



ARES COMMUNICATOR

Information for Scott County Amateurs



July, 2016

Accurate, Reliable Emergency Communications for our Community

Volume 16, Number 7

HELP WANTED

Ham Communicators



Carver-Scott Humane Society 5K Fun Run Fundraiser "Run/Walk Fur Love"

Saturday September 24th, Shakopee
Time: 9am - Noon

This event is for the benefit of the Carver-Scott Humane Society (www.carverscotths.org). What you've never heard of them? This is the organization that is behind the Pets of the Week pictures in your local weekly newspaper!

The Carver-Scott Humane Society was founded in 1989 for the purpose of finding homes for unwanted dogs, puppies, cats and kittens. In the 25 years since their founding, they have grown to rescue and rehome around 300 companion animals every year. The Society organization helps animals and families in the west metro of the Twin Cities with a focus on Carver, Scott and Hennepin Counties. All of the animals stay in foster care until we match them with their permanent homes.

Scott ARES will provide safety and coordination communications for the event. There is an operating spot for every Ham who volunteers their skills and equipment to benefit the community. You get to enjoy your hobby while

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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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contributing to over 300 happily wagging tails during the next year. WOOF! What's holding you up? Email your help today!

The course starts in Lion's Park and follows a loop through Shakopee city streets. There are 200 runners anticipated at this year's event.

To Volunteer your services for this worthwhile event, email NOBHC@ScottARES.org as soon as possible.

BREAK - OVER

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)

Breakfast Saturday, August 13th

Digital Monday, August 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

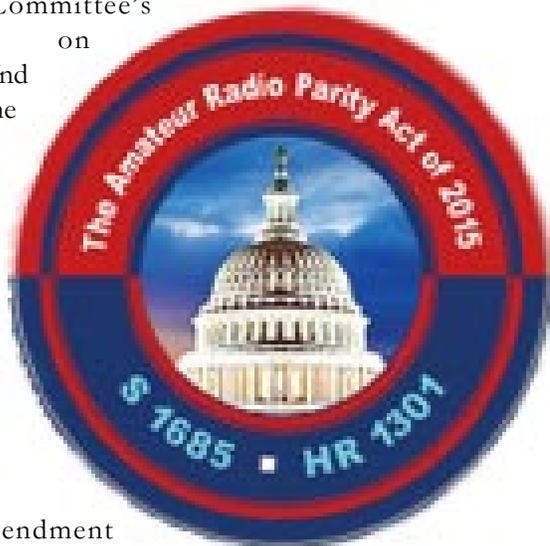
Parity Act Receives Favorable Report

ARRL Letter July 14, 2016

An amended version of the Amateur Radio Parity Act, H.R. 1301, received a unanimous favorable report on July 13 from members of the US House Energy and Commerce Committee. The bill now will go to the full House for consideration. Before reporting the bill out of committee, the panel first voted to accept the amended language, "in the nature of a substitute." Rep Greg Walden, W7EQI (R-OR), who chairs the Energy and Commerce Committee's Subcommittee on Communications and Technology, said the substitute bill represented "a good balance" that came in the wake of months of meetings, hard work, and compromise, and he recommended the measure to his colleagues.

"The amendment guarantees that even in deed-restricted communities, Amateur Radio operators are able to use an effective outdoor antenna," Walden said. "Without an effective antenna Amateur Radio operators are severely limited, so this amendment ensures

Parity Act *cont'd on page 7*



Summer Events '16

Grab your HT and have some fun volunteering for a Public Service event this summer! You get the chance to use your communications skills to benefit the community and meet some new Hams. Hey, there might even be a "Free Lunch" thrown in for good measure.



Check out the events listed below and volunteer for a couple hours of ham radio fun!

Saturday, July 30th

8 AM - 09:30 AM

2016 Chaska River City Days 5K Run

Quick & Fast 5k Run thru Downtown Chaska

Contact: Don KC0QNA@yahoo.com

Saturday, August 6th

07:00 - 12:00-NOON

2016 Tour De Tonka

28 Mile Course Carver/Orono

Contact: Don KC0QNA@yahoo.com

Saturday, August 13

All Day

2016 Gaylord EGGstravaganza

Parade, 5K & Fireworks

Contact: Don KC0QNA@yahoo.com

Sunday, August 14th

North Mankato Triathlon

Contact Steve - WA2OFZ@arrl.net

Saturday, September 24th

09:00 - Noon

Shakopee Run/Walk Fur Love

Carver/Scott Humane Society 5K

Contact Bob - N0BHC@ScottARES.org

Saturday, October 1st

07:00 - 11:30 AM

2016 Scenic Half Marathon of Belle Plaine

Contact: Don KC0QNA@yahoo.com

Sunday, October 16th

8 AM

2016 Mankato Marathon

Contact: Don KC0QNA@yahoo.com

Scott County ARES Contacts

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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.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!

July 25, 2016 Monday 6:00 PM

SMARTS

Dale A. Blomgren (952) 402-2155

Email: kd0b@arrl.net

Location: Carver County Library

7711 Kerber Blvd

Chanhassen MN 55317

Walk-ins allowed, Pre-reg requested

August 10, 2016 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

August 20, 2016 Saturday 9:00AM

Sponsor: SEMARC

Daniel M. Franz (651) 769-0358

Email: wd0gup@hotmail.com

Location: Zion Lutheran church

8500 Hillside Trls

Cottage Grove MN 55016-3273

August 29, 2016 Monday 6:00 PM

SMARTS

Dale A. Blomgren (952) 402-2155

Email: kd0b@arrl.net

Location: Carver County Library

7711 Kerber Blvd

Chanhassen MN 55317

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 one good way to avoid unwanted effects of stray RF energy in an amateur station?
 - A. Connect all equipment grounds together
 - B. Install an RF filter in series with the ground wire
 - C. Use a ground loop for best conductivity
 - D. Install a few ferrite beads on the ground wire where it connects to your station
2. Which of the following is one use for a Digital Signal Process in an amateur station?
 - A. To provide adequate grounding
 - B. To remove noise from received signals
 - C. To increase antenna gain
 - D. To increase antenna bandwidth
3. What is the purpose of a speech processor as used in a modern transceiver?
 - A. Increase the intelligibility of transmitted phone signals during poor conditions
 - B. Increase transmitter bass response for more natural sounding SSB signals
 - C. Prevent distortion of voice signals
 - D. Decrease high-frequency voice output to prevent out of band operation

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

BREAK - OVER



May General Pool Answers

1. What is the effect on an audio device or telephone system if there is interference from a nearby CW transmitter?
 - A. On-and-off humming or clicking
2. What might be the problem if you receive an RF burn when touching your equipment while transmitting on an HF band, assuming the equipment is connected to a ground rod?
 - D. The ground wire has high impedance on that frequency
3. What could be a symptom of a ground loop somewhere in your station?
 - A. You receive reports of "hum" on your station's transmitted signal.

BREAK - OVER

BREAK - OVER

Phishing!

Not for Walleyes or Muskies!

Phishing scams have been running rampant in recent days, all too often taking hundreds of thousands of innocent victims to the cleaners and leaving them red-faced and with little to no money left in the bank.

The cost to businesses according to a recent FBI report shows that since January 2015, email scams account for a stunning \$3.1 billion in losses. We all end up paying this cost in higher prices for goods and services we purchase as consumers.

Let's take a look at one phishing scam you have seen in your email in-box: Deceptive Phishing
Deceptive phishing is when a scammer will pose as a legitimate business, like Amazon, in an email in order to get you to cough up sensitive information, such as your log in for that site, as well as your password.

You have no doubt seen this tactic. For starters, scammers have posed as the IRS, Apple, Amazon, Home Depot and Microsoft, all saying you need to log into the site, using the link they provide, to fix whatever went wrong with your account.

What to look for:

1. The "From" address. If the email address is from any type of address that looks like "tkupetz@wbased.k12.pa.us" or anything similar, delete the email immediately.
2. Grammar. No matter how much it gets proofread, any company is going to occasionally send out an email with a spelling or grammar error. Fine. But phishing emails often contain glaring and obvious mistakes that you can catch without being a copy editor. Awkward phrases, missing punctuation and wrong capitalization are just a few places to start.
3. Formatting. Are the paragraphs in the body of the email formatted correctly? Are some random words in bold? Are there extra spaces? Are there images included that don't make sense?
4. In-body links. Remember that NOT ONE legitimate company will provide links for security issues. If there's a problem, the company will ask you to head directly to the company's website and enter your information there, rather than provide you a link to follow. You can also hover your mouse over the link to see where it really directs you. You'll discover that these links actually infect your computer with dangerous malware - all with just one click. As a rule of thumb, don't click any links if you think the email is suspicious.
5. Non-corporate phrases. When was the last time you received an email from a major corporation that ended with "God bless you"? Remember, this isn't an email from your aunt. It's supposed to be from a multibillion-dollar international company that isn't going to risk offending anyone. Also, make sure there's a signoff as scam emails have often just ended.

Now you can search through your in-box and find an example. Just don't click on any of the links!

BREAK - OVER

Independence Day Quiz



Happy Independence Day! Ready to test your knowledge of U.S. history?

(The following quiz originally appeared in the Washington Post's "The Answer Sheet Blog," run by Valerie Stauss, on July 4, 2012. The quiz was submitted by a reader, Stanley E. Santire.)

The July 4 Quiz

1. The committee formed to draft the **Declaration of Independence** was headed by:
 - a) George Washington
 - b) Thomas Jefferson
 - c) James Madison
2. **Independence Day** was first celebrated in what city?
 - a) Boston
 - b) Washington D.C.
 - c) Philadelphia
3. On what day in 1776 did the Continental Congress vote for independence?
 - a) July 2
 - b) July 4
 - c) July 6
4. In what year did the U.S. Congress declare the Fourth of July a national holiday?
 - a) 1776
 - b) 1865
 - c) 1941
5. How many men who had served as U.S. president died on the Fourth of July?
 - a) 1
 - b) 2
 - c) 3

Independence Day Quiz cont'd on page 5

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. These levels of the ICS organization may have Deputy positions:
- Branch
 - Incident Commander
 - _____

- A. Staging Area
- B. Group
- C. Division
- D. Section

Check next month's ARES Communicator for the solution

June NIMS Knowledge Solution

1. The National Response Framework presents the guiding principles that:
- D. Provide local, tribal, State, and Federal responders with specific operational plans for managing a wide range of incidents.

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 July 20, 2016.

Software	Version
Fldigi	3.23.13
Flwrap	1.3.4
Flmsg	3.00.01
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.



Independence Day Quiz - cont'd from page 4

6. Which of these major battle victories occurred on July 4?

- a) British surrendered to Washington at Saratoga
- b) Jackson defeated the British near New Orleans
- c) Grant broke Confederate resistance at Vicksburg

7. Who was the first person to sign the Declaration of Independence?

- a) George Washington
- b) Thomas Jefferson
- c) John Hancock

8. How many times does the term "United States" appear in the Declaration of Independence?

- a) 0
- b) 1
- c) 2

9. What slave owner objected to leaving out of the Declaration of Independence a criticism of British slave trade?

- a) George Washington
- b) Thomas Jefferson
- c) Edward Rutledge

10. Who was the oldest signer of the Declaration of Independence?

- a) Benjamin Franklin
- b) John Adams
- c) Steven Hopkins

11. What are the first words of the Declaration of Independence?

- a) "We hold these truths to be self-evident..."
- b) "When in the Course of human events..."
- c) "Governments are instituted among Men..."

(Quiz Answers on page 7)

BREAK - OVER



*"One day your life will flash before your eyes.
Make sure it's worth watching."*

A. Nony Moose

RIP Gil Green

The electronics world lost a great luminary in the recent Death of Gil Green. Gil was a tireless performer in any number of consumer electronics applications. His illumination reliably signaled the availability of power for the device.

Gil was a tragic victim of a violation of Georg Simon Ohm's law governing the relationship of voltage, resistance, and current.

Gil was accustomed to a steady diet of 3 volts and 10 milliamps of current flow. Operating in its familiar 5 volt application, Gil was always in series with a 220 ohm resistor. The 220 ohm value is a common unit in the 10% tolerance resistor series.

The application Gil was going to monitor was running at 12 volts. A resistor was needed to drop at least 9 volts (12 volt supply minus Gil's 3 volts = 9 volts for resistor) with a current flow of about 10 milliamps. Good old Ohms Law proclaims that a resistor of 900 ohms should fill the bill. Since 1,000 ohms is the closest standard value, a search of the treasure chest produced the component.

When Gil was soldered in place in his new application, power was applied and Gil a very bright illumination, for about 10 seconds!

The Coroner was called to perform a post-meltdown examination. His findings showed that Gil was actually working in a 24 volt environment in series with a 220 ohm resistor! Oops!

The 220 ohm resistor was dropping 21 volts, resulting in a current of 95 milliamps. This means that Gil was called upon to pass 0.095 amps while dropping 3 volts. Gil had to dissipate about 0.280 watts. Unfortunately, Gil's maximum power dissipation was 0.120 watts!

Gil's untimely melt-down serves as a reminder to double check your assumptions and then check again! Fortunately Gil's demise wasn't a financial disaster. Gil, along with 99 of his closest friends, can be found in bags of 100 for less than \$2.00 in the on-line bazaars.

As long as we are reviewing lessons learned a quick look at Ohms Law may be helpful. Georg Simon Ohm published his paper defining the relationship between Electromotive force (voltage), Current (Amps) and Resistance in 1827. The relationship can be summarized by the formula: $E = I * R$ (voltage (E) equals Current (I) times Resistance (R)).

The graphic may help you remember this relationship in its three variations. You generally know two of the three



components of the problem. In the case of Gil's demise, we wanted to find the value of the resistor that would drop 9 volts at a current of 10 milliamps (0.010 Amps). If you cover the value you want, the position of the remaining variables gives you the formula. In this case "E" over "I" or Voltage divided by Current (in Amps).

The voltage of an LED does depend on the color of the light produced. The voltage ranges from a low of about 1.5V for Red or Infrared to about 4.0V for Ultraviolet. You can consult the datasheet for the rated voltage, current, and power dissipation for a particular color LED.

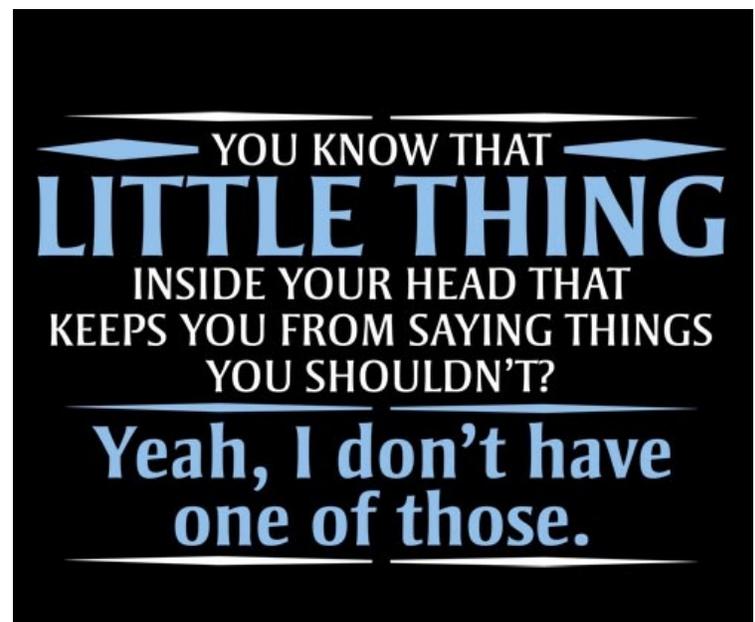
Here is a hint for the curious, measure the LED with the "Diode" function on a DMM and you will find the volt drop of the LED. Let's keep that tip between us curious folks!

May all your LEDS have long illustrious lifetimes!

BREAK - OVER



Deep Thoughts



Parity Act - cont'd from page 2

that amateurs are free to pursue their passion wherever they live.”

At the same time, he continued, the measure protects the rights of those “who have chosen to live in deed-restricted communities and to set their own aesthetic and other rules.”

In early June, the ARRL and the Community Associations Institute (CAI) — the national association of homeowners associations (HOAs) — announced that they had reached consensus on substitute language for HR 1301 in an effort to move it through committee and to overcome objections to the companion US Senate bill, S 1685. The offices of US Representatives Adam Kinzinger (R-IL), the bill’s sponsor, Anna Eshoo (D-CA), and Walden mediated and offered assistance.

“While it’s rare to have two groups with opposing viewpoints walk away from legislation happy, by golly, I think we’ve done it here,” Walden concluded. He said the substitute bill represented “the best of what our committee can do when we work together in bipartisan compromise that meets the needs of all parties involved.”

In her remarks, Eshoo said she was glad that an agreement had been reached on the bill’s language, which she initially feared would violate the rights of homeowners associations. “We found a balance that works for all stakeholders,” she said, calling the ARRL and CAI “the bookends of the effort.”

Kinzinger called the amended bill “a good amendment that strikes the right balance.”

BREAK - OVER

The July 4 Quiz Answers:

- 1) b. Jefferson
- 2) c. Philadelphia. That’s where the Second Continental Congress met and the Declaration of Independence was adopted.
- 3) a. July 2. On July 4, the Declaration of Independence was adopted.
- 4) c. 1941
- 5) c. 3. A lot of people know that Thomas Jefferson and John Adams both died on July 4, 1826, but it is less well known that James Monroe died on July 4, 1831.
- 6) c. Grant broke Confederate resistance at Vicksburg on July 4, 1863.
- 7) c. John Hancock signed first, as the president of the Continental Congress
- 8) a. 0 times. There are two mentions of the “united States of America.” At the beginning the declaration says: “The unanimous Declaration of the thirteen united States of America,” Near the end it says: “We, therefore, the Representatives of the united States of America.” But nowhere does it say the “United States of America.”
- 9) b. Jefferson
- 10) a. Franklin. He was 70 at the time.
- 11) b. “When in the Course of human events...”

BREAK - OVER

ARES Breakfast

Saturday
August 13th
7:30AM
Perkins Restaurant
Savage, MN



NECOS Schedule July 2016

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

July 2016

July 18 KB0FH Bob

July 25 N0BHC Bob

August 2016

Aug 1 KD0UWZ Chad

Aug 8 KB0FH Bob

Aug 15 WA0DGW John
/ N0BHC Bob

Aug 22 KD0UWZ Chad



Hang in there!

Six months ago, we had:

- avg temp 24deg

- 1" snow on the ground