



# ARES COMMUNICATOR

## Information for Scott County Amateurs



December, 2018

Accurate, Reliable Emergency Communications for our Community

Volume 18, Number 12

## Parity Act & FCC

### Incorporate Parity into Amateur Radio Rules

The ARRL has filed a *Petition for Rulemaking* ([www.fcc.gov/ectfs/filing/1217451513529](http://www.fcc.gov/ectfs/filing/1217451513529)) asking the FCC to amend its Part 97 Amateur Service rules to incorporate the provisions of the Amateur Radio Parity Act. The *Petition* has not yet been assigned a rule making (RM) number and is not yet open for public comment.

In the past, the FCC has said that it would not take such action without guidance from the US Congress, but, as ARRL's *Petition* notes, the Congress "has overwhelmingly and consistently" offered bipartisan support for the Amateur Radio Parity Act. "Private land use regulations which either prohibit or which do not accommodate the installation and maintenance of an effective outdoor antenna in residences of Amateur Service licensees are unquestionably the most significant and damaging impediments to Amateur Radio Service communications that exist now," ARRL said in its *Petition*. "They are already precluding opportunities for young people to become active in the avocation and to conduct technical self-training and participate in STEM [science, technology, engineering, and mathematics] learning activities inherent in an active, experiential learning environment. Without the relief in this *Petition*, the future of Amateur Radio is bleak indeed." The proposed amendments would have no effect on the FCC's limited preemption policy in §97.15(b), which pertains to state and municipal governing bodies, ARRL said.



Specifically, ARRL is proposing that the FCC amend Part 97 by adding a new subsection under §97.15, that prohibits and ceases the enforcement of, "Any private land use restriction, including restrictive covenants and regulations imposed by a

**Parity** *cont'd on page 3*

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

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**Carol Quiz**

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## ARES Activities

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

**Breakfast Saturday, January 12th**

**Digital Monday, January 14th**

### 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



## 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. Interoperability:
  - a. Primarily involves creating automated systems that allow for the sharing of sensitive incident information.
  - b. Is the ability of emergency management/response personnel to interact and work well together.
  - c. Requires nongovernmental and private-sector organizations to purchase standardized communication equipment.
  - d. Involves oversight by the Federal Communications Commission for assigning emergency frequencies.

Check next month's ARES Communicator for the solution

## November NIMS Knowledge Solution

1. Exercises should:
  - Include multidisciplinary, multijurisdictional incidents.
  - Include participation of private-sector and nongovernmental organizations.
  - Cover aspects of preparedness plans, including activating mutual aid and assistance agreements.
  - \_\_\_\_\_

A. Contain a mechanism for incorporating corrective actions.

BREAK - OVER

## 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 Nov. 20 2018.

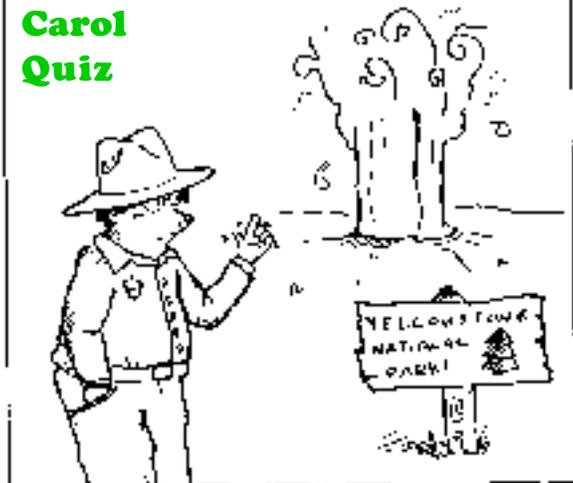
Software	Version
Fldigi	4.0.18
Flwrap	1.3.4
Flmsg	4.0.7
Flamp	2.2.03

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.



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### Carol Quiz



### Scott County ARES Contacts

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 Chad Palm KD0UWZ  
 Chaska, MN  
 KD0UWZ at scottares.org



# Parity - cont'd from page 1

community association,” that either fails to permit a licensee to install and maintain an effective outdoor antenna capable of operation on all Amateur Radio frequency bands, on property under the exclusive use or control of the licensee; precludes or fails to permit Amateur Service communications, or which does not constitute the minimum practicable restriction on such communications to accomplish the lawful purposes specifically articulated in the declaration of covenants of a community association seeking to enforce such restriction. ARRL’s proposed rule would not affect any existing antenna approved or installed before the effective date of a *Report and Order* resulting from ARRL’s petition.

The proposed provisions reflect the accommodation reached in the ultimate version of the Parity Act bill at the urging of federal lawmakers between ARRL and the Community Associations Institute (CAI), the only organization representing homeowners’ associations.

“That legislation was passed unanimously by the House of Representatives four separate times and has the support of the Senate Commerce Committee and the current Administration,” ARRL stressed.

“Private land use regulations are not ‘contracts’ in the sense that there is any meeting of the minds between the buyer and seller of land,” ARRL said. “Rather, they are simply restrictions on the use of owned land, imposed by the developer of a

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subdivision by recordation in the land records of the jurisdiction when it is first created. They bind all lots in the subdivision. If an Amateur Radio licensee wants to buy a home in a subdivision burdened by deed restrictions, that licensee has precisely two options: Buy the residence subject to the restrictions, or do not buy the residence. There is no negotiation possible because the restrictions are already in place and cannot be waived by a seller in favor of a buyer.”

ARRL noted in its *Petition* that an increasing number of homes available for purchase today are already subject to restrictive covenants prohibiting outdoor antennas, and that the Community Associations Institute data show that 90% of new housing starts in the US are subject to deed restrictions and other limitation that make installation of outdoor Amateur Radio antennas ineffective or impossible.

Also, ARRL pointed out that the Telecommunications Act of 1996 gives the FCC jurisdiction “to preempt private land use regulations that conflict with federal policy and that private land use regulations are entitled to less deference than municipal regulations, because the former are premised solely on aesthetic considerations rather than safety issues, whereas municipal regulations are concerned with both.”

“It is now time for actual and functional parity in the Commissions regulations in order to protect the strong federal interest in Amateur Radio communications,” ARRL said.

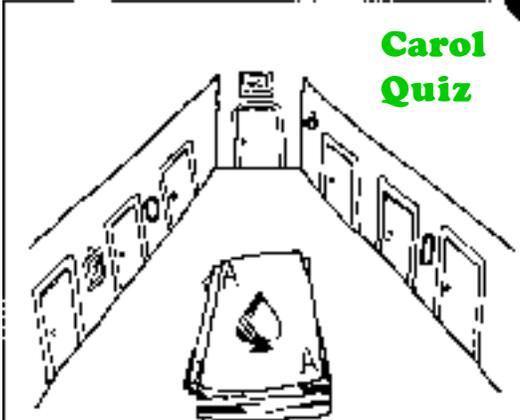
BREAK - OVER

## 2 Carol Quiz



## 3

## Carol Quiz



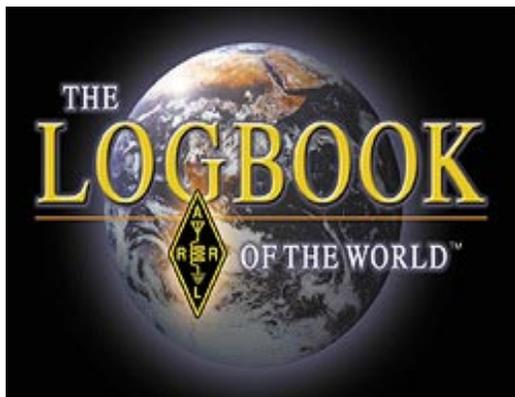
**Weekly ARES Net**  
**7 PM Monday Evening**  
**146.535 simplex**  
Scott ARES Training Net

# LoTW 1 Billion+

## Logbook of The World Tops 1 Billion QSO Records

As of December 19, more than 1 billion contact records have been entered into ARRL's Logbook of The World (LoTW) system ([www.arrl.org/logbook-of-the-world](http://www.arrl.org/logbook-of-the-world)). And, while 1 billion QSO records represents a significant milestone, a more important statistic may be the nearly 187 million contacts confirmed via LoTW over its 15-year history.

The one billionth record was uploaded by 7X3WPL, the Sahara DX Radio Club, at 2332 UTC for a 20-meter SSB contact with Davide Cler, IW1DQS, that took place on December 28, 2016. The upload resulted in a match (QSL).



LoTW debuted in 2003 after a lot of behind-the-scenes planning and development. Initially, LoTW got off to a slow start. While user numbers gradually grew to about 5,000, a lot of hams didn't fully understand what LoTW was or how it worked, and opening an account could be cumbersome.

LoTW continued with few major changes until October 2011, when a perfect storm struck — a large ingestion of logs after the CQ World Wide DX Contest and a freak snowstorm that knocked out power for more than a week in most places.

Field Services and Radiosport Department Manager Norm Fusaro, W3IZ, said uninterruptible power source (UPS) backup power quickly depleted in the days-long power outage. "When the system came back online, it was overwhelmed with the

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### 4 Carol Quiz



*cont'd from col. 1*

amount of data coming in and could not keep up," Fusaro said. "The water was coming in faster than the pumps could pump it out. *Crash!*"

The disaster was a blessing in disguise, though, because it revealed weaknesses in the LoTW software and hardware.

Fusaro said the League spent tens of thousands of dollars for new hardware. IT Manager Mike Keane, K1MK, implemented code changes to expedite log processing by giving priority to small- to medium-sized logs and inserting mega-files as openings occurred. Fusaro said a lot of the large files contained duplicate data, bogging down the process so much that users were resending logs already in the queue. Through all of this, not one QSO record was lost, because LoTW uses a redundant backup process, Fusaro said.

A LoTW users' group reflector and a queue-processing status page were set up. With better communication, Fusaro said, the system attracted additional numbers. Today, LoTW boasts some 112,000 users in all 340 DXCC entities, and 75% of all DXCC applications are filed via LoTW, which accounts for 86% of confirmations applied.

Now, ARRL is looking at the development of LoTW 2.0, Fusaro said. "Over the years, we have added more awards that can be applied for using LoTW QSL credits: VUCC, Triple Play, and two CQ awards — WPX and WAZ."

"The service still has room for a lot of improvement, but it continues to grow and is the preferred method of confirming QSOs because it strives to protect the integrity of DXCC and all awards," Fusaro said.

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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)



## Surf's Up!

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

### Antenna Basics

[https://www.rohde-schwarz-usa.com/antenna\\_basics.html](https://www.rohde-schwarz-usa.com/antenna_basics.html)

This white paper describes the basic functionality of antennas including Hertz' antenna model, wave propagation and a general overview of the characteristics of an antenna.

### Fundamentals of Spectrum Analyzers

<https://www.rohde-schwarz-usa.com/fundamentals-spectrum-analyzers.html>

This primer examines the theory of spectrum analysis and describes how modern spectrum analyzers are designed and how they work.

### dB or not dB?

<https://www.rohde-schwarz-usa.com/db-not-db.html>

Everything you ever wanted to know about decibels but were afraid to ask. Review important concepts like dB, dBm, and % that every engineer should understand.

### Basic RF Amplifier Measurements

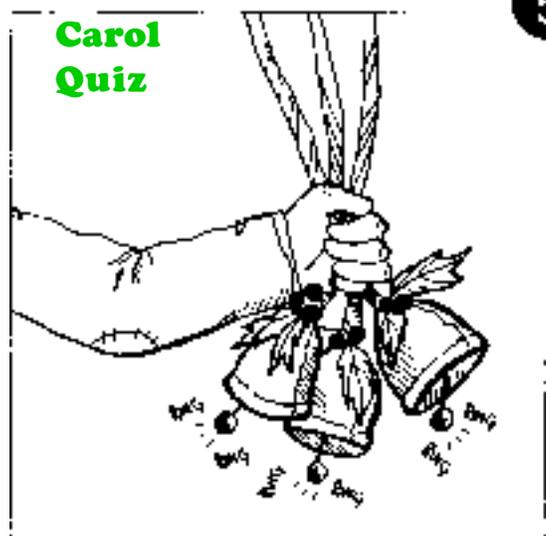
<https://www.rohde-schwarz-usa.com/basic-rf-amplifier-measurements.html>

This application note shows you how to configure a vector network analyzer to successfully make accurate and quick measurements of basic RF amplifier parameters.

### Teardown: Zigbee LED light bulb

[www.edn.com/5G/4461282/Teardown—Zigbee-controlled-LED-light-bulb](http://www.edn.com/5G/4461282/Teardown—Zigbee-controlled-LED-light-bulb)  
Watch the dissection of Sengled's model E11-G13, the Element Classic A19 "smart" bulb with 2700K soft white color temperature, currently sold on Amazon for \$9.99

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 approximate junction threshold voltage of a conventional silicon diode?  
A. 0.1 volt  
B. 0.3 volts  
C. 0.7 volts  
D. 1.0 volts
2. Why must the cases of some large power transistors be insulated from ground?  
A. To increase the beta of the transistor  
B. To improve the power dissipation capability  
C. To reduce stray capacitance  
D. To avoid shorting the collector or drain voltage to ground
3. Which of the following is an advantage of CMOS integrated circuits compared to TTL integrated circuits?  
A. Low power consumption  
B. High power handling capability  
C. Better suited for RF amplification  
D. Better suited for power supply regulation

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



## November General Pool Answers

1. What is the approximate junction threshold voltage of a germanium diode?  
B. 0.3 volts
2. Which of the following is an advantage of using a Schottky diode in an RF switching circuit as compared to a standard silicon diode?  
A. Lower capacitance
3. Which of the following is an analog integrated circuit?  
D. Linear voltage regulator

BREAK - OVER

## 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!

### January 5, 2019 Saturday 10:00 AM

St Paul Radio Club

Leon H. Dill (651) 688-9964

Email: [w0coec@arrl.net](mailto:w0coec@arrl.net)

Location: Ramsey Co Library Maplewood

3025 Southlawn Dr

Saint Paul MN 55109-1577

Walk-ins allowed, Pre-reg requested

### January 28, 2019 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

### February 2, 2019 Saturday 10:00 AM

St Paul Radio Club

Leon H. Dill (651) 688-9964

Email: [w0coec@arrl.net](mailto:w0coec@arrl.net)

Location: Ramsey Co Library Maplewood

3025 Southlawn Dr

Saint Paul MN 55109-1577

Walk-ins allowed, Pre-reg requested

## Carol Quiz Answers

- 1.. O Little Town of Bethlehem
- 2.. O Holy Night
- 3.. Deck the Halls
- 4.. Away in a Manger
- 5.. Christmas Bella are Ringing
- 6.. Joy to the World
- 7.. O Come All Ye Faithful



## 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!



## ARES Breakfast

Saturday

November 10th 2018

7:30AM

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

## NECOS Schedule December 2018

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 \_\_\_\_\_

### December 2018

Dec 24th - Merry Christmas Eve

Dec 31st - N0BHC Bob

### January 2019

Jan 7th - WA0DGW John First Mon. Net

Jan 14th - KD0UWZ Chad

Jan 21st - N0BHC Bob

Jan 28th - WA0DGW John

BREAK - OVER