



# ARES COMMUNICATOR

Information for Scott County Amateurs



May, 2019

Accurate, Reliable Emergency Communications for our Community

Volume 19, Number 5

## Field Day 2019

June 22nd - 23rd

ARRL Field Day is the most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June, more than 35,000 radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations

The objective is to work as many stations as possible on the 160, 80, 40, 20,15 and 10 Meter HF bands, as well as all bands 50 MHz and above, and to learn to operate in abnormal situations in less than optimal conditions. Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and



countries within IARU Region 2. DX stations residing in other regions may be contacted for credit, but are not eligible to submit entries.

Find a Field Day site near you or input your site to share with others. ([www.arrl.org/field-day-locator](http://www.arrl.org/field-day-locator)).

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

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## Volunteer Monitor Positions

Applications being accepted

ARRL is now accepting applications ([www.arrl.org/files/file/Volunteer/Monitor/Application.pdf](http://www.arrl.org/files/file/Volunteer/Monitor/Application.pdf)) from individuals interested in becoming part of the new Volunteer Monitor program, a joint undertaking of the FCC and ARRL. The program seeks volunteers who — working under the direction of ARRL — will monitor and survey the Amateur Radio bands both to detect improper activity and to recognize exemplary on-the-air behavior.



Prospective Volunteer Monitors must be ARRL members. They will undergo a training and certification program administered by ARRL, and will be vetted by ARRL through at least one oral interview and a preliminary evaluation by ARRL.

Volunteer Monitors *cont'd on page 2*

## ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, June 8th

Digital Monday, June 10th

### 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

## Volunteer Monitors - cont'd from page 1

staff. Such requirements will continue for Volunteer Monitors once they are selected.

Volunteer Monitors will serve 3-year terms at the pleasure of ARRL, and ARRL will reserve the right to terminate the participation of any Volunteer Monitor for any reason.

Volunteer Monitors must be able to utilize state-of-the-art receiving equipment and to access no-cost remote receive sites, if requested. Applicants must possess strong writing and communication skills and an understanding of the importance of thorough documentation. They must have basic word processing and data entry skills and be able to send such information, including recordings, to ARRL electronically.

Applicants must have no history of warning letters or other enforcement-related action from the FCC, must hold a Technician or higher class license, and must have been licensed for at least 3 years.

Applicants should send applications to volunteer-monitor@arrl.org for processing.

In February, Riley Hollingsworth, K4ZDH, was named to oversee the development and implementation phases of the Volunteer Monitor program, which will replace the Official Observer (OO) program. Hollingsworth once handled Amateur Radio enforcement for the FCC.

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**Congrats  
Graduates!**

### Scott County ARES Contacts

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Savage, MN 55378  
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Asst Emergency Coordinator  
Chad Palm KD0UWZ  
Chaska, MN  
KD0UWZ at scottares.org



## Test Your NIMS Knowledge

This month we begin our review of ICS-700, An Introduction to National Incident Management System. This course is designed to enable personnel to operate efficiently during an incident or event within the Incident Command System (ICS). ICS-700 provides an overview of the NIMS structure.

Check your recall of the course material with this question.

1. Unified Command:
  - A. Assigns a single Incident Commander to assume unity of command and make decisions for all jurisdictions.
  - B. Enables all agencies with responsibility to manage an incident together by establishing a common set of incident objectives and strategies.
  - C. Requires that employees report to several different Incident Commanders, each representing each jurisdiction.
  - D. Obligates all responsible agencies to pool their resources without consideration to the terms of mutual aid and assistance agreements.

*Check next month's ARES Communicator for the solution*

## April NIMS Knowledge Solution

1. Who is the individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources?
  - A. Incident Commander



## NBEMS Current Versions

The current version of the Fldigi manual is available at NBEMS Info page at [www.scottares.org](http://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/](http://www.w1hkj.com/) and [www.scottares.org/NBEMS.htm](http://www.scottares.org/NBEMS.htm)

Here are the most recent releases as of May20,2019.

Software	Version
Fldigi	4.1.01
Flwrap	1.3.4
Flmsg	4.0.8
Flamp	2.2.04

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.





## Red Cross & FEMA Demo

### Digital Modes Demo

Just days ahead of the 2019 hurricane season, dozens of hams along the US East Coast will demonstrate Amateur Radio’s ability to deliver messages without commercial power, infrastructure, or permanently established stations for officials of the American Red Cross and the Federal Emergency Management Agency (FEMA). The Thursday, May 23, event will take place in coordination with ARRL, during a joint meeting with Red Cross and FEMA officials in Baltimore. The demonstration will be a mock response to a simulated disaster scenario — a major hurricane with mass casualties striking the east coast. Amateur Radio operators at portable stations from New England to the Carolinas will deliver messages to W1AW, which will then coordinate and deliver the information to officials attending the joint FEMA-Red Cross meeting in Baltimore.

Messaging will be handled using digital modes, which can allow for the transmission of images as well as text, as a



showcase for the full range of modern Amateur Radio technology. The American Red Cross will also have a NexGen Emergency Response Vehicle parked at W1AW in Connecticut as part of the training exercise, which will take place from 1330 to 1530 UTC.

ARRL and its members have a long history of working with emergency response agencies, such as the American Red Cross and FEMA, to provide or support communication in times of disaster for served agencies and partners. A principal served agency, the Red Cross shelters, feeds, and provides emotional support to victims of disasters.

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## Wireless Power

### 24 GHz Wireless Power Transfer Device

The FCC Office of Engineering and Technology (OET) is seeking comments in ET Docket 19-83 on a request by Auspion USA, Inc. to waive the Industrial, Scientific, and Medical (ISM) rules’ “local use” requirement (FCC Part 2 and Part 18 rules) for a 24 GHz wireless power transfer device over distance. On January 3, Auspion requested a waiver of FCC rules to allow it to obtain a grant of equipment authorization for the marketing and operation of a non-“consumer system using transmission of wireless power over distance. Auspion’s “WiPod” system would provide power to, and/or charge, receivers located at various distances from the transmitter.

§18.107(c) of the rules defines ISM devices as “[e]quipment or appliances designed to generate

and use [local] RF energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunication.” Auspion requests that the Commission waive the “local use” condition, as specified in ISM Part 18 rules to allow its system to operate at distances greater than 1 meter between the transmitter and receivers, as long as the transmitted power is directed to very precise locations (called “power spots”) where the receivers are sited. Auspion plans to market its system exclusively for industrial, retail, and enterprise applications, such as charging industrial robots, warehouse-based drones, and smartphones in conference rooms.



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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. Send your 'finds' to the editor and share the fun!

### Azimuthal Map

<https://ns6t.net/azimuth/azimuth.html>

Create an azimuthal map for any location on the globe. The location can be a latitude, longitude, a Maidenhead grid square, or a city name. Print or save as a PDF.

### Pop the Top on a Hard Drive

<https://www.hackster.io/ingo-lohs/teardown-a-seagate-harddisk-df66ba>

Open a Seagate Barracuda to take a look at what's inside

### Pocket O'scope!?

<https://blog.hackster.io/chopsticks-and-spoon-case-turned-into-pen-style-oscilloscope-dc5a310cda8c>

Chopsticks and spoon case along with an Arduino and OLED display are turned into pen-style oscilloscope. Check out the video.

### WTH

<http://www.whiskeytangohotel.com/>

This teaser gives you a clue about the site: Note: As presented this project requires a FCC Amateur Radio license. Amateur Radio is about experimentation.

### 1779 Results!

<https://hackaday.io/search?term=amateur+radio>

Warning! Browsing down the list of applications will use a lot of time :-)

### Surface Mount Re-work

[www.silabs.com/documents/public/application-notes/an114.pdf](http://www.silabs.com/documents/public/application-notes/an114.pdf)

Silicon Labs published an application note that goes into extreme detail on how to solder QFP packages into prototypes. Check out the fantastic pictures showing steps of the process.

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## No Vanity Fee

Oops!

An erroneous report this week suggested that the FCC planned to again impose an Amateur Radio vanity call sign application (regulatory) fee of \$70 for the 10-year term. This incorrect conclusion resulted from an incomplete reading of the May 7 FCC *Notice of Proposed Rulemaking (NPRM)* in the matter of the assessment and collection of regulatory fees for fiscal year 2019.

Although the Schedule of Regulatory Fees does show a \$7 annual fee for Amateur Radio vanity call signs, a boldface heading in that section of the *NPRM* states, "**REGULATORY FEES. This section is no longer in effect as it has been amended by RAY BAUM'S Act of 2018...**" Section 9(e)(2) of RAY BAUM'S Act gives the Commission discretion to exempt a party from paying regulatory fees when the FCC determines that the cost of collection exceeds the amount collected. A new section 9(e)(1) incorporated the Amateur Radio vanity fee exemption from FCC rules into the statute.

The *NPRM* makes clear in several other places that regulatory fees no longer apply to Amateur Radio licenses. The FCC eliminated the regulatory fee for Amateur Radio vanity call signs in 2015.

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## First Thursday Net

### Metro District Hospital Net

The Metro District ARES Hospital net is 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)



## Public Service Events

### JUNE

#### Jun 7-8

MS 150 Ride 2019  
White Bear Lake, MN

Sign up:

[https://secure.nationalmssociety.org/site/SPageServer?pagename=BIKE\\_HOM\\_events](https://secure.nationalmssociety.org/site/SPageServer?pagename=BIKE_HOM_events)

#### June 15 & 16

2019 Minnesota Air Show Spectacular  
Mankato Airport  
US AIR FORCE Thunderbirds Performing  
Providing Perimeter Safety and Parking Lot Safety for the weekend under Mankato PD/SERT Team and lead by local ham and county E-C Steve Csizmadia/K2KLN  
contact Steve: [k2kln@arrl.net](mailto:k2kln@arrl.net)

### JULY

#### July 4th

City of Richfield 4th of July Parade  
July 4th – 8:30 AM – 4 PM  
Contact: [Thomas.york@botmail.com](mailto:Thomas.york@botmail.com) Thursday,

#### July 21st

Ride Across Minnesota 2019 Willmar, MN  
Jul 21, 2019 - Multiday  
Sign up: [https://secure.nationalmssociety.org/site/SPageServer?pagename=BIKE\\_HOM\\_events](https://secure.nationalmssociety.org/site/SPageServer?pagename=BIKE_HOM_events)

#### July 21st

HOLT Triathlon  
Annandale, MN  
Sunday, 8 AM  
Contact: [WB0TRA@Gmail.com](mailto:WB0TRA@Gmail.com)

#### July 27th

Chaska River City Days 5K Run  
Saturday, – 8 AM  
Contact: [jozu.jones@gmail.com](mailto:jozu.jones@gmail.com)

### AUGUST

#### August 3rd

Tour De Tonka –  
7 AM – 12-Noon  
28 Mile Course Carver/Orono  
Sign up at [ARES.MN.org](http://ARES.MN.org)

#### August 3rd

Waseca Sprint Triathlon – Waseca Radio Club/  
Waseca, MN –  
Clear Lake Park 8 AM  
Contact: Jon, [WB0ZFH@botmail.com](mailto:WB0ZFH@botmail.com)



## 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 is meant by the term ROM?
  - A. Resistor Operated Memory
  - B. Read Only Memory
  - C. Random Operational Memory
  - D. Resistant to Overload Memory
2. What is one disadvantage of an incandescent indicator compared to an LED?
  - A. Low power consumption
  - B. High speed
  - C. Long life
  - D. High power consumption
3. What safety feature does a power-supply bleeder resistor provide?
  - A. It acts as a fuse for excess voltage
  - B. It discharges the filter capacitors
  - C. It removes shock hazards from the induction coils
  - D. It eliminates ground-loop current

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

## Monday Evening 7PM

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!

## April General Pool Answers

1. What is the ratio of peak envelope power to average power for an unmodulated carrier?
  - B. 1.00
2. What is the capacitance of three 100 microfarad capacitors connected in series?
  - C. 33.3 microfarads
3. What is the capacitance of a 20 microfarad capacitor in series with a 50 microfarad capacitor?
  - B. 14.3 microfarads



## 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](mailto: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](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!

### May 25, 2019 Saturday 8:45 AM

Sponsor: Bloomington Off/Emergency Mgmt  
Daniel J. Royer (952) 888-9756  
**Email:** [dandroyer@gmail.com](mailto:dandroyer@gmail.com)  
Location: City Hall-Police Department  
1800 W Old Shakopee Rd  
Bloomington MN 55431

### June 1, 2019 Saturday 10:00 AM

St Paul Radio Club  
Leon H. Dill (651) 688-9964  
**Email:** [w0coec@arrrl.net](mailto:w0coec@arrrl.net)  
**Location:** Ramsey Co Library Maplewood  
3025 Southlawn Dr  
Saint Paul MN 55109-1577  
Walk-ins allowed, Pre-reg requested

### June 12, 2019 Wednesday 7:00 PM

Sponsor: VARC  
James C. Rice (612) 384-7709  
**Email:** [jrice@danpatch.org](mailto:jrice@danpatch.org)  
Location: Perkins Restaurant & Bakery  
17387 Kenyon Avenue  
Lakeville MN 55044-4459  
Walk-ins allowed, Pre-reg requested

### June 15, 2019 Saturday 9:00 AM

Sponsor: SEMARC  
Daniel M. Franz (651) 769-0358  
**Email:** [wd0gup@hotmail.com](mailto:wd0gup@hotmail.com)  
Location: Zion Lutheran Church  
8500 Hillside Trail South  
Cottage Grove MN 55016  
Walk-ins allowed, Pre-reg requested

Cont'd from col. 1

### June 17, 2019 Tuesday 6:00 PM

Sponsor: SMARTS  
Dale A. Blomgren (952) 402-2155  
**Email:** [kdzerob@aol.com](mailto:kdzerob@aol.com)  
Location: Carver County Library  
7711 Kerber Blvd  
Chanhassen MN 55317  
Walk-ins allowed, Pre-reg requested

### June 29, 2019 Saturday 8:45 AM

Sponsor: Bloomington Off/Emergency Mgmt  
Daniel J. Royer (952) 888-9756  
**Email:** [dandroyer@gmail.com](mailto:dandroyer@gmail.com)  
Location: City Hall-Police Department  
1800 W Old Shakopee Rd  
Bloomington MN 55431

### July 10, 2019 Wednesday 7:00 PM

Sponsor: VARC  
James C. Rice (612) 384-7709  
**Email:** [jrice@danpatch.org](mailto:jrice@danpatch.org)  
Location: Perkins Restaurant & Bakery  
17387 Kenyon Avenue  
Lakeville MN 55044-4459  
Walk-ins allowed, Pre-reg requested

### ARES Breakfast

Saturday  
June 8th 2019  
7:30AM  
**Hy-Vee Market Grille,  
6150 Egan Dr, Savage, MN**



## NECOS Schedule May 2019

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 _____
May 27th	- N0BHC Bob
June 2019	
June 3rd	- WA0DGW John First Mon. Net
June 10th	- KD0UWZ Chad
June 17th	- Volunteer
June 24th	- WA0DGW John