



# ARES COMMUNICATOR

## Information for Scott County Amateurs



June, 2017

Accurate, Reliable Emergency Communications for our Community

Volume 17, Number 6

## Field Day 2017

June 24-25, 2017

Field Day is a picnic, a campout, practice for emergencies, an informal contest and, most of all, FUN! Field Day is ham radio's open house. Every June, more than 40,000 hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to our communities and our nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event.

Field Day has been an annual event since 1933, and is the single most popular on-the-air event held annually in the US and Canada.

On the fourth weekend of June of each year, more than 35,000 radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations.

It is a time when many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, other groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to the organizations that Amateur Radio might serve in an emergency, as well as to the general public.

For many clubs, ARRL Field Day is one of the highlights of their annual calendar. The contest part simply involves contacting as many other stations as possible while learning to operate our radio gear in abnormal situations and less than optimal conditions.

We use these same skills when we help with events such as marathons and bike-a-thons; fund-raisers such as walk-a-thons; celebrations such as parades; and exhibits at fairs, malls and museums—these are all large, preplanned, non-emergency activities.



But despite the development of very complex, modern communications systems—or maybe because they ARE so

Field Day *cont'd on page 2*

## ARES Activities

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

**Breakfast Saturday, July 8th**

**Digital Monday, July 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

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

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## Field Day - cont'd from page 1

complex—ham radio has been called into action again and again to provide communications in crises when it really matters. Amateur Radio operators (also called “hams”) are well known for our communications support in real disaster and post-disaster situations.

With more than 165,000 members, the ARRL is the national association for Amateur Radio in the USA. ARRL is the primary source of information about what is going on in ham radio. It provides books, news, support and information for individuals and clubs, special events, continuing education classes and other benefits for its members.

Amateur Radio, often called “ham radio,” the Amateur Radio Service is a worldwide community of licensed operators using the airwaves with every conceivable means of communications technology. It is made up of people who enjoy learning and being able to transmit voice, data and pictures through the air to places both near and far without depending on commercial systems.

The Amateur Radio frequencies are the last remaining place in the usable radio spectrum where you as an individual can develop and experiment with wireless communications. Hams not only can build and modify their equipment, but we create whole new ways to communicate via the airwaves.

You can locate a Field Day site to visit on the map at: [www.arrl.org/field-day-locator](http://www.arrl.org/field-day-locator)

BREAK - OVER

## Happy Father's Day

### Scott County ARES Contacts

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KD0UWZ at [scottares.org](http://scottares.org)



## 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



## Congrats to all new Grads!

## 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/download.html](http://www.w1hkj.com/download.html) and <http://www.scottares.org/NBEMS.htm>

Here are the most recent releases as of June 18, 2017.

Software	Version
Fldigi	4.0.4
Flwrap	1.3.4
Flmsg	4.0.2
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.



## 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!

### June 20, 2017 Monday 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 24, 2017 Saturday 9:00 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 12, 2017 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

### July 15, 2017 Saturday 7:00 PM

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

## 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 name of the process by which sunlight is changed directly into electricity?  
A. Photovoltaic conversion  
B. Photon emission  
C. Photosynthesis  
D. Photon decomposition
2. What is the reason a series diode is connected between a solar panel and a storage battery that is being charged by the panel?  
A. The diode serves to regulate the charging voltage to prevent overcharge  
B. The diode prevents self discharge of the battery though the panel during times of low or no illumination  
C. The diode limits the current flowing from the panel to a safe value  
D. The diode greatly increases the efficiency during times of high illumination
3. How does a capacitor react to AC?  
A. As the frequency of the applied AC increases, the reactance decreases  
B. As the frequency of the applied AC increases, the reactance increases  
C. As the amplitude of the applied AC increases, the reactance increases  
D. As the amplitude of the applied AC increases, the reactance decreases

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

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## May General Pool Answers

1. Which of the following is a disadvantage of using wind as the primary source of power for an emergency station?  
C. A large energy storage system is needed to supply power when the wind is not blowing
2. Which of the following causes opposition to the flow of alternating current in a capacitor?  
C. Reactance
3. Why is impedance matching important?  
A. So the source can deliver maximum power to the load

## Fireball Spreading

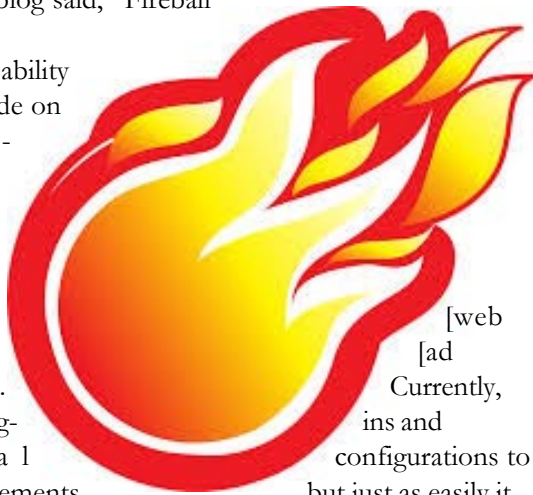
### Check for the latest malware

Keeping cybercriminals from infecting our gadgets seems like a never-ending job. We're always having to fend off new types of attacks.

Sometimes, victims don't even know when their device has been infected. There is a massive malware attack spreading around the world right now and a quarter of a billion computers have already been affected. Are you one of the unsuspecting victims?

Researchers at Check Point have discovered a wide-spread adware campaign dubbed Fireball. The adware is running on over 250 million computers worldwide, including almost 6 million in the U.S. Fireball takes over the victims' browsers and manipulates their web traffic, generating revenue by automatically clicking on advertisements.

A Check Point blog said, "Fireball has two main functionalities: the ability of running any code on victim computers - downloading any file or malware, and hijacking and manipulating infected users' traffic] to generate revenue. Fireball installs additional boost its advertisements, can turn into a prominent distributor malware."



This malware is being spread through bundling. This is when a user installs a free program or software and Fireball gets installed alongside it, normally without the victim knowing.

Not only does Fireball adware slow down the victims' system and unknowingly click ads, it has the potential to cause more harm. The cybercriminals behind the malware could use Fireball to spy on its victims, send them to malicious websites and even add more malware to their computer.

Removing the Fireball adware is actually a pretty simple process. If you have been infected with the adware, you should see it listed under Programs and Features in the Control Panel in Windows.

Follow these steps to remove it in Windows:

- Open Programs and Features - You will find this in Windows Control Panel. Just search for Programs and Features in the Windows search box located on the bottom left of your screen.

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## Distracted Driving?

### Not for Amateur Ops

The State of Washington has a new distracted driving law aimed at discouraging the use of certain personal electronic devices while operating a motor vehicle. Governor Jay Inslee signed SSB 5289 into law on May 16, declaring its implementation an emergency, which means the new law becomes effective on August 16.

In defining a "personal electronic device," the pending law excludes two-way radio, Citizens Band radio, or Amateur Radio equipment.

The law defines a "personal electronic device" as "any portable electronic 16 device that is capable of wireless communication or electronic data retrieval and is not manufactured primarily for hands-free use in a motor vehicle. 'Personal electronic device' includes, but is not limited to, a cell phone, tablet, laptop, two-way messaging device, or electronic game." Their use while driving would be a secondary violation.

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## PAUL BUNYAN DAY

June 28th

Paul Bunyan was a gigantic lumberjack of American Folklore. According out folklore, Paul Bunyan and his blue ox "Babe" lived and traveled around country. He is best known for his logging feats.

Paul Bunyan is "credited" with many deeds. Among his more legendary feats:

- He created logging in the U.S.
- He scooped out the great lakes to water Babe, his ox.
- He cleared the entire states of North and South Dakota for farming.
- He trained ants to do logging work. They were, of course, Carpenter Ants.
- Babe's large footprints created Minnesota's 10,000 lakes.

cont'd from col 1

- Remove Fireball - If your computer has installed the adware, you should see it listed as Fireball in the list of programs. Right click on Fireball and select Uninstall.

For Mac:

- Use Spotlight to search for Fireball.
- Fireball will show up in the Applications folder - If Fireball shows up in the Applications folder, drag it to the trash folder.
- Empty the Trash folder.

You should also have strong security software installed on your computer. Adware does not always show up as a file under the program list. That's why you also need to run a scan and clean your computer with anti-malware and adware cleaner software.

BREAK - OVER

## Surf's Up!

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

### Audio Scientific

<http://www.audioscientific.com/default.htm>

Audio expertise for the digital world explains the content of this site. There are a lot of tutorials in topics that seem to scroll forever. Check the link < Electronic Circuits - Schematics & Tutorials > when you have some time to spend learning.

### Williamson Labs

<http://williamson-labs.com/>

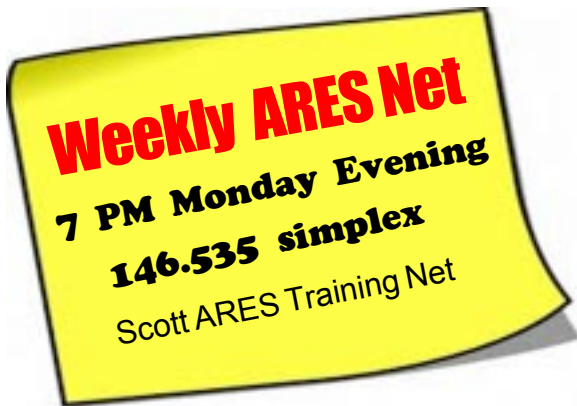
This site uses many animations to help explain circuit operation and devices. Check out the tabs on Power Supplies and Bypassing for a great refresher or new information! Don't miss the Single Sideband link for a great animation. Transistors?

### RAS of Norwich Project Page

<http://www.rason.org/Projects/projects.html>

Looking for a basic circuit to solve a problem in a project idea? Check out this site!

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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!

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## 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. Chris Smith is the Situation Unit Leader. No Planning Section Chief is assigned. Who does Chris Smith report to?
  - A. Operations Section Chief
  - B. Public Information Officer
  - C. No Direct Supervisor
  - D. Incident Commander

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

BREAK - OVER

## May NIMS Knowledge Solution

1. When command is transferred, then all personnel with a need to know should be told:
  - C. The effective time and date of the transfer

BREAK - OVER



*"I will stop at nothing to reach my objective, but only because my brakes are defective."*

Ashley Brilliant



## Fldigi / NBEMS Wiki

Fldigi (Fast Light Digital Modem Application), pronounced "F L digi", is a cross-platform modem program that supports most of the peer-to-peer (live keyboard) digital modes used on the amateur radio bands.

Narrow Band Emergency Messaging System an integrated suite of programs that can be used for both emergency communications and recreational operations. The software is designed to run on nearly any modern computer and can easily interfaced with almost any radio.

You can find the Wiki here: <http://www.w1hkj.com/doku/doku.php>

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## One Less RFI Source!

### Consent & Forfeiture End Investigation

The FCC has again used a consent decree to resolve an enforcement matter. The FCC Enforcement Bureau recently concluded a radio interference investigation with “a negotiated settlement” and a \$90,000 civil penalty. The case against AFX Inc. involved the marketing of unauthorized RF devices that interfered with AM/FM radio reception.

After the company’s NLL Series LED lighting fixtures were reported to be causing interference to broadcast radio reception last year, the Enforcement Bureau’s Spectrum Enforcement Division issued a *Letter of Inquiry (LOI)* to AFX directing it to submit a sworn written response regarding its marketing and sale of the fixtures, considered unintentional radiators under FCC rules. According to the FCC, evidence revealed that the suspect lighting fixtures had not been tested and authorized under FCC rules prior to marketing, and that AFX continued to market them during an approximately 5-month period after receipt of the *LOI*.

“[W]e find that the public interest would be served by adopting the Consent Decree and terminating the referenced investigation regarding AFX’s marketing of unauthorized radio frequency devices, and compliance with Section 302(b) of the Communications Act of 1934, as amended and Sections 2.803(b)(2), 15.107(a), and 15.109(a) of the Commission’s rules (Rules),” the FCC said.

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## Mail Boxes and Doorsteps

### Package Thefts Increase

Recently the Savage Police Dept reports there has been an increase in package theft from mailboxes and doorsteps. Packages left on the front steps can be targets for thieves. Be sure you are doing the right thing to protect yourself and your items!

These thieves could be targeting delivery trucks, and stealing items after they have been dropped off to unoccupied homes.

### Protect Yourself

- Collect your incoming mail and packages everyday as soon as you can
- Track your packages!
- Require a signature for delivery
- Consider having the package delivered to another location if you cannot be home. For example - your work place
- Have a trusted neighbor grab the package or request that it be delivered to their house
- Better yet - have the package held for pickup at the store

Remember, if you hear or see something suspicious or unusual... Report it! Call 911!

BREAK - OVER



## “New” RFI - solution?

### Comments from RFI group

“I recently had a problem with intermittent interference. I called the (power company) guy and they now have a neat receiver they connect to your feedline and make a screen shot of the noise waveform.

Then go looking for a matching waveform. I drove over where I had heard it loudest in my searching and he met me there. Wouldn’t you know it, quiet as a tomb!

He drove up and down several alleys around the area. While he was doing that I went home, turned my receiver on and the noise was back! I called him on his cell phone right away. He found the source!

It turned out one of those blasted metalized mylar balloons was hanging from the line and a breeze would get it where it would start arcing !!! I would have hoped the arc would fry the balloon but no such luck.

Mystery solved and quiet returns to the bands.”

BREAK - OVER



## Best Practices for Tower Users

### FCC / OSHA Coms Tower Best Practices Guide

The FCC and OSHA have announced the release of a free publication, Communications Tower Best Practices Guide. The PDF may be

downloaded here: [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db0601/DOC-345150A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0601/DOC-345150A1.pdf) While aimed more at those who tend commercial communication towers, the guide offers information applicable to the Amateur Radio community and contractors working on Amateur Radio antenna support structures. The FCC said the guide was a result of two tower safety workshops.



“Recognizing the risks that tower employees face, OSHA and the FCC held a workshop on communication tower employee safety on October 14, 2014,” the new guide explains. “During this workshop, industry stakeholders, along with employee safety advocates and the families of communication tower employees who had been killed on the job, gathered to discuss issues affecting the safety of communication tower employees.”

A second workshop followed in February 2016, during which a panel of industry stakeholders and advocates discussed best practices that could reduce injuries and fatalities among tower workers. “This document is a collection of the best practices gathered from those workshops and from the discussions that continued beyond those events,” the guide says.

Among other points, the guide emphasizes that all tower workers need “to have and use proper safety equipment at all times,” and that, “no work should be done if proper safety equipment is unavailable or if the safety equipment available is not functioning properly.”

The guide also notes an increasing use of drones for tower inspection. “This technology has the potential to reduce unnecessary climbing and can avoid putting [tower workers] at risk,” the guide points out.

“Every tower climber death is preventable,” stressed FCC Chairman Ajit Pai.

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## HELP WANTED

### July 4th Parade, Richfield

The Richfield 4th of July parade is one of the largest events for Richfield Public Safety each year and is one where all available CERT members and ham operators are needed.

Volunteers have an important job of staffing many checkpoints along the parade route to aid with public safety and traffic control.

The Richfield PD will have lunch provided after the event has been completed and all crews returned to the Safety Center.

For general planning purposes, participation is needed from 8am to 4pm on Tuesday July 4, 2017. Please respond as soon as possible with your availability.

Please contact Thomas York/K0ZZX via email with any questions or to volunteer: [thomas.york@hotmail.com](mailto:thomas.york@hotmail.com)

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### ARES Breakfast

Saturday  
July 8th 2017  
7:30AM

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

## NECOS Schedule June 2017

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

### June 2017

Jun 19th N0BHC Bob

Jun 26th WA0DGW John

### July 2017

Jul 3rd KD0UWZ Chad

Jul 10th N0BHC Bob

Jul 17th WA0DGW John

Jul 22th KD0UWZ Chad

Jul 29th N0BHC Bob

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