

# FEEDBACK



JUNE 2002

VOLUME 47 NUMBER 6



**FIELD DAY IS JUNE 22, 23, 2002 !!!**

## JUNE MEETING

The meeting for the month of June will be held at the Massillon Senior Center at 8:00 PM on June 7, 2002.

This month the main topic of discussion will be FIELD DAY !!! Yes it's finally here and we will be in preparation to discuss the final arrangements for this year's events. The Field Day package has already been downloaded and it's in your editor's hands!

We will be discussing the mode of operation and how to man the two stations (assuming we operate 2A mode again this year) . As in the past, I assume we will begin Field Day's events with the loading up of equipment at Jim's (WA8GXM) house at 9:00 AM , then proceed to the Senior Center to load up the final equipment to be used at the site. We will then proceed to Petro's Park in Perry Township to set up the antennas, radio's, etc. There will be a whole lot of activity before the actual getting on the air and making all those contacts!

We will have a whole lot of work to do if we want to better our score from last year! For the last two years in a row we have broken the 5,000 point mark. Last year we had 645 CW QSO's, and 752 Phone QSO's. It will be tough, but IT CAN BE DONE!!!! The main thing to remember is to keep both the Phone and the CW stations operating, don't let them sit idle!

In case you are a newcomer to our group the directions to Petro's Park are: Route # 21 south to Navarre Road, East on Navarre Road to Perry Drive (about 2 miles), turn South on Perry Drive to the Park ( about 1/4 mile). From I 77; South on I 77 to US # 30 West. Exit on Richville Drive; turn left on Richville Drive and follow to Navarre Road. Turn left on Navarre Road and go to Perry Drive. Turn Right on Perry Drive and follow to the park ( about 1/4 mile) . What a great site it is, a totally awesome view and the facilities are first rate!

Dan N8DZM has already agreed to be the "head chief " again this year and everyone who attends the event is asked to bring a covered dish. See Ya There !!!

## - SHORT SKIP -

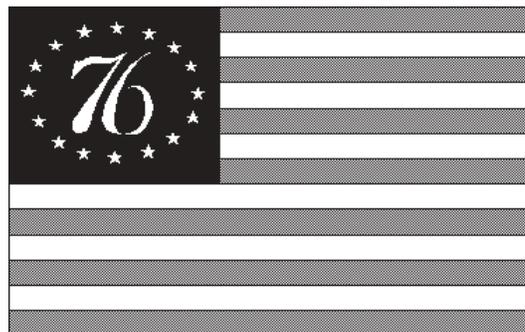
After looking over the new crop of handheld transceivers I'm predicting the next generation of hand held's will come with a magnifying glass as standard equipment !

**73 DE WB80WM**

## IMPORTANT NOTICE !

Due to vacations and holiday's, all articles submitted for the July issue of Feedback will be due no later than June 14, 2002. We regret any inconvenience this may cause. Thank you **WC8W** Editor.

**JUNE 14 th IS FLAG DAY FLY YOURS PROUDLY!!**



## MARC MINUTES May 3 2002

The May MARC meeting was held at the Senior Center with 31 members and guests present.

MARC President Gene W8KXR was absent, so Vice President Rich KA8ZQH called the meeting to order at 8:00 P.M.

The Pledge of Allegiance was given and a round of introductions was made. He then introduced Paul Burke KB8VAS, communications spokesman for the State Red Cross.

Rich KA8ZQH then asked if there were any corrections in the April Minutes stated in the FEEDBACK. Dan N8DZM did find an error. Gary WC8W's amendment to MARC code of regulations had been omitted. Then the Minutes were accepted by Byron KF8UN and second by Don W8DEA.

MARC Treasurer Anne N8GAF gave the financial report. A motion was made to accept it by Gary WC8W and second by Terry N8ATZ.

Rich KA8ZQH then gave a short correspondence report. He had numerous newsletters from other Amateur Radio Clubs. Anyone wanting to read to them was welcome to do so.

### OLD BUSINESS

Bruce AB8FB said there was about 300 people at Quail Hollow for the MS walk. Terry N8ATZ said about the same showed up at The Towpath. Thanks goes to all who volunteered their time on that cold rainy day to make it successful.

Rich KA8ZQH talked about the Safety Break coming up May 10, 11, & 12.

Charlie KB8STV gave an update on the FEMA class, 20 trained and passed. He handed out Certificates to those who were present.

Don W8DEA gave an update on the Monday evening classes that he is teaching along with Gary WC8W and Perry W8AU. He thanked Rich KA8ZQH, Byron KF8UN, Don W8DEF, Perry W8AU, and Terry N8ATZ for giving demonstrations.

Charlie KB8STV gave an update on the Summit County ARES meeting.

Gary WC8W said VE testing will be Sat. May 25th.

Byron KF8UN gave his DX report.

### NEW BUSINESS

Jason KC8LIN has been nominated to receive the Hiram Percy Award. Good luck Jason, the winner will be announced in July.

The MARC trailer will be in the Memorial Day Parade on May 27th.

Guest Paul Burke KB8VAS Communication Officer for the State Red Cross explained why he was in charge of communications at the time of the tornado aftermath. He thanked everyone that helped with this event.

A vote was taken on Gary WC8W change in the By-Laws. It was approved 100%. A vote will be taken next month on the rest of the revisions.

Terry N8ATZ gave the Red Center report on how they handled the tornado. He also said volunteers are needed to help with the Kick Off Parade July 28th., and the Grand Parade Aug. 3rd. The pre appreciation party will be held Friday July 19th. at the Civic Center.

MARC will be sending KF8EB a donation to help to get him back on the air, after the tornado damaged his home and antenna.

Thanks goes to Rick K8RLW for the evening program. He was able to tape some of the tornado destruction.

The meeting ended at 9:15 P.M. with Linda K8MOO winning the 50-50 for \$17.00.

**Minutes by Linda K8MOO Secretary MARC**

## ..... MARC & Stark County ARES Active During Tornado.....

Stark County Skywarn activated as they normally do on Sunday, April 28th when the National Weather Service projected a severe weather front would quickly pass through the area. Little did we know it would become a full blown disaster when the storm spawned an F-2 tornado that cut a five-mile-long path of destruction along several area neighborhoods, blowing over trees, destroying trees and knocking out power to thousands of homes, several businesses and a local high school.

David Beltz, WD8AYE, Stark County ARES Emergency Coordinator quickly activated an ARES net on the 147.12 repeater and summoned volunteers for what was to become a full week of activities for area amateurs. Amateurs were dispatched to the county Emergency Operations Center, area hospitals and the county 911 center. Township fire officials also requested assistance when it became clear that a multi-agency effort would soon commence. The 911 centers phone lines quickly became jammed with concerned callers and at one point Amateur Radio was utilized to dispatch public safety forces to several serious incidents that resulted from the storms fury. Amateur operations also involved the Western Stark County Chapter of the American Red Cross when a relief center was established at John Knox Presbyterian Church in Jackson Township.

Operations shifted on Monday morning as amateurs active with the Red Cross sent Disaster Assessment Teams into the effected areas to determine the extent of the damage. Amateurs also rode with Red Cross Emergency Response Vehicles (ERV's) providing meals and assistance to both area residents hit hardest by the storm and clean-up crews. Operations continued throughout the week until Thursday afternoon.

Stark County ARES Assistant EC Terry Russ, N8ATZ indicated this was the worst disaster to hit this area on record and involved more than 50 local amateurs. Township officials also praised amateurs efforts during this crisis and are already revising their local disaster plans to increase the involvement of amateur radio operators.

I hope to have some pictures from the event posted on the clubs website soon.

## .... DAYTON HAMVENTION THOUGHTS ....

How many of you made it to Dayton ? I saw a few orange and black MARC jackets during my overnight stay. While not one of the warmest or driest Hamventions I have ever been to, it was none the less fun and exciting. I always have a great time there especially when Lynnette doesn't mind if I buy a few "ham toys". I try not to complain about the weather during Dayton, I remember when it was in April and snow was common during a number of years.

The theme of Dayton this year was Emergency Preparedness and there were a number of Emergency

Vehicles on display during the weekend. Some were pulled trailers like ours and others were drivable types. While they were all very impressive, I did note two big differences between theirs and ours. The first was backing. With the exception of the infamous DARA Van sponsored by the Dayton Amateur Radio Association, all of the vehicles were a multi-club or agency effort. More backing means more money available and nicer equipment, like lots of commercial equipment installed including a few equipped with big pneumatic expanding masts. The second big difference was purpose. It was obvious that the main intention of these vehicles was public service communications. While some probably see some Field Day service for public exposure, their primary purpose is providing communications for public service events. I'm not criticizing any of them mind you, to the contrary I was very impressed with all of them. I can personally appreciate the countless hours of work that has gone into each and every one of them. I know what it has taken to make ours what it is today.

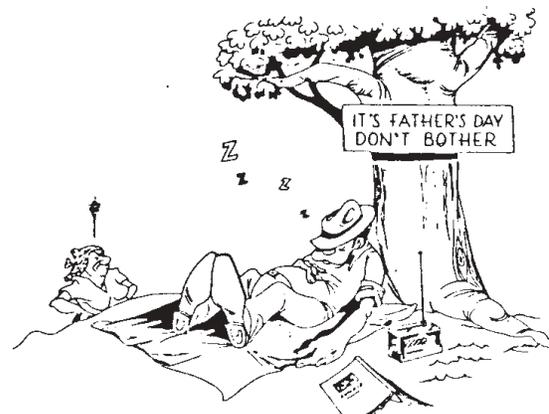
Looking back on it I would have liked to have seen our own ECOMM 1 on display. Even though designed as a multi-functional trailer, it would have felt right at home there with the others. Every bit as impressive as the rest, it still demonstrates our total commitment to our hobby and our community. Whether on duty racking up QSO's during Field Day weekend or coordinating safety communications during the MS Walk, it continues to show the support and cooperation we have been able to achieve with our small organization. Please continue to support our efforts in the future. The trailer is a continuing effort, I already brought back several ideas from Dayton worth looking at as additions for our trailer. The best is yet to come !

PS... I took a few pictures while roaming around Dayton, when I get a minute check out the club website .....

**73's till next time**

**Terry - N8ATZ**

**JUNE 16th is Fathers Day!!**



-- Tec Topics - 03 --

### **Drilling Big holes Or Meter Mounting for the Timid**

**H**ardly a "Fest" goes by that I don't find a neat analog "Meter"... You know, the ones that are usually down under the tables in those endless boxes of 'junk' that no one wants to bend over and check for good stuff... the 'makins' for makin' things. Wow, I always feel I had a good day at the Fest, if I find a dirty old analog meter, that somebody paid big bucks for precision and quality, but decided to junk just so I could find it! How thoughtful!

Man, talk about quality and a precision piece of stuff...especially those sealed ones that were often Mil-spec jobs...paid for by your personal tax dollars in action...By the way, I seldom pay more than two dollars, and occasionally three dollars max for a neat high quality meter, built better than most analog watches!. More than that, and I leave the poor misguided salesman, smile and move on to the next table and the next chance at finding a nugget. . .

But, then who cares about meters? They sure might look great in a homebrew SWR bridge, or maybe a field strength meter, modulation level, audio level monitor into your audio system, 120vac line monitor, or fully instrumented home grown transmitter, or who knows what? But there's that old problem of how to make a "big hole" to mount it in.

Darn, that's a lot of work!! And well lots of work just ain't as glamorous as it used to be. Them "Ol' Buzzards must've been a whole lot tougher, or a lot smarter (dumber?) than the "newbee" wimp type Young Buzzards, 'cause no one in their right mind would work hard enough to mount them big three inch meters.

Oh sure. . .ya' might try it once, until you learned it wasn't fun drilling, hacking, and filing a hole that big...then you would just forget building anything that used them things and abandon making anything!! So much for creativity and the art of homebrew and real Hams.

But, be of good cheer, and start immediately to plan your long delayed project that might use a high quality Weston, Burlington, Triplet, or Simpson panel meter. There is a way, provided by the miracle of technology, to drill those large holes in aluminum panels and chassis...and no they are not the old high cost Greenlee chassis punches either. There is a better way and it lurks and pleads for your purchase at your nearest hardware store.

The solution is a 'hole cutter.' It looks like, well a 'hole cutter,' but also like a small tin can with teeth on one end and a drill shank on the other. Several brands are available, and so far I've had good luck with all of them.

They are not like having a milling machine, or other full commercial shop tool available, but we are Hams, and must innovate, improvise, and overcome...So here's what to look for.

First measure the body of the meter you're going to mount...There are several standard diameters, and fortunately the hole saws seem to be available in most sizes to match.

Purchase the needed size and the required shank. Some are sold complete with the shank as one piece, others have systems for changing only the saw portion itself and using the same shank for several sizes.

Next mark the center point where the meter is to be mounted. Do the layout carefully...then prick-punch it to provide a place for a pilot hole. My best experience has been to drill a small pilot hole and then start the hole saw pilot, letting it too, do a bit of drilling as the work advances. This makes for a very accurate positioning of the meter hole, assuming you did your home work with initial layout.

Another important item: the work should be drilled on a block of "hardwood" to help support your work and guide the pilot drill. Make provision to hold and prevent the whole package, panel to be drilled and the hardwood support block, from turning and breaking away when drilling...use common sense for safety and clean drilling.

Drilling the actual hole has two main cautions: The first is to use a drill that is heavy enough to do the job. Also, it must not turn too fast, remember you are drilling metal, not wood...and if you turn the saw too fast, or too slow, heat and/or binding will be a problem.

Trust me, 'binding' is not a pleasant experience and must be avoided! Again, don't forget the supporting block as described above.

Secondly, if you are 'hand holding' the drill and saw, vertical alignment with the work will be a problem, and instantly leads to 'binding' if you're not paying attention. The best way to assure good vertical alignment is to use a drill press with properly secured work.

If you don't have a drill press, I've been able to do very excellent work by placing the aluminum panel or chassis to be drilled on the floor, using that backer block. I keep the work from turning by blocking it with my shoes...I was standing in them, of course!

With the work held down securely under your feet, you can use both hands to control the drill...remember...moderate speed...and some cooling oil, like WD-40, or other cutting oil, applied to keep things cool and keep the saw cutting.

Be patient and let the saw do the work...don't hurry it, or you will be the unfortunate owner of a messed up panel and will have invoked a variety of unpleasant adjectives to describe your klutzy skill level as 'meter hole driller.' You also risk bringing lacerations and contusions upon yourself that will make you irritable and unpleasant to talk to on the now famous Ten Meters After Dark gatherings.

Once the hole is completed, clean up any flash with a small round file. Trial fit the meter and mark the small holes for the mounting hardware. Go slow, be accurate and enjoy. Oh, by the way, it is a characteristic of these hole saws to drill on the large side...so take care to center your meter, to allow best placement of the small holes for mounting hardware.

Finally, I've used this technique for cutting small holes for cooling fans. Again, do some careful measuring, and soon you will be running your gear cool and with no worries about doing some "Young Buzzard" conversations up on the HF bands.

**Seriously**, never take chances with safety when using power tools...it's not wise to work on such projects when you're tired, or in a hurry. Use extreme caution, and 'think ahead' to the

consequences of what you are doing. Mostly you can do excellent work with minimum tools . . . **but always think Safety...**

Good luck and good drilling . . .

**De W8KXR**

**"Drilling and Machining Department" 20/Mar/02**

## **ALBUQUERQUE, N.M. - Say goodbye to singed fingers.**

**By SUE VORENBERG  
Scripps-McClatchy Western Service  
May 10, 2002**

**S**cientists at Sandia National Laboratories in Albuquerque have found a way to make light bulbs stay cold to the touch - even after being turned on for several hours. The new bulbs would also use about 10 times less power and last much longer than traditional bulbs, they say.

"Right now when you light a light bulb, some of the current running through it goes out as light, but most goes out as heat," said Jim Fleming, a Sandia scientist. "Actually only a relatively small fraction goes out as usable light.

"We've made structures that can change that ratio, so that more energy goes out as light and only a small fraction goes out as heat."

Light bulbs built with the new structure would look like ordinary bulbs, and they would last years longer, Fleming said, because they wouldn't have problems with heat stressing the internal structure - the main reason traditional light bulbs burn out.

Sandia has been developing the technology for about five years through its Photonics and Microsystems departments. Fleming said the bulbs could be available to the public in about five years.

The new bulbs would cost two to three times more than ordinary bulbs. Still, observers said the life span of the bulbs could make for significant savings.

"An average home uses between \$6 and \$12 a month for lighting costs," said Dan Moore, a senior account manager at Public Service Company of New Mexico. "A bulb that's 10 times more efficient could bring that cost down to less than a dollar a month."

The bulbs might be ideal for residential and retail use, where spot lighting is common. Large businesses tend to use fluorescent bulbs, which can save about 70 percent of the power costs compared with ordinary bulbs but also cost about 10 times as much as ordinary bulbs.

The technology works like this: A typical light bulb has a curved strand of tungsten, called a filament, that lights up and heats up when electricity runs through it. Sandia scientists used the same tungsten metal but changed its internal structure.

Instead of a solid strand of tungsten, they created a very small cage-like structure - with triangular bars about the size of a red blood cell - that traps the heat and light created by electricity and transforms it.

The cage, called a photonic lattice, can hold in certain types of energy, such as heat or infrared light, while letting other types of energy out - for instance cold, white light with a color that is easy on the eyes.

"When you pass energy through these cages, they also tend to emit more light than you would get if you just heated up tungsten," Fleming said.

Trapped energy inside the cages bounces around and is transformed into usable light, increasing the bulbs' efficiency, Fleming said. He said scientists aren't sure exactly why or how the energy is transformed, although they have verified that the process works.

Filaments for the new light bulbs would be made in a process similar to the way computer chips are constructed - by building tiny structures on metallic disks called wafers. The rest of the bulbs would be made through traditional processes.

## **TV stations want needle tower to re-connect New Yorkers**

**A** 2,000ft tower has been proposed as a replacement to the broadcasting antenna lost when the World Trade Center collapsed. The £1.4 million structure, modeled on the Space Needle in Seattle, would be taller than the Empire State Building and the twin towers. TV executives want it to be built on Governor's Island on the southern tip of Manhattan, overlooking the former site of the World Trade Center. The structure would include a restaurant and observation deck on top and space for shops at the bottom, the New York Times reports. Drawings of the design by a leading Manhattan architectural firm are already being circulated. One million households in New York lost reception of many channels when the World Trade Center collapsed.

TV executives are keen to get them online again as soon as possible to restore lucrative advertising revenue. A spokesman for New York Mayor Michael Bloomberg said the proposal was "inconsistent with the Mayor's vision for the island". But other city officials believe the tower may bring in revenue needed for Mr Bloomberg's plan to turn Governor's Island into a campus for the City University of New York. Manhattan Borough President Virginia Fields says she intends to raise the issue with the deputy mayor for economic development. "My call to the mayor is to look at the issue and not dismiss it outright," she told the Times.

Story filed: 18:29  
Wednesday 1st May 2002

**Articles were submitted by Jason KC8LIN  
Thanks Jason!**

Mr. Jason A. Stroll  
(kc8lin@neo.rr.com)  
From: "kc8lin" <kc8lin@neo.rr.com>

## ARRL NEWS

**From:** Mark Duff/KB1EKN  
President, Boston Amateur Radio Club  
Chief of Operations, Hingham Fire Department

**Subject::** Fox Hunting, Public Safety Notifications

**Date:** 05-14-2002

It has come to my attention from the State Fire Marshal that recently in Eastern Massachusetts, a club was conducting a fox hunt and left the fox near a public shopping mall. Although it was a totally innocent act, someone not familiar with the box the fox was contained in notified authorities and created a problem.

I strongly suggest that any club conducting fox hunt's, notify public safety officials that a fox hunt is taking place in their community and where the fox is located. It would be very easy for any public safety official to consider the fox to be a "Device" and treat it accordingly. A photograph was included with the memo and there is no question in my mind that a person, not knowing what the fox is, would consider it to be a radio-controlled bomb. The events of 9/11 have considerably heightened public awareness of anything that looks suspicious.

Many times, the fox is hidden in strange locations and this further complicates the problem. A simple notification made to the local public safety officials may eliminate a major public safety response and prevent our noble hobby from receiving any bad publicity.

[Note: A memo was sent to every fire department in Massachusetts about this.]

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## FOX HUNT FOR FIELD DAY? FROM DAN, N8DZM

We are going to have our first Fox Hunt at Field Day this year. I picked up a Fox transmitter controller at Dayton this year (Pic Con Controller) and set it up with a HT. What I propose is something simple to get started, such as setting the Fox Transmitter within a mile of the Field Day site and turning it on at 4:00 Saturday. No rules or time, just find it on your way to dinner and share your experiences with everyone else. The HT will be on low power so you might not hear it at home until you get closer to the site. Check in on 147.18 MHz (MARC repeater) before the hunt for any additional information. This would be something to allow everyone to test their skills and equipment with no pressure.

## ARLB028 FCC proposes two new amateur bands!

ZCZC AG28  
QST de W1AW  
ARRL Bulletin 28 ARLB028  
From ARRL Headquarters  
Newington CT May 10, 2002  
To all radio amateurs

Good news for ham radio this week! FCC has proposed going along with ARRL's request for a new domestic (US-only), secondary HF allocation at 5.25 to 5.4 MHz. The FCC also is ready to permit operation on a 136-kHz "sliver band" in the low-frequency (LF) region. And, in response to a third ARRL request, the FCC has proposed elevating Amateur Radio to primary status at 2400 to 2402 MHz.

"I'm just as tickled as I can be," ARRL President Jim Haynie, W5JBP, said upon hearing the news. "This is a classic example of our ARRL at work."

The FCC voted unanimously May 2 to adopt the Notice of Proposed Rulemaking in ET Docket 02-98. The Commission released a Public Notice May 9, and the NPRM is expected to be released soon. A comment deadline will be announced as soon as it's available.

The FCC said the new 5-MHz band would help amateurs "better match their choice of frequency to existing propagation conditions." The band, if approved, would be the first new amateur HF allocation since World Administrative Radio Conference 1979 gave amateurs 30, 17 and 12 meters—the so-called "WARC Bands." Assuming the 5-MHz band eventually is authorized, it could be a few years before it actually becomes available.

The League said its successful WA2XSY experiments demonstrated that amateurs can coexist with current users and that the band is very suitable for US-to-Caribbean paths. In comparisons with 80 and 40 meters, the WA2XSY operation also showed the 60-meter band to be the most reliable of the three. The ARRL also argued that a new 150-kHz allocation at 5 MHz could relieve periodic overcrowding on 80 and 40.

If allocated to amateurs on a secondary basis, hams would have to avoid interfering with—and accept interference from—current occupants of the spectrum, as they already do on 30 meters. The band 5.250 to 5.450 MHz now is allocated to Fixed and Mobile services on a co-primary basis in all three ITU regions.

The ARRL asked the FCC for two LF allocations in October 1998—135.7 to 137.8 kHz and 160 to 190 kHz. The FCC said its action on one part of that LF request proposes changes that would enhance the ability of amateur radio operators to conduct technical experiments, including propagation and antenna design experiments, in the 'low frequency' (LF) range of the radio spectrum."

Several countries in Europe and elsewhere already have 136-kHz amateur allocations. The first amateur transatlantic contact on the band was recorded in February 2001.

Hams would be secondary to the Fixed and Maritime Mobile services in the 136-kHz allocation. The League said its engineering surveys suggest that hams could operate without causing problems to power line carrier (PLC) systems already active in that vicinity or to government assignments. Unallocated Part 15 PLC systems are used by electric utilities to send control signals, data and voice.

The FCC said its proposal to upgrade the Amateur Service allocation at 2400 to 2402 MHz to primary "seeks to protect current amateur use of this band." Hams have shared their other 2.4 GHz spectrum on a secondary basis with government users.

Amateurs already are primary at 2390 to 2400 and from 2402 to 2417 MHz. The ARRL has said primary status in the intervening spectrum slice was needed "to provide some assurances of future occupancy of the band segments for the next generation of amateur satellites."

The ARRL has expressed its belief that hams can continue to accommodate Part 15 and Part 18 devices at 2.4 GHz.

**NNNN**  
**/EX**

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### National Traffic System (NTS) Training

The National Traffic System (NTS) is a structure designed to move traffic and train amateurs to handle traffic and participate in directed nets. The system consists of the amateurs, the local, regional and area networks, and the digital links which move traffic from its origin to destination.

According to the ARRL's Public Service Communications Manual, the NTS has four levels of nets, sequentially activated, to allow traffic to flow smoothly. The manual likens the NTS to an airplane trip, where a traveler boards a local airline destined for a major airport, there boarding a continental airliner to the next major airport, then again taking a local airline to the final destination.

The four levels of nets allow traffic to be originated at a local level, be passed to a section level net, then on to a regional net, across area boundaries, and back down to a local net via another regional and section level net. This assumes that traffic is bound for another part of the country. Traffic within a localized area should never rise up to a level higher than necessary to complete its journey.

Here in Colorado there are at least three NTS traffic nets on VHF: the Northern Colorado Traffic Net, the Central Colorado Traffic Net and the Southern Colorado Traffic Net. These nets usually take place daily on a local or wide coverage repeater, but may have an alternate repeater or simplex frequency designated as backup. There are also other HF nets operating in the area

(e.g., the Columbine Net) which funnel traffic to and from the local nets.

Above the local nets, the section, region and area nets function to pass traffic destined outside the local area. Local nets usually have a liaison to a region net, where traffic is passed to other sections in the region, or to another region via the area nets.

Traffic can be passed by voice or by digital means. In Colorado during our annual Colorado Traffic Jam exercise, we've found that traffic passed by voice has a higher probability of arriving at its destination than traffic passed via digital means (usually packet BBS forwarding).

For a more detailed understanding of the National Traffic System, you should pick up the ARRL's Public Service Communications Manual (Publication Number FSD-235, revised Feb 1996) at your nearest amateur radio dealer, or contact the ARRL directly. The ARRL has a web page where you can get even more information. In Colorado contact Mike Stansberry, KØTER, the Section Traffic Manager, for more information specific to Colorado nets.

Thanks to Jeff Ryan, NØWPA, for providing the five-part NTS training below. The training below is designed to provide information on how to create traffic, format traffic, send traffic and receive traffic using the standard message format of the NTS.

The five parts below were designed to be read during a regular traffic net, with one part being read per net, for five nets.

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Editor's Note. The NTS Training System was submitted to The Feedback by Charlie Scherger, KB8STV. This is a really great system to teach Traffic Handling. If anyone is interested, Please contact Charlie for further details. The teaching aids are just too long to be printed into the Feedback. There are 5 series in the lessons. I will be glad to print any or all of the series. 73's de WC8W Editor MARC Feedback

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**SALE**

Radio Shack HTX-10 10meter radio for sale with Manual Schematic and box. asking \$100.00 Contact: Michael Diacontonas (KC8LTC) on 442.075 repeater or 330-327-2264 or at kc8ltc2002@neo.rr.com

## ARLP022 Propagation de K7VVV

ZCZC AP22

QST de W1AW

Propagation Forecast Bulletin 22 ARLP022

From Tad Cook, K7VVV

Seattle, WA May 31, 2002

To all radio amateurs

Average daily solar flux and sunspot numbers rose this week. Compared to last week (the reporting week for this bulletin is Thursday through Wednesday) average daily sunspot numbers were up nearly 65 points and daily solar flux was up by 15. There were some very active geomagnetic days. Monday, May 27 was quite active with the planetary A index at 28, and Thursday, May 23 was very stormy with an A index of 54. Thursday's problems were probably from several coronal mass ejections the day before.

Solar flux is expected to fade a bit this week, and may reach a short-term minimum around Monday or Tuesday.

There is a new large sunspot on the southeast limb of the sun. Region 9973 could bring solar flares.

We're moving out of spring propagation and toward summer conditions. 10-meters is going out of season, and moving into summer will see lower MUF, affecting propagation on 15-meters. 17 and 20-meters will be the best summertime bands for HF DX, with 20-meters offering the best conditions right after sunrise or into the evening, rather than mid day.

Sunspot numbers for May 23 through 29 were 229, 242, 221, 232, 227, 218, and 206, with a mean of 225. 10.7 cm flux was 180.3, 189.1, 182.6, 183.1, 186.7, 186.4, and 184.8, with a mean of 184.7. Estimated planetary A indices were 54, 7, 6, 10, 28, 12, and 12, with a mean of 18.4.

**NNNN**  
**/EX**

## ARLD023 DX news

ZCZC AE23

QST de W1AW

DX Bulletin 23 ARLD023

From ARRL Headquarters

Newington CT May 30, 2002

To all radio amateurs

This week's bulletin was made possible with information provided by Tedd, KB8NW, the OPDX Bulletin, ON4LBV, SV2DGH, The Daily DX, QRZ DX, 425DXnews, The DXNL and Contest Corral from QST. Thanks to all.

MALTA, 9H. Dieter, DL9GDB will be QRV as 9H3UT using CW from Comino Island, IOTA EU-023, from June 3 to 22. QSL to home call.

EAST MALAYSIA, 9M6. Peter, G4MJS will be active as 9M6AAC from the Hillview Gardens Resort station in Sabah from June 5 to 7, with an

emphasis on the newer bands and 6 meters. QSL via N200.

QATAR, A7. Mohamed, A71MA has been QRV on 20 meters using SSB from 0000 to 0300z. QSL via KZ5RO.

PRATAS ISLAND, BV9P. Members of the Chinese Taipei Amateur Radio League will be QRV as BQ9P from June 4 to 12. Activity will be on 160 to 6 meters. QSL via KU9C.

FRANCE, F. The South Flanders DX Activity Group will be QRV as F/ON6JUN/p from June 1 to 2 from the Pegasus Bridge Memorial Museum in Normandy to commemorate the 58th anniversary of the D-Day Landings. QSL via operators' instructions.

ENGLAND, G. All UK amateurs are allowed to use the prefixes GQ, MQ and 2Q in June to celebrate the Golden Jubilee of the Queen Elizabeth II.

LIECHTENSTEIN, HB0. Klaus, DL7NS will be QRV as HB0/DL7NS from June 1 to 12. QSL to home call.

SOUTH KOREA, HL. All HL amateurs are allowed to use special prefixes until June 30 to celebrate the 17th FIFA World Football (soccer) Cup. Club stations will replace the zero (0) in their prefixes with 17.

US VIRGIN ISLANDS, KP2. Steve, KU9C will be QRV as WP2Z from June 2 to 8. Activity will include the digital modes, 6 meters and the newer bands as time permits. QSL to home call.

ALAND ISLANDS, OH0. Juha, OH1JT and Ari, OH1EH will be QRV as OH0Z from June 1 to 8. Activity will be on all bands using CW and SSB. QSL via OH1EH.

ARUBA, P4. W3RM and N3MT are QRV as P40RM and P40MT, respectively, until June 19. Activity is on 160 to 6 meters. QSL to home calls.

NORTH KOREA, P5. Ed, P5/4L4FN has been QRV on 15 meters from just after 1100 to 1200z. He has also been QRV using RTTY on 15 meters from just after 1200 to 1330z. QSL via KK5DO.

GREECE, SV. Dimitris, SV2CCA, Chris, SV2DGH and Giannis, SV2FPU will be QRV as J48ALO from Alonissos Island, IOTA EU-072, from June 2 to 16. Activity will be on 80 to 6 meters, including the newer bands, using CW and SSB. QSL via SV2DGH.

CENTRAL AFRICA, TL. Dave is QRV as TL8DV and has been active on 10 meters around 1430z and 15 meters around 1530z. QSL via W3MC.

LORD HOWE ISLAND, VK9L. Bert, PA3GIO is QRV as VK9LO until June 7. Activity is on 80 to 10 meters. QSL to home call.

# June 2002

## Monthly Planner

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																																	
						<b>1</b> BD AD8E BD KCBPIP																																																																																																	
<b>2</b> BD KB8VGU Stark County Mutual Aid Net 146.520 11:30 AM	<b>3</b> Sloppy Fist Net every Monday thru Friday at 9PM on 28.138	<b>4</b>	<b>5</b>	<b>6</b> 7:30 PM QCWA (Chapter 21) Net, 147.180	<b>7</b> Massillon ARC Meeting	<b>8</b> BD K1FFA																																																																																																	
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<b>16</b> Stark County Mutual Aid Net 146.520 11:30 AM	<b>17</b>	<b>18</b>	<b>19</b> Canton ARC Meeting 7:30 PM	<b>20</b> 7:30 PM QCWA (Chapter 21) Net, 147.180 BD N8XEO BD WD8KPO	<b>21</b> BD W8DEF West Stark Info Net 147.180 at 8:00 PM	<b>22</b>																																																																																																	
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Please contact KA8ZQH to add, delete or change Calendar