



# ARES COMMUNICATOR

## Information for Scott County Amateurs



October, 2017

Accurate, Reliable Emergency Communications for our Community

Volume 17, Number 10

### DXpedition!

Mucura Island, Columbia  
Nov 21st - 28th

by: Núria, EA3WL, Josep, EA3BT

After the great success of our last operations from Corn Island (NA-013) in Nicaragua as H74B & H74W, and Bijagos Islands (AF-020) in Guinea-Bissau as J5B & J5W we are please to finally announce our next operation:

**Callsign:** 5K1B

**Operators:** Josep (EA3BT) & Núria (EA3WL – YL)

**Dates:** From 21<sup>ST</sup> to 28<sup>th</sup> November 2017

**QTH:** Mucura Island (San Bernardo islands) \* IOTA SA-078 \* Last operation from this reference in 2008 (more than 9 years ago !!!).

**1 full station:**

☐ **Equipment:** Icom IC-7300

☐ **Linear Amplifier:** Expert 1.3 FA

☐ **Antennas:** EAxbeam (6-20 m) & wire dipole (30 & 40 & 80m)

**Bands:** 6-40 and will also try 80 m.

**Modes:** SSB, CW, RTTY

**Website:** at [QRZ.com](http://QRZ.com). Also available the QSO Director tool for checking the online logs direct in real time ([www.qsodirector.com](http://www.qsodirector.com)), if internet works properly, of course

**QSL via:** EA3BT. We'll use Clublog OQRS (preferred)

**Any other details?** We'll be on the air as many as possible. Hope propagation helps us. Logs will be online through QSO Director tool and also Clublog

BREAK - OVER



### Ham Aids Burn Victim

#### Contacts Family via Ham Radio

"We had a stressful night on the island!" That's how Puerto Rico volunteer Jeremy Dougherty, NS0S, described an October 12 medical emergency on the island of Culebra, in which Amateur Radio played a major role. Dougherty, a Force of 50 American Red Cross volunteer who was supporting communication at Culebra Hospital, said fumes from a gasoline fuel container ignited, seriously injuring a woman.

Dougherty was unable to raise any of the other volunteers in San Juan — likely because of the late hour — but the only doctor at the hospital at the time called Centro de Medico on a satellite phone to coordinate transportation for the patient. The only other after-hours staff was a nurse.

"This patient was far from being within our scope to treat at this facility," Dougherty said. "The patient had burns to at least 30% of her body. I had to do a lot of medical work here." While the nurse, who knew the patient, left to get belongings from the burn victim's house, Dougherty, a medic who works for the Kansas City (Missouri) Fire Department, administered first aid, under the doctor's direction, to stabilize the woman.

**Burn Victim** *cont'd on page 2*

### ARES Activities

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

**Breakfast Saturday, November 11th**

**Digital Monday, November 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

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

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## Brn Victim - cont'd from page 1

After helicopter transport to San Juan was arranged, Dougherty set about contacting the patient's family. He got on 40 meters, interrupting a pileup of stations trying to work National Fire Prevention Week special event station N4F, being run by Kevin Young, KC7FPF, in Bronson, Florida. Dougherty explained the situation and asked Young to contact the woman's family in Connecticut.

"We had complete radio silence while we were passing traffic," Dougherty said. "We were literally passing traffic as the helicopter flew overhead." Copy was poor with an increasing noise level, Young told ARRL, but he was able to pull out NS0S, get the message, and pass it to the family.

"He definitely stepped up to the challenge of the unexpected emergency and handled it quite well," Dougherty said. "Someone needs to pin a medal on his chest."



Volunteers Jeremy Dougherty, NS0S (left), and Bobby Price, KB4ROR.

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## Operating Tip

### Use the RF gain control effectively

#### ARRL Contest Update

It's easy to overlook the RF gain control, but it can be another tool you can use to more quickly get stations into the log.

With most radios, adjusting the RF gain control down results in an increase in the S-meter indication. In the presence of fading on a signal, you can adjust the RF gain just to the point where you can still hear your signal, but the S-meter is steady, with no fluctuations.

At this point, any effects of AGC on the signal should be minimal, and your copy should improve. Some operators even turn OFF their AGC to dig for the really weak ones on relatively quiet bands, preferring to manually control the gain using the RF Gain control. In noisy bandy conditions you can reduce RF gain, thereby reducing overall noise levels, which can help to decrease operator fatigue.



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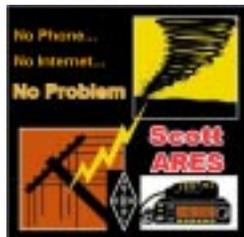


### Scott County ARES Contacts

Emergency Coordinator  
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13600 Princeton Circle  
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N0BHC@arrl.net



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



## 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.

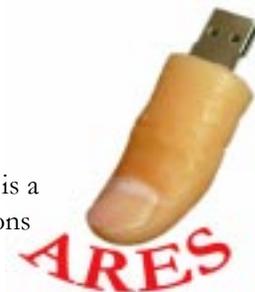
Now is a good time to check to your digital software to make sure you are running the newest versions. You can find the most recent versions posted at both: [www.w1hkj.com/](http://www.w1hkj.com/) and <http://www.scottares.org/NBEMS.htm>

Here are the most recent releases as of October 26, 2017.

Software	Version
Fldigi	4.0.11
Flwrap	1.3.4
Flmsg	4.0.3
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.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!

### October 28, 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

### October 24, 2017 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

### October 28, 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

### November 4, 2017 Saturday 10:00 AM

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

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## 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. How does the total current relate to the individual currents in each branch of a parallel circuit?
  - A. It equals the average of each branch current
  - B. It decreases as more parallel branches are added to the circuit
  - C. It equals the sum of the currents through each branch
  - D. It is the sum of the reciprocal of each individual voltage drop
2. How many watts of electrical power are used if 400 VDC is supplied to an 800-ohm load?
  - A. 0.5 watts
  - B. 200 watts
  - C. 400 watts
  - D. 3200 watts
3. Which of the following is an advantage of ceramic capacitors as compared to other types of capacitors?
  - A. Tight tolerance
  - B. High stability
  - C. High capacitance for given volume
  - D. Comparatively low cost

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

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## September General Pool Answers

1. What is one reason to use an impedance matching transformer?
  - B. To maximize the transfer of power
2. Which of the following devices can be used for impedance matching at radio frequencies?
  - D. All of these choices are correct
3. Which of the following types of capacitors are often used in power supply circuits to filter the rectified AC?
  - D. Electrolytic

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### November 8, 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

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# “Force of 50” Ham Mission Ends

## Puerto Rico Emergency Communications

The 22 “Force of 50” radio amateurs who deployed to Puerto Rico earlier this month as American Red Cross volunteers have ended their mission and will be back on the US mainland by Oct 21st. They had been in Puerto Rico for about 3 weeks.

“The Force of 50 volunteers

demonstrated an extraordinary range of skills possessed by this accomplished team,” said ARRL CEO Tom Gallagher, NY2RF.

“There was no task that they wouldn’t

tackle. It also

demonstrated the

generosity of these

volunteers, who not only

performed their roles as

communicators, but also engaged the population with their

many acts of personal kindness.”

Val Hotzfeld, NV9L, who filed situation reports documenting the team’s activities, said the volunteers accomplished everything they went to Puerto Rico to do, “and then some.” She said that the Red Cross felt they had exceeded all expectations.

“We opened a lot of people’s eyes when we started going to the ESF-2 communications task force meetings. They had no idea of our capabilities,” Hotzfeld told ARRL. “When they heard what we’d accomplished, we were swarmed; everybody was wanting us.”

Hotzfeld said the volunteers’ initial mission was to provide a way to gather outbound health and welfare messages and put them into the Red Cross’s Safe and Well System

using *Winlink*. However, the mission changed once they were on the ground, when they discovered the needs were much greater.

“No one had any communications, so the mission morphed to communications,” she said. “But, we did both.” She said the Red Cross recognized the value of ensuring communication for hospitals, and other volunteers handled Safe and Well messages.



Amateur Radio volunteer Val Hotzfeld, NV9L. She is now back home.

She said the volunteers possessed a wide range of talents, from medical to mechanical, not just communications. For example, Andy Anderson, KE0AYJ, set up the helicopter landing pad at Guajataca Dam, Hotzfeld said, and provided communication where there was none.

Ten SHARES (Shared Resources) HF Radio Program( [www.dhs.gov/shares](http://www.dhs.gov/shares)) operators will replace the Amateur Radio volunteers who had worked on behalf of the Red Cross. These SHARES operators are federal employees who happen to be radio amateurs and volunteered for the duty in Puerto Rico. Hotzfeld said they will be stationed in four different zones, with two operators at headquarters in the San Juan Convention Center. “The hospitals did not want us to leave,” Hotzfeld said. “They were begging us to stay.” She noted, though, that the hospitals also have access to satellite telephones.

“I was so proud of our guys,” Hotzfeld said in summary. “They were rock stars.”

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# Daylight Savings Time



“Fall Behind”  
one hour  
**Sunday**  
**November 5th**

## 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)



## When All Else Fails, There Is Ham Radio!

By: Andrew Seybold, W6AMS, Sep 28, 2017

As I am preparing a report on the commercial and public safety communications activities during and after Harvey, Irma, and now Maria, which was the worst of the batch, I took some time to reach out to the amateur radio community to find out what they have been doing. The answer is a lot, and often! First, the Radio Relay International (RRI) organization made up of amateur radio operators who specialize in long-range communications has been busy handling health and welfare messages from the islands. Meanwhile, the Red Cross, which has a relationship with the American Radio Relay League (ARRL), put out a call for fifty Red Cross certified ham radio operators to travel to Puerto Rico. Tim Duffy, president of the Radio Club of America (RCA) and president of a large amateur radio supply company also played an active role.

A number of hams from the United States have traveled to the islands while mainland hams have been receiving radio traffic, mostly at this point from residents who want to let their mainland family members know they are alright.

The ARRL sent a number of cases containing long-distance radios and wire antennas, and others are procuring solar panels to use as a power source. Many island hams have set themselves up to be self-sufficient with battery back-up for their radios, perhaps a generator, and ways of stringing up temporary antennas if their own antennas were torn down.

Those in Puerto Rico who have not been able to contact their U.S. mainland relatives because there is little if any cellular service are finding the Red Cross and ham radio community working hand in hand to process messages back to the mainland. The way this works is that a message from a survivor is transcribed for the radio operator who, using voice or code, sends the message out to a station on the mainland. It appears as though much of this traffic is going into the New York area. Once the message is received, it is again transcribed and the person who needs to be contacted is usually called on the phone and read the message. Sometimes an answer can be sent to the island but not always. At least the mainland relatives know how those on the island are doing.

Ham radio is also used in many emergency operations centers (EOCs) to provide contact out of the area, again perhaps back to the mainland or to other EOCs. Some emergency communications vehicles are equipped with amateur radios and when sent to an area, a ham rides with the public safety communications personnel to handle the more routine types of traffic, leaving the public safety channels available for emergency work. Local hams are working to re-establish both local voice and data networks that were damaged during Maria and help with related tasks as well. One big benefit of ham radio is that

hams can move their equipment and set it up almost anywhere it is needed. They are mobile, they have handheld radios and can assist both locally and long distance, and do not need the Internet or cell phone service to communicate locally or around the world.

Amateur radio is often viewed as an old-style hobby that is dying out due to the Internet, cell phones, and cheap forms of communications. The reality is that there are many young people studying for and passing tests for their amateur radio licenses. If you ask them why, they will tell you they believe they can be of service during major storms and other types of disasters and that there is plenty of room for experimentation and learning. Hams have been using the Internet to interconnect radios in distant cities for many years and there are many data systems on the air as well. Yes, the data speeds are slow, not anywhere near data speeds on commercial broadband networks, but these systems can be moved, set up where needed, and provide data connections between hospitals and other organizations.

The FCC has given the ham radio community a number of different portions of spectrum over time. Spectrum that is close to existing public safety and business radio is used for short-distance communications but using the proper equipment, it can easily provide communications over an entire city. Spectrum in the lower portions of the radio spectrum is used for longer-distance communications and can provide solid communications around the world. In the case of Puerto Rico and the Virgin Islands, it can also move voice and Morse code traffic off the island today when most cellular systems are down, as are power and the Internet. Ham radio stations in Puerto Rico have been communicating with mainland United States since the storm blew past, and they are still being used on a daily basis.

In Puerto Rico and the Virgin Islands, very high winds and a lot of driving rain took out the islands' power, not only at primary power sites. If you look at the pictures, in many areas power poles are lying on the ground and wires are simply dangling freely. The task to bring both power and cellular services back up on the island will take a long time and a lot of effort, not to mention funding. Hams are all volunteers. They are not permitted to be compensated for their work and they purchase their own equipment with their own money in most cases. Some of the most forward-thinking communities have outfitted their Emergency Operations Centers and communications command vehicles with ham radio equipment, but most of the radios used in these disasters have





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!

### When All Else Fails - cont'd from page 5

been purchased by the individual hams or by the ARRL for use during disasters.

Events such as hurricanes, tornadoes, and major earthquakes that damage communications systems cannot be prevented regardless of how much effort has been put into hardening the network. In these cases, the issue is how quickly service can be restored and what means are available to assist. When an event such as a hurricane gives us warning, commercial network operators, power companies, and land mobile radio companies all prepare. In most cases they pre-stage fuel for generators, people, repair trucks, parts, antennas, and perhaps the electric company brings in some power poles. But when an incident

*cont'd col. 2*

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simply happens with no warning, the time it takes for help to be on the way is increased.

Remember, somewhere in your neighborhood is a ham radio operator who stands ready to assist in bringing communications to those who need it most. Sometimes it seems we simply assume our communications networks and the Internet will be available all the time, but during Harvey, Irma, and now Maria, many learned that communications capabilities, one of the most important links for all of us, may not always be available when we want them and need them. While our infrastructure companies work at making our systems better, there are times when nature's fury beats our best efforts. The good news is that when all else fails there will still be amateur radio!

*BREAK - OVER*

### 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. The Medical Unit is responsible for the development of the Medical Plan, obtaining medical aid, and:
  - A. Transportation for injured and ill incident personnel
  - B. Coordination with public health service to determine where critical resources are deployed
  - C. Provision of emergency services to injured victims at the accident scene
  - D. Authorization prior to purchases of any medical supplies and services

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

### September NIMS Knowledge Solution

1. Select the TRUE statement:
  - C. Formal communication is used in reporting progress of assigned tasks

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### ARES Breakfast

Saturday  
November 11th 2017  
7:30AM

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

### NECOS Schedule November 2017

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 \_\_\_\_\_

October - 2017

Oct 30th WA0DGW John

November - 2017

Nov 6th KD0UWZ Chad

- First Monday Net

Nov 13th N0BHC Bob

Nov 20th WA0DGW John

Nov 27th KD0UWZ Chad