



ARES COMMUNICATOR

Information for Scott County Amateurs



December, 2012 **Accurate, Reliable Emergency Communications for our Community** Volume 12, Number 12

Scott EOC Now Radio Active

The Scott County EOC at the Government Center in Shakopee now has a VHF/UHF external antenna for amateur radio communications.

The antenna installation was a joint project between Scott ARES and Scott County Emergency Management. Chris Weldon, County Emergency Manager, had been talking with the Scott ARES group for several years about the uses for an external antenna for the county emergency operations center.

The project came together last month when Scott ARES members Daniel NOPI, and Bob W0NFE, met with Randy Lano, Govt Center Electrician, and headed for the roof.

Randy had fished the 230 plus foot run of LMR400 coax from the site on the roof to a location adjacent to the EOC. Bob and Dan terminated the coax at each end and worked with Randy to install the antenna on the highest point on the building. Bob, W0NFE, built the plumber's delight J-Pole.

The SWR and other tests showed a successful antenna project. Contacts with repeaters throughout the metro area were made with a handheld radio. The installation also included a patch cable that will allow Chris to connect his scanner to the external antenna to monitor Skywarn activity on Metro Skywarn nets in real time. This external antenna capability provides him with more rapid information from trained Skywarn amateur radio weather spotters when severe weather threatens Scott County.

BREAK - OVER



ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday, December 8th
Digital Monday, December 10th



Merry Christmas

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

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/

Test Your NIMS Knowledge

This month we will continue our review of ICS-700a: National Incident Management System (NIMS) An Introduction. Check your recall of the course material with this question.

1. A basic premise of the NIMS and National Response Framework (NRF) is that:
 - A. Incidents should be managed at the lowest jurisdictional level possible.
 - B. Unity of effort and command results when responding jurisdictions and agencies are willing to relinquish their authorities.
 - C. Effective response relies on the readiness of response partners to self-dispatch to an incident scene.
 - D. Preparedness is inherently a government responsibility and does not require participation from nongovernmental organizations.

Check next month's ARES Communicator for the solution

Nov. NIMS Knowledge Solution

1. Select the statement below that best describes one benefit of NIMS.
 - A. Establishment of standardized organizational structures that improve integration among jurisdictions and disciplines.

BREAK - OVER

Scott County ARES Contacts

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NOD – Now Zero Days!

Special Event Station: The End of the world!

That's right, the end is finally near. According to one of the three Mayan Calendars, the End of the world will occur on Dec 21, 2012. To celebrate this literally once in a lifetime event, Special Event Station N0D (Now Zero Days) will be activated on 10-80 meters for three days during and after(?) the end of the world. December 20; is a celebration of the end of the world. December 21, the day of destruction, we will be on the air as long as possible. December 22nd, that is a little iffy right now.

N0D team will be working available satellite passes beginning December 15th, 2012, through the end of the world and possibly beyond until December 22nd. The team will be using the Official Doomsday call sign, N0D. This will provide cosmic, even intergalactic coverage for the end of the world as we know it.

Amateur radio stations around the crumbling globe are invited to contact N0D, who will be operating from secret, undisclosed locations. Our operating schedule may be a little erratic as destruction rains down upon us. Those who may be looking skyward for the end of the world, N0D will be operating on several satellite passes.

You can celebrate Doomsday by contacting N0D directly on the air. Amateurs can also become an official Doomsday station by registering on our website. You will be given a registration number and the authority to identify yourself as "Official Doomsday Station" followed by your Doomsday number.

QSL with SASE to KK5W. If Doomsday actually does happen, we regret that a QSL will not be possible so hold on to your SASE until the 22nd at least. Check out our website for a preview of the N0D QSL card.

Amateurs can also become an official Doomsday station by registering on our website. You will be given a registration number and the authority to identify yourself as "Official Doomsday Station" followed by your Doomsday number. Official Doomsday stations will receive the Doomsday Station Certificate.

It is not entirely clear exactly how it will happen. Will it be a cataclysmic shift in the earth's magnetic field, Global Warming on steroids, earthquakes, volcanoes floods, global thermonuclear war, meteor collision, the 10 plagues of Egypt, UFO invasion who knows? There are scientists, soothsayers and philosophers on both sides of the question. Either way it will be an event worth remembering...or maybe there will be no one left to remember it?

More information is available on the Official N0D website, www.nowzerodays.com

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Zero Day Follow-up!

Optimists among ham radio operators are also commemorating the Myan calendar prediction with a different twist. They are sponsoring Post-zero day events! A couple of the stations planning activity are as follows:

W2E - Doomsday 2012, Dec 20-Dec 22, 2200Z-2359Z

W2E (short for World 2 End) event celebrates the end of the Mayan Calendar and what has been characterized in popular culture as Doomsday 2012. Special emergency power has been arranged in the event commercial power connections are inexplicably terminated. Also, 7.266 MHz will be manned using a vintage Hallicrafters transmitter and receiver should solid state transceivers become non-functioning.

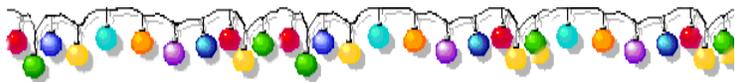
The Cookeville, TN. Buck Mountain DX Club will operate the callsign W2E on frequencies; 28.366 14.266 7.266 3.866. A certificate authenticating the contact is available by mailing log info to: Dennis M. Barrett, N4ECW, 1035 E 6th St, Cookeville, TN 38501.

Day After Doomsday Operation, Dec 22, 0000Z-2359Z

The Tri-County Amateur Radio Club will operate WC5C from Azle, TX. on frequencies; 28.340 28.040 14.340 14.040.

Commemorative certificates recording the contact are available by submitting contact log information to Tri-County ARC WC5C, Day After Doomsday, 820 Wood Lane, Azle, TX 76020. More info available at wc5c@azletexas.net or www.wc5c.org

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A New DIY-Hacker-Ham Website

Diane Bruce, VA3DB, happily reports "We are up and running."

"Let me just say I personally am very happy to see the ARRL pushing the technical side of our hobby like this. The more the merrier is all I can say.

"A few of us have been disturbed for some time about the number of new hams who cannot do simple building projects. A recent look at some old 73 magazines brought to mind the simple projects this magazine produced. So our thought was to do something similar, but meant for the web instead of dead tree. We are not talking a full fledged magazine, but a website where we can put simple beginner type articles, with copious photos etc. A bit like maker magazine but for the radio amateur."

Check out the site here: <http://hamradio-builder.hamhacker.org/> Bookmark this one and check back often. Now, heat up that soldering iron, melt some solder and have some fun! Learning something new or reviewing some familiar ideas is just a side benefit.

BREAK - OVER

WW II Airmail Message

UK Codebreakers Stumped By WWII Pigeon Message

British intelligence officials are baffled by a secret World War II message that was discovered on the leg of a dead pigeon, they admitted in late November.

The message, consisting of 27 hand-written blocks of five letters, was attached to a pigeon skeleton that was found by retired probation officer David Martin when he was renovating his house in Surrey, southeast England.

Martin handed the piece of paper to experts at intelligence agency GCHQ at the start of November, and they have been scratching their heads ever since.

Codebreakers said the message, which did not include a date, was impossible to crack without its codebook.

Written on a small sheet of paper headed "Pigeon Service", the code was found in a small red canister and listed the sender as "Sjt W Stot". The recipient is named as "X02".

A GCHQ spokesman said: "Although it is disappointing that we cannot yet read the message brought back by a brave carrier pigeon, it is a tribute to the skills of the wartime code-makers that, despite working under severe pressure, they devised a code that was indecipherable both then and now."

Britain used some 250,000 pigeons as military messengers during World War II.

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The Pigeon messenger remains!



Batteries Keep Communicators in Charge

There's no time to waste: you have traffic for the emergency net.

You grab your HT, call NECOS to list your traffic and . . . nothing.

Dead battery. You did pack a spare in your go bag, right?

Whether it's a basic HT or dualband Xcvt, your communications equipment is dead without its battery. That's the simple truth. But designing the equipment for the battery that works best is anything but simple.

Fluke experts; Joe Swanzy, Product Evaluation Manager, and Ed Henry, Engineering Technician, explain that tools are designed to work with their batteries as a team, with battery performance matched to the specific demands of each tool.

There are no "good" or "bad" battery technologies. Some, like zinc chloride or alkaline, are fine for "primary" cells that you use once and toss. For a tool that uses more power, rechargeable "secondary" batteries using nickel/cadmium (nicad), nickel metal hydride (NIMH), or lithium ion (lion) technology are the best choice. Even lead/acid rechargeables, using the same basic technology as a car battery, have their place. Each type has its advantages, and Fluke tools use just about every technology available.

Let's take a closer look at the battery types and their best applications.

Zinc chloride: Low cost, but good enough for some applications: Before alkaline, zinc chloride was the battery that powered flashlights and kids' toys. And it still makes sense for test tools like basic DMMs that draw little power and may receive intermittent use. It takes very little energy to power a DMM's liquid crystal display, these so-called "heavy duty" batteries can do the job. But start adding power-consuming features, like a high resolution display, backlight, or a flashlight, and you'll need the added power of alkalines.

Alkaline: More punch to power more features: Alkalines have a higher energy density and deliver more power than zinc chloride batteries, and their slow discharge rate gives them a long shelf life. But expectations for alkalines have changed. Battery makers have changed their seal technology, and no longer guarantee battery storage performance from -40° C (-40° F) to 50° C (122° F). The new standard is -20° C (-4° F) to 40° C (104° F) for leaks, and replace them after a year, hot sun or not.

When designers choose the battery for new equipment, size is another factor they weigh. A smaller battery leaves more room for components and safety clearance. That's why many Fluke DMMs use 9V alkaline cells—good for 400 hours of typical use. By contrast, extended use equipment may use six AA alkaline cells to deliver up to 200 hours.

One way to improve battery life is to make smarter tools that turn themselves off. Display backlights too shut down after a time to save power.

Lithium: When power is everything: Single-use lithium iron disulfide batteries are the best choice for some uses. They pack up to four times the power of alkalines.

Rechargeables: The new game is lithium: Batteries you can charge and use again (secondary batteries) have been around since French inventor Gaston Plante developed the first practical lead-acid storage battery back in 1859. Modern lead-acid batteries are still used in some devices. But especially for handheld tools, other battery technologies are a better fit.

Nicad: No thanks for the memory: "Memory" is one problem with nicad rechargeables. For optimum performance, they should be completely drained before being recharged, or they develop a "memory" that limits how much energy they can store. Another issue: the cadmium contained in the batteries poses an environmental problem. Once the standard for rechargeable compact batteries, Nicad technology is quickly being replaced by NIMH and lithium.

NIMH: A step up: Your laptop and digital camera are probably powered by nickel metal hydride batteries. NIMH has good energy density, handles applications that require high power delivery, and avoids memory problems. The nicad battery pack that once powered some equipment has been supplanted by a NIMH pack that delivers 50 percent more power.

The NIMH is still a viable chemistry, but NIMH won't work everywhere. Experts recommend against replacing alkalines, which are fully charged at 1.6 volts, with rechargeable NIMH AA cells, which reach a maximum of 1.2 volts. The voltage difference could affect the operating life of the product.

Lithium ion: Light and powerful: As equipment displays grow larger, with more detail and better graphics, they consume more power. Today's rechargeable hero is the lightweight, powerful lithium ion battery. Lithium provides high energy density and is slow to self-discharge. The technology typically delivers a five-year operating life. When lithiums reach end of life they can be recycled.

Lithium ion batteries are available in 9V but NOT in an interchangeable AA style. The lithium ion battery the size of an AA has two different voltages. The "14500" (its metric dimensions) delivers not 1.2 or 1.5 volts, but 3.7 volts; however, the L91 AA lithium battery provides 1.5 V and is the same size as the standard alkaline battery.

To maximize the life of lithium packs, experts recommend discharging them to 40 percent, then recharging to a maximum of 70 percent. The newer chargers are designed to optimize battery life. Still, lithium battery packs will eventually wear out.

Batteries - cont'd from page 4

But the power of lithium cells demands careful design to ensure safety. When shorted or otherwise mishandled, lithium cells have caused fire. Today some cells have built-in circuit protection and other safety measures to prevent shorts or excess heat. Some laptops that were early adopters could erupt into flames as many YOUTUBE videos can testify.

Of course batteries aren't the only choice for powering equipment. When you can draw line power directly from the grid, battery life is a non-issue.

Your tool . . . you're involved

Communicators need to understand how each device stores and uses power, and take the steps necessary—by checking battery status and plugging in the charger or replacing spent batteries—to keep their communications tools job-ready. You do have those spare batteries in your bag . . . right?

BREAK - OVER



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Diane Bruce, VA3DB, happily reports “We are up and running.”

“Let me just say I personally am very happy to see the ARRL pushing the technical side of our hobby like this. The more the merrier is all I can say.

“A few of us have been disturbed for some time about the number of new hams who cannot do simple building projects. A recent look at some old 73 magazines brought to mind the simple projects this magazine produced. So our thought was to do something similar, but meant for the web instead of dead tree. We are not talking a full fledged magazine, but a website where we can put simple beginner type articles, with copious photos etc. A bit like maker magazine but for the radio amateur.”

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BREAK - OVER

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. When is an amateur station allowed to use any means at its disposal to assist another station in distress?
 - A. Only when transmitting in RACES
 - B. At any time when transmitting in an organized net
 - C. At any time during an actual emergency
 - D. Only on authorized HF frequencies
2. Which of the following describes full break-in telegraphy (QSK)?
 - A. Breaking stations send the Morse code prosign BK
 - B. Automatic keyers are used to send Morse code instead of hand keys
 - C. An operator must activate a manual send/receive switch before and after every transmission
 - D. Transmitting stations can receive between code characters and elements
3. What does it mean when a CW operator sends “KN” at the end of a transmission?
 - A. Listening for novice stations
 - B. Operating full break-in
 - C. Listening only for a specific station or stations
 - D. Closing station now

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



November General Pool Answer

1. Which of the following complies with good amateur practice when choosing a frequency on which to initiate a call?
 - A. Follow the voluntary band plan for the operating mode you intend to use.
2. When may the FCC restrict normal frequency operations of amateur stations participating in RACES?
 - A. When the President's War Emergency Powers have been invoked

BREAK - OVER

A Different Christmas Poem

*The embers glowed softly, and in their dim light,
I gazed round the room and I cherished the sight.
My wife was asleep, her head on my chest,
My daughter beside me, angelic in rest.*

*Outside the snow fell, a blanket of white,
Transforming the yard to a winter delight.
The sparkling lights in the tree I believe,
Completed the magic that was Christmas Eve.*

*My eyelids were heavy, my breathing was deep,
Secure and surrounded by love I would sleep.
In perfect contentment, or so it would seem,
So I slumbered, perhaps I started to dream.*

*The sound wasn't loud, and it wasn't too near,
But I opened my eyes when it tickled my ear.
Perhaps just a cough, I didn't quite know, Then the
Sure sound of footsteps outside in the snow.*

*My soul have a tremble, I struggled to hear,
And I crept to the door just to see who was near.
Standing out in the cold and the dark of the night,
A lone figure stood, his face weary and tight.*

*A soldier, I puzzled, some twenty years old,
Perhaps a Marine, huddle here in the cold.
Alone in the dark, he looked up and smiled,
Standing watch over me, and my wife and my child.*

*"What are you doing?" I asked without fear,
"Come in this moment, it's freezing out here!
Put down your pack, brush the snow from your sleeve,
You should be at home on a cold Christmas Eve!"*

*For barely a moment I saw his eyes shift,
Away from the cold and the snow blown in drifts.
To the window that danced with a warm fire's light
Then he sighed and he said "It's really all right,*

*I'm out here by choice. I'm here every night."
"It's my duty to stand at the front of the line,
That separates you from the darkest of times.*



*No one had to ask or beg or implore me,
I'm proud to stand here like my fathers before me.
My Gramps died at 'Pearl on a day in December,'
Then he sighed, "That's a Christmas 'Gram always remembers."*

*My dad stood his watch in the jungles of 'Nam',
And now it is my turn and so, here I am.
I've not seen my own son in more than a while,
But my wife sends me pictures, he's sure got her smile.*

*Then he bent and he carefully pulled from his bag,
The red, white and blue... an American Flag.
I can live through the cold and the being alone,
Away from my family, my house and my home.*

*I can stand at my post through the rain and the sleet,
I can sleep in a foxhole with little to eat.
I can carry the weight of killing another,
Or lay down my life with my sister and brother*

*Who stand at the front against any and all,
To ensure for all time that this flag will not fall.
"So go back inside," he said, "harbor no fright,
Your family is waiting and I'll be all right."*

*"But isn't there something I can do, at the least,
Give you money, I asked, "or prepare you a feast?
It seems all too little for all that you've done,
For being away from your wife and your son."*

*Then his eye welled a tear that held no regret,
"Just tell us you love us, and never forget.
To fight for our rights back at home while we're gone,
To stand your own watch, no matter how long.*

*For when we come home, either standing or dead,
To know you remember we fought and we bled
Is payment enough, and with that we will trust,
That we mattered to you as you mattered to us."*

U.S. Government Agency Drops BlackBerry

Another U.S. Gov't Agency Drops BlackBerry

Another United States government agency is dropping RIM's BlackBerry in favor of Apple's latest iPhone.

The U.S. National Transportation Safety Board is ditching the device in order for its employees to utilize the iPhone 5 instead. The agency announced its plan during a government filing last week, with the reason being that BlackBerry isn't reliable.

BlackBerry devices have been "failing both at inopportune times and at an unacceptable rate," the agency said. The organization, which has 400 employees, "requires effective, reliable and stable communication capabilities to carry out its primary investigative mission and to ensure employee safety in remote locations."

The NTSB is responsible for instantly investigating airplane accidents alongside other transportation disasters. RIM has experienced two global service disruptions on its network, including one that occurred in September, which may have played its part in the agency's decision.

Research in Motion, however, pointed towards the number of government employees it currently provides its services to. "Government organizations globally have trusted the reliability and security of BlackBerry for over a decade. They can continue to do so," the firm told CNET.

"We have 1 million government customers in North America alone who depend on BlackBerry, and more than 400,000 government customers worldwide upgraded their devices in the past year," it added. "We are committed to the mobility needs of government agencies around the world and will continue to meet these needs with BlackBerry 10."

The Pentagon is another high-profile government agency that had announced plans to drop RIM's devices. It's looking to move up to 8 million employees to the iPhone and Android-powered smartphones. Authorities aren't the only ones moving away from BlackBerry, however; a total of 25,000 staff members will also make the same transition from consulting firm Booz Allen Hamilton, as will the 17,600 employees stemming from the US Immigration and Customs Enforcement agency.

BlackBerry 10, meanwhile, is due for a launch on January 30, 2013. The upcoming mobile platform has passed government security certification, allowing the operating system to be used within secure government workplaces.



Stretch in the New Year!

The beginning of a new year is often the event that moves people to decide to make some changes in their lives. Happily we don't tackle those weighty life-changing issues in ARES!

One thing ARES members have in common is their enjoyment of Amateur Radio. With that in thought in mind, some resolutions could involve having more fun with amateur radio! Yup, having more fun is something we can all get behind.

Here are some suggestions that may make amateur radio more fun or interesting:

1. Communicate! Plan to get on the air on a regular basis to talk with interesting people and improve your communications skill. The weekly ARES net is an obvious choice but how about making at least one contact on each HF band this coming year?
 2. Explore something new! Wow! Where to start? Amateur radio covers so much interesting ground the choices are daunting. Stop by the ARRL store where you will find books and kits dealing with Basic Electronics, PIC computing, Digital Communications, Software Defined Radio.
 3. Heat up that soldering iron! You can find a bunch of reasons to melt solder at: <http://www.clubjameco.com/> There are a number of interesting, simple projects that help understand some electrical concepts.
 4. Micro computing! Curious about the new Raspberry Pi computer? You can find Pi galore here: <http://www.mcmelectronics.com/content/en-US/raspberry-pi>
- The toughest task is to overcome inertia. Pick a topic and take action to have more fun with radio in 2013.

BREAK - OVER



ARES Breakfast
Saturday December 8th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule December 2012

- | | |
|--------|-----------------|
| 3 Dec | KC0YHH Tony |
| 10 Dec | N0PI Dan |
| 17 Dec | W0NFE Bob |
| 24 Dec | Merry Christmas |
| 31 Dec | Happy New Year |
| 7 Jan | KB0FH Bob |
| 14 Jan | KC0YHH Tony |
| 21 Jan | N0PI Dan |
| 28 Jan | W0NFE Bob |
| 4 Feb | KB0FH Bob |

BREAK - OVER

