



ARES COMMUNICATOR

Information for Scott County Amateurs



December, 2013

Accurate, Reliable Emergency Communications for our Community

Volume 13, Number 12

2013 SKYWARN Recognition Day

December 7, 2013

Skywarn is a volunteer program with nearly 290,000 trained severe weather spotters. These volunteers help keep their local communities safe by providing timely and accurate reports of severe weather to the National Weather Service.

These trained observers provide essential information for all types of weather hazards, the main responsibility of a Skywarn spotter is to identify and describe severe local storms. In the average year, 10,000 severe thunderstorms, 5,000 floods and more than 1,000 tornadoes occur across the United States. These events threaten lives and property.

Skywarn Recognition Day 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.

Recognition Day Operating Instructions

- Object: For all amateur stations to exchange QSO information with as many National Weather Service Stations as possible on 80, 40, 20, 15, 10, 6, and 2 meter bands plus the 70 centimeter band.

- Date: NWS stations will operate December 7, 2013, from 0000 - 2400 UTC.

- Exchange: Call sign, signal report, QTH, and a one or two word description of the weather occurring at your site ("sunny", "partly cloudy", "windy", etc.).

This year's SRD happens to occur on *The National Pearl Harbor Remembrance Day*. In an effort to commemorate the day we are asking offices that from 18z-19z to say, "Conditions at Pearl Harbor on December 7, 1941, were mostly sunny and 75 degrees" instead of the local weather in the exchange.

Skywarn Recognition *cont'd on page 2*

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

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ARRL Audio News IDs

Looking for the next Bieber!

Want to be featured on ARRL Audio News? Here's how.

Sean Kutzko, KX9X Media and Public Relations Manager, explains ARRL Members are invited to send him an MP3 using this script: *'I'm ARRL member [your name and call sign] from [your city and state or country], and you're listening to ARRL Audio News.'*

Please follow the script exactly, and keep your recording under ten seconds long. If your recording is clearly understandable, we'll consider it for possible use during the program!

You don't need any fancy audio gear... a recording made on your iPhone, as long as it's not distorted, will work fine.

Email your recording to audionews@arrl.org We'll be listening for you in the news!

BREAK - OVER



ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, December 14th

Digital Monday, December 16th

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: 3.568 mhz

NETS WITH OUR NEIGHBORS

North Dakota: Daily 3.937 mhz 6:30pm

South Dakota: Daily 3.860 mhz 6:00pm

Wisconsin: Daily 3.985 mhz 5:30pm

Iowa: Daily 3.970 mhz 12:30/5:30pm

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.

Which organization has line authority to oversee the management of multiple incidents being handled by separate Incident Command organizations?

- A. Multiagency Command
- B. United Command
- C. Area Command
- D. Joint Command

Check next month's ARES Communicator for the solution



November NIMS Knowledge Solution

In an Incident Command System organization, the term "General Staff" refers to:

D. Incident management personnel organized according to function (i.e., Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief) and who report directly to the Incident Commander.

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Skywarn Recognition *cont'd from col. 1*

4. Modes: NWS stations will work various modes including SSB, FM, AM, RTTY, CW, and PSK31. While working digital modes, special event stations will append "NWS" to their call sign (e.g., N0A/NWS).
5. Event and QSL Information: The National Weather Service will provide event information via the internet. Event certificates will likely be electronic and printable this year.

Twin City NWS office will participate under the callsign K0MPX on 20M, 2M, and 70CM bands.

BREAK - OVER



*"May the Blessings of Christmas be with you,
May the Christ Child light your way,
May God's holy angels guide you,
And keep you safe each day."*

Irish Christmas Blessing



Don't Click Here!

Whether you receive a phishing email inviting you to click on a specific link, whether you see the link on your trusted social media sites, or whether you stumble upon it while Web surfing, here are 10 types of links you should never click on.



1. Celebrity pics
2. Breaking news
3. Strange software, especially mobile apps
4. 'Free' downloads
5. Celebrity scandals
6. Bargains galore
7. Invoice attachments
8. Charity scams
9. Exclusive access
10. Online surveys

United States Citizenship!

Have you ever thought about your United States citizenship? Probably not since that Civics course a long time ago! Foreigners who want to become a United States Citizen must pass a short exam that covers some key concepts important to America. Test your knowledge on the citizenship test.

Check next month for the answer to this month's question.

The House of Representatives has how many members?

- A 435
- B 535
- C 100
- D 525
- E 354

November Citizenship Exam Answer

5. How many justices are on the Supreme Court?

- B nine (9)

BREAK - OVER



The Reason for the Season

DXActivity

Chad – TT8ES

IV3FSG, Elvira Simoncini, has been back in Doba, Chad since November 21st. She is with the mission of the Franciscan Sisters Alcantarins working on computer courses for the association “Informaticens Sans Frontieres.” She is QRV as TT8ES in her spare time mostly during her early morning and late evening time frames. She has a Kenwood TS-480 using a G5RV dipole. With activity on the digital modes and SSB until December 20th. QSL via IK3GES.

The Daily DX provides up to date info on DX activity along with QSL routes / managers and IOTA events and contests. Check the Daily DX homepage for info: <http://www.dailyydx.com/> Sign up for a free two-week subscription to daily updates.

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. What is the most common frequency shift for RTTY emissions in the amateur HF bands?

- A. 85 Hz
- B. 170 Hz
- C. 425 Hz
- D. 850 Hz

2. What does the abbreviation “MFSK” stand for?

- A. Manual Frequency Shift Keying
- B. Multi (or Multiple) Frequency Shift Keying
- C. Manual Frequency Sideband Keying
- D. Multi (or Multiple) Frequency Sideband Keying

3. Which of the following amateur radio HF frequencies are least reliable for long distance communications during periods of low solar activity?

- A. 3.5 MHz and lower
- B. 7 MHz
- C. 10 MHz
- D. 21 MHz and higher

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



November General Pool Answers

1. What is the most common frequency shift for RTTY emissions in the amateur HF bands?

- B. 170 Hz

2. What does the abbreviation “MFSK” stand for?

- B. Multi (or Multiple) Frequency Shift Keying

3. Which of the following amateur radio HF frequencies are least reliable for long distance communications during periods of low solar activity?

- D. 21 MHz and higher

BREAK - OVER

Notes from the RFI discussion group.

A Utility Interference Investigator explains some street light RFI basics. The most common failures are cycling and constant "invisible" RFI.

The cycling failure is fascinating. The photocell senses that darkness has fallen. The

light begins the process of coming on. The bulb will begin to illuminate dimly and its brightness will increase slowly over about a minute. At the end of the minute the bulb reaches full brightness and stays lit at full brightness for about 10 seconds. After 10 seconds at full brightness, the bulb goes dark. The light stays dark for about 30 seconds or so and the process repeats.

Listening with a radio tuned to a quiet spot (or 1710) on the broadcast band, you can usually hear the repetitive street light symphony. Sometimes the RFI produced by these failed cycling lights can be heard as high as 325 MHz.

In my region, the cycling street lights can produce the following sounds in a receiver. As the bulb first dimly lights, the RFI begins. In the receiver a broadband buzzing modulation can be heard that seems to have a low pitch. As the street light bulb increases in brightness, the pitch of the modulated RFI increases in lock step with the bulb's brightness. At full brightness the RFI's modulation reaches its highest pitch and greatest loudness. When the bulb goes out 10 seconds later, the RFI stops.

In 30 seconds to a minute, the process repeats. The process continues non-stop until daylight comes. I have never actually determined what causes this behavior in street lights. It sounds to me like the photocell's electronic switch has failed and as the current through it increases, RFI is produced. The only other likely source would be the ballast.

When a street light produces constant, unchanging RFI, it can be heard strongest at low frequencies. Only 50% of the time have I been able to detect a street light producing constant RFI at frequencies above 50 MHz. The light DOES NOT need to be illuminated to produce this constant RFI. However, it's usually very easy to pinpoint the offending light. Here again, either the photocell or ballast are bad.

When I report a bad street light, they get fixed without my being present for the repair. I never know if a contractor will make the repairs or one of our maintenance crews. I've spoken to some linemen who have done street light repairs but have never gotten definitive answers as to which failure causes which problem. Sometimes the entire fixture is replaced and shipped to an in-house shop for rebuilding.



Sometimes the head is rebuilt on the spot. I am never told which repair method will be used or when the work will be done (so I can observe and learn!!)

Like any other RFI source, finding a bad street light requires a portable/mobile receiver with RF Gain control, signal level indicator and directional antenna (or sensible technique based on signal strength). Not all street light RFI manifests itself as visible light. However, it can always be heard. Good DFing tools and technique will get the problem located promptly so repairs can be ordered.

BREAK - OVER

LID LIST

lid: noun, an individual who impedes activity in a directed net by using nonstandard procedures.

The Lid List is a collection of words and phrases often used by operators not trained in efficient directed net operation. Don't make these words a part of your operating vocabulary. This list will be updated as needed to include the latest *cool* procedures.

4. Copy that This may sound 'cool' on television or on the CB but not in a directed net. The trained operator simply replies, "Roger" when they have received an error-free message.

BREAK - OVER

NBEMS Current Versions

The current version of the Fldigi manual is available at NBEMS Info page at www.scottares.org. Look under the 'Help Sheets' heading.

Be sure to check to make sure you have the current software on your thumb drive.

Now is a good time to check to your digital software to make sure you are running the newest versions. You can find the most recent versions posted at both: www.w1hkj.com/download.html and <http://www.scottares.org/NBEMS.htm>

Here are the most recent releases as of November 25, 2013.

Software	Version
Fldigi	3.21.77
Flwrap	1.3.4
Flmsg	1.1.33
Flamp	2.1.01

The Monday evening training net is a great place to have your digi questions answered and problems solved! Join the Scott ARES group on 146.535 mHz simplex at 7:00pm on Monday evenings.



BREAK - OVER

Formal Traffic Handling

Part 4 of a Series

ARL Emergency Text Messages

ARRL Numbered Radiograms are a standardized list of often-used phrases. Each phrase on the list is assigned a number. There are two groups: Group One is for emergency relief and consists of 26 phrases numbered consecutively from "ONE" to "TWENTY SIX," and preceded by the letters "ARL." For example, "ARL SIX" means "will contact you as soon as possible."

Group Two contains 21 routine messages, including number "FORTY SIX" and from "FIFTY" through "SIXTY NINE." Earlier printed versions of this list do not contain the latest additions. For the complete list, see <http://www.arrl.org/FandES/field/forms/fsd3.pdf>

When using numbered radiograms, the letters "ARL" are placed in the "check" block of the preamble, just prior to the number indicating the word count, as in "ARL7."

In the text of the message, the numbered radiogram is inserted by using the letters "ARL" as one word, followed by the number written out in text, not numerals. For example: "ARL FIFTY SIX."

It is important to spell out the numbers letter by letter when sending using voice. This allows the receiving station to correctly copy what is being sent, and not inadvertently write the figures out as "FIVE SIX" instead of "FIFTY SIX." "ARL FIFTY SIX" is counted as three words for the "check" block. Two common receiving errors are to write "ARL-56" and count it as one word, or "ARL 56" and count it as two words.

Some numbered messages require a "fill in the blank" word in order to make sense. Here are two examples:

ARL SIXTY TWO: Greetings and best wishes to you for a pleasant _____ holiday season.

ARL SIXTY FOUR: Arrived safely at _____.

ARL Text Messages Group 1

Emergency/priority messages originating from official sources must carry the signature of the originating official.

ONE—Everyone safe here. Please don't worry.

TWO—Coming home as soon as possible.

THREE—Am in _____ hospital. Receiving excellent care and recovering fine.

FOUR—Only slight property damage here. Do not be concerned about disaster reports.

FIVE—Am moving to new location. Send no further mail or communication. Will inform you of new address when relocated.

SIX—Will contact you as soon as possible.

SEVEN—Please reply by Amateur Radio through the amateur delivering this message. This is a free public service.

EIGHT—Need additional _____ mobile or portable equipment for immediate emergency use.

NINE—Additional _____ radio operators needed to assist with emergency at this location.

TEN—Please contact _____. Advise to standby and provide further emergency information, instructions or assistance.

ELEVEN—Establish Amateur Radio emergency communications with _____ on _____ MHz.

TWELVE—Anxious to hear from you. No word in some time. Please contact me as soon as possible.

THIRTEEN—Medical emergency situation exists here.

FOURTEEN—Situation here becoming critical. Losses and damage from _____ increasing.

FIFTEEN—Please advise your condition and what help is needed.

SIXTEEN—Property damage very severe in this area.

SEVENTEEN—REACT communications services also available. Establish REACT communication with _____ on channel _____.

EIGHTEEN—Please contact me as soon as possible at _____.

NINETEEN—Request health and welfare report on _____. (State name, address and telephone number.)

TWENTY—Temporarily stranded. Will need some assistance. Please contact me at _____.

TWENTY ONE—Search and Rescue assistance is needed by local authorities here. Advise availability.

TWENTY TWO—Need accurate information on the extent and type of conditions now existing at your location. Please furnish this information and reply without delay.

TWENTY THREE—Report at once the accessibility and best way to reach your location.

TWENTY FOUR—Evacuation of residents from this area urgently needed. Advise plans for help.

TWENTY FIVE—Furnish as soon as possible the weather conditions at your location.

TWENTY SIX—Help and care for evacuation of sick and injured from this location needed at once.

BREAK - OVER

"Enjoy the little things, for one day you may look back and realize they were the big things."

Robert Brault

Row Bra Tree!

Hearing voices? Roused from a deep sleep and could swear I heard, "Row bra tree." Decision time. Do you go back to sleep and see if you are trapped in a Victoria Secret commercial featuring lingerie waving from rows of large bushes, or open your eyes and investigate. Curiosity wins and you open one eye. Darn, not stuck in that commercial thing! Wait, there is the voice again, "Row bra tree." There seemed to be a blink of light near the widow. Waiting and watching you hear the voice and see the light again!

Turing on the light you discover the voice and flash of light is coming from the Yeawoodcom HT. Turning off the HT you vow to investigate during the daylight. You go back to sleep grateful the voice was your radio speaking Chinglish and not a neighbor passed out in the shrubs.

Turning on the radio in the daylight revealed that the HT can also say, "Low Voltage." You must have neglected to turn off the HT after the net. Dropping the radio into the charger solves the energy shortage.

The bi-lingual radio (Chinese/English, Chinglish) is a Baofeng UV5-R. The HT was a less than \$40 purchase that promised dual-band operation and more memories than anyone could talk on at one time. You justify the purchase by noting there are people who blow through \$40 at the casino and don't have a neat, new HT to show for it. Go ahead and put your favorite search engine to work searching for 'Beofeng UV5-R' and you can find the HT starting at prices of around \$26.00! It even comes in colors – Red, Yellow, Blue, Camo, and Black.

Okay, here are some of the vital statistics for the radio:

- Frequency Range: 136-174 / 400-480MHz
- VHF receive band from 65 - 108 MHz
- 128 Channels 50 CTCSS and 104 CDCSS
- Dual-Band Display, Dual Freq. Display, Dual-Standby
- male SMA antenna jack (the opposite of the usual handies)
- Output 4W / 1W (Max 5W??)

You already know my HT speaks Chinglish but the manual? Well, it is about what has come to be expected of imported radios. It seems this radio has developed almost a cult following and one site has collected a LOT of various bits of important information. Go here: <http://www.miklor.com/uv5r/> You will be glad you looked around.

This is paragraph could be titled "Boy did I get lucky!" I happened to buy the radio from a dealer that sold quite a package of accessories. The programming cable is very nice to have, along with CHIRP software which is freeware – search for it. The usual stubby ducky antenna and drop-in charger and an interesting earphone/mic combination were all included.

Okay, how does the radio perform? Well, you program the
cont'd col. 2



Baofeng UV 5R

simplex or repeater frequency, push the button and communicate. It does the job and has not generated any complaints from the receiving stations. The UV5-R uses the same external speaker/mic and programming cable as the Kenwood TH6 multiband HT (strange how that works out). The little HT handles caveman digital operation with no problems. Interfacing should be exactly the same as the Kenwood HT. The 3.5mm and 2.5mm stereo spkr/mic jacks provide all the necessary signals. See the diagrams on the MIKJOR site for details.

Manually programming very many frequencies can drive you straight to the rubber room! Get the cable, download CHIRP, and read the programming section on the MIKJOR site. You will be smiling if you take these simple steps. One piece of info that may save you some head-scratching involved making sure you have the correct driver software for your OS and the programming cable chip. Volumes have been written on the subject and we won't reinvent that wheel here. Hint: the MIKJOR site will be a big help. Tips you can use with any programmable radio.

Would I buy another? Yup! The little radio has refreshed a lot of things I knew about repeater operation and radio interfacing. It has been a fun experience, all for less than \$40.00. A lot better deal than the casino.

BREAK - OVER



December 7, 1941
Pearl Harbor
Attacked

Sailors in a motor launch rescue a survivor from the water alongside the sunken USS *West Virginia* (BB-48) during or shortly after the Japanese air raid on Pearl Harbor. USS *Tennessee* (BB-43) is inboard of the sunken battleship. Note extensive distortion of *West Virginia*'s lower midships superstructure, caused by torpedoes that exploded below that location.

Winter Weather Awareness

While the danger from winter weather varies across the country, nearly all Americans, regardless of where they live, are likely to face some type of severe winter weather at some point in their lives. Winter storms can range from a moderate snow over a few hours to a blizzard with blinding, wind-driven snow that lasts for several days. Many winter storms are accompanied by dangerously low temperatures and sometimes by strong winds, icing, sleet and freezing rain.

One of the primary concerns is the winter weather's ability to knock out heat, power and communications services to your home or office, sometimes for days at a time. Heavy snowfall and extreme cold can immobilize an entire region.

The National Weather Service refers to winter storms as the "Deceptive Killers" because most deaths are indirectly related to the storm. Instead, people die in traffic accidents on icy roads and of hypothermia from prolonged exposure to cold. It is important to be prepared for winter weather before it strikes.

Be Prepared!

To prepare for a winter storm you should do the following:

- Before winter approaches, add the following supplies to your emergency kit:

- Rock salt to melt ice on walkways.

- Sand to improve traction.

- Snow shovels and other snow removal equipment.

- Sufficient heating fuel. Store a good supply of dry, seasoned wood for your fireplace or wood-burning stove.

- Adequate clothing and blankets to keep you warm.

- Make a Family Communications Plan. It is important to know how you will contact one another in case of an emergency.

- Listen to local news channels for information from the National Weather Service.

- Minimize travel. If travel is necessary, keep a disaster supplies kit in your vehicle.

- Bring pets/companion animals inside during winter weather.

BREAK - OVER



*May the best ye've ever seen
Be the worst ye'll ever see
May a moose ne'er leave yer ginal
Wi' a tear drap in his e'e
May ye aye keep hale an' he'ry
Till ye're auld eneuch tae dee
May ye aye be jist as happy
As we wish ye aye tae be*

Scottish New Year Toast

W100AW in 2014

The FCC has authorized the Maxim Memorial Station W1AW to also use the call sign W100AW during 2014, the ARRL's centennial year. Contacts made from the Maxim Memorial Station in Newington, from regional Centennial conventions, and during the IARU HF Championship will use W100AW, with portable designators as appropriate. The "W1AW WAS" operations throughout 2014 from each of the 50 states will use W1AW, not W100AW.

Bulletins and code practice transmissions during 2014 also will still use W1AW. Contacts with W100AW will be worth 100 points in the ARRL Centennial QSO Party. To help kick off the ARRL Centennial, special W100AW activity will begin at 0500 UTC on January 1, 2014 (midnight in Newington), and will include participation in ARRL's Straight Key Night; one CW station will use Hiram Percy Maxim's straight key. Activity will continue throughout New Year's Day.

BREAK - OVER



ARES Breakfast

Saturday December 14th
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule December 2013

2 Dec	KD0UWZ Chad
9 Dec	N0PI Dan
16 Dec	W0NFE Bob
23 Dec	KB0FH Bob
30 Dec	KD0UWZ Chad
6 Jan	KC0YHH Tony
13 Jan	N0PI Dan