



# SOLID COPY

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

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## New Satellite Course

**A**RRL's Education Program has announced its newest on-line course-Satellite Communications. Registration opened Monday, June 24.

The Satellite Course is intended for amateurs who have never operated satellites before. The course opens with a review of amateur satellite history. Students will move on to a study of satellite tracking, orbiting relay stations, FM repeater satellites and the International Space Station. It continues with lessons and exercises on FM satellites, the Fuji Sats, AMSAT-OSCAR 40 setup and operation. The final lessons cover digital satellites, APRS and future satellites.

There's a 50-seat class limit for July classes. students will have up to eight weeks to complete the course.

Tuition for Satellite Communications (EC-007) is \$65 for ARRL members and \$95 for nonmembers. More information is available at [www.arrl.org/cce/courses.html](http://www.arrl.org/cce/courses.html)

**Next MWA Meeting**  
July 16, 7:30 PM  
WVU Engineering Building

## KG8RZ to 3-land

**H**arry, KG8RZ, is moving to State College, PA this summer. There is some kind of a college located there and he is going to help get it back up and running. Harry has been a good contributor to MWA over the years, and we will miss him. But we wish him best of 73 and hope to hear from him (RF preferred, but online will be okay, Harry).

## New APRS stations

**S**ome new stations on APRS: Terry, K3JT, Bill, K8WAS, Charlie, KC8YWT, and Dave, KC8LWB, on the APRS maps recently. Bill, N8HKL, is investigating an APRS Internet gateway for Morgantown. Stand by . . .

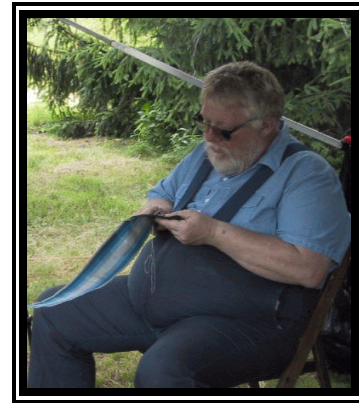
**Next VE License Exams**  
July 25, 7:00 PM , Room G084  
Contact Jan, KX2A, for information

## Mongolia Hams ?

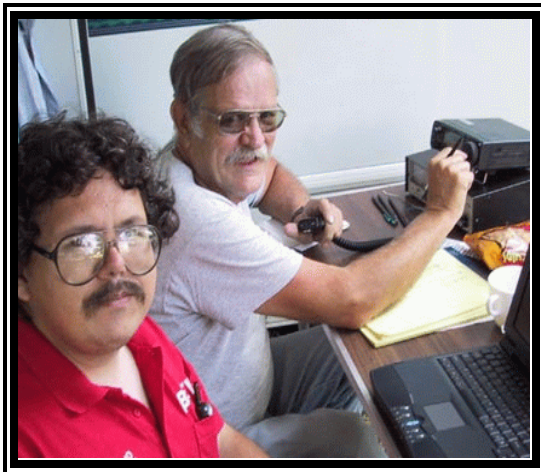
**J**ack, WF8X, spent May in northern Mongolia. He did not see a single ham antenna, radio, or indication of ham activity. Probably the reason is that a 2 meter HT would cost the average person there about a half-year's wages ! (It's not that HT's are so expensive, it's because wages are so low).

# Field Day 2002

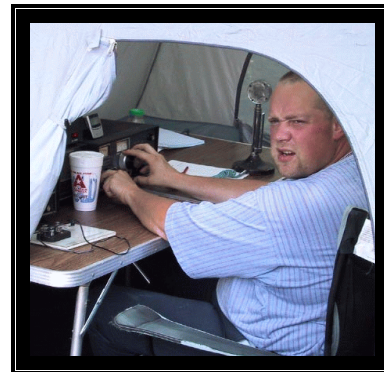
This was not the most rousing Field Day event that MWA has ever had. But we did it, and MWA was on the air as “5A, WV” along with the thousands of other hams around the world. Thanks to K8JWT, W3GEG, N8HGL, and WA8YCG for putting their stations up at the WNPB site. N8HGL also did extra duty by mowing the 2-foot high grass at the site. The weather cooperated wonderfully, and we did not have the thunderstorm that has so often come along during past days at this “Old Fire Tower” location. “If you weren’t there, you missed it.”



Time for knitting ?



Aw Heck. We missed ‘em !



“What was THAT noise?”



“Mike, Whisky, Alpha!”



Standard Operating Position.



Which one is the 15 meter antenna?

### For Sale

I have for sale the following items. All work properly except as noted. Operating manual with all items.

Antenna 2 Meters Mobile Glass Mount.

\$10.00

Ameco, SWR Bridge VHF. \$10.00

HF Automatic Antenna Tuner 100 Watts

\$80.00

Antenna Tuner, Collins 180S-1, Will tune

Single wire antenna \$50.00

Antenna, 2 Meter, Ground Plane. \$10.00

Field Strength/SWR Meter, Radio Shack

\$10.00

MFJ VHF 144-220 MHz SWR/Watt Meter

\$20.00

MFJ Multimode Controller Model 1278

Upgraded to 1278-B \$50.00

MFJ TNC 2, Packet Model 1274. \$25.00

Microphone D-104. \$10.00

Power Supply 12-15 Volt, 25 Amp. \$30.00

Transceiver, Radio Shack HTX 212. \$100.00

Transceiver, HF, Yaesu, FT-747GX. \$150.00

Transceiver, Hand held, ICOM IC-3AT

\$25.00

Amplifier, 2 Meter, 2 in 30 out, CCI

Never used after built and tested.

\$45.00

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Morgantown, WV 26501-7140

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# Tips and Anecdotes for the HF Operator

by Rich, W8PT

This month's topic concerns band conditions on the upper HF frequencies (mostly 10M, sometimes 15M). The query goes something like this, "I've noticed that for the past couple of months 10M seems dead. When I do hear stations they're either in Florida or Texas! I thought that we're suppose to be just off the peak solar cycle ... shouldn't 10M be booming?" I heard another operator who operated last month's Field Day 10M station express similar comments.

During the summertime, at least here in the north hemisphere, the maximum usable frequencies (MUF) are generally lower than anytime during the year. 10M is basically unusable for any sustained long-distance propagation. Sometimes it is even a real struggle to work out to the west coast during Field Day or other contest activities using 10M. Often your best 10M path will be north-to-south, hence the FL and TX stations.

15M may offer up some good propagation, mostly during nighttime and the same north-to-south paths as 10M. Concentrate around local sunrise and sunset for the best long-distance paths. But for the next few months 20M will be the most reliable of the upper HF bands. You should be able to successfully working into Europe (during early morning) and Asia/Pacific (during early evening).

If you're into 10M, then wait until fall and early winter comes around. I predict that band will be hotter than ever. Even folks using dipoles and 100 watts will be able to make great DX contacts.

### W8MWA Repeaters

145.43 MHz (-) 444.8 MHz (+)

In further articles, I'll detail more operating tips for the other bands/modes too. If there is something about operating in the HF spectrum that you'd like to have discussed, feel free to drop me a line at [w8pt@qcol.net](mailto:w8pt@qcol.net). 73s, Rich, W8PT

## AO-7 Resurrection

The AMSAT-OSCAR 7 satellite suddenly has come back to life after being dormant for more than 20 years. First heard June 21 by Pat Gowan, G3IOR, AO-7 subsequently has been monitored and used by several other amateurs. AO-7 was launched November 15, 1974. It remained operational for more than six years before succumbing to battery failure in 1981.

AMSAT says it seems certain the satellite is running only off its solar panels, not from the onboard batteries, so it will be operational only while it's in sunlight. King speculates that the batteries, which shorted as they failed two decades ago, now are "un-shorting" and causing the satellite to come back to life.

For those attempting to use AO-7, Mode A (2 meters up/10 meters down) is not a problem, but Mode B (70 cm up/2 meters down) is. Because of changes in the international Radio Regulations that went into effect in the 1970s as AO-7 was under construction, the 432.1 MHz uplink frequency is no longer authorized for space communications.

Built by a multinational team under the direction of AMSAT-NA, AO-7 carries Mode A (145.850-950 MHz uplink; 29.400-500 MHz downlink) and Mode B (432.180-120 MHz uplink; 145.920-980 MHz downlink) linear transponders plus beacons on 29.500 and 145.700 MHz. A 2304.1 MHz beacon was never turned on because of international treaties.

– ARRL Newsletter  
(HMM? I wonder about all of those old dead HT batteries that I have around the shack? – Jack).

## Dahdididah...

On Thursday nights you're liable to hear some strange sounds emanating from the Mon Country EMS Conference Room. That's where Bob West, WA8YCD is holding practice sessions for Morse code.

At present, the two regular students, Randy N8OZY and Charlie KC8RYT are taking a hiatus for the July 4<sup>th</sup> holiday, but hopefully they will be back on track the following week. Other occasional participants are Christopher Dyer and Josh Silver, both who work at the EMS.

These sessions are more than just code practice. They are diagnostic sessions. The computer program Morse Academy is used to send practice and diagnostic sets during the session.

For times outside of class, audio CDs of random groups and word lists are customized to the difficulties being experienced during practice, and hopefully discovered during the weekly sessions.

For example, if someone is having a problem remembering L and F (which are mirror images of each other) a couple of hour-long audio CDs of random mixes of words containing Ls and Fs and random character groups with predominant Ls and Fs can help to overcome the problem.

"I can't teach them code by meeting just one night a week," says WA8YCD, who ran weekly workshops at the Texas Instruments Amateur Radio Club in the 80's and 90's before moving back home to WV. "In fact, I can't really teach them code, but I *can* provide help for anyone who wants to train themselves to copy code."

One of the Texas club students jokingly referred to "YCD" as standing for "Your Code Doctor". "The only real way to learn the code is to *practice, PRACTICE, PRACTICE!* What we hope to do in the weekly sessions is to discover areas of difficulty and provide the tools and opportunities to get over the many obstacles."



Some of the basics that are being encouraged in the sessions are:

1. **Practice.** Daily is good. Twice daily is better. Lots of short sessions are better than one long marathon.
2. **Focus.** Spend your copying time listening for the next character, not worrying about what you missed. If you hear a character you don't know, just write an underline. You can go back later and maybe fill it in from context. If you fuss about what you missed, you end up missing the next 3 characters.
3. **Variation.** Don't depend on any single code source. Try the ARRL tapes, the W5YI tapes, Code Quick, Rhythm of the Code and any other CDs or tapes and courses you can get your hands on. Try out Morse Academy, SuperMorse, and other computer programs, if you have access, try one of the little code sending boxes or a keyer with "trainer mode". If you can get on the air, on the Novice/Tech sub-bands on HF or even using an oscillator on VHF and QSO with someone, that provides a great source of practice.
4. **Send.** Practice sending. When you send you better 'internalize' the code patterns. You don't need a key and oscillator, although they're nice to have. You can send code with your finger on the table...on your knee... or on your little brother's head.

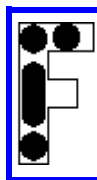
These are some of the things practiced in the sessions. Hopefully, they've helped to get over some of the problems.

Recently it has been said that someone learning code should not use a dot-dash code chart. The theory behind that is that if you learn the graphic dots and dashes, you'll just have to un-learn them as you go on to learning to copy code.

"I don't fully agree with that idea," Bob comments, "because different people learn differently. Some folks are more visually oriented than others. If the dot-dash chart helps them learn the patterns, then that's fine. Certainly it will be a hindrance as their speed increases, but having to the visual to fall back on may make the

difference between eventually learning the code and getting so frustrated you give up."

Other methods use alternate learning channels as well. One uses aural vocalizations like "dog-did-it" for D and "Char-lie Char-lie" for C. Or another graphic method uses clever arrangements of the dots and dashes



While yet another method sets the code sending to a beat and sends it in time with a metronome or synthesized drum machine.

"I would suggest that anyone who feels the code is too difficult to learn try as many of these varied methods as they can," advises Bob. "If any one of them gets you started, then it simply takes time and practice to get up to speed."

"I will, however, strongly discourage anyone from writing down dots and dashes, with the intention of going back and translating them later. I feel that *is* a distraction from your actual learning experience.. Practice recognizing the letters, and if you don't recognize one, write a placeholder and move on. The recognition will come with time and patience."

Another issue is hearing problems. Some folks have extreme difficulty distinguishing the dots from the dashes. Whether the hearing loss is due to damage or just plain old age natural loss, it can make it tough on some folks to keep up.

"I would recommend that anyone who has difficulty hearing the code examine alternatives. Headphones can provide an aid in some cases, or varying the tone of the code may help. At least, if you try these various approaches, you may find something that will work for you!"

The greatest obstacle, however, for young, old, fast, slow, newbie, or OT, alike, is time.

There's no magic formula for how much time you have to put in, because everyone's learning style is different. However, it's assured that if

you DON'T put any time in on it, you WON'T learn the code.

“My standard offer is, if anyone is *serious* about working on the code I will work with them as long as it takes, using whatever tools and methods we can find. As long as you want to keep trying I will keep working with you.”

-- Catch Bob on the W8MWA repeater or email [rlwest@wa8ycd.net](mailto:rlwest@wa8ycd.net)

## Dayton Numbers Down

Dayton Hamvention reports that attendance for this year's 50th anniversary event was 24,832--down about 5 percent from 2001's crowd of 26,151. The 2002 number marks the second year in a row that Hamvention attendance has dipped. Over the past five years, attendance numbers had climbed to 28,804 in 2000, the year of the ARRL National Convention at Dayton. Hamvention attendance peaked in 1993 at 33,669--before the event date changed from April to May.

– ARRL Newsletter

## Missionary Killed in Philippines Was a Ham

Martin R. "Ray" Burnham, the US missionary pilot held captive with his wife for more than a year in the Philippines and killed during a military rescue attempt June 7, was an Amateur Radio licensee, KC0DNB. Burnham, 42, from Rose Hill, Kansas, near Wichita, held a Technician license issued in 1998.

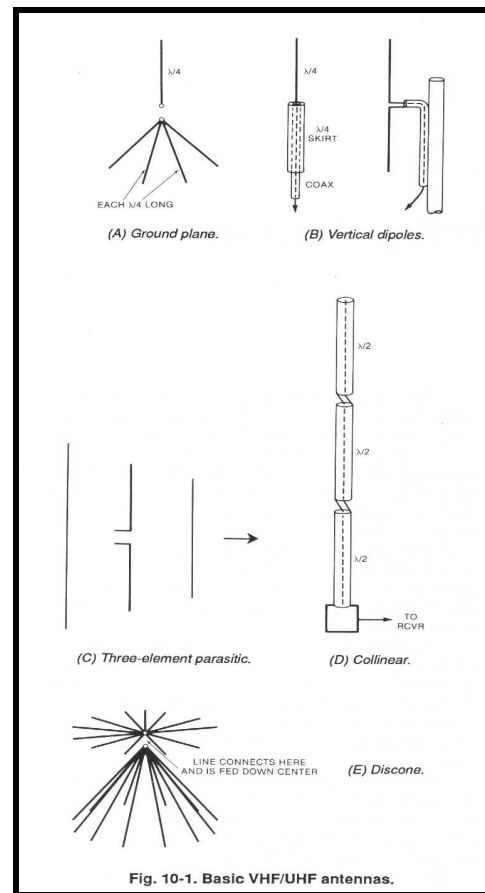
The circumstances of Burnham's death still are not clear. Burnham's wife, Gracia, was wounded by gunfire but was expected to recover. A

Philippine nurse, Ediborah Yap, also died. The Burnhams had been held hostage since May 2001 by Abu Sayyaf, a Muslim extremist group. Several Philippine soldiers and rebels also were said to have died in the rescue attempt. The Burnhams have three children, Jeff, 15; Mindy 12, and Zach, 11.

## Tnx for Bike Help

Thanks to these hams for their help at the bicycling venue of Special Olympics last month: Carl, WA3ZZU, Jim, KC8GGX, Bob, WA8YCD, Norton, WD8AFJ, and Leroy, N8UEV.

– Lydia, KB8SXY



From: *Easy-Up Antennas for Radio Listeners and Hams.*  
Edward Noll. 1988.