



ARES COMMUNICATOR

Information for Scott County Amateurs



April, 2011

Accurate, Reliable Emergency Communications

Volume 11, Number 4

MS Society Cycling Events

Public Service Volunteer Opportunity

There are three events scheduled for this summer in Minnesota that could benefit from your communications skills. The Multiple Sclerosis Society of MN has announced the 2011 dates as follows:

- The Twin Cities Ride is a one day tour on Saturday, May 7th starting and ending at Aldrich Arena in Maplewood.

- The MS150 is on Saturday June 10 and Sunday, June 12, the route is from Duluth to the Twin Cities with an overnight in Hinckley.

- The third tour is the MS TRAM, a week long tour July 24-29 in the Rochester area of SE Minnesota.

If this looks like an activity you would like to support, contact the MN Society for further information. You can reach Will Ziegenhagen, volunteer coordinator at the National Multiple Sclerosis Society, Minnesota Chapter at (612) 335-7992 or 1-800-FIGHT-MS. Please let him know you are an amateur radio operator. Additional information about the radio communicator volunteer activity is available at: www.ms-scram.org.



BREAK - OVER



Happy Easter

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
Reader submissions encouraged!

Amateur Extra Question Pool Update

Due to the FCC revising the rules concerning Spread Spectrum, the Question Pool Committee of the National Council of Volunteer Examiner Coordinator (NCVEC) has decided to delete a question from the Amateur Extra class question pool. According to QPC Chairman Rol Anders, K3RA, when the Spread Spectrum rule change goes into effect, the answer to question E1F13 in the Amateur Extra class question pool will no longer be correct.

In March 2011, the FCC — acting upon a 2006 Petition for Rulemaking filed by the ARRL — eliminated the requirement that amateur stations transmitting Spread Spectrum use Automatic Power Control (APC) to reduce transmitter power. At the same time, the Commission reduced the maximum power of a Spread Spectrum emission from 100 to 10 W PEP.

Anders encouraged those who administer Amateur Radio license exams to remove question E1F13 as soon as possible, but advised that it must be removed when the rules change goes into effect. The changes to Sections 97.311 and 97.313 of the Commission's Rules will be effective 30 days after the Report and Order is published in the Federal Register. The current Amateur Extra class question pool is effective through June 30, 2012.

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ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, March 12th

Digital Monday March 14th

ARES Nets

MN ARES Phone Net	
6:00PM Sunday	Freq: 3.568 mhz
ARRL MN Phone Net	
12:00p, 4:30p CST Daily	Freq: 3.568 mhz
ARRL MN CW Net	
6:30p, 9:50p CST Daily	Freq: 3.568 mhz

NETS WITH OUR NEIGHBORS

North Dakota:	Daily 3.937 mhz	6:30pm
South Dakota:	Daily 3.870 mhz	6:00pm
Wisconsin:	Daily 3.985 mhz	5:30pm
Iowa:	Daily 3.970 mhz	12:30/5:30pm

Test Your NIMS Knowledge

ARES members are familiar with the Incident Command System from their study of the FEMA Institute courses. Now it is time to see how much you remember from those courses! Each month you will have the opportunity to test your ICS knowledge on a questions dealing with one ICS area.

This month we will take a look at some of the concepts from the IS-100 course, Introduction to Incident Command System. This is the first of the FEMA courses all ARES members must complete before participating in any response activities. You can find the course materials at this site: <http://training.fema.gov/EMIWeb/IS/is100.asp>. Now, test your knowledge of the ICS.

Here is the question for this month:

Which General Staff position is responsible for ensuring that assigned incident personnel are fed and have communications, medical support, and transportation as needed to meet the operational objectives?

- A. Finance/Administration Section Chief
- B. Logistics Section Chief
- C. Planning Section Chief
- D. Operations Section Chief

Check next month's ARES Communicator for the solution

QR Codes

New Advertising Gadget?

A confused crossword puzzle. A psychedelic postage stamp. A bar code on drugs. This is how a QR, or Quick Response, code may appear to most people. You may have noticed these black-and-white squares showing up in newspapers or in pages of magazines. Thanks to our growing addiction to our smartphones, you'll likely be seeing more of them. When accessed with your phone, a QR code takes you to a landing page where you'll usually find special promotional content.

Here's how they work: First, you must download a QR scanning application for your smartphone. When you see a QR code on a poster or billboard or in a publication, open the scanning app and use the phone's camera to focus the code on your screen. The application will recognize the code and automatically open up the link, video or image in your phone's browser. You just need an internet connection to access the content.



Grab your phone and give it a try!

Many QR scanning applications are available for Android, iPhone, BlackBerry and Symbian phones. Anyone can generate their own QR code for free. < <http://zxing.appspot.com/generator/> > And you can link it to anything — from URLs to contact information to your GPS location.

According to a February survey of U.S. smartphone users by MGH, a Baltimore social-media marketing company, 32% of respondents said they have scanned a QR code.

Of those, 53% said they used the code to get a coupon or discount. And 72% said they were more likely to remember an advertisement with a QR code.

Matthias Galica, CEO of ShareSquare, a QR code platform, said he believes that QR codes have changed the way people consume services and products. QR codes work as paper-based hyperlinks that can lead you to products and information.

BREAK - OVER

*"It's what you learn after you know it
all that counts the most."*

Batson D. Belfry

Scott County ARES Contacts

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

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

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



Take a Dip in the General Pool

Time to test your knowledge of the information covered by the General Class license exam. Each month we'll take a look at a selection from the question pool. Here is this month's sample:

1. Which of the following must be true before amateur stations may provide communications to broadcasters for dissemination to the public?
A. The communications must directly relate to the immediate safety of human life or protection of property and there must be no other means of communication reasonably available before or at the time of the event
B. The communications must be approved by a local emergency preparedness official and conducted on officially designated frequencies
C. The FCC must have declared a state of emergency
D. All of these choices are correct.
2. When is an amateur station permitted to transmit secret codes?
A. During a declared communications emergency
B. To control a space station
C. Only when the information is of a routine, personal nature
D. Only with Special Temporary Authorization from the FCC.

(Check next month's issue of the ARES Communicator for the answer.)

Q. What kind of lights did Noah put on the ark?

A. Flood lights!

March General Pool Answer

Which of the following applies when the FCC rules designate the Amateur Service as a secondary user on a band?
C. Amateur stations are allowed to use the band only if they do not cause harmful interference to primary users

What is the maximum height above ground to which an antenna structure may be erected without requiring notification to the FAA and registration with the FCC, provided it is not at or near a public use airport?
C. 200 feet

CB Antenna Grease

Ahm Sri, our roving correspondent, found this item in the classified section in early April.

All this talk of towers and grounding...All you need to improve your signal was found on the Rochester version of Craigslist...

"For Sale One Tube Of Rare CB Antenna Grease" This stuff came out in the 60's. It was developed by the Department of Defense for the armed services. It was mainly used in the field on hand held units, tripling their range. It is a closely guarded secret by technicians and hams.

When the FCC found out some amateur radio supply outlets had purchased a sizable quantity of the RF grease through US Army & Navy surplus auctions, the FCC outlawed the sale of it in the US.

What the RF grease does is make your signal slide out your antenna faster and with less friction. Because of this you get less RF friction (hysteresis). The results are: lower SWR readings and increased power handling.

The faster moving RF signal builds up a tremendous RF inertia, resulting a higher DB gain on your signal, (like a slingshot effect throwing a faster & larger signal) (typically 3.8-4.7 db gain) and 4 times the power handling capacity.

Modulation and SSB benefit a whopping 6 db gain over an untreated isotropic dipole antenna. One application lasts for about 6 months. Then, just wipe off any old grease and put on a new layer.

This is probably the best kept secret in amateur radio! The guys at the shoot-outs won't tell you about this amazing secret! Triple the RF output of a 200 watt box to 600 ERP, etc... (effective radiated power) This RF grease also causes a very cool side effect. If you feed over 100 watts into a treated antenna you will see a cool purpleish-pink halo glowing around your antenna on key up at night, pulsating with your modulation! (This reaction was not a benefit for the military, this is why they stopped using it!) For now all I have is one 16oz. tube. \$250.00 FIRM

BREAK - OVER



BREAK - OVER

NBEMS in 3 County Drill

Supporting the Red Cross in NY

by: Andy K3UK

Three counties in SW New York State participated in a Red Cross drill, RACES/ARES stations were located at three shelters, each roughly 40-50 miles apart. Here in Chautauqua County, New York, we were faced with a situation where our operating position was in a gym that had no windows or easy access to the outside. By coincidence we also were located about half a mile from the county EOC facility that was fully equipped with a RACES station. We decided to operate a 70CM simplex frequency from the shelter and use Kenwood D710 radios in cross band repeat mode that relayed the digital tones out on 2M to a distant repeater. The cross band operations allowed us to use higher power and better antennas that we had available at the drill shelter.

FLdigi performed well under this plan. The 70CM simplex path to the EOC building, and subsequently relay via 2M and an FM repeater, had no adverse impact on the MT63 2000 signals that were being sent. The most westerly and most easterly shelters were a considerable distance from the repeater site and the signal levels were usually in the "fair" range. I am guessing, but the few times that a MT63 message was not received fully may have been attributed to occasional FM flutter and brief distortions of the signal. There were a few occasions where the checksum failed but the message appeared to be received 100%.

Any problems associated with Fldigi appeared to be operator error rather than anything in the design of fldigi. The basics of sending an MT63 signal from point A to B, worked very well. This was done at our end with a dual band mobile rig, a laptop computer, and a signalink interface. Oh, and a magmount antenna in the gym! The operator errors seemed more with the intricacies of getting FLMSG features fully utilized. Printing a message required a few more mouse clicks and menu selections than many expected. One group also had to content with the default soundcard setting in Fldigi changing to the Windows soundcard rather than the USB codec.

Keeping track of the messages caused us more problems than we had anticipated, perhaps we should have planned this better. It would be useful if, in the future, the authors of FLMSG can give some thought to additional features that track messages which require a reply and whether a reply has been sent or not. I guess we hams should be capable of doing that ourselves, but if added to the software it might be more efficient.

cont'd col. 2

March NIMS Knowledge Solution

At each level of the ICS organization, individuals in positions of primary responsibility have distinct titles. Using specific ICS position titles:

A. Allows ICS positions to be filled with the most qualified individuals rather than being filled just by rank alone.

31 FLAVORS CONTEST

Phase Shifting where no contest has Phase Shifted before!

When: Saturday, 09 April 2011 from 12:00-18:00 your local time [not Universal Time]. This is a rolling start across the globe that should give opportunity to all who play.

Who: All licensed radio amateurs. Look for Ø7Ø Club members in the event. Learn about this esteemed association on its web page: www.podxs070.com

Why: To have a contest where participants get to play with PSK variants: BPSK 31 [Narrow bandwidth] QPSK 31 [Narrow bandwidth] BPSK 63 [Wide bandwidth] QPSK 63 [Wide bandwidth] BPSK 125 [Very wide bandwidth] Frequencies: 20 Meters only: normal PSK sub-band for narrow mode variants, sub-band 14072.5 - 14080 kHz suggested for wide bandwidth mode variants.

Exchange: State/Province/DXCC Entity + Name

Suggested Contest Call: 'CQ CQ PSK 31 Flavors de Your Call k' or 'CQ CQ PSK 31 Flavors de Your Call - switching to <Mode Variant> k'



Drill *cont'd from col. 1*

The use of Fldigi/NBEMS by these three counties did not fully illustrate the original intent of those fldigi/NBEMS development team. When first developed, it was pointed out that hams would perhaps perform the best if their ecomms were essentially the same as what they use in everyday QSOs. For two of the three counties this was not the case, they had not used fldigi until one week prior to the drill.

The mission was accomplished, "traffic" was sent and received efficiently. Hard copies and electronic copy ICS forms were easily exchanged. So, if this was quite easily accomplished with operators that did not have a lot of digital experience, think what can be done if ARES/RACES increase their digital mode training?

Congratulations to Allegheny, Cattaraugus County, and Chautauqua County ARES/RACES.

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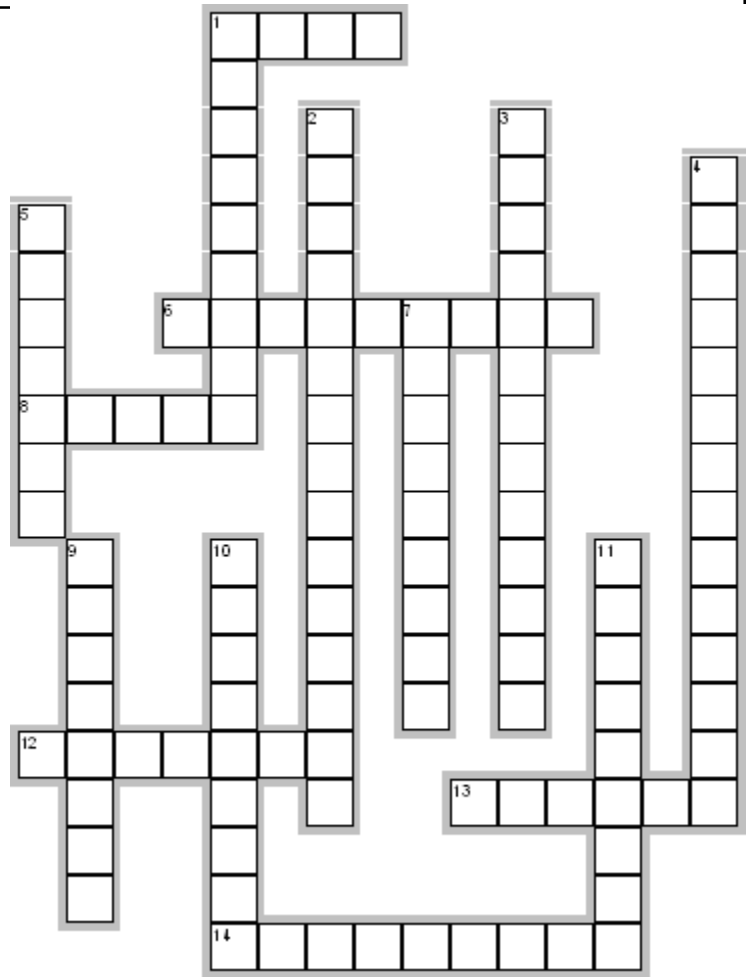


Across

1. Small, ragged, low cloud fragments that are unattached to a larger cloud base and often seen with and behind cold fronts and thunderstorm gust fronts.
6. Relatively strong winds concentrated in a narrow stream in the atmosphere, normally referring to horizontal, high-altitude winds. The position and orientation vary from day to day.
8. The flat, spreading top of a cumulonimbus. This thunderstorm feature may spread hundreds of miles downwind from the thunderstorm itself.
12. A radar echo which is linear but bent outward in a curved shape.
13. High-level clouds (16,000 feet or more), composed of ice crystals and appearing in the form of white, delicate filaments or white or mostly white patches or narrow bands.
14. A small-scale column of air that rapidly sinks toward the ground, usually accompanied by precipitation as in a shower or thunderstorm.

Down

1. A thunderstorm with a persistent rotating updraft. These are rare, but are responsible for a remarkably high percentage of severe weather events - especially tornadoes, extremely large hail and damaging straight-line winds.
2. A dome-like protrusion above a thunderstorm anvil, representing a very strong updraft and hence a higher potential for severe weather with that storm.
3. A funnel cloud or a small, relatively weak tornado that can develop from a small shower or thunderstorm when the air aloft is unusually cold.
4. Rounded, smooth, sack-like protrusions hanging from the underside of a cloud (usually a thunderstorm anvil). These clouds often accompany severe thunderstorms, but do not produce severe weather.
5. A violently rotating column of air in contact with the ground and



- extending from the base of a thunderstorm.
7. A low, horizontal tube-shaped arcus cloud associated with a thunderstorm gust front or sometimes with a cold front.
9. A measure of atmospheric moisture. It is the temperature to which air must be cooled in order to reach saturation.
10. A localized, persistent, often abrupt lowering from a rain-free base. Normally are found on the south or southwest (inflow) side of the thunderstorm.
11. The leading edge of surface winds from thunderstorm downdrafts; sometimes associated with a shelf cloud or roll cloud.

March Crossword Solution

Across

6. INCIDENTCOMMANDER—Under the ICS, the one person in charge is always called the _____?
7. CHIEF—Each operating section has its own _____?
8. MIMS—Incident command system used in Minnesota.
10. ICS—A model tool for the command, control, and coordination of resources and personnel at the scene of an emergency.
11. GENERALSTAFF—The Information, Safety, and Liaison Officers make up the IC's _____?
12. TASKFORCES—Operating sections may have various _____ working on specific goals.

Down

1. FINANCE—The section that uses staff from each agency involved to track the cost of the disaster.

2. PLANNING—Section responsible for information gathering and dissemination and working out the details of each agency's response.
3. OPERATIONS—Section involving Police, Fire, Public Works, Red Cross and relief agencies who are actually in the field doing the work to protect the public.
4. LOGISTICS—The section that provides services only for the responding agency personnel, not the general public.
5. FUNCTIONAL—_____ tasks in the ICS are performed under the overall direction of a single Incident Commander (IC) in a coordinated manner.
9. FIRESCOPE—Firefighting Resources of California Organized for Potential Emergencies – early ICS organization.

Ham Radios Find Place In High-Tech World

by Jon Rabiross , Stars and Stripes-Korea

SEOUL — Ham radios once played a key role in the operations of the U.S. military before fading into the background with the arrival of better and more accessible forms of communication like cell phones, the Internet and Skype.

But just when you start to think ham radios might go the way of rotary phones, 8-track tape players and phonographs, disaster strikes and the old war horses of communications fill a void in the response to emergencies.

Ham radio operators were widely credited with helping with emergency communications in the wake of the 9/11 attacks and Hurricane Katrina. Sixteen days ago when an earthquake and tsunamis devastated Japan, ham radio hobbyists and their outdated technology once again got involved in reconnecting families and guiding emergency aid where it was most needed.

“In the fairly early stages after the earthquake, several radio amateurs were able to activate their stations with car batteries or small-engine generators,” Japan Amateur Radio League International Section Manager Ken Yamamoto said in an e-mail to Stars and Stripes. “They transmitted rescue requests and information on the disaster situation, including refugee centers and their needs and/or the availability of basic infrastructures, like electricity, water and gas supplies.”

Yamamoto said information gathered from ham radio operators in the hardest hit areas of the country was “re-reported to the rescue and disaster relief organizations for their appropriate deployment.”

Radio equipment manufacturers distributed hundreds of transceivers for use at relief and refugee centers, he said, which “should help ... to facilitate smooth and appropriate delivery of disaster-relief goods.”

In some cases, ham radio operators also helped anxious people around the world find out about the welfare of loved ones in Japan.

Trevor Jones of British Columbia, Canada, called embassies and checked social media websites immediately after the earthquake, checking on the welfare of his son, Jonathon, but it was the ham radio of Jonathon’s grandfather that played a key role in reconnecting him with the 32-year-old English teacher in Sendai, according to the Montreal Gazette.

“I think they’ve forgotten about ham radios,” Trevor Jones is quoted in the Gazette. “If you went back to the time when I was 32 years old, that was the only system that wouldn’t break down.”

Military connection - Ham radio may be a dying form of

communication, but amateur-radio hobbyists don’t want any static about their passion — one that appears to have a significant following among members of the U.S. military.

“I will be the first to admit that using ham radio to communicate is far from being the most efficient means of communication,” said U.S. Army Maj. Scott Hedberg, a ham-radio operator based at Camp Red Cloud in South Korea. “I think you can best look at it like, ‘Why do people go horseback riding or ride bikes? Isn’t there a more efficient way to get from A to Z?’

“Sure, but it is the enjoyment of the journey that is the key.”

There are still references in military regulations to ham radio use. For example, U.S. Forces Korea regulations state that, “When directed, amateur radio operators will assist in providing communications for all types of disaster and will work with various relief agencies as necessary.”

However, Hedberg said, “Just based on the robust communications we have here today ... I would think it would have to be fairly extreme circumstances, from a military standpoint, that they would be coming to me for any sort of assistance.”

That has not stopped hobbyists — they number “in the hundreds” among active troops, Hedberg said — from spending their off hours spinning dials and connecting worldwide with others with a passion for the technology and quaintness of ham radio conversations.

Richard A. Bartlett, the 90-year-old author of “The World of Ham Radio, 1901-1950: A Social History,” said, “Morse code may be disappearing and hams declining in numbers, but what of the innovators?”

“I think the curious, highly intelligent radio gadgeteer deserves a viable place in our society, including the military. Ham radio, in its social aspects, provides these bright, inquisitive people with contacts, rivalries, challenges and, yes, friends with similar interests.

“It would be tragic for their wonderful hobby to disappear.”

Still needed - For now, the hobby does not appear to be on its last legs: Today, there are an estimated 2 million ham radio enthusiasts around the world.

Hedberg explained there are a number of reasons people are still attracted to the ham radio hobby, despite the arrival of easier and more advanced forms of communication.

“Just the challenge involved,” he said. “It takes a little bit to get everything set up right. There’s a little bit of magic involved. Just being able to talk from here (South Korea)

High Tech Hamming - cont'd from page 6

back to the United States is pretty cool.

"Can I pick up a phone and do that? Sure I can," he continued. "It's a tougher journey getting there, but I get a lot more satisfaction doing that."

Bartlett said, "Computers and the World Wide Web are wonderful, but dedicated hams are still necessary in times of disaster. They are the initial contacts in cases of natural disasters. Ham members of clubs contact ham members of other clubs. Club members spell their ham brothers during disasters when they are on the air 24 hours or more at a time. Their contributions are vital."

Hall said when disaster strikes, things like cell phones and Skype are not necessarily going to work.

For a ham radio operator to connect to the world, he said, "All you need is a car battery and a coat hanger, and you can 'MacGyver' it."

Yamamoto said one of the lessons learned through the disaster in Japan is that, "Radio amateurs should have periodic training for well-controlled and reliable disaster communications, even in chaotic situations.

"Amateur radio clubs should coordinate their roles in disaster situations with local rescue and disaster relief organizations, and emergency medical centers," he said.

Bartlett closed his book with a plea to readers to introduce their children to the world of ham radios.

"You will be doing not only your son or daughter a favor but, indirectly, the world at large," he wrote.

BREAK - OVER

'The Skirmish' Digital Prefix Contest

When: 16 Apr. '11 00:00 UTC through 23:59 UTC - 16 April 2011

Exchange: Send *name + prefix*

Operating Modes: *PSK, RTTY, Hell, MFSK, MT63, Throb, ASCII, SSTV, Domino EX, ALE400 and Packet.*

More Info: http://www.n2ty.org/seasons/tara_dpx_rules.html

BREAK - OVER

Q. What kind of birds serve in the Navy?

A. Carrier Pigeons!

ARES Advertising

One activity all successful enterprises have in common is promotion of their products or services. Entrepreneurs found out long ago that nobody would buy that better mousetrap until they found out why it was better and where to buy it.

As ARES members we need to tell our story to the public. We have a great product: skilled volunteers, desire to serve the community, modern equipment, local availability, regular training, professional approach, and all this service is FREE!

Logo apparel is one way to promote our 'Scott ARES' brand. WE now have a Polo shirt in addition to our ball caps. Wearables serve as a conversation starter. They give you the opportunity to spread the word about the fun of amateur radio. The new polo shirt is modeled in the picture by Bob, W0NFE. The polo shirt is the Port Authority brand with a chest pocket, have anti-curl collars and resist pilling, fading, wrinkling and shrinking. The shirts are cotton pique, 6.5-ounce, 100% cotton, Double-needle stitching throughout, Piping detail inside neckband, Flat knit collar, 3-button placket, Open hem sleeves, with Side vents.



The shirts are available with the callsign and first name embroidered on the left sleeve. The cost for the shirt as pictured is \$33.00 each.

You can order your shirt from N0BHC by email (n0bhc@arrl.net) or on the weekly net. When you order, email your size (Small thru 3XL) along with the name and callsign you want on the sleeve.

BREAK - OVER

**Happy
Easter!**

Home Grown Weather

Users Help a Weather Site Hone Its Forecasts

Kevin Bleier, an amateur meteorologist, lugged a weather station up several precarious ladders to reach the peaked roof on his 40-foot-tall house in Alameda, Calif., then mounted it on a 15-foot pole to capture data for his personal weather site.

But the data is not for Mr. Bleier's site alone. His station and over 20,000 like it worldwide are part of the largest network of weather stations ever assembled, according to the meteorological Web site Weather Underground. (KMNSAVAG3 reports the weather in Savage, MN.)

The network is part of an audacious plan to crowd-source weather measurement and, Weather Underground hopes, to snatch viewers from its larger competitor, the Weather Channel's Weather.com. In the last six months, Weather Underground has averaged about 14 million unique visitors a month in the United States, while Weather.com attracted about 42 million, according to Quantcast, an online metrics company.

"What's new right now is we're taking that data and we're generating forecasts from those stations," said Alan Steremberg, president and co-founder of Weather Underground.

Those predictions are being made through a tool, BestForecast, that analyzes the accuracy of different forecasting models and improves them over time by comparing their predictions with reported conditions. The tool considers 70 models before generating a forecast for each station using the best one, and then reports the precision of past forecasts to users.

The personal-station network will augment data from the 10,000 or so National Weather Service stations in the United States and national and international networks of stations (called mesonets), like the Meteorological Assimilation Data Ingest System, operated by the National Oceanic and Atmospheric Administration.

Mr. Steremberg said he believed that his company's network would lead to more accurate forecasts because there would be more real data points to verify predictions.

"We're just trying to build our own system that has more sensors," he said. The "unfortunate downfall" of the Weather Channel's system, he said "is they don't have as many sensors as we have."

Ian Miller, the Weather Channel's senior vice president for

weather systems, disputed Mr. Steremberg's assertion. He wrote in an e-mail that the Weather Channel's proprietary forecasting tool, TruPoint, which relies on the United States' "fairly dense network of high quality observations," is "a different — and better — paradigm than gathering data from fixed sensors."

He said the Weather Channel decided against incorporating mesonets and personal stations because they "are not always reliable because installation and maintenance of sensors is crucial, and these unofficial results do not have a professional insight of a meteorologist."

But, he conceded, "we periodically revisit this item because some could add value" in remote areas of Colorado, for example, or highly variable climates like the California coast. "We do plan to add them regionally on a very limited basis by applying our quality assurance rules."

David Robinson, New Jersey's state climatologist and a professor of geography at Rutgers University, agreed with Mr. Miller's assessment of the risks but was enthusiastic about the additional data.

"The more observations and the better observations you have, the better the forecast will be," Professor Robinson said.

The professor oversees two networks in New Jersey and emphasized that care had to be taken when placing stations because they provided unreliable information if poorly located, perhaps too near ventilation or air-conditioning, or in direct sunlight without a shield for temperature gauges.

"The thing you need to ask yourself when you see stations for a network is, how are these stations situated?" Mr. Robinson said. "There's a lot of potential useful data being gathered, but buyer beware."

Unlike observers for the National Weather Service, who are provided equipment, instruction and maintenance from the federal government, station owners like Mr. Bleier are on their own.

Mr. Steremberg said a Weather Underground algorithm developed over the last decade culls incorrect data and removes the offending station from its grid, then contacts the malfunctioning station's owner.

"We apply what we call the sanity check and make sure that the variable is physically possible," by cross-referencing it with nearby stations, Mr. Steremberg said. "So we drop the



Internet Innovator Dies at 84

Paul Baran, W3KAS, Packet Pioneer

Paul Baran, who helped build the foundation for the modern Internet by devising a way to transmit information in chunks, has died. He was 84. He died Saturday at his home in Palo Alto, Calif., of complications from lung cancer, said his son, David.

Paul Baran became one of the pioneers behind “packet switching,” which helps a communications network withstand an attack by bundling and dispatching data in small packages, while working on Cold War military research for the RAND Corp. in the 1960s. The Department of Defense used that concept in 1969 to create the Arpanet, which laid the foundation for the modern Internet.

President George W. Bush acknowledged Baran’s contribution by presenting him the National Medal of Technology and Innovation in 2008, a year after he was inducted into the National Inventors Hall of Fame.



Paul Baran, W3KAS, receiving the National Medal of Technology and Innovation from Pres. George Bush in 2008.

Vinton Cerf, a vice president at Google Inc. who is considered one of the fathers of the Internet, said Monday that his longtime friend was a “technological iconoclast,” an unusually prolific thinker and inventor who, over a career that spanned six decades, dreamed up “holy cow” ideas years before anyone else thought them possible.

Baran had more than two dozen patents and started seven companies, five of which went public. He is credited with advancing innovation in cable modems, computer printers, satellite transmissions, interactive television, remote reading of power meters, even airport metal detectors.

David Baran recently found one of his father’s papers from 1966 predicting that people would shop and get news on online networks.

Paul Baran never sought credit for himself, always distributing it to others, his friends and former colleagues said. “He believed innovation was a team process,” longtime friend and Silicon Valley futurist Paul Saffo told the Los Angeles Times.

BREAK - OVER

Weather - cont'd from page 8

bad stations, even before the forecasting.” He said roughly 40,000 stations had joined the worldwide network since 2001, but about half had been removed for quality reasons or had since gone inactive.

Another issue is that owners like Mr. Bleier must buy their own stations, which cost from about \$110 to over \$1,400, and use spare time to maintain them, without pay.

Toby Skinner, Weather Underground’s marketing director, believes users are compensated for the expense.

“They get a lot of archiving, they get map graphing and charts,” Mr. Skinner said. “A lot of these people may have their own local Web sites, community Web sites, and we provide the link to them so we’re providing some exposure.”

But for the weather fans with stations, participation is often its own reward.

“When I was a kid growing up in the ’60s, I would have died for this kind of information,” Mr. Robinson said.

“There’s almost enough weather stations that people will be tripping over them.”

BREAK - OVER

APRIL SHOWERS?



ARES Breakfast

Saturday, April 9th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule April 2011

4 Apr N0PI Dan
11 Apr W0NFE Bob
18 Apr KB0FH Bob
25 Apr KC0YHH Tony
2 May N0PI Dan
9 May W0NFE Bob