



ARES COMMUNICATOR

Information for Scott County Amateurs



January, 2018

Accurate, Reliable Emergency Communications for our Community

Volume 18, Number 1

SPRC Auction

New Location
Saturday Jan 27th

The annual St. Paul Radio Club Auction will be held on Saturday, Jan.27th at the Roselawn Lutheran Church located at 1215 Roselawn Ave.W. in Roseville. (On Roselawn Ave. West of Lexington Ave)

Monitor the 154.17 (100hz) repeater for talk-in directions.

The doors open at 8:30am for equipment sellers and opens at 9:30 for buyers and bidders. Carts will be available for use of sellers and buyers for transporting gear in and out.

A silent auction will be held with proceeds benefitting the ARRL Spectrum Defense Fund. The auction will end at 11:30am.

Sellers have the option of listing their items for a Live! auction or the Silent auction. Sellers having questions may contact Dale Maroushek, at n0pey@arrl.net or evenings at 651-777-5309.



You can check out the auction 'rules' at the SPRC website: <http://www.stpaulradioclub.org/> Take advantage of this opportunity to kick winter in the teeth and have some fun twisting knobs and meeting fellow hams. Helping out the Spectrum Defense Fund is a great benefit of the activity!

BREAK - OVER

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

WINTER FIELD DAY

Jan. 27 - 28, 2018

Cold, wind, snow, Winter Field Day, are you nuts? Well, coupled with the fact that emergencies are not limited to the warm, sunny months and to foster Ham camaraderie, a group of Hams began Winter Field day.

The Winter Field Day event combines field operation, emergency operating preparedness, and just plain on the air, outdoor fun in the midst of winter for American, Canadian and DX Amateurs. Don't let those winter doldrums keep you locked up in the house... get out and play some radio!!

When: Winter Field Day runs for 24 hours during the last full weekend in January each year from 1900 UTC (2pm EST) Saturday to 1900 UTC (2pm EST) Sunday. For 2018, the dates are January 27th and 28th. Station set-up may commence no earlier than 1900 UTC (2pm EST) on Friday, January 26th. Station setup may consume no more than 12 hours total. How & when you schedule/spend those 12 hours is up to you.

Bands: All Amateur bands, HF, VHF, & UHF except 12, 17, 30 and 60 meters.

Winter FD *cont'd on page 2*

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, January 13th

Digital Monday, January 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: 3.568 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

WINTER FIELD DAY - cont'd from page 1

Modes: Any mode... CW, SSB, AM, FM, DStar, C4FM, DMR, Packet, PSK, SSTV, RTTY, Olivia, Satellite, etc...

Where - Suggested Frequencies: (to make it easier for entrants to find each other)

HF CW – 1810-1820, 3.530-3.550, 7.030-7.050, 14.035-14.055, 21.030-21.050, 28.030-28.040

HF SSB – lowest 30 kHz of the US General Class Phone bands (160m- 15m), 28.400-28.425MHz (10m) 6m/VHF/UHF – adjacent to, but not on, nationally recognized simplex calling channels.

Entry categories: (..if operating as a group under one call, all stations in your entry must fit the category you choose. Also see further clarification in “definitions” below)

- Indoor: Operation from inside a remote, insulated, heated (or cooled, depending on your local weather), and weather-protected structure where an Amateur station is normally not available. (Park buildings/cabins, community center, EOC, senior center, club shack, etc).

- Outdoor: Operation from a location partly or fully exposed to the elements and at least 30 feet away from your normal station location and not using any part of a previously erected antenna system or ham station. A campground, park pavilion, canopy, picnic table, tent, pop-up camper, or a backyard shed/tent/deck, etc may be used. Operation from a non-insulated car/truck/van/boat (mobile or not) is considered “outdoor”.

- Home: Operation from inside a home or inside another structure attached to a home that could or would be the usual location of an Amateur station (garage, sunroom,

cont'd from col 1

etc), generally using a previously erected antenna system. A “Home” entrant may still be eligible to claim the “alternate power” bonus if not using commercial power. Use of any pre-existing (on site) or permanently installed antenna system or station components renders your station a “Home” station.

Entry Class: your entry “class” is a number designated by the number of stations in your entry that are capable of simultaneous transmission.

Exchange: Your WFD exchange will be a combination of your “class” and “category” and your ARRL section as described below, using an appropriate letter designator or phonetics (examples: 1I, 2H, 5I, 6O, 3H, 9I, etc) In short: Call sign, Class + Category, ARRL Section.

Example: K4YM this is KB8X, we are Two Hotel, Ohio ..or in CW: K4YM de KB8X TU 2H OH...

KB8X this is K4YM, thank you, we are Twelve India, West Central Florida ..or in CW: KB8X TU 12I WCF

QSO Points: 1 point per Phone QSO, 2 points per CW & Digital QSO... Busted exchanges will be penalized by 1 additional point for each missed exchange or call sign. Duplicate contacts (same call, band, and mode) will not be counted, but will not be penalized.

If you shiver just looking out the window, that’s okay. Just turn on the radio and make some contacts as a part of the fun! Enjoy yourself with the greatest hobby in the world and improve your skills as a side benefit. Check out the Winter Field Day site for complete information: www.winterfieldday.com/

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
Chad Palm KD0UWZ
Chaska, MN
KD0UWZ at scottares.org



Mozambique IOTA Op

OPDX Bulletin

C8, MOZAMBIQUE (IOTA Op). Operators Johannes/PA5X (C93PA) and Gerben/PG5M will be active as C8X and C81G, respectively, from Ibu Island, Mozambique, between January 28th and February 4th. Ibu Island is in the Cabo Delgado District IOTA group and counts for AF-061.

Activity will be on 80-10 meters, including 60 meters and using modes CW, SSB and FT8. Equipment will be FT-5000 and Elecraft K3, Acom1010 and Expert 1.3K-FA, 5-band Hexbeam with pentaplexer, 40/60/80m verticals and 30m VDA. They will upload logs several times a day (internet permitting) to ClubLog (the preferred method).

QSL C8X via PA5X, and C81G via PG5M or his OQRS at <http://www.dx.to/oqrs/>.

Amateur Radio License Exam

Want to become a ham? Want to upgrade your license? You can find information and resources to success in ham radio at this page: <http://www.scottares.org/License Info.htm>

If you want to ask questions or find a local Elmer (Mentor) just drop an email to: newhaminfo@scottares.org

The hams in Scott ARES gather for breakfast the first Saturday of the month at the Perkins Restaurant in Savage. Bring you ham radio questions and talk to local amateur radio operators.

Now that you have done the work to study for your upgrade, here is where to find a convenient exam session near you. There is a VE exam search engine at: http://www.arrrl.org/exam_sessions/search

Walk-ins allowed at most sessions however it is always best to check the details at the specific session you are planning to attend. Below is a list of scheduled sessions close to Scott County. Good Luck!

January 29, 2018 Monday 6:00 PM

Sponsor: SMARTS

Dale A. Blomgren (952) 402-2155

Email: kdzerob@aol.com

Location: Carver County Library

7711 Kerber Blvd

Chanhassen MN 55317

Walk-ins allowed, Pre-reg requested

February 3, 2018 Saturday 10:00 AM

St Paul Radio Club

Leon H. Dill (651) 688-9964

Email: w0cof@arrrl.net

Location: Ramsey Co Library Maplewood

3025 Southlawn Dr

Saint Paul MN 55109-1577

Walk-ins allowed, Pre-reg requested

February 26, 2018 Monday 6:00 PM

Sponsor: SMARTS

Dale A. Blomgren (952) 402-2155

Email: kdzerob@aol.com

Location: Carver County Library

7711 Kerber Blvd

Chanhassen MN 55317

Walk-ins allowed, Pre-reg requested

March 3, 2018 Saturday 10:00 AM

St Paul Radio Club

Leon H. Dill (651) 688-9964

Email: w0cof@arrrl.net

Location: Ramsey Co Library Maplewood

3025 Southlawn Dr

Saint Paul MN 55109-1577

Walk-ins allowed, Pre-reg requested

cont'd col. 2

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.

Strap on your thinking cap and see what you can recall. Here is this month's sample:

1. Which value of an AC signal results in the same power dissipation as a DC voltage of the same value?
A. The peak-to-peak value
B. The peak value
C. The RMS value
D. The reciprocal of the RMS value
2. What causes a voltage to appear across the secondary winding of a transformer when an AC voltage source is connected across its primary winding?
A. Capacitive coupling
B. Displacement current coupling
C. Mutual inductance
D. Mutual capacitance
3. If three equal value resistors in parallel produce 50 ohms of resistance, and the same three resistors in series produce 450 ohms, what is the value of each resistor?
A. 1500 ohms
B. 90 ohms
C. 150 ohms
D. 175 ohms

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

December General Pool Answers

1. How many watts are dissipated when a current of 7.0 milliamperes flows through 1.25 kilohms?
A. Approximately 61 milliwatts
2. What is the turns ratio of a transformer used to match an audio amplifier having a 600-ohm output impedance to a speaker having a 4-ohm impedance?
A. 12.2 to 1
3. Which of the following is one effect of lead inductance in a capacitor used at VHF and above?
A. Effective capacitance may be reduced

BREAK - OVER

cont'd from col. 1

March 26, 2018 Monday 6:00 PM

Sponsor: SMARTS

Dale A. Blomgren (952) 402-2155

Email: kdzerob@aol.com

Location: Carver County Library

7711 Kerber Blvd

Chanhassen MN 55317

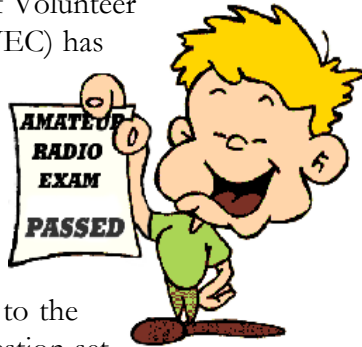
Walk-ins allowed, Pre-reg requested

BREAK - OVER

Answers Here!

New Technician License Question Pool

The National Conference of Volunteer Examiner Coordinators (NCVEC) has announced the release of the 2018-2022 Amateur Radio Element 2 Technician class license question pool into the public domain. Each question pool must be published and made available to the public prior to its use as a question set, from which individual examinations are developed.



The new Technician license question pool contains 428 questions. It will become effective for all Technician class license examinations starting on July 1, 2018. (Hint: The answers are included with each question!)

Don't get excited. The actual Technician License test is only a 35 questions long representing each of the areas in the question pool. The General License test is also 35 questions while the Extra class exam is 50 questions.

You can find each of the three question pools here: <http://www.ncvec.org/>

Check out the Scott ARES site for info on study guides, practice exams, and the actual question pools. The license info is here: <http://www.scottares.org/License%20Info.htm>

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.

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/ and <http://www.scottares.org/NBEMS.htm>

Here are the most recent releases as of November 20, 2017.

Software	Version
Fldigi	4.0.12
Flwrap	1.3.4
Flmsg	4.0.3
Flamp	2.2.03

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.



First Thursday Net

Metro District Hospital Net

The Association of Emergency Radio Organizations (AERO) sponsors a Metro District ARES net held on the first Thursday of each month. The purpose of the net is to provide an opportunity to exercise Dual-band xcvrs installed at hospitals and clinics in the metro area. The net is open to all amateur radio ops and provides the opportunity to participate in a directed net and practice directed net procedures.



Everyone is welcome!

- First Thursday of each month
- 12:30PM (lunch time)
- 146.700 - (PL118.8)

BREAK - OVER

Surf's Up!

Surfing the web for interesting topics related to radio, building, computing, and anything else interesting along the way. Send your 'finds' to the editor and share the fun!

BITX40

www.n6qw.com/Bitx40.html

The Bitx40 Project as built by N6QW Check out one Ham's experience with the basic 40M transceiver. Single band HF for less than \$60! You will learn something without even trying.

N6QW BITX Hacks

bitxhacks.blogspot.co.uk/

Pete, N6QW, shares his BITX40 'enhancements' under the title of "Modifications, Hacks and Fun with the BITX40 boards".

Decoding Caps

www.robotoid.com/appnotes/electronics-capacitor-markings.html

You will find just about everything you want to know about decoding the values on those disc ceramic caps. Did you know the markings are based on picofarads, not microfarads?

Try FT8

www.g4ifb.com/FT8_Hinson_tips_for_HF_DXers.pdf

This guide is for the experienced FT8 op and the beginner and the curious would like to learn what it's all about.

BREAK - OVER

MN QSO Party

20th Annual

Saturday, February 3rd, 2018

Minnesota QSO Party is presented by the Minnesota Wireless Association. Highlites of the event include:

- New for 2018 - Operating FT-8 mode in the Minnesota QSO Party
- 8:00 AM CST (1400 UTC) Through 6 PM CST (2400 UTC)
- Plaques and Certificates for Winners in All Categories
- Special Gift of Minnesota Premium Wild Rice for Top 20 Non-Minnesota Scores!

Submit logs to mnqp@w0aa.org.

Minnesota ARES stations are encouraged to participate in the party. These stations will use "ARES" as their name in the exchange. See the MN ARES page (<http://www.w0aa.org/index.php/mn-ares>) for information on a new certificate that will be awarded for the top ARES station.

FT-8 mode in the Minnesota QSO Party Because of the gaining popularity of this mode, and several recent inquiries, we will accommodate QSO's made in this mode for the Minnesota QSO Party.

Making ten (10) or more QSO's in this mode will be awarded with 500 bonus points.

The standard exchange provided in WSJT of signal strength and grid square will be used. Identify participating stations by the using the CQ macros listed below.

Please do not attempt to merge contacts made in FT-8 mode with contacts made in the other modes. Start with a clean (empty) ADIF file in WSJT, and at the end of the QSO Party, email the ADIF file along with other contest logs to the sponsor. Rename the ADIF file to "*yourcall.ad?*".

Follow rules as listed for the MNQP. (i.e. no WARC band contacts, no non-MN to non-MN QSO's will be credited.) No multiplier credit will be given for FT-8 QSO's, ONLY the 500 point bonus credit.

Many of the mobile stations will be using APRS. You can track them with links on the Activity Map page (<http://www.w0aa.org/index.php/routes-a-aprs-tracks>) or the Mobile Operations page (<http://www.w0aa.org/index.php/mobiles>).

We encourage the use of spotting networks. In addition to the normal DX Cluster sites you may want to try the County Hunting Spots site (<http://ch.w6rk.com/>) and the Reverse Beacon Network (<http://www.reversebeacon.net/>).

The Resources page (<http://www.w0aa.org/index.php/resources>) contains links to tools to make your contest experience better.



Test Your NIMS Knowledge

This month we begin our review of ICS-200. This course is designed to enable personnel to operate efficiently during an incident or event within the Incident Command System (ICS). ICS-200 provides training on and resources for personnel who are likely to assume a supervisory position within the ICS.

Check your recall of the course material with this question.

1. A delegation of authority:
 - A. May be needed when the incident scope is complex or beyond existing authorities
 - B. Relieves the granting authority of the ultimate responsibility for the incident
 - C. Is required even if the Incident Commander is acting within his or her existing authorities
 - D. Specifies the Incident Action Plan to be implemented by the Incident Commander

Check next month's ARES Communicator for the solution

December NIMS Knowledge Solution

1. A delegation of authority:
 - A. May be needed when the incident scope is complex or beyond existing authorities

BREAK - OVER

Who's in front?

Phase difference

The mnemonic "ELI the ICE man" can be helpful in keeping track of the phase between the voltage and current in an AC circuit.

In a circuit with only an inductor and an AC power source, there is a 90° phase difference between the current and voltage - the voltage leads the current by 90°.

This is the ELI part...with an inductor (L), the emf (E) is ahead of the current (I).

In a circuit with only a capacitor and an AC power source, there is also a 90° phase difference between the current and voltage - the voltage lags the current in this case. This is the ICE part...with a capacitor (C), the voltage emf (E) is behind the current (I).



Eli at work. 1934

BREAK - OVER

BREAK - OVER

BICENTENNIAL CALLSIGN

AL2C - Alabama

Alabama Governor Kay Ivey made her Amateur Radio debut on December 14 — the state’s 198th birthday — at the same time becoming the first person to use the state’s bicentennial call sign, AL2C. Alabama will celebrate its 200th anniversary in 2019, and AL2C will be on the air for 2 years as part of the statewide celebration.

“I’m very excited to see the hard work that has been in the works for some time now to promote Amateur Radio in concert with the Alabama Bicentennial celebration,” said ARRL Alabama Section Manager JVann Martin, W4JVM, who was at the State Capitol for the event. “It was great to activate the brand-new call sign AL2C on Alabama’s 198th birthday, and we look forward to many more activities to come as we build up to Alabama’s 200th birthday.”

The Alabama Bicentennial Amateur Radio Club set up a D-Star VHF station in the Old House Chamber at the Alabama State Capitol in Montgomery. After announcing the Alabama Bicentennial Schools Initiative, Governor Ivey proceeded to the radio station, initiating contact with the Lee County Emergency Management Agency. The governor discussed the Alabama Bicentennial over the air, with Otto Arnoscht, N4UZZ, the AL2C Call Sign Trustee, serving as the control operator.

Also on hand were Alabama House of Representatives Public Information Officer Clay Redden, KC4YAU; Alabama ARRL Public Information Coordinator Ed Tyler, N4EDT; Autauga County Assistant Emergency Coordinator Trent Davis, KV4UZ, and Alabama Bicentennial Amateur Radio Club Treasurer Jason Smith, W4EGR, and Alabama ARRL State Government Liaison Christopher Hall, K4LIA, who also serves as Autauga County ARES EC and as the president of Alabama Bicentennial Amateur Radio Club. Hall established the Alabama Bicentennial Amateur Radio Club and AL2C in July and has been working with the Alabama Bicentennial Commission to promote Alabama’s Bicentennial.

On the other end of the conversation at Lee County Emergency Management Agency was Mike Watkins, WX4AL, the District Delta ARES Emergency Coordinator and Lee County ARES Emergency Coordinator.

BREAK - OVER



The Scott ARES net meets every Monday evening at 7:00 PM either on 146.535 simplex or on the first Monday of the month the WBORMK repeater 147.165 (PL 107.2).

The net is in a directed net format and provides the opportunity to practice working in an emergency net style.

There is help available in setting up and using NBEMS digital messaging software and generally a weekly digital message for practice.

Everyone is welcome to check in and contribute two cents worth!



ARES Breakfast

Saturday
February 10th 2018
7:30AM

Hy-Vee Market Grille,
6150 Egan Dr, Savage, MN

NECOS Schedule January 2017

The first Monday or the month the net is held on the WBORMK repeater, Carver. You will find WBORMK here: 147.165/765 PL 107.2

Date NECOS _____

January 2018

Jan 22nd N0BHC Bob

Jan 29th WA0DGW John

February 2018

Feb 5th KD0UWZ Chad - First Monday Net

Feb 12th N0BHC Bob

Feb 19th WA0DGW John