ARES COMMUNICATOR

Information for Scott County Amateurs

October, 2008 | **Accurate, Reliable Emergency Communications** | *Volume 8, Number 10*

Shakopee Marathon

SACS Fundraiser

Saturday, October 4th marked the 38th Marathon for Non-public Education. The Shakopee Area Catholic School (SACS) marathon started out under a bright sunny and cool morning. Last year's marathon was interrupted by severe weather but that did not dampen the excitement this year.

Scott County ARES members provided communications support for the event. Special events like the marathn are an opportunity for ARES members to practice emergency communications procedures while providing a service to the community. Having some fun in the process is just an added benefit.

Janell McBeain, SACS Development Director and coordinator of the event welcomed the assistance provided by the amateur radio operators. The ARES volunteers, operating in a directed net, help locate some misplaced marathon volunteers. Safety problems involving the walkers on the course were addressed during the morning when some young bikers were weaving in and out between the markers used to alert drivers to the marathon activity.

There were a couple of changes in this year's event including a variation in the route and some new activities. ARES members staffed four locations on the course with another ARES operator located on the East side of the SACS building. There was a roving operator available for relief at any location.

Marathon *cont'd on page 2*

The sign-in location for marathon participants made for a bee hive of activity at the Shakopee Area Catholic School early on Saturday morning.

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday, October 11th

SELECTED TRAFFIC NETS

Designator	Freq.	Local Times	
MN Phone	3.860Mhz	Noon, 5:30pm	Daily
MN CW	3.605Mhz	6:30pm, 9:50pm	Daily
ARES			
Scott ARES	146.535 S	7:00pm	Monday
Carver ARES	147.165+	8:30pm	Sunday
Bloomington	147.090+	9:00pm	Sunday
Neighboring Nets			
North Dakota	3.937Mhz	6:30pm	Daily
South Dakota	3.870Mhz	6:00pm	Daily
Wisconsin	3.985Mhz	5:30pm	Daily

The ARES COMMUNICATOR is published for the benefit of Amateur Radio Operators in Scott County and other interested individuals.

EDITOR: Bob Reid, Scott County Emergency Coordinator
Snail Mail: 13600 Princeton Circle
Savage, MN. 55378
E-Mail: N0BHC@aol.com
Phone: Home 952-894-5178 Portable 612-280-9328

Marathon - *cont'd from page 1*

The after-action review of the event revealed a couple areas that the ARES group needs to address to improve their communications skills. These topics will be covered on future Monday evening training nets. All the ARES members agreed it was a fun Saturday morning helping the community with their communications skills.

Janell extends her thanks to all the ARES members who helped make the event a success and asked the ARES group to, "mark your calendar for next year!"

BREAK - OVER

Marathon participants walked, biked, and rode in strollers during the Saturday morning fundraiser for the Shakopee Area Catholic Schools.

Marathon communications at the School's East entrance which served as "Marathon Central" were manned by Bob, KB0FH (on the left).

ARES operators gather prior to the marathon start to get a briefing on the morning's activity. Shown left to right are; Stan, KB0CQ, Tony KC0HYY, Dan N0PI, and Joe KC8SON. Not pictured are Bob KB0FH, and behind the camera is Bob, W0NFE.

Scott County ARES Contacts

Emergency Coordinator
Bob Reid N0BHC
13600 Princeton Circle
Savage, MN 55378
952-894-5178
N0BHC@arrl.net

Asst. Emergency Coordinator
Bob Minor W0NFE
5210 West 141st Street
Savage, MN 55378
952-894-2657
W0NFE@arrl.net

Asst Emergency Coordinator
Daniel Vande Vusse N0PI
5722 West 141st Street
Savage, MN 55378
952-440-1878
N0PI@arrl.net

October Events

4 Oct Rutherford B Hayes 1822
13 Oct US Navy Birthday 1775
Columbus Day
18 Oct Jamboree on the Air
20 – 24 Oct School Round-up
25 Oct CQ WW DX SSB Contest
27 Oct Theodore Roosevelt 1858
31 Oct Halloween

ARES ID Vest

One of our members found another source for the high-visibility identification vests used by Scott ARES. This vest, like the others, has velcro straps on the sides that allow you can adjust bottom of the vest. The size states 2X but it actually fits XL-3X (one size on each side of 2X). Some of the other nice features is that the bottom snaps up. You can look at the vest on Uniforms Etc. LLC's website at http://www.uniforms-etc.com/searchquick-submit.sc?keywords=01239. The cost of the vest as shown in the picture was approximately eighty dollars. You can ask Tony, KC0YHH, for further information on the vest.

BREAK - OVER

Emergency Support Function: Communications

New FEMA On-line Course

A new FEMA on-line course covers the Emergency Support Function (ESF) #2 "Communications" of the National Response Framework (NRF). It is essential that all amateur emcomm operators understand all ESFs, but particularly ESF #2. All ESFs are central to the operations of any EOC.

The NRF presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The Framework defines the principles, roles, and structures that organize how we respond as a nation. It builds upon the National Incident Management System (NIMS) which provides a consistent template for managing incidents.

The objectives of the course are to: Describe the overall purpose and scope of ESF #2, Identify the supplemental assistance ESF #2 provides to State, tribal, and local governments, Identify typical actions accomplished by ESF #2 resources and teams,and Describe the types of partnerships formed between ESF #2 and other response agencies and organizations.

cont'd col. 2

Health and Welfare Traffic and the ARC

"There has recently been some posting on Amateur Radio discussion groups on the Internet that is carrying false or misleading information. The Red Cross does not have a policy against amateur radio participating in passing health and welfare messages. In fact, we recognize the importance of amateur radio in being a vital method for people to get registered.

"The American Red Cross welcomes the support of Amateur Radio Operators in connecting friends and family members together through our health and welfare programs. The grassroots, independent nature of Amateur Radio Operators in communities around the country make them well suited for this task.

"General welfare messages are processed through the Red Cross Safe and Well Web site. This site allows people to register their status, which can be checked by friends and family who search by your name, address or phone number. A quick look at the Web site <http://disastersafe.redcross.org> will show how both the registration process and search are done.

"As few as two hams can set up an effective registration process. A ham located in the disaster zone can use any mode to transmit the basic Safe and Well registration information to another ham located outside the disaster area who would enter the information on the Web site. This quick ad-hoc setup doesn't rely on any affiliations and can be established by a call out to another ham who can help.

"The Red Cross also processes welfare inquiry messages that contain specific medical information. These contain more sensitive and personally identifiable information at the same time that the Red Cross keeps confidential to respect client privacy. We are researching if and how these messages can be passed across open frequencies, and what federal restrictions (such as HIPPA) may impact how this is done.

Keith Robertory, Disaster Service Technology Manager, American Red Cross, KG4UIR"

BREAK - OVER

He who makes no mistakes, never makes anything." Old English proverb

---

This course is aimed at emergency comunications responders, among others and should be preceded by course IS 800, An Introduction to National Response Framework. You will find links to these free on-line programs at the Scott ARES website, www.scottares.org, on the Training page.

BREAK - OVER

ARRL Ham Aid Go Kits

During Hurricane Gustav — And Beyond

As Amateur Radio operators prepared for Hurricane Gustav, the ARRL deployed complete radio stations comprised of industry-donated Amateur Radio equipment, thanks to the generous contributions of ARRL members to the Ham Aid Fund. Created in 2005 to assist with the response to Hurricane Katrina, the Ham Aid Fund is designated to finance Amateur Radio equipment needed for disaster response. In preparation for Hurricane Gustav, ARRL received requests for radio equipment from Louisiana and Texas. The shipping costs for this equipment were covered by the Ham Aid Fund.

According to Assistant Manager of the ARRL Membership and Volunteer Programs Department Norm Fusaro, W3IZ, several kits were shipped to Louisiana; "We sent three HF kits, 3 VHF/UHF kits and a combination kit complete with HF, VHF and handheld transceivers to the Louisiana Office of Homeland Security and Emergency Preparedness facility in Baton Rouge, as well as four VHF/UHF base antennas and a support box that included coax, rope, wire antennas and connectors." Fusaro also said that a 600 W amplifier was sent to Bogalusa, Louisiana to be used at the EOC there, and an HF radio was sent to New Orleans, replacing his rig that was damaged during set up at the firehouse.

"To me, these Go-Kits ramp up ARRL's ability to support Amateur Radio volunteers in the field when the next big disaster hits," said ARRL Chief Development Officer Mary Hobart, K1MMH. "They won't replace or supplant anything that's already on the ground and working well, but the kits will strengthen it and add flexibility to Amateur Radio's overall response capabilities."

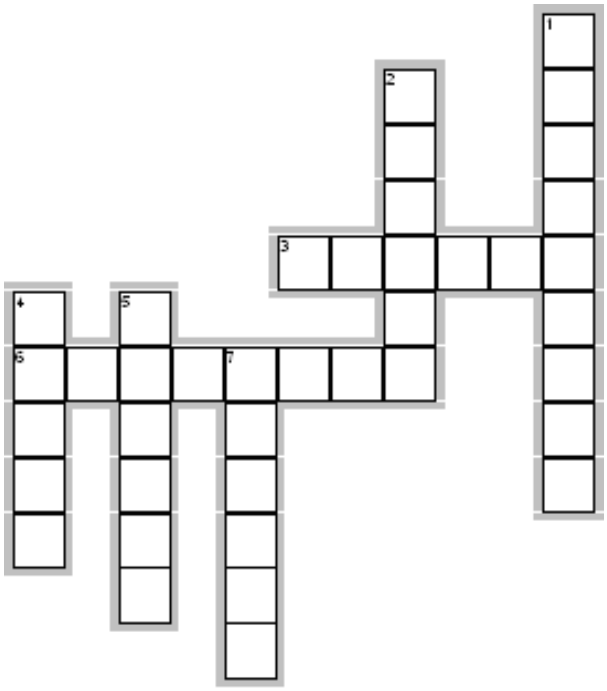
In setting up these Go Kits, League staffers consulted with volunteers who were in the field during Hurricane Katrina to find out what gear served them best or what they wished they'd had but didn't. The Go Kits, stowed in rugged, waterproof Pelican 1650 containers, enable the League to loan out needed equipment on a moment's notice. "The idea is that this makes it easy to ship," explains Fusaro, "and since they're less than 50 pounds apiece, they can be shipped by air."

The HF Kit contains a 100 W HF transceiver, a tuner and antenna, a microphone and a power supply. The VHF/UHF Kit includes a dualband mobile transceiver, power supply, headset, 10 handheld transceivers and a supply of alkaline batteries. In the Handheld Transceiver Kit are eight dualband handheld transceivers and antennas, plus a stock of extra batteries. The Support Kit includes a length of BuryFlex RG-213 coaxial cable, rope, 15 foot jumper cables with battery clamps at one end and an Anderson Powerpole on the other. The kit includes various fittings and adapters to connect to the power distribution unit and to make RF feed line connections. All kits contain any necessary manuals.

Hobart said it's imperative to sustain and enhance ham radio's emergency communication capabilities for the future: "Disasters happen to be one place Amateur Radio can shine," she pointed out. "We need to maintain a high level of readiness to do those things that are second nature to ARES members, but that the public is just coming to recognize." Making the Go Kits available to ARES teams, Hobart said, will help to cement Amateur Radio's position as a community resource. "We want to be able to ensure that we have the personnel and the equipment," she said. "With a disaster of any magnitude, we need to be ready."

Since the arrival of Hurricane Gustav, Hobart said that the Ham Aid fund has been depleted. "With more storms on the horizon, the ARRL is seeking member contributions to rebuild the Ham Aid Fund. This vital lifeline of resources to support the ARRL Field Organization and Amateur Radio Volunteers will benefit from the renewed generosity of radio amateurs." *BREAK - OVER*

7 Yr Old's Definitions



Across

3. A well-mannered individual.
6. What you do when the winner temp drops.

Down

1. _____ much! The response by someone treated with plightness.
2. The magic word used by plight individuals.
4. When the winner temp even lower.
5. The season that comes after autumn.
7. Usually said in winner about the temperature.

Solar Propagation

Crossword Solution

Across

1. CORONALSTREAM—A stream of charged particles originating from the sun's surface that increase the A- and K-indices and may cause major storm levels at the higher latitudes on earth resulting in total propagation fade-out at these latitudes.
3. PROTONFLARES—An eruption of positively charged nuclear particles from the sun's surface that usually reach the earth within an hour after the eruption and they usually impact the earth at the polar regions
5. BLINDZONE—The area around a radio station which cannot normally be worked by either ground waves or normal ionospheric sky waves. Usually stations in this area can only be worked via intermittent backscatter propagation. This zone is also called the "skip zone" by the US Military.
6. SUNSPOT—A small area on the sun's visible surface where the magnetic flux lines converge that appear darker than the surrounding surface area because they are relatively cooler in temperature.
8. SOLARFLARES—Large eruptions of energy and charged particles from the sun's surface. They are usually accompanied by coronal mass ejections and/or proton flares. They may last from minutes to hours.
11. SOLARWIND—The constant stream of charged particles originating from the sun which has speeds ranging from 200km/s to 700km/s.
13. GRAYLINE—The area occurring along the sunset and sunrise zones (i.e. also called the terminator in astronomy) has special significance to radio communications. Signals which travel along this region often experience significant improvements in received signal strengths as compared to the direct shortest distance communications.

Down

2. TROPOSPHERICSCATTER—The only form of propagation that is directly influenced by the surface weather of the earth. when a radio wave travels through a climate inversion they can be refracted back to the surface of the earth after traveling significant distances. Finally, this propagation effect is seen most often in the VHF and UHF bands, especially the 6m band.
4. BACKSCATTER—A useful form of propagation which mostly occurs when the maximum usable frequency (MUF) rises above 30MHz, when radio waves reach the ionosphere. A detectable fraction of a radio signal is now reflected at a very sharp angle back into region just surrounding the transmitting station but usually beyond the range of ground wave communications (i.e., blind zone).
7. METEORSCATTER—A remarkable type of propagation caused by the ionization by shooting stars entering the earth's atmosphere.
9. FILAMENT—A slow moving "cord-like" mass of plasma which moves across the sun's surface.
10. ACTIVEREGION—An area of enhanced activity on the sun's surface that is associated with a complex magnetic field.
12. DUCTING—On rare occasions, two or more inversions may appear at different altitudes. Radio waves can be transported between these two inversions. the effect is usually confined to 2m, usually along frontal systems, and it almost never occurs below frequencies of 50MHz.

51st Jamboree-on-the-Air

OCTOBER 18 – 19, 2008

The Jamboree-on-the-Air, or JOTA, is an annual Scouting and amateur radio event sponsored by the World Scout Bureau of the World Organization of the Scout Movement. Thousands of amateur radio stations around the world participate. If the conditions are right, it is common to contact a hundred Scouting countries during the weekend.

In the United States, Cub Scout dens and Boy Scout patrols visit a local amateur's ham shack during JOTA. Many districts and councils hold events that coincide with JOTA, where amateurs set up stations giving Scouts and leaders a chance to exchange greetings with Scouts from other areas.

The exchanges typically include information such as; Name, Location (QTH), Scout rank, Hobbies, and Age. Some exchanges lead to longlasting friendships and the exchange of photos, badges, pins, and patches.

The usual communications method is SSB. However, the following specialized communications are also used during JOTA: Slow Scan TV, or SSTV, Amateur TV, or ATV, Orbiting Satellite Carrying Amateur Radio, or OSCAR, Packet radio, or modem communication without a phone—PSK-31, Radio Teletype, or RTTY, Earth-Moon-Earth, or EME, contacts

There will be many stations operating, including the following:

- K2BSA/5 at Camp Wisdom in Dallas, Texas
- Additional K2BSA stations assigned to other areas, such as K2BSA/0, K2BSA/1, etc.
- HB95, the World Scout Bureau headquarters in Switzerland
- GB2GP at Gilwell Park, England

Who

JOTA welcomes participation by Scouting and amateur radio enthusiasts of all ages including; Cub Scouts, Boy Scouts, Venturers, Brownie Scouts, Girl Scouts, Former Scouts and Scouters, Amateur radio operators and, Anyone interested in doing a Good Turn for Scouting and amateur radio

When

JOTA always falls on the third full weekend in October. The '08 JOTA will begin on Saturday, October 18, 2008, at 22:00 hours local time, and end on Sunday, October 19, 2008, at 23:59 hours local time.

How

Radio Amateurs should invite Scouts and Scout units to their radio shack. Radio amateurs who do not know any units should contact the nearest BSA local council service center for the names of Scout unit leaders in the area. Local councils can be found in the phone book under "Boy Scouts of America."

Scouts and leaders should follow some of the following tips for help in preparing for participation in the JOTA program: Contact a local amateur radio operator, Contact a local amateur radio club, Put a notice in the local newspaper, Run an article in the local council newsletter; almost every local council has a Scouter involved in amateur radio, Contact the American Radio Relay League's Field and Educational Activities Department toll free at 800-326-3942; or visit the ARRL Web site: http://www.arrl.org/ead/jota.html

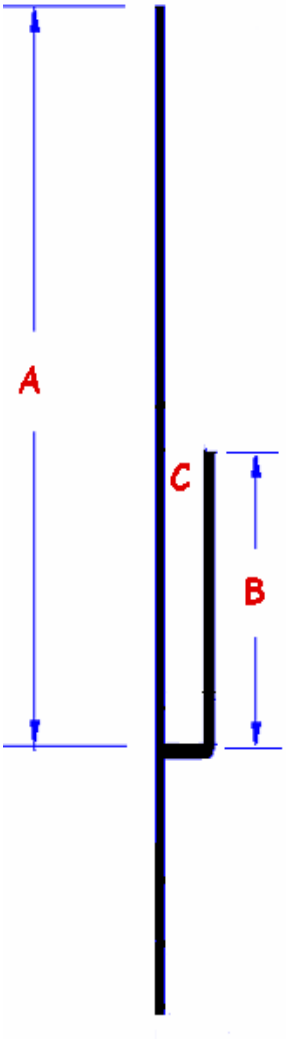
Where

JOTA Scout Frequencies

Band	SSB	CW
80 meter	3.940	3.570
40 meter	7.190	7.030
20 meter	14.290	14.060
17 meter	18.140	18.080
15 meter	21.360	21.140
12 meter	24.960	24.910
10 meter	28.390	28.190
6 meter	50.160	50.160

Looped J-Pole

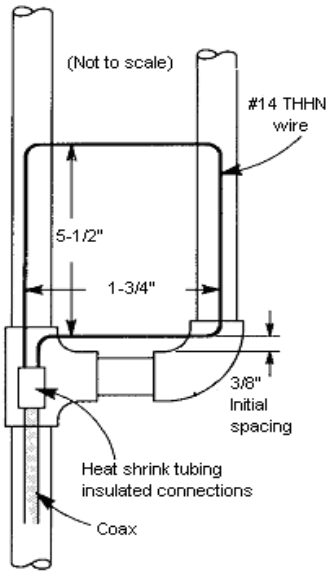
The J-pole antenna has been a favorite of homebrew ham antenna builders for VHF /UHF coverage for quite some time. The slim profile is unobtrusive yet provides some gain over the quarter-wave vertical. One of the easier designs utilizes ½" copper tubing. A trip to the local home center will provide the parts for the antenna: one 10 ft piece of ½" copper tubing, one tee, one regular ell, and two caps. You could also pick up 2' of #14 solid copper wire for the loop feed and some heat shrink tubing to insulate the feed point.



The dimension for the parts of the J-pole are, the 3/4 wave vertical, dimension A, 58", the ¼ wave stub 19 ¼ ", the center-to-center spacing between the two verticals, dimension C, is 1 ¾ inches. Since the actual fittings vary, you will have to determines the length of the short pipe between the Tee and regular El fittings to produce the 1 ¾" center-to-center spacing of the elements. Fire up your pro-pane torch and solder all pipe joints.

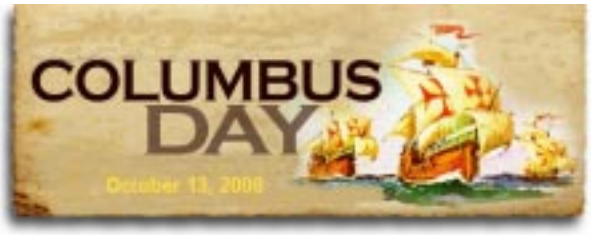
This design uses a loop coupling to feed the antenna. This idea was published in a volume of Hints and Kinks several years ago. The coupling loop is 5 ½ x 1 ¾ inches in size and consists of solid, insulated #14 copper wire. You can use a conductor from a piece of romex or buy a length of #14 THHN solid, insulated wire.

Connect one end of the loop to the coax center conductor and the other end of the loop to the coax shield. Be sure the loop ends don't touch where they connect to the coax. A good way to insulate these connections is to use three pieces of heat-shrink tubing. Use one piece on each of the ends of the loop and a third to cover both the end of the coax and the loop. Position the loop flat against the pipe, with the loop bottom about 3/8 inch from the inside bottom of the crook of the J. Temporarily tape the loop to the J element.



Adjusting the loop for minimum SWR is simple: Move the loop up or down from its initial position until you find the point of minimum feed-line SWR. Once you've found this point, secure the loop as closely to the J's copper pipe as possible with nylon tie wraps.

BREAK - OVER



ARES Breakfast
Saturday October 11th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule October 2008

6 Oct	N0PI Dan
13 Oct	W0NFE Bob
20 Oct	KB0FH Bob
27 Oct	KC0YHH Tony
3 Nov	N0PI Dan