



# ARES COMMUNICATOR

## Information for Scott County Amateurs



December, 2008

Accurate, Reliable Emergency Communications

Volume 8, Number 12

### Citizen's Police Academy

Savage Police Dept

Area residents who live or work in Savage have the opportunity to become better acquainted with the City's Police Department by participating in the 2009 Citizen's Academy. One of the goals of the academy is to show Savage residents how their Police Department works from the inside out.



The Academy meets weekly, for six sessions running from 6:30 PM to 10:00 PM, at the City Community Room starting January 22, 2009. Class size is limited to sixteen and preregistration is required.

The sessions are led by Police Officers and stress hands-on learning. The students learn about policework in their community from the perspective of the officer on the scene. Topics include firearms simulation, high risk traffic stops, processing drunk drivers, domestic disputes, crash scene investigation, and finger printing. The sessions are designed to provide enjoyable learning about police work.

Applications for the Citizen's Police Academy, contact the Savage Police Department at (952) 882-2600, pick up an application at the Savage Police Department or visit the city's Web site ([www.cityofsavage.com](http://www.cityofsavage.com)) and download an application. The application deadline is Friday, Jan. 2, 2009 at 3:30 p.m.

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

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### Skywarn Recognition Day

Set For December 6<sup>th</sup>

The 10th Annual SKYWARN Recognition Day (SRD) Special Event will take place Saturday, December 6, 2008. SRD is co-sponsored by the ARRL and the National Weather Service (NWS) as a way to recognize the commitment made by Amateur Radio operators in helping to keep their communities safe.



The Minneapolis/St.Paul office of the National Weather Service will participate under the callsign K0MPX. The station will operate from 6PM on Friday to 6PM on Saturday on five HF bands on phone and PSK plus 2M and 440 for 24 hours. A special QSL card is available to confirm a contact.

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 the National Weather Service. "Since many of those storm spotters were also hams," Floyd said, "it seemed like a

Skywarn *cont'd on page 2*

## ARES Activities

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

### SELECTED TRAFFIC NETS

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

## Skywarn - cont'd from page 1

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, an amazing 15,888 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!”

In 2001, the name of the event was changed to SKYWARN Recognition Day, a name Floyd said better relayed what the day was all about: “Each year since the inception of SRD, the number of NWS offices and local ham clubs participating has increased, until now more than 100 offices sign up each year to take part. The most contacts made during any SRD occurred in 2006 when — thanks to the staff and local hams in the Grand Junction, Colorado area — 1640 contacts were logged!” . If you haven’t joined in the fun, make 2008 your year to do so!

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## Technician License Course

Friday – Sunday, December 12-14, 2008

Friday 6:00 PM to 9:00 PM

Sat & Sun 8:00 AM to 5:00PM

Minneapolis Veterans Affairs Medical Center  
Auditorium

One Veterans Drive, Minneapolis

The course is based on the American Radio Relay League (ARRL) book “Ham Radio License Manual, Level 1, Technician” (1st edition). Students will need to purchase the textbook on their own. The text is available at Radio City, 2660 County Road I, Moundsview, MN (1-800-426-2891) for \$24.95 or can be ordered on-line at the ARRL Bookstore at: [www.arrl.org](http://www.arrl.org).

There is free parking and a Cafeteria available on site. Preregistration is required and interested students should contact [David.Adriansen@va.gov](mailto:David.Adriansen@va.gov) via e-mail or at (612) 467-3019 to register for this course. . The exam fee will be collected by the Test Examiners on December 14 prior to the end of course test payable by check or money order to “ARRL.”

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### Scott County ARES Contacts

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### December Events

- 6 Skywarn Recognition
- 7 Pearl Harbor Day
- 12 Full Moon
- 13 - 14 ARRL 10 Meter Contest
- 14 Geminids Meteor Shower
- 19 Last Quarter
- 21 Winter Begins
- 24 Christmas Eve
- 25 Christmas Day
- 27 New Moon
- 31 New Year's Eve / Straight Key Night

## 40 Meter "Ditters" Silenced

Silent since the summer of 2000, "ditters" have been heard once again 40 meters by hams in North Carolina. Hams in that area contacted Chuck Skolaut, K0BOG, ARRL Field and Regulatory Correspondent, on October 22 complaining of hearing a continuous string of "dits" on 7.0574 MHz. "We informed the FCC HFDFing (High Frequency Direction Finding) station of the situation and asked if they could locate the approximate area of the 'dits' so we could get this resolved as soon as possible," Skolaut said. "They responded promptly and said it was coming from Westerville, a town just north of Columbus, Ohio."

Once the general location had been narrowed, the amateur radio community was activated. Skolaut called on ARRL Ohio Section Official Observer Coordinator Rick Swain, KK8O for assistance. Swain immediately alerted his team of Official Observers (OO) to check out the situation. "Neither I nor the OOs could hear the transmitter," Swain said in his report. "In a telephone conversation with one of the OOs near the target area, he suddenly stated that he could hear it, but that the signal was very weak, at the noise level. At just about the same time, I could hear it as well at my location [about 50 miles from the target area] — just above the noise level — for about five or ten seconds, then it disappeared."

Swain also placed a call to Assistant Section Manager Bill Carpenter, AA8EY. "Bill lives within the target area. I briefed him on the situation and he went right to his station," Swain said. "Bill checked the frequency and told me he was hearing [the 'dits'] at about S9. He said he thought he might know who it could be and that would make some calls."

The next morning, Swain checked the frequency and found no signal. "I assumed that either Bill had found the transmitter or the owner came home, found it transmitting and turned it off," he said. "Later that morning, Bill sent me an e-mail saying that the signal was back on and about S7. I called Bill's house and left a message telling him I was on my way to Westerville to track down the signal. If he wanted to ride along with me while I looked for it, he was more than welcome to come." Skolaut said the signal was also heard in Newington, CT that day.

When Swain arrived in Westerville, he had a list of the names and addresses of 172 licensees in the area, as well as a general idea of where the signal should be.

"I drove around the area checking the signal and noted that it was about S9 and getting louder," Swain said. He and Carpenter met up and continued the search together. About 15 minutes later — with Swain driving and Carpenter giving directions — "we noted that the signal was very loud. We stopped at the nearest address, but no luck."

Swain said he then injected 30 dB of attenuation and continued to drive in the same direction: He turned down the next street and the signal rose another 20 dB. Pulling into a parking lot, he made a 360-degree turn as to determine the signal's direction. The signal peaked in the direction of a newly constructed housing area.

Swain and Carpenter then made their way over to the housing development and found that signal peaked. "Bill checked the list and found a ham lived on the street so we stopped and knocked on the door, but no one answered," Swain said. "We checked out the backyard and saw a 4-band trapped vertical antenna. We went next door and spoke to the neighbor and told him who we were and what we were trying to do."

With help from the neighbor, Swain contacted the ham at work and explained the situation. The ham told the neighbor how to get in the house and where they would find the transmitter.

"We went in, found the transmitter in operation and turned it off," Swain said. "I noticed the ham had a large cat lounging near the transmitter and assumed the cat could have leaned up against the keyer paddle and started the transmitter. No other explanation could be possible without the owner hearing the transmit relay clicking."

When Swain and Carpenter left the house, they listened to the receiver and discovered the signal had disappeared. The case of the Purrrrrrfect CW was solved.

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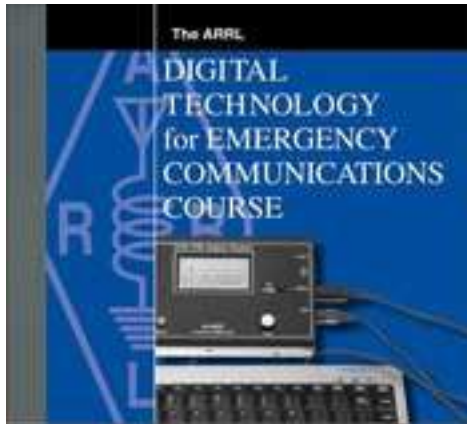


## Self-Study Course On Digital Ecomm

### ARRL Offers New Course

With digital technology becoming an integral part of Amateur Radio, hams interested in Emergency Communications now have a new tool to help them take advantage of emerging

modes such as Packet Radio APRS, Winlink 2000, IRLP, EchoLink and WIRES-II, D-STAR, APCO25, HF sound card modes and Automatic Link Establishment (ALE). "The



ARRL Digital Technology for Emergency Communications Course" will introduce hams to all of the ways Amateur Radio operators are using digital technology as a valuable emergency communications tool <<http://www.arrl.org/catalog/?item=1247>>.

Written by ARRL Publications Manager and QST Editor Steve Ford, WB8IMY, this self-study CD-ROM will answer such questions as:

- \* Can you transfer supply lists or personnel assignments between emergency operations sites?
- \* Can you get critical e-mails to the Internet if a connection goes down?
- \* Can you relay digital images of damage at specific locations?
- \* Can you track the locations of emergency personnel and display them on computer maps?

Illustrations, screenshots, Internet links and audio files are used to demonstrate transmission modes and equipment configurations. Bite-sized learning units and interactive knowledge checks make learning interesting and fun!

"This course is a great starting point for anyone interested in the public service applications of digital communications technology," said Ford. "The ARRL Digital Technology for Emergency Communications Course" is available from the ARRL.

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## o Tannenbaum,

### Thy Lights Shine Out Brightly

If you decorate a Christmas tree with electric lights this holiday season, you'll be carrying on a tradition that began 126 years ago. That's when Edward H. Johnson, an associate of inventor Thomas Edison, plugged in a string of 80 red, white, and blue lightbulbs the size of walnuts on December 22, 1882, at his home on Fifth Avenue in New York City. His tree also revolved, by the way.

But it would be another 20 years before the fashion really began to catch on in America. Initially, Christmas lights were too expensive for the average consumer because each strand had to be handwired by a "wireman," what we call an electrician today. And there was a great distrust of electricity. As a result, most people stuck with the familiar, if much more dangerous, wax candles on the boughs of evergreen trees.

However, President Grover Cleveland gave electric lights a boost in 1895 when he put up a huge tree in the White House festooned with more than 100 colored bulbs and invited the press in to take a look. The lights came in eightsocket strands custom-made by General Electric Company of Harrison, N.J., according to the Library of Congress.

Cleveland's predecessor, Benjamin Harrison, could have done the same. The White House had been wired for electric service in 1891 but the 23rd president and his wife, Lavinia, were afraid of electricity. They wouldn't even touch a light fixture. During his final two years in office, President Harrison was asked each December if he wanted the Christmas tree strung with electric lights, but he always refused.

Christmas tree lights as we know them today began to show up in retail stores in 1903, the year General Electric came out with pre-assembled sets. Today, electric lights of all shapes, sizes, and colors are ubiquitous on the estimated 35 million real and 10 million artificial Christmas trees Americans purchase each year.

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## Satellite Expected To Go QRT By January

Launched in January 1990, AMSAT-OSCAR 16 (AO-16), a digital satellite, has been operating as a voice repeater since January 2008, using FM voice on the uplink and transmitting DSB voice on the downlink (best received on SSB). But according to the satellite's command team, the satellite's orbit might force this to end sometime before the end of the year.

According to Mark Hammond, N8MH, a member of the AO-16 command team, AO-16 has a hardware/watchdog timer that resets the satellite and shuts the transmitter down. This timer in AO-16 will fire, and cannot be reset, when the satellite's temperature is 15 degrees Celsius or cooler. When the timer "fires," it shuts down the transmitter. "When the bird's temperature is more than 15 degrees Celsius," Hammond said, "the hardware timer behaves and continuous operations are sustained."

The satellite's temperature depends upon solar illumination. Hammond said that the "magic number" is around 85 percent of the orbit in sunlight: If the orbit provides AO-16 with less than 85 percent illumination, the spacecraft's temperature falls below 15 degrees and the hardware timer fires. "Illumination projections, as well as subsequent temperature predictions, suggest that we might be able to sustain operations until sometime in the window of November 22 until December 4, 2008," Hammond predicted. "So if you want to make some AO-16 contacts, you had better get them as soon as possible!"

Hammond said that long term-orbital projections suggest that if the satellite hardware remains fundamentally unchanged — such as no deterioration of on-board components — "it will be nearly 10 years before AO-16 receives sufficient illumination to warm up the spacecraft enough to again support sustained operations."

It is possible that the transmitter on AO-16 will turn off sometime in the next few days or weeks, Hammond said. "This requires some commanding to get it running again, meaning a pass over the eastern coast of the United States is required for a change in operational status. We expect that as the spacecraft cools down, transmitter shutdowns will become more frequent. You can be sure that we'll continue to probe the craft with commands, in hopes that something will change in a good way that will allow us to use the bird for operations of some sort."

AMSAT Vice President of Operations Drew Glasbrenner, KO4MA, said the satellite hears very well; the reduced bandwidth by using either USB or LSB on the ground station receiver "allows for a very robust downlink. Tuning

*cont'd col. 2*

## DX SUMMIT ALERT

### The Old OH2AQ DX Summit Goes Dark

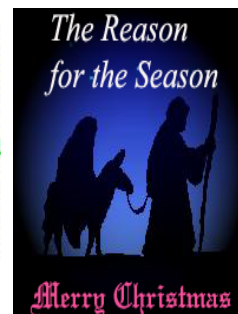
There is a new internet home for what might be the premier DX spotting site. The new DX Summit website at <http://www.dxsummit.fi/> takes over from the old OH2AQ DX Summit on November 19, 2008.

The new site has been redeveloped from the ground up and uses the latest technology available. The new DX Summit has been ramping up steadily and today the number of hits is approaching 1 million a day. In addition to providing the same functionality as the old DX Summit, the new platform offers the necessary flexibility to easily add new features which are currently on the drawing board.

You can easily view up to the minute spot lists for specific modes and bands from the "custom spots" menu. Do you want to know if there is a station on the air using PSK31 in Spain, Monaco, or California? How about a station on the 25 most wanted country list? The DX Summit site is the place to look. To check out the latest 25 DX spots, point your browser to: <http://www.dxsummit.fi/text/dx25.html>.

Propagation will improve (hopefully) as we move into the new sunspot cycle and chasing those exotic DX contacts will once again be more routine.

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### Sattelite - cont'd from col 1

the downlink is just like on a linear transponder, meaning it is tight and with fast Doppler. Uplink tuning is not required, just as with the FM mode V/U satellites. Operators in Florida report being able to access and hear the satellite within one degree of the horizon, much lower than any other current bird. This should be an easy satellite with omni antennas and a 70 cm preamp.

AO-16's uplink is 145.9200 MHz FM; the downlink is 437.0260 MHz SSB. Users are asked to restrict their uplink power to a reasonable power level, and not to transmit without being able to hear the downlink; all general single-channel guidelines apply. "Enjoy this grand old bird while you can!" said Hammond.

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## Scott ARES Tours Savage EOC

Members of the Scott County ARES gather the second Saturday of each month for an informal breakfast at Perkins in Savage. Following the good food and conversation on the second Saturday in November, the group had the privilege to tour the Emergency Operations Center located in the newly expanded Savage City Offices.

Savage Police Officer, Sgt. Terry Bebeau provided the group with a tour of the newly expanded facilities for the Police Department which include an area dedicated for use as an Emergency Operations Center (EOC).

The EOC would serve as the command center for the City's response to an emergency such as a large scale weather event or other emergency. The EOC provides for the functions called out in the Minnesota Incident Management System which is the blueprint for emergency response in the state.

Several ARES members observed that it was interesting to see how the concepts studied in emergency communications training under the Incident Command System are actually

## Message Formatting Crossword Solution

### Across

2. ORIGIN—Call sign of the first ham that put the message into written format.
5. WELFARE—Used for an inquiry as to the health of an individual in a disaster area
6. ADDRESS—Includes the name, street or P.O. box, city, state, and ZIP of the recipient.
7. PRECEDENCE—Tells everyone the relative urgency of a message.
8. SIGNATURE—Can be a single name, a name and call sign, a name and a title – whatever is needed to ensure that the recipient can identify the sender and that a reply message can be sent.
11. EMERGENCY—Includes official messages of welfare agencies requesting critical supplies or assistance during emergencies. The use of this precedence should generally be limited to traffic originated and signed by authorized agency officials.



Scott County ARES members start the EOC Tour with the regular informal breakfast on the second Saturday of the month at Perkins Restaurant in Savage. Pictured (l to r) Tony KC0YHH, Adam KD0EHZ, Bob KB0FH, Dan N0PI, Larry K0LEJ, Joe KC8SOM, behind the camera Bob W0NFE.

carried out in the real world. Naturally, being amateur radio operators, the group was very interested in the operating position in the EOC that contained the link to amateur radio. This workstation contained a Yeasu FT-8800 Duaband transceiver with an antenna located on the building rooftop.

**EOC Tour** *cont'd on page 7*



### Down

1. PREAMBLE—Referred to as “the header,” consists of administrative data such as the message number, originating station, etc.
3. INSTRUCTIONS—Optional field used at the discretion of the originating station.
4. CHECK—The number of words in the text section only.
7. PRIORITY—Important messages with a time limit; official messages or a notification of injury in a disaster area. Usually associated with official traffic to, from, or related to a disaster area.
9. NUMBER—Assigned by the station that first puts the message into written format.
10. TEXT—Should be brief and to the point, limited to 25 words or less when possible.



## Scott ARES Tours Savage EOC



Savage Police officer Sgt. Terry Bebeau, right, explains the organization and operation of the various functions of the Emergency Operations Center in the newly expanded Savage City Offices. Scott ARES members (l to r) Tony KC0YHH, Dan N0PI, Adam KD0EHZ, and Joe KC8SOM listen intently.



Sgt. Bebeau (left) takes questions about one of the operating positions in the EOC that incorporates a Dual band Yaesu transceiver in the workspace.



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

## Quick Training Tips

### The Count!

Emergency communicators realize that the best way to improve your skills is to practice. The best place to practice those skills is on the air with other communicators in a directed net.

A regularly scheduled training net is a good place to talk with friends while refreshing different skills and procedures. Emergency communicators participate in a net for many reasons. You can practice your phonetic spelling, contact other stations, sending and receiving formal written traffic, and net control skills.

Inexperienced operators, or those who may be curious and just tuning the band, may check in and are always welcome when the Net Control Station (NECOS) calls for additional stations.

When checking in to any net, always follow the instructions of the NECOS. If you are checking in to a training net, expect to participate in some training. If you are checking in to a swap net, plan on taking notes on interesting equipment for sale. Nets exist for a purpose.

I have never observed a net that exists solely to collect numbers of check-ins. The only explanation for those stations who check in as "one for the count" must be thinking they are part of a PBS children's program! You will not find "The Count" on the ARES Training net.

When checking in to a net, keep your transmission short and to the point. Don't waste net time looking for "The Count".

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## NECOS Schedule December 2008

1 Dec	N0PI Dan
8 Dec	W0NFE Bob
15 Dec	KB0FH Bob
22 Dec	KC0YHH Tony
29 Dec	N0PI Dan
5 Jan	W0NFE Bob
12 Jan	KB0FH Bob

