



# ARES COMMUNICATOR

## Information for Scott County Amateurs



April, 2019

Accurate, Reliable Emergency Communications for our Community

Volume 19, Number 4

## Volunteer Monitor Program

### ARRL Letter

ARRL and the FCC have signed a *Memorandum of Understanding (MOU)* that paves the way to implement the new and enhanced Volunteer Monitor program. The memorandum establishes the Volunteer Monitors as a replacement for the Official Observers (OO) program. Current OOs have been encouraged to participate in the new program.

“We are excited by the opportunity to codify our partnership with the FCC and to work together to achieve our mutual interests of protecting the integrity of our Amateur Radio bands,” said ARRL President Rick Roderick, K5UR. “This *Memorandum of Understanding* will serve as the foundation for a new level of partnership on this very important issue.”

ARRL has contracted with retired FCC special counsel and former Atlantic Division Vice Director Riley Hollingsworth, K4ZDH, to oversee the ARRL’s role in the development and implementation of the Volunteer Monitor program.

Approved by the ARRL Board of Directors at its July 2018 meeting, the new Volunteer Monitor program is a formal agreement between the FCC and ARRL in which volunteers trained and vetted by the ARRL will monitor the airwaves and collect evidence that can be used both to correct misconduct or recognize exemplary on-air operation. Cases of flagrant violations will be referred to the FCC by the ARRL for action in accordance with FCC guidelines.

The intent of this program is to re-energize enforcement efforts in the Amateur Radio bands. It was proposed by the FCC in the wake of several FCC regional office closures and a reduction in field staff.

“Under this program, the FCC will give enforcement priority to cases developed by the Volunteer Monitor program, without the delay of ARRL having to refer cases through the FCC online complaint process,” Hollingsworth said.

**Vol. Monitor** *cont'd on page 6*

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

## HELP NEEDED

Volunteers are needed for Net Control Station for the Monday evening Scott ARES Net. A sudden medical issue has forced the usual NECOS off the air for a while.

Serving as NECOS provides valuable experience in emergency communications. You never know when you might be expected to assume the NECOS role in an emergency. Gaining NECOS experience in a non-emergency setting is a real confidence builder.

The 7PM net meets the first Monday of the month on the Carver Repeater (147.165) while the remaining nets meet on 146.535s.

The Net is a directed net that runs under emergency operating procedures. There are detailed scripts for the NECOS on the Scott ARES website. To assume NECOS control or have your questions answered, just email Bob at N0BHC@ScottARES.org. Jump in and gain some fun experience.

## ARES Activities

**Weekly Net Monday 7 PM 146.535 mhz (s)**

**Breakfast Saturday, May 11th**

**Digital Monday, May 13th**

### 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

## ARRL Membership

The American Radio Relay League is the only national organization representing Amateur Radio in the US. As an ARRL member you support the ranks of thousands of other ham radio enthusiasts shaping the Amateur Radio service today. If you consider yourself an active ham... you need ARRL now. If you are not presently an active ham... let ARRL help you.

As a member of the ARRL, for as little as \$49.00 per year, here are some of the benefits you will enjoy:

- QST Magazine – your monthly membership journal
  - Online Services –
    - QST online monthly digital edition
    - QST Archive and Periodical Search
    - Product Review Archive
    - Email forwarding
    - E-Newsletters – delivered to your inbox
  - A voice in the affairs of ARRL and ham radio through locally appointed volunteers
    - Publication Specials and on-line course discounts
    - Emergency Communication Services
    - Technical and Regulatory Information Services
    - Operating Awards
    - Ham Radio Equipment Insurance Plan Available
    - Outgoing Foreign QSL Service
- Plus much more! <[www.arrl.org/membership](http://www.arrl.org/membership)>  
Take the next step in being an active participant in the future of ham radio. Join the ARRL today!



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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](http://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. 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
  - B. Operations Section Chief
  - C. Emergency Operations Center Manager
  - D. Agency Executive or Senior Official

Check next month's ARES Communicator for the solution

## March NIMS Knowledge Solution

1. The act of directing, ordering, or controlling by virtue of explicit statutory, regulatory, or delegated authority at the field level is referred to as:
  - B. Command

*“Don't bother just to be better than your contemporaries or predecessors. Try to be better than yourself.”*

William Faulkner

## 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 Mar 19,2019.

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.



## AFD Crossband

### AFD Crossband Saturday, May 12<sup>th</sup>

The Military Auxiliary Radio System (MARS) will sponsor the traditional military/amateur radio communication tests to mark the 67th annual Armed Forces Day (AFD) on Saturday, May 12. Armed Forces Day is May 19, but the AFD Crossband Military-Amateur Radio event traditionally takes place 1 week earlier in order to avoid conflicting with Hamvention. Complete information, including military stations, modes, and frequencies, is available on the US Army MARS website <[www.usarmymars.org/events/armed-forces-day](http://www.usarmymars.org/events/armed-forces-day)>.

The annual celebration is a unique opportunity to test two-way communication between radio amateurs and military stations (authorized under §97.111 of the Amateur Service rules). It features traditional military-to-amateur crossband SSB voice, CW, practice using legacy interoperability waveforms, and the opportunity for participating hams to utilize more modern military modes, such as MIL-STD Serial PSK and Automatic Link Establishment (ALE). Military stations and Amateur Radio stations are authorized to communicate directly on certain 60-meter interoperability channels.

These tests give Amateur Radio operators and shortwave listeners (SWLs) a chance and a challenge to demonstrate individual technical skills in a tightly-controlled exercise scenario, and to receive recognition from the appropriate military radio station. QSL cards will be available for stations successfully contacting participating military stations.

Military stations will transmit (USB, unless otherwise noted on the schedule) on selected military frequencies and will announce the specific amateur frequencies they are monitoring. MARS stressed that frequencies used for the test will not impact any public or private communications and will not stray outside the confines of the exercise.

An Armed Forces Day test message will be transmitted utilizing the Military Standard (MIL-STD) Serial PSK waveform (M110) followed by MIL-STD Wide Shift FSK (850 Hz RTTY), as described in MIL-STD 188-110A/B. Technical information regarding these waveforms is available here: [www.n2ckh.com/MARS\\_ALE\\_FORUM/MSDMT.html](http://www.n2ckh.com/MARS_ALE_FORUM/MSDMT.html)>. The AFD test message will also be sent at 0300 UTC in CW.

Those who want a QSL should complete the request form on the MARS website.

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*“People rarely succeed unless they  
have fun in what they are doing.”*

Dale Carnegie

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## AFD Crossband Schedule

The Army Military Auxiliary Radio System will host this year's Armed Forces Day (AFD) Crossband Test on Saturday May 11, 2019. This annual event is open to all licensed amateur radio operators, and will not impact any public or private communications. For more than 50 years, military and amateur stations have taken part in this event, which is only an exercise scenario, designed to include hobbyist and government radio operators alike.

The AFD Cross-band Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service (ARS), as authorized in 47 CFR 97.111. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly-controlled exercise scenario that does not impact any public or private communications.

Military stations will transmit on selected military frequencies and will announce the specific ARS frequencies monitored. All times are ZULU (Z), and all frequencies are Upper Side Band (USB) unless otherwise noted. The frequencies used for the test will not impact any public or private communications, and will not stray outside the confines of the exercise.

The following stations will be making two-way radiotelephone contacts with stations in the ARS between the time periods listed on the frequencies listed in kilohertz below.

AAZ / FT HUACHUCA, AZ  
1500Z - 2359Z  
5,330.5 14,438.5 18,211.0

ABH / SCHOFIELD BARRACKS, HI  
1600Z - 2300Z  
5,357.0 14,438.5 18,272.0 20,997.0

ABM1 / CAMP ZAMA, JAPAN  
1500Z - 0100Z  
14,487.0 20,994

ADB / CAMP FOSTER, OKINAWA  
1500Z - 0100Z  
14,487.0 20,994

WAR / PENTAGON WASHINGTON, DC  
(USB + CW + RTTY)  
1200Z - 2400Z  
5,357.0 13,963.5 18,211.0 24,760.0

WUG-2 / ARMY CORPS OF ENGINEERS, TN  
(USB + CW)  
1300Z - 0200Z  
5,403.5 13,910.5 18,293.0 20,973.5

## Crossband Schedule - cont'd from page 3

AIR / ANDREWS AFB  
1200Z - 2400Z  
4,517.0 7,305.0 15,807.0 20,740.0

AGA2SY / HANCOCK FIELD, NY  
1200Z - 2400Z  
4,575.0 7,540.0 13,993.0

AGA5SC / SCOTT AFB, IL  
1600Z - 2300Z  
3,308.0 4,872.0 7,545.0

AGA9TR / TRAVIS AFB, CA  
1600Z - 0100Z  
5,346.5 7,329.0 13,996.0 14,411.0

AFM4AF / NAVAL SUPPORT ACTIVITY  
MID-SOUTH MILLINTON, TN  
1200Z - 0300Z  
7,375.5 13,498.0

MARSRADIO /  
1400Z - 0100Z  
7,460.0 14,606.0 20,991.0

MARSCOMM /  
1400Z - 0100Z  
4450.0 7473.5.0 14405.0

NIIW / USS MIDWAY CV-41 SAN DIEGO, CA  
(USB + CW + RTTY)  
1400Z - 0200Z  
4,013.5 5371.5 7,493.5 14,383.5 18,293.0

NWKJ / USS YORKTOWN CV-10 CHARLESTON, SC  
1200Z - 2200Z  
4,000.0 7,360.0 14,663.5

NEPM / USS IOWA BB 61 LOS ANGELES, CA  
1500Z - 2359Z  
4,043.5 6,903.5 14,463.5 18,293.0

NWVC / LST-325 EVANSVILLE, IN (USB + CW)  
1200Z - 0400Z  
4,007.0 6,913.0 9988.5 13,974.0

NSS / US NAVAL ACADEMY ANNAPOLIS, MD  
(USB + CW)  
1300Z - 0200Z  
4,038.5 5330.5 7,533.5 9,447.0 14,487.0  
17,545.0

cont'd col. 2



cont'd from col 1

NAF / NEWPORT NAVAL RADIO STATION  
MUSEUM NEWPORT, RI (USB + CW)  
1200Z - 2359Z  
4,013.5 7,542.0 14,383.5

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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!

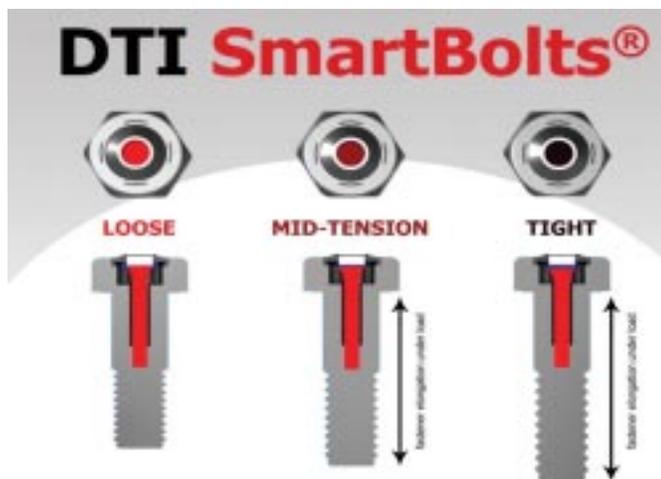
- First Thursday of each month
- 12:30PM (lunch time)
- 146.700 - (PL118.8)



## Bolts Change Color

Antennas, Towers, Grounding?

Torque wrenches are safety tools, because they let you ensure that dangerous parts like lawnmower blades are properly tightened. But what if you didn't need the torque wrench (which are pretty damned pricey) at all? A company called Stress Indicators Inc. has invented SmartBolts, which feature a red dot in the head when loose. Once the bolt is tightened to the proper torque, it turns black:



The technology is a boon to maintenance folks, manufacturers and heavy equipment operators, as they can tell, at a glance, whether a bolt is starting to work loose.

“The constant movement of the welding robot was causing the bolts to lose tension,” writes an anonymous heavy equipment manufacturer, in a testimonial on the SmartBolts website. “So we decided to retrofit our robots with SmartBolts; now the maintenance technician can look over during welding and visually check that the bolts are secure. This has had a positive impact on improving our overall safety and manufacturing efficiency.”

“We initially had some concern about using these more ‘expensive’ bolts,” writes Yajie Wang, and Advanced Process Engineer at Cooper Standard Automotive, “but after several tests and trials showing their value in added safety, as well as less downtime and visual inspections – it was an easy decision to replace all our mold clamping bolts with SmartBolts. And the appreciation our operators have expressed is priceless!” As for how it works, the company (unsurprisingly) explains it in broad strokes only:

“A SmartBolt is a fastener with a built-in visual tension indicator. We call this the Visual Indication System™. As a SmartBolt is tightened, tension forces it to stretch, and our patented Visual Indication System™ correlates fastener tension with color.”

You can check out pricing on the website here:  
[www.smartbolts.com/](http://www.smartbolts.com/)

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.

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

1. What is the ratio of peak envelope power to average power for an unmodulated carrier?  
A. .707  
B. 1.00  
C. 1.414  
D. 2.00
2. What is the capacitance of three 100 microfarad capacitors connected in series?  
A. .30 microfarads  
B. .33 microfarads  
C. 33.3 microfarads  
D. 300 microfarads
3. What is the capacitance of a 20 microfarad capacitor in series with a 50 microfarad capacitor?  
A. .07 microfarads  
B. 14.3 microfarads  
C. 70 microfarads  
D. 1000 microfarads

*(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!

## March General Pool Answers

1. What is the primary purpose of a screen grid in a vacuum tube?  
A. To reduce grid-to-plate capacitance
2. What is an advantage of the low internal resistance of nickel-cadmium batteries?  
B. High discharge current
3. When is it acceptable to recharge a carbon-zinc primary cell?  
D. Never

## 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.arrl.org/exam\\_sessions/search](http://www.arrl.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!

### April 30, 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

### May 4, 2019 Saturday 10:00 AM

St Paul Radio Club  
Leon H. Dill (651) 688-9964  
Email: [w0coe@arrl.net](mailto:w0coe@arrl.net)  
Location: Ramsey Co Library Maplewood  
3025 Southlawn Dr  
Saint Paul MN 55109-1577  
Walk-ins allowed, Pre-reg requested

### May 8, 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

### May 18, 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

## Volunteer Monitor - cont'd from page 1

Hollingsworth has identified three phases to the program: Development, Solicitation and Training, and Implementation.

- The Development phase will include drafting a mission statement, clearly defining the ARRL's and FCC's requirements and needs as part of the program, writing a job description for volunteer monitors, and developing a training manual for volunteers.

- The Solicitation and Training phase will involve identifying the geographic locations where volunteer monitors will be most needed, soliciting applications and guidance from Section Managers in reviewing applicants. (Those currently volunteering as Official Observers are invited to apply for appointment as Volunteer Monitors.)

- The Implementation phase will involve having the volunteers provide field reports to ARRL, with staff offering guidance to volunteers to ensure that the information collected meets requirements for FCC enforcement action.

Hollingsworth has committed to FCC and ARRL officials to ensure the adequacy of training for the new positions, to review the quality and utility of Volunteer Monitor submissions to the FCC for enforcement actions, and to advocate for rapid disposition of cases appropriately submitted to the FCC.

ARRL officials estimate that within 6 to 9 months the first Volunteer Monitors will be in place and ready to begin their duties.

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### ARES Breakfast

Saturday  
May 11th 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 WB0RMK repeater, Carver. You will find WB0RMK here: 147.165/765 PL 107.2

Date NECOS \_\_\_\_\_

**Apr 29th - KD0UWZ Chad**

**May 2019**

**May 6th - Volunteer**

**First Mon. Net**

**May 13th - open**

**May 20nd - WA0DGW John**

**May 27th - KD0UWZ Chad**