



ARES COMMUNICATOR

Information for Scott County Amateurs



December, 2010

Accurate, Reliable Emergency Communications

Volume 10, Number 12

SKYWARN Recognition Day

Saturday, Dec 4th

This year the 12th annual SKYWARN Recognition Day begins at 0000 UTC on December 4, 2010. It will last 24 hours (from 0000 UTC-2400 UTC). It is estimated that around 100 NWS stations will participate this year. This group of stations are transmitting from NWS offices during the same time. Similar event occurs every year on the amateur radio calendar.



SKYWARN Recognition Day (SRD) was developed in 1999 by the National Weather Service and the American Radio Relay League. It celebrates the contributions that volunteer SKYWARN radio operators make to the National Weather Service. During the day SKYWARN operators visit NWS offices and contact other radio operators across the world. Information regarding SRD is updated at <http://hamradio.noaa.gov>.

The NWS and the ARRL both recognize the importance that amateur radio provides during severe weather. Many NWS offices acquire real time weather information from amateur radio operators in the field. These operators, for example, may report the position of a tornado, the height of flood waters, or damaging wind speeds during hurricanes. All of this information is critical to the mission of the NWS which is to preserve life and property. The special event celebrates this special contribution by amateur radio operators.

The idea for the first SRD took shape in the summer of 1999. Meteorologist-in-Charge of the Goodland, Kansas NWS office Scott Mentzer, N0QE, tried to find a way to recognize the valuable contributions storm spotters make to

SKYWARN Recognition Day *cont'd on page 2*

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!

NBEMS on YouTube

Get on board with the cutting edge in Ecomm

The Narrow Band Emergency Messaging System, NBEMS, has taken the ham radio soundcard users by storm! NBEMS is the most exciting free software since DIGIPAN which started the popular use of PC soundcards in amateur radio almost ten years ago. This easy to use, accurate, rapid mode is a great tool for meeting the needs of a served agency.

The NBEMS combines a number of fast, accurate, and efficient digital modes with intuitive message handling tools to provide the ARES volunteer with an excellent emergency communications tool.

The NBEMS programs are being upgraded and improved on a regular basis. You can find the current versions of the NBEMS software on the NBEMS Resources page at www.ScottARES.org, look at the 'Member Resources' page, and at www.w1hkj.com/download.html.



The latest revision of flmsg not contains templates for six FEMA ICS forms, IC-203, 205,206, 213, 214, and 216 in addition to the NTS Radiogram message format. New

NBEMS *cont'd on page 3*

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday, December 13th
Digital Monday December 15th

ARES Nets

MN ARES Phone Net
 6:00PM Sunday Freq: 3.860 mhz
 ARRL MN Phone Net
 12:00p, 5:30p CST Daily Freq: 3.860 mhz
 ARRL MN CW Net
 6:30p, 9:50p CST Daily Freq: 3.605 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

SKYWARN Recognition Day - cont'd from page 1

the National Weather Service. "Since many of those storm spotters were also hams," Floyd told the ARRL, "it seemed like a natural fit for the recognition to be centered on Amateur Radio."

With the approval of NWS headquarters and a commitment to participate from many local NWS offices across the country, the first National Weather Service Special Event took place on November 27, 1999. "At the end of the event, almost 16,000 QSOs were logged, with contacts made to all 50 states and 63 countries," Floyd recounted. "The Des Moines forecast office took the honor of making the most contacts of any office that first year with 761 QSOs, and went on to lead the pack until 2003 by logging between 1300-1500 contacts each year."

Last year, contacts were made in all 50 states and more than 40 countries during the 24 hour event. Even if you make just one QSO to an NWS office, you are eligible to receive a certificate. Just submit a list of the station(s) you worked (along with a self-addressed stamped envelope) to SKYWARN Recognition Day, 920 Armory Rd, Goodland, KS 67735. Many NWS offices also send out special QSL cards for this event. If you haven't yet joined in the fun of SKYWARN Recognition Day, make 2010 your year to do so!

BREAK - OVER

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:

One ICS principle relates to the supervisory structure of the organization and pertains to the number of individuals or resources one incident supervisor can manage effectively. This operating guideline is referred to as:

- A. Form follows function
- B. Unity of command
- C. Delegation of authority
- D. Span of control

Check next month's ARES Communicator for the solution

November NIMS Knowledge Solution

Which incident facility is positioned outside of the present and potential hazard area, but close enough to the incident to maintain command?

- A. Incident Command Post

Scott County ARES Contacts

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

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

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



New Birds Chirping from Space

Hams Invited to Listen for New Satellites

Five research satellites were carried to orbit November 19th aboard a Minotaur V rocket from Kodiak Island, Alaska. All the satellites use Amateur Radio frequencies and hams have been invited to participate in their missions by monitoring and collecting data.

The FASTRACs are two relatively small “nanosatellites” built by students at the University of Texas-Austin. They enter orbit as a single spacecraft, but then separate into FASTRAC 1, known as “Sara Lily,” and FASTRAC 2, referred to as “Emma.” Both satellites use 1200 or 9600 baud AX.25 digital communication and transmit at 1 W output, so they should be receivable with omnidirectional VHF or UHF antennas and decodable by ordinary packet radio hardware and software.

After their scientific missions are complete, the satellites will be reconfigured to function as digipeater relays for Amateur Radio use as part of the Automatic Packet Reporting System (APRS).

Hams are invited to create a free account at the FASTRAC Web page and begin uploading telemetry data. Mission status information is also available via the FASTRAC Facebook page (<http://www.facebook.com/fastracsats>).

The third satellite in the group is the University of Michigan’s Radio Aurora Explorer (RAX) CubeSat. RAX was designed and built by University of Michigan students and faculty in cooperation with SRI International.

The primary objective of the mission is to use an onboard radar receiver in conjunction with a powerful radar station in Alaska to study the formation of a plasma anomaly known for causing the scintillation of radio signals in the UHF and higher bands. RAX carries a 9600 baud UHF digital transceiver. Using the call sign RAX-1, the satellite will send telemetry at 437.505 MHz. Amateurs are invited to download the free telemetry decoding software (for Windows, Mac OS X, or Linux) and submit reports at the mission Web site. (http://rax.engin.umich.edu/?page_id=311)

The Organism/Organic Exposure to Orbital Stresses satellite, better known as O/OREOS is a nanosatellite designed to study the growth, activity, health and ability of microorganisms to adapt to the stresses of space. It will also monitor changes in four classes of organic molecules as they are exposed to space conditions. O/OREOS transmits digital telemetry 437.305 MHz and hams are invited to submit raw telemetry data at the O/OREOS Web site. (<http://beacon.engr.scu.edu/Submission.aspx>)

NanoSail-D2 is a solar sail experiment with an expected lifetime of about 100 days. It carries a data beacon transmit-

cont'd col. 2

NBEMS - cont'd from page 1

form templates are added as the needs are identified.

The surge in activity has prompted the production of several good presentations explaining the use of specific functions in the NBEMS software. You can find some short, interesting videos on YouTube covering the following topics:

How to open an FLMSG message: <http://www.youtube.com/watch?v=4J-e7u4wxmc>

How to open a WRAP file: http://www.youtube.com/watch?v=IG6_-wIi1E0

Using MT63-2K on 2M FM with WRAP: <http://www.youtube.com/watch?v=SWZ2vKWSiE>

Using RSID: http://www.youtube.com/watch?v=-r_62rX1GPM

Using the NTS Radiogram Message format: <http://www.youtube.com/watch?v=6KBtanh4COc>

You will no doubt find more information on YouTube by searching on “NBEMS”.

You DO NOT need any additional equipment other than a PC with microphone and speaker, most laptops have these items built-in, and your radio. You can ‘acoustically couple’ the radio to laptop and send and receive messages. To use this caveman interface to receive soundcard messages, start the software and hold the radio speaker close to the computer microphone. Watch the signal scroll down the waterfall and the message decode in the upper window.

Did that sound complicated? The caveman interface is really simple as dirt! Download the software and give it a try. Join the fun!

BREAK - OVER

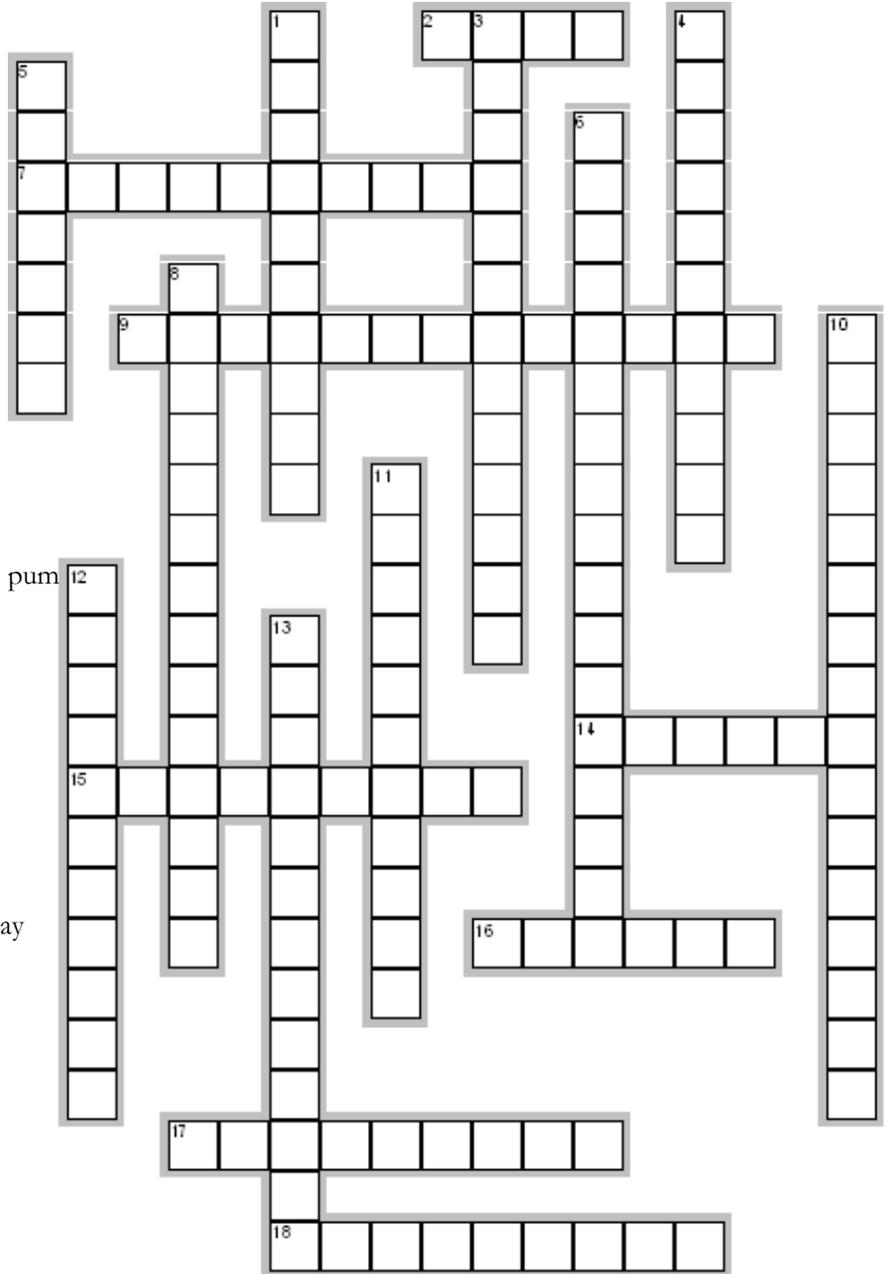


New Birds cont'd from col. 1

ting at 437.275 MHz. Amateurs are asked to submit reports at the NanoSail-D2 Web site. Although NanoSail-D2 was developed by NASA, mission control for this satellite, as well as O/ORES, is being handled by students at Santa Clara University.

	FASTRAC 1	FASTRAC 2
Downlink(1200/9600 Bd)	437.345 MHz	145.825 MHz
Beacon (1200 Baud)	437.345 MHz	145.825 MHz
Uplink (1200 Baud)	145.980 MHz	435.025 MHz
Uplink (9600 Baud)	145.825 MHz	437.345 MHz
Satellite Call Sign	FAST1	FAST2

BREAK - OVER



Across

- 2. Glory to the newborn king!
- 7. Our finest gifts we bring, pa rum pum pum pum
- 9. Jack Frost nipping at your nose,
- 14. Joyful and triumphant,
- 15. But the fire is so delightful
- 16. Singing sweetly through the night
- 17. On a cold winter's night that was so deep
- 18. Way up in the sky, little lamb,

Down

- 1. O star of wonder, star of night,
- 3. The stars in the sky looked down where he lay
- 4. Of all trees that are in the wood,
- 5. And if you ever saw him,
- 6. Please put a penny in the old man's hat
- 8. Just like the ones I used to know
- 10. With a corncob pipe and a button nose,
- 11. All is calm, all is bright
- 12. Over the fields we go, laughing all the way
- 13. and heaven and nature sing!



Holiday On-line Shopping Tips

From: www.lavasoft.com

Top 5 tips for avoiding online scams during the holiday shopping season:

1. Make sure you're shopping on a secure site.

Look for the padlock icon or a URL that starts with https://. That means your transaction is encrypted.

2. If it looks too good to be true, it probably is.

If you're not familiar with a particular seller, look for privacy and security seals or research them before you make your purchase.

3. Create lengthy and complex passwords.

Passwords can be guessed very quickly by hacker programs, so use both upper- and lower case letters as well as numbers when creating passwords or when registering on sites.

4. Maintain your security software essentials

to keep malware off your PC. Get Ad-Aware or other anti-virus software to protect your online security and privacy.

5. Don't make hasty online purchases.

If you're hesitant to enter your credit card details online, consider using a separate credit card, or use an "e-card" solution that gives you the ability to create a temporary card number to be used just once or with a spending limit.

Solar “Katrina” take down the grid?

File this one under low probability high impact events. But if it happens, it could be the solar equivalent of the perfect storm. Scientists at NASA and elsewhere are increasingly concerned about the potential for a massive solar “mega-storm” that could disrupt power grids in the U.S. and elsewhere. Solar cycle 24 is headed for a peak sometime in 2011 or 2012, and some forecasters believe there is historical precedent for gigantic coronal mass (CME) ejections that could take down power grids here on earth.

“Every hundred years or so, a solar storm comes along so potent it fills the skies of Earth with blood-red auroras, makes compass needles point in the wrong direction, and sends electric currents coursing through the planet’s topsoil. The most famous such storm, the Carrington Event of 1859, actually shocked telegraph operators and set some of their offices on fire. A 2008 report by the National Academy of Sciences warns that if such a storm occurred today, we could experience widespread power blackouts with permanent damage to many key transformers.”

Another massive solar flare in 1989 provoked geomagnetic storms that disrupted electric power transmission from the Hydro Quebec generating station in Canada, blacking out most of the province and plunging 6 million people into darkness for 9 hours. If it happened in the past we know it can happen again in the future. The question this time is, what will happen if such an extreme event strikes today’s aging North American power grid? No one knows for sure if the dreaded “kill shot” could be unleashed in 2012. But the sun will be watched closely for the potential of a rare but devastating solar storm that could drastically change life here on earth for a period of days, weeks or longer. *(GRE News Clips)*

BREAK - OVER



ONE SNOWY CHRISTMAS EVE

PREMAREC in Alliance, Nebraska

’Twas the night before Christmas
And out on the ranch,
The pond was frozen over
And so was the branch.

The snow was piled up belly deep to a mule;
The kids were all home on vacation from school.
And happier young folks you never did see;
Just sprawled around a-watching TV.

Then suddenly some time around eight o’clock,
The power went off, the TV went dead!
When Grandpa came in from out in the shed,
With an armload of wood, the house was all dark.

“Just what I expect,”
They heard him remark.
“Them REA lines must be
Down from the snow, in the dark.

Seems sorta like times on the ranch long ago.”
“I’ll hunt up some candles,” said Mom.
“With their light and the fireplace
I reckon we’ll make out all right.”



The teenagers all seemed enveloped in gloom,
Then Grandpa came back from a trip to his room,
Uncased his old fiddle and started to play
That old Christmas song about bells and a sleigh.

Mom started to sing, and the first thing they knew
Both Pop and the kids were all singing too!
They sang Christmas carols, they sang “Holy Night,”
Their eyes all a-shining in the ruddy firelight.

They played some charades Mom recalled from her youth.
And Pop read a passage from God’s Book of Truth.
They stayed up “till midnight and would you believe
Those youngsters agreed ’twas a fine Christmas Eve!

Grandpa arose early, sometime before dawn,
And when the kids awakened, the current was on.
“The REA sure got the line repaired quick,”
Said Grandpa - and no one suspected his trick!

Last night for the sake of some old fashioned fun
He had pulled the main switch - the old son-of-a gun!

Apple I on Sale

Rare original 'Apple-1' computer sold by Steve Jobs

The first ever Apple computer that company founder Steve Jobs sold from his parents' garage is up for sale in Great Britain - for a whopping £150,000 (\$234,300).

There were about 200 examples of the original 'Apple-1' that were launched in 1976 and only a few survive today. They were the forerunners of the iPod, iPad, iPhone and everything else that Apple has produced over the years.

They came with a tiny 8K memory - 524,000 times less than is standard with today's Apple computers. It would not have the capacity to store one song.

This example will be the first ever to be sold by a major



These are the components from the Apple-1 machine, original manual and a letter from Steve Jobs. They were the first fully pre-assembled computer to be produced, but did not come with a monitor or keyboard. Incredibly it comes with the original packaging, instruction manuals and a signed letter by billionaire Jobs, who is still head of the company.

auction house when it goes under the hammer at Christie's of London. It proves the growing interest in early computer technology and highlights how quickly home computing has advanced in the last 30 years.

The Apple-1s were the first fully pre-assembled computer to be produced, but even so did not come with a monitor or keyboard. Museums and a new breed of collector are desperate to get their hands on these early examples. Early geeks would have had to part with \$666.66 (£410) to buy one of the first Apples. Its designer, Steve Wozniak, liked repeating digits - and it was sold to a local shop for \$500 plus a one-third mark-up.

But few realised what a good investment it would be. Julian Wilson, from Christie's, said: 'Before the Apple-1 you would have to put together your own motherboard

cont'd col. 2

Lighthouse Christmas Lights Party

Dec. 18th – Jan 2nd

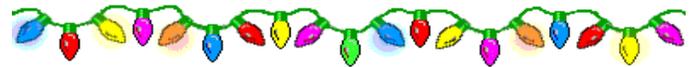
This fun event was developed to; promote public awareness of ham radio and lighthouses, to contribute to the recognition that lighthouses, lightships, and their keepers deserve; to foster camaraderie within the ham fraternity; and to provide fellowship amongst the members of the Amateur Radio Lighthouse Society.

The contest runs during the last half of December: 0001 hrs UTC on Dec. 18, 2010, through 2359 hrs UTC on Jan. 2, 2011.

Operation takes place on all HF bands except the WARC bands. Sideband and digital modes are allowed. The scoring system is interesting because a number of factors may produce a point value varying from 1 to 6 points per contact! Be sure to check out the Amateur Radio Lighthouse Society for complete information and log sheets: <http://arlhs.com/LCL-2010-guidelines.html>.



BREAK - OVER



Apple I *cont'd from col. 1*

and would need soldering skills.

'This is the forerunner of the iPod, iPad and iPhone. It worked straight out of the box, which was the original concept. 'Apple's lineage can be traced back to this model and as far as we know there were about 200 made and perhaps a quarter survive. 'Not only does this come with the packaging and manuals but also a letter from Steve Jobs. 'He appears to be answering questions from the customer about what monitors and keyboards are best to use.

'The computer technically allowed you to programme and it was like a high-performance calculator. 'This one comes with an extra cassette interface, which meant you had a read-write capability. 'At the time it famously cost \$666.66, and the cassette interface was an extra \$75. 'Steve Jobs sold these from his parents' garage and there is a growing appreciation of the history of computing - and this is where home computers started. 'And finding one in this condition is unheard of.'

BREAK - OVER

Risky Application List Released

Is your favorite on the list?

The Google Chrome browser has earned the dubious distinction of being named the most vulnerable application on the “Dirty Dozen” list of 12 applications with the most discovered software flaws requiring security updates and notifications from January through mid-October.

The annual “Dirty Dozen” list, compiled by security vendor Bit9 based on information available in the National Institute of Standards and Technology’s public National Vulnerability Database, puts Google Chrome in the No.1 spot with 76 reported vulnerabilities.

The number two spot is held by Apple’s Safari browser at 60 reported vulnerabilities while Microsoft Office was No. 3 with 57. The rest of the “Dirty Dozen” ranking are as follows:

4. Adobe Acrobat — 54
5. Mozilla Firefox — 51
6. Sun JDK — 36
7. Adobe Shockwave Player — 35
8. Microsoft Internet Explorer — 32
9. RealNetworks RealPlayer — 14
10. Apple Webkit — 9
11. Adobe Flash Player — 8
12. Apple Quicktime and the Opera Web browser (tied) — 6

A variety of vulnerability types — including buffer-overflow and cross-site scripting vulnerabilities — impacted these applications, says Harry Sverdlove, CTO at Bit9, which this year sifted through 3,268 reported vulnerabilities to create its list.

Some exploits of vulnerabilities could allow attacks to compromise the user’s desktop entirely and perhaps pose a risk for the entire organization. A list like the annual “Dirty Dozen” highlights trends and the need to make sure software is kept updated, Sverdlove says.

Google Chrome is a relatively new browser and security researchers may thus be putting a lot of focus on it, discovering vulnerabilities, Svedlove says. Last year’s Dirty Dozen list, which was compiled with slightly different criteria (in 2009, Bit9 excluded the Apple Mac platform), the top vulnerable application named was Mozilla Firefox.

BREAK - OVER



The PSK DeathMatch Digital Duel

Sponsored by The Michigan DX Association.

Date: Sat Dec 11th 00:00Z through Sun Dec 12th 24:00Z

Exchange:Name-State/Province/Country-DX Stations send DXCC Country Prefix..

Note:Contesters are not interested in your equipment or your weather! Please refrain from including non essential information in your macros!

Why a 48 hour Digital Duel? This is a DeathMatch,it is not designed to be a walk in the park and it is held only once a year! Only the strong will survive.You may take all the breaks you want but your totals will suffer. Just do your best within the 48 hours and see if you have the right stuff! Good luck and fire up those interfaces. The PSK DeathMatch Sword and Daggers wait for you if you are up to our world wide digital duel challenge!

Bands: Standard PSK freqs. On 160,80,40,20,15,10 & 6 mtrs..No WARC Bands

Single operator / Single station

Complete Information at: <http://www.mdxa1.org/deathmatch.html>



BREAK - OVER



ARES Breakfast
Saturday December 13th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule December 2010

- 6 Dec KC0YHH Tony
- 13 Dec N0PI Dan
- 20 Dec W0NFE Bob
- 27 Dec KB0FH Bob
- 3 Jan KC0YHH Tony
- 10 Jan N0PI Dan