the stop light, turn across Railroad St. Bridge making a left after crossing and follow signs to the Lodge.

When: Friday - December 13, 2002

Time: 6:00 p.m. - 7:00 p.m. Social Hour (B.Y.O.B.)

Dinner: 7:00 p.m.

Menu: Stuffed Chicken Breast or Tender Sliced Roast Beef

Cost: $17.00 per person (gratuity and taxes included)

Make Checks Payable to: M.A.R.A.
Send reservations no later than: November 30, 2002
Send to:
Joseph Radcliff, WD8EOG, RT 4 Box 45, Grafton, WV 26354-9306

Room reservations direct to the Tygart Lake State Park Lodge: 265-6144 or 1-800-CALLWVA

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M.A.R.A./M.W.A. Christmas Dinner Reservations no later than November 30, 2002

Dinner includes Garden Salad, Baked Potato, Green Beans, Dessert, and coffee, soft drinks, hot/iced tea

please print ✔

Name/Callsign _____ Stuffed Chicken Breast ____ Tender Sliced Roast Beef ____
Name/Callsign _____ Stuffed Chicken Breast ____ Tender Sliced Roast Beef ____
Name/Callsign _____ Stuffed Chicken Breast ____ Tender Sliced Roast Beef ____
Name/Callsign _____ Stuffed Chicken Breast ____ Tender Sliced Roast Beef ____

Check must accompany reservation

Check No. _____ Amount: _____ ($17.00 per person)

Contact information: ***please print***

Address: _____ Telephone: ( ) _____ - _____

E-Mail: _____