SKYWARN Recognition Day

The 11th Annual SKYWARN Recognition Day Special Event will take place Saturday, December 5, 2009. SRD is co-sponsored by the ARRL and the National Weather Service as a way to recognize the commitment made by Amateur Radio operators in helping to keep their communities safe. According to SRD Coordinator David Floyd, N5DBZ, Amateur Radio operators can visit their local participating NWS office, working as a team to contact other hams across the world throughout the 24 hour event. (The NWS offices in the Twin Cities and Duluth are listed as participating in the event.)

SKYWARN Recognition Day operations this year will be held from 0000 UTC to 2400 UTC on Saturday, December 5, 2009. (That means the event officially begins on Friday evening in the United States). To learn more, check the NOAA Web site. (http://www.wrh.noaa.gov/mtr/hamradio/).

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 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.

Skywarn *cont'd on page 2*

Super Shot Coming Soon!

Scott ARES will be conducting an on-air exercise named Super Shot between now and Christmas. The exercise scenario involves a county immunization effort. During the exercise ARES volunteers will be simulating communications assistance between various clinic sites and an EOC.

The objectives of the exercise are to measure Scott ARES performance in the following areas:
1. The speed and accuracy of the activation plan.
2. Evaluate Directed Net operating procedures.
3. Evaluate verbal and digital traffic handling skills.

ARES members participating in the exercise will receive a call out via the activation plan. They will then receive detailed instructions via the Scott ARES homepage. Participants will each have a unique clinic site scenario, complete with it's own challenges, during the exercise.

The exercise should be completed within four hours and provide a fun opportunity to test communications skills.

BREAK - OVER

ARES Activities
Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday, December 12th
Digital Monday December 14th

SELECTED TRAFFIC NETS

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

How Long is That Dipole?

Antenna building and experimenting is one area that usually generates a lot of discussion whenever amateurs get together. While playing with one of the most basic antenna designs, the half wave dipole, a Google search uncovered an interesting site.

The site "Javascript Electronic Notebook", Center-Fed Half-Wave Dipole (3-30MHz), by Martin E. Meserve (http://www.k7mem.150m.com/Electronic_Notebook/ antennas/dipole.html) was one of the search results.

Contained on the site are a couple of calculators that simplify the task of determining the length of the antenna. The old 468 over MHz is performed by a fill-in-the-blank calculator. As anyone who has hoisted wire into the air with hopeful expectations knows, these numbers are just a starting point.

Once you make your careful measurements, you can hoist your creation skyward your check to see where the skyhook resonates. Hopefully you are in the ballpark. The resonant frequency is seldom exactly where you would like. How much wire to add or subtract is the next question. This site has another calculator that will point you to the right neighborhood for that move too!

Hopefully your antenna is just a little too long. It is always easier to raise the frequency than hook up the wire stretcher!

BREAK - OVER

Scott County ARES Contacts

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

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

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

Skywarn *- cont'd from page 1*

"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."

Floyd said that feedback from that first event was "overwhelmingly positive" from both the NWS staff and the local ham clubs: "Many local club members who came to that first event had never visited an NWS office before. When they came for the special event, they learned the value of their reports and how they were used in conjunction with existing technology."And so began an annual tradition. The following year, 85 of the 122 NWS offices — almost 70 percent — participated in the event, making nearly 24,000 QSOs.

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 participating with local ham clubs has increased; more than 100 offices sign up each year to take part. The most contacts made during any SRD occurred in 2006 when — thanks to and local hams in the Grand Junction, Colorado area — 1640 QSOs were logged!" In keeping with the NWS setting, stations are asked to include a weather report of their location in their exchange.

In 2008, the Des Moines office reported the most QSOs — 1203 QSOs — than any other NWS office; the Melbourne, Florida office, with 1192 QSOs, ran a close second. Melbourne also contacted the 74 NWS offices, the most reported last year. Lincoln, Illinois, was close behind, with 70 QSOs to other NWS offices.

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 to Submit a list of the NWS stations you worked 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 2009 your year to do so!

BREAK - OVER

"There are no shortcuts to anywhere worth going."

Beverly Sills

Talking on the Clock

Amateur Radio and Government Disaster Drills

In September, the ARRL released guidelines that address numerous aspects of the issue of business communications in the Amateur Service. After last month's ARES E-Letter report on the policy paper, the FCC released a Public Notice clarifying the Commission's rules relating to the use of Amateur Radio by licensed amateurs participating in drills and exercises on behalf of their employers. Entitled Amateur Service Communications During Government Disaster Drills, the Public Notice addresses participation by paid employees of organizations taking part in drills.

The Public Notice — DA 09-2259 — affirms that the Commission's rules "specifically prohibit amateur stations from transmitting communications 'in which the station licensee or control operator has a pecuniary interest, including communications on behalf of an employer.'" The Public Notice states that, in order to facilitate participation by employees who wish to engage in government-sponsored drills and emergency exercises on behalf of their employers, a waiver can be requested from the FCC by the government agency sponsoring the drill or exercise (and not by the individual who wishes to participate in the drill or exercise). The government entity conducting the drill must include in its waiver application the following information:

   * When and where the drill will take place;
   * Identification of the amateur licensees expected to transmit amateur communications on behalf of their employer;
   * Identification of the employer(s) on whose behalf the amateur(s) will be transmitting; and
   *A brief description of the drill.

The waiver request must be filed and acted upon in advance of the drill. The waiver must be actually granted by the Commission before the amateurs participate in the drill. It is not enough to apply — the waiver must be granted first.

Government entities requesting a waiver for their emergency/disaster drill should submit a written request addressing the factors listed above to Wireless Telecommunications Bureau, 445 12th St SW, Washington, DC 20554, Attn: Scot Stone.

A waiver is needed only for those licensees transmitting messages on behalf of their employer during the State and local government public safety agency's "occasionally conducted emergency preparedness or disaster test or drill." This may, after analysis, turn out to be very few licensees or,

When Off is On

When a Device Is Turned Off, It Is Off

This is a fable. Today's electronic devices and appliances are more sophisticated than their predecessors, and most continue to consume power when they are switched off (sometimes a large amount). Many electric devices, such as microwaves, computers, and televisions are not switched completely off unless they are unplugged. Left plugged in, these devices will continue to draw power 24 hours a day, every day of the year. This often unnoticed power consumption is known as "standby power" or "phantom load."

Standby power is often necessary to power certain core functions or to sense communication for those devices that are waiting to provide full services. This power is consumed not while the appliance is being fully used but while it awaits instruction, while it is "standing by." The convenience of being able to switch on your television from the sofa using a remote control is one example, since some circuits in the television must remain active, watching for signals from the remote control. Other appliances have clocks that continuously consume a small amount of power that can add up over time.

Some devices use significant amounts of energy in standby mode. Newer television set-top or cable boxes actually consume nearly as much power for communication purposes while switched off as when they are switched on! If your microwave oven is not used much, its standby power just from the clock can approach the actual operating energy use. In some office equipment, the standby mode uses up to 30% as much power as that of actual operation.

BREAK - OVER

Talking *cont'd from col. 1*

by rearranging functions of participants, a waiver may not be needed. The Commission has also emphasized that only governmental agencies may apply for a waiver.

On October 27, the FCC's Wireless Telecommunications Bureau (WTB) granted the first waiver that allows amateurs who participate in a government-sponsored emergency preparedness and disaster drill to communicate on behalf of their employers during the drill. The waiver request was made on behalf of the Commonwealth of Kentucky. That state conducted a full-scale exercise on Wednesday, October 28, 2009 from 8 AM-5 PM (EDT) to test their emergency response to the possible release of chemical agents at Blue Grass Army Depot, located near Richmond, Kentucky.

"Appropriate Use of Amateur Radio" is available on the Scott ARES website at www.scottares.org. on the Member Resources page.

BREAK - OVER

ICS 100 Basics

Across

1. Established to divide the incident management structure into functional areas of operation. Composed of resources assembled to perform a special function not necessarily within a single geographic division.

4. Individuals within Incident Command System organizational Units that are assigned specific managerial responsibilities.

5. Sets of established guidelines for actions (which may be designated by individuals, teams, functions, or capabilities) under various specified conditions.

6. Providing documentation that can authenticate and verify the certification and identity of designated incident managers and emergency responders.

9. The organizational level having functional or geographical responsibility for major aspects of incident operations.

10. Immediate actions to save lives, protect property and the environment, and meet basic human needs.

11. Actions to avoid an incident or to intervene to stop an incident from occurring. Involves actions to protect lives and property.

Down

2. The ICS title for the personnel responsible for the Command Staff positions of Safety, Liaison, and Public Information.
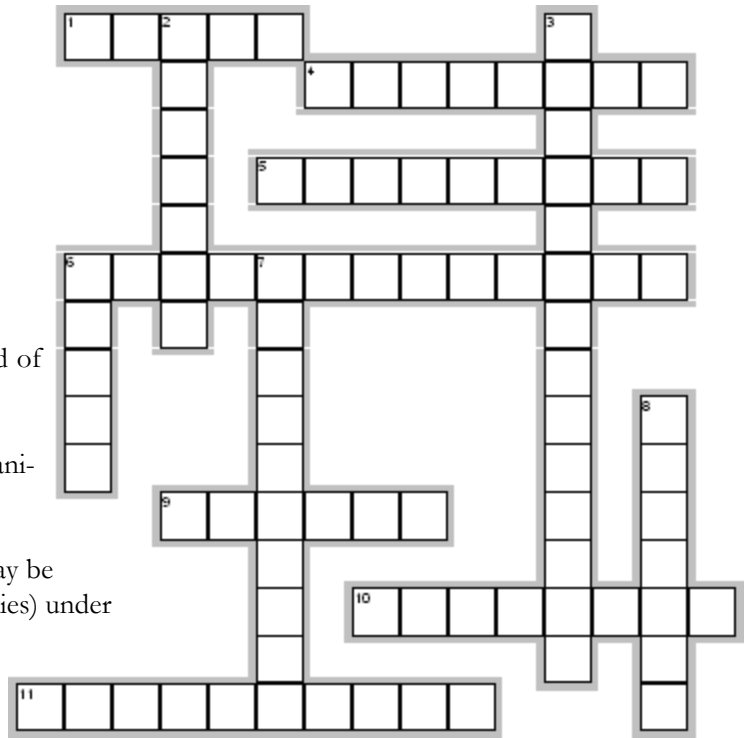
3. The orderly, safe, and efficient return of an incident resource to its original location and status.

6. A predetermined complement of tools, equipment, and/or supplies stored in a designated location, available for incident use.

7. Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

8. A form of communication for establishing and maintaining mutual understanding and cooperation.

Turkey Nap?

   L-tryptophan, in substantial quantities, is a natural sedative that is found in turkey meat, other poultry, dairy products, and beef. While many people believe it to be the cause of the sleepiness common after a Thanksgiving feast, the truth is that L-tryptophan does not act on the brain unless it is taken on an empty stomach with no protein present. Additionally, the levels found in a turkey dinner are far too low to have such an effect. More than likely, it is due to the combination of drinking alcohol and overeating—not only turkey, but also mashed potatoes, ham, creamed onions, cranberries, sweet potatoes, peas, stuffing, carrots, bread, pies, and whipped cream—all of which have the effect of pulling the blood away from the brain to help the digestive tract do its work.

   Some nutritionists suggest having a late night snack of leftover turkey; it might have the right amount of L-tryptophan on an empty stomach to help produce some serotonin and help one get to sleep!

BREAK - OVER

ICS 100 Basics Crossword Solution

1. INCIDENT—An occurrence or event, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, etc.

4. RECOVERY—A plan developed to restore the affected area or community.

7. AGENCY—A division of government with a specific function offering a particular kind of assistance.

8. BASE—The location at which primary Logistics functions for an incident are coordinated and administered. There is only one per incident.

9. ASSESSMENT—The evaluation and interpretation of measurements and other information to provide a basis for decision-making.

11. CAMP—A geographical site within the general incident area that is equipped and staffed to provide sleeping, food, water, and sanitary services to incident personnel.

12. FUNCTION—Refers to the five major activities in the Incident Command System: Command, Operations, Planning, Logistics, and Finance/Administration. The term is also used when describing the activity involved.

13. LOGISTICS—The Section responsible for providing facilities, services, and material support for the incident.

Down

2. EMERGENCY—Any incident, whether natural or manmade, that requires responsive action to protect life or property.

3. COMMUNICATIONS—Process of transmission of information through verbal, written, or symbolic means.

5. COMMANDSTAFF—Consists of Public Information Officer, Safety Officer, Liaison Officer, and other positions as required, who report directly to the Incident Commander.

6. HAZARD—Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

10. STAGING—Ares established for the temporary location of available resources in which personnel, supplies, and equipment can be temporarily housed or parked while awaiting operational assignment.

"Individual commitment to a group effort – that is what makes a team work, a company work, a society work, a civilization work."
                                                                            Vince Lombardi

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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:

The ability to communicate within ICS is absolutely critical. To ensure efficient, clear communication, ICS requires the use of:

          a. Agency-specific codes
          b. Radio codes
          c. Common terminology
          d. Technical language

The answer will appear in next month's newsletter.

November Test Your NIMS Solution

Check-in officially logs you in at the incident. The check-in process and information help to:
 - Ensure personnel accountability.
 - Track resources.
 - Prepare personnel for assignments and reassignments.
 - Organize the demobilization process.
 - ___
          d. Locate personnel in case of an emergency

Smart Grid Cyber Attack

As smart grid expands, so does vulnerability to cyber attacks

As he prepares to leave office as head of the nation's electric grid operations monitor, Rick Sergel is warning the power industry that if it doesn't move faster and harder to protect itself against cyber threats, Congress and federal regulators will increasingly impose their own rules. Sergel, who is retiring as CEO of the North American Electric Reliability Corp. in January, delivered the message in a final speech to NERC trustees and industry representatives earlier this month and expanded on it in an interview last week. Gerry Cauley, CEO of the SERC Reliability Corp. in Charlotte, N.C. — a regional grid monitor — will succeed Sergel.

The accelerating deployment of tens of millions of advanced electric meters and other smart grid devices may help fight climate change by increasing energy efficiency. But it is also increasing the targets of attack and could make the nation's power network potentially more vulnerable as the threat of penetration grows, Sergel said. The danger goes beyond the disabling of transformers and control systems to include the "kidnapping" of key devices by attackers who would try to send spurious signals to shut down customers' smart meters or take power plants offline, says Joseph McClelland, director of the Office of Electric Reliability at the Federal Energy Regulatory Commission. "The need for vigilance will increase as new technologies are added" to the grid, he told a congressional subcommittee last month.

"There is still a long road ahead" of the industry to achieve grid security goals, Sergel said in his speech to trustees Nov. 5, but the industry may not have much time to respond. "The decision time frame on these issues is measured in weeks, or perhaps months, but not years." If the industry doesn't move, "others will," he added, in a reference to bills in the House and Senate that would beef up federal cyber authority. NERC, the Princeton, N.J., organization that oversees grid operations, was blasted by members of the House Homeland Security Committee two years ago for misleading the committee about the industry's efforts to guard against cyber attacks, in the members' words. NERC responded with new mandates for the power industry and brought in a new security executive. But Sergel told NERC trustees that parts of the power industry haven't followed through on a key element of the cyber protection strategy. A "critical infrastructure protection" (CIP) plan first proposed by NERC in 2006 requires generating companies, grid operators and transmission owners to identify vital equip-

Santa Knows

If You've Been Bad or Good!

You'd better watch out,
You'd better not cry,
You'd better not pout;
I'm telling you why...

Santa Claus is tapping
Your phone.

He's bugging your room,
He's reading your mail,
He's keeping a file
And running a tail...

Santa Claus is tapping
Your phone.

He hears you in the bedroom,
Surveils you out of doors,
And if that doesn't get the goods,
Then he'll use provocateurs!

Santa Claus is tapping
Your phone.

So-you mustn't assume
That you are secure.
On Christmas Eve
He'll kick in your door...

Smart Grid *cont'd from col. 1*

ment and systems on the grid that could be vulnerable to cyber attack. The "critical assets" would be subject to mandatory security rules that are to take effect next April 1. David Cook, NERC's vice president and general counsel, told a House committee last month that power companies had listed just 26 percent of generating plants and facilities as "critical assets" in a December 2008 NERC survey. Cook added, "The specific data is significant cause for concern" in certain cases.

"We can tell from the results of how people addressed the assets, region by region, that the standard isn't clear enough to be getting a consistent response," Sergel told NERC trustees. The industry's response has provoked criticism from FERC, which has designated NERC as the grid's reliability monitor. McClelland said last month that the majority of changes in cyber standards ordered by FERC have not yet been dealt with.

-ClimateWire

BREAK - OVER

New Tech Question Pool

The National Conference of Volunteer Examiner Coordinators (NCVEC) is due to release the new Technician class (Element 2) question pool to the 14 VECs on December 1, 2009; it will be released to the public in January 2010. Each question pool for the three Amateur Radio license classes — Technician, General and Amateur Extra — is reviewed on a four-year rotation. This new Technician class pool will become effective on July 1, 2010.

According ARRL Assistant VEC Manager Perry Green, WY1O, the three question pools are reviewed every four years to ensure that the questions are kept current with the latest amateur practice and technology, as well as addresses information relevant to that particular license class. "In the case of the Technician pool, the question set should provide for the new Technician licensee to be able to establish his station and operate it legally, courteously and safely. The Technician question pool and exam are intended to be the beginning of the journey into the Amateur Radio Service. It prepares the person for the enjoyment of operating, and that of preparing to learn electronics, the cornerstone of the education needed to obtain the further enjoyment that can come with the higher license classes."

The committee solicited input from Amateur Radio operators concerning the new question pool, accepting input for new question topics and new questions, as well as suggestions for changes or deletions: The question pool committee must rely on members of the Amateur Radio community to suggest questions and answers in a responsible manner to preserve a high level of legitimacy for our radio service, so the group seeks input from the amateur community concerning a revision.

The new question pool will become effective for all examinations administered on or after July 1, 2010, and it will remain valid until June 30, 2014. The current Technician question pool that became effective July 1, 2006 will expire June 30, 2010. The new Technician pool contains approximately 400 questions, from which 35 are selected for an Element 2 examination. This question pool will contain graphics and diagrams, something new for this element..

BREAK - OVER

Smartphone Attacks

Is Your Blackberry at Risk?

Hackers could one day turn ordinary smartphones into "rogue" devices to attack major wireless networks, Research In Motion's security chief warned.

Scott Totzke, RIM's vice-president of BlackBerry security, said hackers could use smartphones to target wireless carriers using a technique similar to one used in assaults that slowed Internet traffic in the United States and South Korea in July. In what's known as a distributed denial of service, or a DDOS attack, criminals use phone signals to order tens of thousands computers to contact a targeted site repeatedly, slowing it or eventually crashing it.

"I think that's an area of concern," Totzke said in an interview in November. "A technique involving data packets might be used to bring down a wireless network, though hackers might accomplish that using a relatively small number of smartphones."

Malicious software that could launch such attacks would likely come from applications that smartphone users install on their devices, said Kevin Mahaffey, chief technology officer at Flexilis, a mobile security software maker. Researchers have already identified virus-tainted versions of popular smartphone applications such as Google Inc's Google Maps software and computer games.

"These are not telephones anymore. These are computers. So people are going to have all the problems on their phones that they have on their computers," Mahaffey said.

The best way to protect against such an attack is through regularly applying security patches, which smartphone makers such as RIM release as they identify potential security flaws in their devices.

BREAK - OVER

ARES Breakfast
SaturdayDecember 12th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule December 2009
30 Nov N0PI Dan
7 Dec W0NFE Bob
14 Dec KB0FH Bob
21 Dec KC0YHH Tony
30 Nov KD0IUA Paul
4 Jan N0PI Dan
11 Jan W0NFE Bob