



ARES COMMUNICATOR

Information for Scott County Amateurs



December, 2016

Accurate, Reliable Emergency Communications for our Community

Volume 16, Number 12

St Paul Radio Club Annual Benefit Auction

Saturday, January 28th, 2017

8:30 a.m. to 1 p.m.

If you need an excuse to take a mid-winter break and chase the Cabin Fever, plan to take in the St. Paul Radio Club's auction and benefit a great cause.

The goal of the auction is to raise funds in support of the ARRL Spectrum Defense Fund. The net amount collected by the St. Paul Radio Club will be donated to the ARRL Spectrum Defense Fund!

The Amateur radio Relay League, ARRL, has maintained constant vigilance to protect the frequencies allocated to amateur radio operators. The support of ARRL members has enabled the ARRL to take decisive action throughout the years, including:

- Defeating the threat that Little Leo satellites posed to the 2-meter and 70-cm bands;
- Removing high-powered international broadcasting stations from the heart of the 40-meter band
- Working with the IA RU to gain global allocations at 135 kHz and 472 kHz
- Battling the Broadband Over PowerLine interference for six years successfully challenging the FCC in court on its prejudice that tainted the rulemaking process
- Defending microwave allocations against commercial wireless broadband;
- Seeking an international allocation at 60 meters (5 mHz).

Contributions to the Spectrum Defense Fund ensures that ARRL will have the resources to meet future challenges when they appear and to protect your operating privileges.

The auction site is Our Lady of Guadalupe Catholic Church, 401 Concord Street, Saint Paul, MN. You can find maps to the location at the Church's web page at:

www.archspm.org/places/places-detail.php?intResourceID=1411

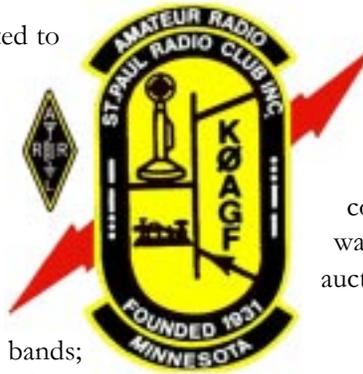
The ARES COMMUNICATOR is published for the benefit of Amateur Radio Operators in Scott County and other interested individuals.

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



Doors open at 8:30 for equipment check in, Sale will start at 9:30. Talk-in, for information and directions, is available on Magic Repeater, 145.17 – 100 Hz tone, the day of the event.

The St. Paul Radio Club offers the sellers an option of listing equipment for the live auction or a silent auction for the smaller or less important items.

If you have any questions about the auction, please contact Dale Maroushek, at n0pey@arrl.net or evenings at 651-777-5309.

FOOD will be available! The club will be selling coffee and pastries, hot dogs and chips, pop and water. Lisa's Sweets hopefully will be available at the auction as well.

BREAK - OVER

Merry Christmas

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, January 14th

Digital Monday, January 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

Auroras For Christmas?

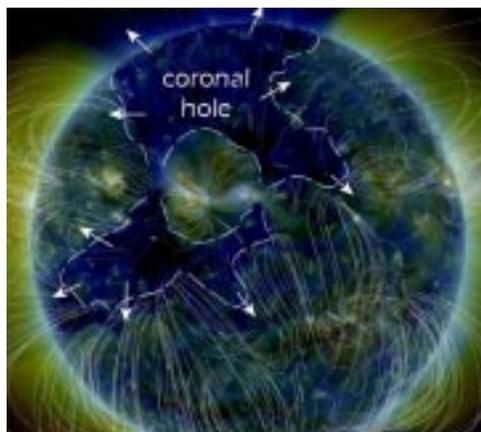
Lighting Santa's Way

Spaceweather.com

Earth is about to enter a stream of fast-moving solar wind. G1-class geomagnetic storms are expected to begin on Dec. 21st with magnetic unrest continuing through Dec. 25th. Sky watchers around the Arctic Circle should be alert for Northern Lights.

The source of the solar wind is a gigantic hole in the sun's atmosphere, now directly facing Earth. NASA's Solar Dynamics Observatory photographed the structure, which covers nearly 1/3rd of the solar disk:

This is a "coronal hole"—a region in the sun's atmosphere where the magnetic field opens up and allows solar wind to escape. We've actually seen this coronal hole before—at least twice. It is rotating around with the sun, strobing Earth like a lighthouse every ~27 days. The last two times we experienced its solar wind (Oct. 25-28 and Nov. 23-26), G1- and G2-class magnetic storms sparked bright polar auroras. A repeat performance is likely in the week ahead.



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Skywarn Spotter Social

January 21, 2017

Metro Skywarn is inviting MSW Spotters, NWS Skywatchers, and all members of the community interested in weather and spotting, to the annual Spotter Social Event. This year, we will be hearing from Kenny Blumenfeld, and will be showing his film, "The Story of Winter." Free pizza, beverages, popcorn, and snacks will be provided. Please RSVP on the Eventbrite page (<https://www.eventbrite.com/e/january-spotter-social-event-tickets-30432814367>) so we can anticipate food preparation.

The program includes a review of the Metro Area's worst severe weather outbreak on record by Dr. Kenny Blumenfeld. Dr. Kenny Blumenfeld is a climatologist with both professional and personal interests in weather extremes and the climatology of Minnesota. He will be presenting on the May 6, 1965 tornado outbreak.



Dr. Kenny Blumenfeld

Following Dr. Blumenfeld's talk, the film, *The Story of Winter* will be shown. This movie, made by Dr. Blumenfeld, explores Minnesota's iconic winter season as both a scientific topic, and as a social and cultural experience. It includes footage, commentary, and interviews from the 2012-13, and 2013-14 winters, all within Minnesota.

We will be having this event at Bloomington Civic Plaza. The address is 1800 W. Old Shakopee Road, Bloomington, MN 55431.

The event will be in the Haeg Conference Room on the second floor. Enter using the Police Department entrance on the southwest corner. Room capacity is 55 people, so please RSVP to claim your spot(s).

Pizza, beverages, popcorn, and snacks will be provided. Please update or cancel your RSVP if you cannot attend so that your spot may be used by someone else. You do not need to bring your ticket, but we will use the RSVP list to plan for food.

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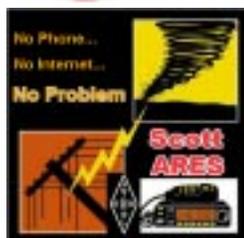


Scott County ARES Contacts

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



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 7, 2017 Saturday 10:00 AM

St Paul Radio Club

Leon H. Dill (651) 688-9964

Email: w0coe@arrrl.net

Location: Ramsey Co Library Maplewood

3025 Southlawn Dr

Saint Paul MN 55109-1577

Walk-ins allowed, Pre-reg requested

January 11, 2017 Wednesday 7:00 PM

Sponsor: VARC

James C. Rice (612) 384-7709

Email: jrice@danpatch.org

Location: Perkins Restaurant & Bakery

17387 Kenyon Avenue

Lakeville MN 55044-4459

Walk-ins allowed, Pre-reg requested

January 23, 2017 Monday 6:00 PM

SMARTS

Dale A. Blomgren (952) 402-2155

Email: kd0b@arrrl.net

Location: Carver County Library

7711 Kerber Blvd

Chanhausen MN 55317

Walk-ins allowed, Pre-reg requested

February 4, 2017 Saturday 10:00 AM

St Paul Radio Club

Leon H. Dill (651) 688-9964

Email: w0coe@arrrl.net

Location: Ramsey Co Library Maplewood

3025 Southlawn Dr

Saint Paul MN 55109-1577

Walk-ins allowed, Pre-reg requested

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. What frequency range is occupied by a 3 kHz LSB signal when the displayed carrier frequency is set to 7.178 MHz?
A. 7.178 to 7.181 MHz
B. 7.178 to 7.184 MHz
C. 7.175 to 7.178 MHz
D. 7.1765 to 7.1795 MHz
2. What is the purpose of a "corona ball" on a HF mobile antenna?
A. To narrow the operating bandwidth of the antenna
B. To increase the "Q" of the antenna
C. To reduce the chance of damage if the antenna should strike an object
D. To reduce high voltage discharge from the tip of the antenna
3. Why is it best NOT to draw the DC power for a 100-watt HF transceiver from an automobile's auxiliary power socket?
A. The socket is not wired with an RF-shielded power cable
B. The socket's wiring may be inadequate for the current being drawn by the transceiver
C. The DC polarity of the socket is reversed from the polarity of modern HF transceivers
D. Drawing more than 50 watts from this socket could cause the engine to overheat

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

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November General Pool Answers

1. In what ITU region is operation in the 7.175 to 7.300 MHz band permitted for a control operator holding an FCC-issued General Class license?
B. Region 2
2. Where is an S meter found?
A. In a receiver
3. How much must the power output of a transmitter be raised to change the S- meter reading on a distant receiver from S8 to S9?
C. Approximately 4 times

Spirit of Christmas on the Air

Elves at OF9X Bring the Spirit of Christmas to Ham Radio

As in past years, Santa Claus will be spreading the spirit of Christmas via Amateur Radio, but this year the elves are taking over the show. Twelve elves are operating OF9X (“Old-Father-Nine-Christmas”) for the entire month of December, each with a 3-letter identification. Radio amateurs can work OF9X on all bands and modes, from 630 meters (where authorized) to 70 centimeters. Each contact is worth 1 point for stations in Europe and 2 points for stations outside Europe. The elves provide the multiplier — up to 12 — to determine your final score. Only contacts made in 2016 are valid. Logs are available on ClubLog (<https://secure.clublog.org/logsearch/OF9X>), and the log will indicate which elf was worked, in case you miss the ID.



Certified reindeer driver and Laplander Pertti “Pete” Koivula, OH2BEE/OH9U, is giving Santa a face and voice this year. Koivula is a well-known Finnish actor.

The elves on the air and their 3-letter IDs are Arto, OH2KW (ART); Arttu, OH2FB (ATU); Jyri, OH2KM (JYR); Martti, OH2BH (MAR); Niko, OH2GEK (NIK); Pauli, OH5BQ (PAU); Pekka, OH2TA (PEK); Pertti, OH2BEE (PER); Raimo, OH2BCI (RAI); Tom, OH6VDA (TOM); Pertti, OH2PM (SIM), and Erik, OH2LAK (LAK).

Three awards are available: SKC Award (Santa is King of Christmas) — at least 50 points; WMC Award (Warm and Memorable Christmas) — at least 35 points, and RNS Award (Remember those Red Nose Elves) — at least 20 points.

E-mail (of9xawards@sral.fi) your log and your point calculation by January 5, 2017. Full-color award certificates will be sent via return mail. Include the name to be printed on the award and your e-mail address.

High-scoring operators and their children on each continent will be offered an opportunity to speak with Santa during

Christmas week. Details will be available on the OF9X QRZ.com profile page.

This year’s OF9X activity will commemorate ARRL President Emeritus Jim Haynie, W5JBP (SK), who conceived of “The Big Project” to get Amateur Radio into classrooms. The project became the present-day ARRL Education & Technology Program.

The OF9X Santa Activity patron is Finland’s Prime Minister Juha Sipilä, who has said that “using the latest technology to promote Santa is valuable support for Finland and helps make this Christmas a special one.”

The OF9X activity is supported by the Finnish Telecommunications Regulatory Authority and the Finnish Amateur Radio Association (SRAL), and is organized by Radio Club of Pusula, OH9W, with Radio Arcala, OH8X, of Oulu in the frozen North.

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S557E Special Event

S5 - Slovenia

by Daily DX

Members of the Radio club Cerkno, S50E will be active as special event callsign S557E throughout 2017. Activity is to celebrate the 60th club foundation anniversary since year 1957.

A special QSL will confirm each contact via the bureau in early 2018. Log will be uploaded on ARRL LoTW on a regular basis. For those who want to send card direct please send SASE with 2 IRC or 2 USD to cover return postage to QSL manager Miran Voncina S50O, Cvetkova 35, 5282 Cerkno, Slovenia with priority return when getting cards from the printer.

Cards with insufficient postage or no return envelope will be returned via the QSL bureau. Please visit <http://www.s50e.si> for more information.

Information courtesy of The Daily DX. Check out a two week free trial at: www.dailydx.com/trial.html

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Surf's Up!

Surfing the web for interesting topics related to radio, building, computing, and anything else interesting along the way.

The Bald Engineer

<https://www.baldengineer.com/category/tutorials/electronics-basics>

James says he has a passion for teaching non-engineers and can boil seemingly difficult concepts down to the core. The AddOhms posts carry a lot of good basic info.

Random Nerd Tutorials

<http://randomnerdtutorials.com/tutorials/>

If you are curious about what can be accomplished with an Arduino or Raspberry Pi, you can see an afternoon disappear rapidly! You have been warned.

Mooshimeter

https://www.circuitspecialists.com/mooshimeter_wireless_multimeter.html

The Mooshimeter is a multi-channel circuit testing meter that uses your smartphone or tablet, through Bluetooth 4.0, as a wireless, high-resolution graphical display. Safely measure 600V and 10A with 24bit resolution from up to 150 feet away while logging results for up to 6 months.

RFI with SDR

<http://nk7z.net/sdr-rfi-survey-p1/>

This is part one of a project explaining how to use software defined radio to track and identify radio frequency interference.

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

Here are the most recent releases as of November 20, 2016.

Software	Version
Fldigi	3.23.18
Flwrap	1.3.4
Flmsg	4.0.1
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.

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. Branches within the ICS organization can be established:
 - A. Along agency jurisdictional lines
 - B. Geographically or functionally
 - C. Within Groups to organize resources
 - D. Under the supervision of a Leader

Check next month's ARES Communicator for the solution

BREAK - OVER

— // —

*“Always be on the lookout
for the presence of wonder.”*

E.B. White

November NIMS Knowledge Solution

1. Select the TRUE statement:
 - B. Upon arriving at an incident the higher ranking person will either assume command, maintain command as is, or reassign command to a third party

BREAK - OVER



False Distress Call = Jail!

Penalty for Unlicensed False Distress Call

ARRL Letter

The FCC has affirmed a \$23,000 penalty against Daniel Delise of Astoria, New York, for operating without an Amateur Radio license on 147.96 MHz and for transmitting a false officer-in-distress call on a New York City Police Department (NYPD) radio channel. The FCC's December 5 *Forfeiture Order* follows its August 31 *Notice of Apparent Liability for Forfeiture (NAL)*, which detailed a history of complaints and alleged illegal radio operation by Delise dating to 2012.

"The penalty represents the full amount proposed in the *Notice of Apparent Liability for Forfeiture*, and is based on the full base forfeiture amount as well as an upward adjustment reflecting Mr. Delise's decision to continue his misconduct after being warned that his actions violated the Communications Act and the Commission's rules," the FCC *Forfeiture Order* said. The FCC said Delise's response to the *NAL* offered "no reason to cancel, withdraw, or reduce the proposed penalty."



Last summer, ARRL Hudson Division Director Mike Lisenco, N2YBB, credited the intervention of New York Rep. Peter King with getting the case "off the back burner and up to the front of the line." Lisenco and ARRL General Counsel Chris Imlay, W3KD, met with the Republican congressman in January to discuss ongoing interference issues in the Greater New York City/Long Island area. King subsequently wrote FCC Chairman Tom Wheeler to urge "timely and visible enforcement."

The September 15 response to the *NAL* did not deny that Delise violated the Communications Act and FCC rules but argued that the FCC should reduce or cancel the fine because he is currently incarcerated and has no income or assets. The FCC turned away that argument, saying that Delise did not provide any documentation to substantiate his claim of inability to pay.

Last April, the FCC Enforcement Bureau issued a *Notice of Unlicensed Operation*, after determining that Delise was transmitting on 147.96 MHz, a repeater input. Not long after, the NYPD informed an FCC field agent that police had taken Delise into custody for "sending out false radio transmissions" over the NYPD radio system and for possessing radios capable of operating on NYPD frequencies, in violation of state law.

Delise, who could have been fined more than \$140,000, has 30 days to pay the fine. He's now in prison as a result of the false police call and guilty pleas to other charges. **BREAK - OVER**

DA VINCI GLOW

Check out the 'Earthshine'

SpaceWeather.com

If you go outside to witness the meeting of Venus and the crescent Moon, pay special attention to the Moon. Cradled between the arms of the slender crescent is a display of light and shadow that puzzled sky watchers for thousands of years—until Leonardo da Vinci figured it out. It's the "Da Vinci glow," also known as Earthshine.



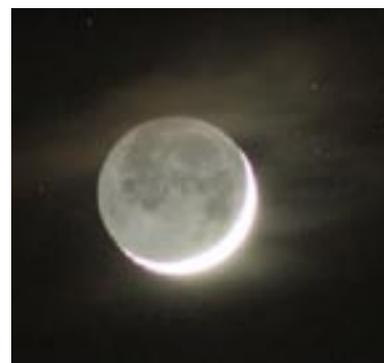
Da Vinci's sketch of Earthshine in 1510 vs. Italian astronomer Riccardo Di Nasso's photo of Earthshine in 2006.

For much of human history, people marveled at the faint image of the full Moon inside the arms of the crescent. Where did it come from? No one knew until the 16th century when Leonardo figured it out. He realized that dark lunar terrain was being illuminated by sunlight reflected from Earth.

Visualizing this in the 1500s required a wild kind of imagination. No one had ever been to the Moon and looked "up" at Earth. Most people didn't even know that Earth orbited the sun. Copernicus' sun-centered theory of the solar system wasn't published until 1543, twenty-four years after Leonardo died.

Wild imagination, however, was one thing Leonardo had in abundance. His notebooks are filled with sketches of flying machines, army tanks, scuba gear and other fantastic devices centuries ahead of their time.

In Leonardo's *Codex Leicester*, circa 1510, there is a page entitled "Of the Moon: No Solid Body is Lighter than Air." He states his belief that the "ghostly glow" is due to sunlight bouncing off Earth's oceans and, in turn, hitting the Moon. 500 years later, we know that Earth's clouds (not oceans) do most of the reflecting; but that is a quibble. Leonardo understood the basics well enough. **BREAK - OVER**



Richard Sears of Merced, California, took the picture. "I was getting ready for the Venus-Moon conjunction," he says. "The Earthshine was gorgeous."

Be Burn Aware

Tips for a safe holiday season

According to an independent survey commissioned by Shriners Hospitals for Children, many people do not follow key fire and burn safety tips during the holiday season, which can be the most dangerous time of year. To help reduce fires and burns, Shriners Hospitals for Children is spreading important prevention messages through its *Be Burn Aware* campaign.

Shriners Hospitals for Children recommends a few simple fire safety tips to ensure that you and your loved ones have a safe holiday season.

Tree care and holiday decorations

- Water trees daily. Discard when dry.
- Keep trees away from heaters and flames.
- Inspect lights for bare wires, frays or kinks.
- Never use indoor lights outside.



Shriners Hospitals
for Children®
Twin Cities

Holiday cooking

- Keep an eye on what you fry.
- Turn pot handles toward the back of the stove so children cannot reach them.
- Wear short sleeves or roll sleeves up when cooking.
- Keep a pan lid or cookie sheet nearby to cover the pan if it catches fire.

Candle care

- Consider using battery-operated flameless candles.
- Never leave lit candles unattended.
- Place candles in stable holders away from children, pets and flammable objects.

Natural gas

- Teach every member of the house how to recognize the slightly sweet, sticky smell of natural gas. Some compare it to the smell of rotting eggs or food.
- Leave the house immediately if you think you smell natural gas and call your gas company or 911 for assistance once you are safely away.

Be prepared

- Make sure your home is equipped with working smoke alarms and fire extinguishers.
- Have a fire escape plan for your home and practice it regularly.

BREAK - OVER

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

Scottish New Year Toast



ARES Breakfast

Saturday
January 14th 2017!!
7:30AM
Perkins Restaurant
Savage, MN

NECOS Schedule January 2017

The first Monday or the month the net is held on the WB0RMK repeater, Carver. You will find WB0RMK here: [147.165/765 PL 107.2](https://www.facebook.com/WB0RMK)

Dec 26 N0BHC Bob
January 2017
Jan 2 KB0FH Bob
Jan 9 WA0DGW John
Jan 16 KD0UWZ Chad
Jan 23 KB0FH Bob
Jan 30 WA0DGW John