



ARES COMMUNICATOR

Information for Scott County Amateurs



March, 2006

Accurate, Reliable Emergency Communications

Volume 6, Number 3

SKYWARN Training 2006

Warmer weather cannot be too far away when the notice for the annual SKYWARN training sessions arrives.

SKYWARN spotters need to take the spotter training course every two years to keep their skills up to date.

A partial list of training sessions follows. The complete schedule is available on line at www.skywarn.ampr.org/sked.htm



March 4th Saturday 9 am to 1 pm
Twin Cities Repeater Club
Burnsville City Hall
Civic Center Dr. & Nicollet Ave.
Jeff Goodnuff w0kf@tcrc.org 952-927-0201

March 11th Saturday 8 am to 12 pm
Twin Cities FM Club
Golden Valley Safety Center
7800 Golden Valley Road(1 Blk East Of Winnetka)
Mike Sigelman 763-542-8450 n0oel@aol.com

March 18th Saturday 9 am to 1 pm
St Paul Radio Club /Thomas Radio Club
University Of St. Thomas
Murray - Heric Campus Center
(Off Cleveland for directions see www.St.PaulRadio.org)
Dallas Fogg 651-644-2361 dfogg@scc.net

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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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Reader submissions encouraged!

NIMS/ICS Training Essential

The Department of Homeland Security is requiring all first responders, including volunteers, to complete training in the National Incident Management System (NIMS) by 2007.

This sounds formidable, but in reality there is an Independent Study course from FEMA that covers it. The course is IS-700 - go to www.training.fema.gov/EMIweb/IS/crslist.asp and find the course list. Follow directions and you will get to IS-700. ARES members can take the course on line or download the material and do it at their own pace. It shouldn't take more than three hours in any case. There's a final exam on line, but it isn't going to cost much sweat (or any money - courses are all free). After passing the final, you will get notification by e-mail or regular mail.

ARES members are encouraged to look at the rest of the course offerings on the FEMA training Web site (see also IS-100, and IS-200). They represent a wealth of knowledge, organized so that us real people can get through them and actually learn something. They aren't rocket science, just good stuff we need to know!

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Happy St. Patricks Day!

ARES Activities

Weekly Net Monday 7 PM 146.535 mhz (s)
Breakfast Saturday March 11th

SELECTED TRAFFIC NETS

Designator	Freq.	Local Times	
MN Phone	3.860Mhz	Noon, 5:30pm	Daily
MN CW	3.605Mhz	6:30pm, 9:50pm	Daily
ARES			
Scott ARES	146.535 S	7:00pm	Monday
Carver ARES	147.165+	8:30pm	Sunday
Neighboring Nets			
North Dakota	3.937Mhz	6:30pm	Daily
South Dakota	3.870Mhz	6:00pm	Daily
Wisconsin	3.985Mhz	5:30pm	Daily

Standard Power Connectors

Standardized, reliable power connectors for our equipment provide a real advantage in emergency communications. When one operator relieves another at a communications point there aren't any worries about the power connections. Once we have the power connectors our equipment standardized the next problem is connecting to a power source.

This is where a little brainstorming and ingenuity come into the picture. The equipment we will be powering operates on a nominal 12 volts DC (13.8VDC). Power requirement for one popular dual band transceiver call for 12 amps in transmit and up to 1.8 amps in receive. There may be other equipment operating as well such as lighting, a laptop, HT charging, terminal node controller, etc. You need to consider the total current requirements when

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March 20th Monday 6 pm to 10 pm

Radio City

2663 County Road I

Mounds View, MN

REGISTRATION IS REQUIRED

Seating only For 20

Dan Fish 763-786-4475 radiocty@skypoint.com

March 29th Wednesday 6 pm to 10 pm

SMARTS

Carver Cty Govt Center

Chaska, MN

Dean Anderson 952-466-3808 en@gothaos.com

April 1st Saturday 8am to noon

Bloomington Emergency Com.

Fire Station #1

10 West 95th Street

Bloomington, MN

Gene Clemens 952-831-3089 scoutgc@earthlink.net

April 17th Monday 6 pm to 10 pm

Radio City

2663 County Road I

Mounds View, MN

Dan Fish 763-786-4475 radiocty@skypoint.com

REGISTRATION IS REQUIRED

Seating For 20 only

June 10th Saturday 9 am To 1 pm

Twin Cities Repeater Club

Burnsville City Hall

Civic Center Drive & Nicollet Ave.

Jeff Goognuff 952-927-0201 w0kf@tcr.org

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building and connecting cables.

When building cables the minimum size you probably want to consider is 14 gauge or 16 gauge wire depending on the current requirements. Don't forget to fuse BOTH the positive and negative cables. Lets take a look at some possible power connections.



25 amps.

Mobile operation may find you looking for the cigarette lighter, ops – the power port, as a power source. This may not be fused at more than 10 amps depending on the particular vehicle. The actual cigarette lighters were more reliably fused at 20 to

Suppose your power source is an automotive style lead acid battery. One option is to equip one end of the cable with some heavy-duty alligator clips (Mueller No. 46-C) and connect directly to the battery posts or battery cable connections.

When your power source happens to be a 12 volt supply running on AC power you will probably encounter a binding post connection on the supply. This is where the basic "tinned end" cable comes into use. Another option is to modify the power supply by adding Power Pole connectors to the supply itself. There are mounting brackets that mount a pair of standard Power Pole connectors to the power supply enclosure. The installation is pretty simple and looks great.

Now that you have your power source, either vehicle, battery or power supply connected to a Power Pole cable, what is the next step? There are a couple of options. One option is the RIGrunner series of power distribution panels made by West Mountain Radio, available at PowerWerx



(www.powerwerx.com). Another option is a PowerPanel made by Saratoga Amateur radio Products (www.saratogaham.com). Both of these devices seem to be quality products able to stand up to the rigors of emergency operation.



That concludes a brief look at some strategies for powering your emergency station. The right solution for your particular situation is limited only by your imagination.

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SuitSat-1 RIP

SuitSat-1 is now a confirmed "Silent Key." So says its sponsor, the Amateur Radio on the International Space Station (ARISS) program. In operation for more than two weeks, SuitSat-1—designated AO-54—easily outlasted initial predictions that it would transmit for about one week. ARISS International Chairman Frank Bauer, KA3HDO, says the mission captured imaginations around the world, despite a much-lower-than-expected signal strength.



Bob King, VE6BLD, in Alberta posted the last confirmed reception of SuitSat-1's voice audio, Saturday, February 18, at 0332 UTC. Richard Crow, N2SPI, in New York received the last confirmed telemetry, which indicated the battery voltage dropping precipitously to a low of 18.3 V before the novel satellite ceased to transmit.

Hearing SuitSat-1's puny signal strength generally required gain antennas, but Bauer says he heard SuitSat with a 3-element Arrow antenna and a handheld radio. Bauer's daughter Michelle recorded the English-language voice identification. Another challenge to signal reception, he said, was the very deep fading due to the suit's rotation in orbit.

"One great positive that came from these issues is that it challenged the ham radio community worldwide to improve their station receive capabilities so that they could pull every bit of signal from SuitSat," Bauer remarked.

Bauer says reports that SuitSat-1 was non-operational and that the battery was frozen shortly after deployment are false. "This never occurred," he stressed. "As the telemetry has shown, temperatures within the suit were a somewhat comfortable 12-16 degrees C during the entire mission." He adds, "It (SuitSat-1) was alive and operated flawlessly, except the signal strength issue, from the time the crew flipped the switches until the battery power was used up."

Bauer added, "It is entirely possible that the radio output
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could have been at 500 mW, and the feed line, connector or the antenna caused the problem," he said, adding that the SuitSat team has only just begun studying what might have caused the weak signal.

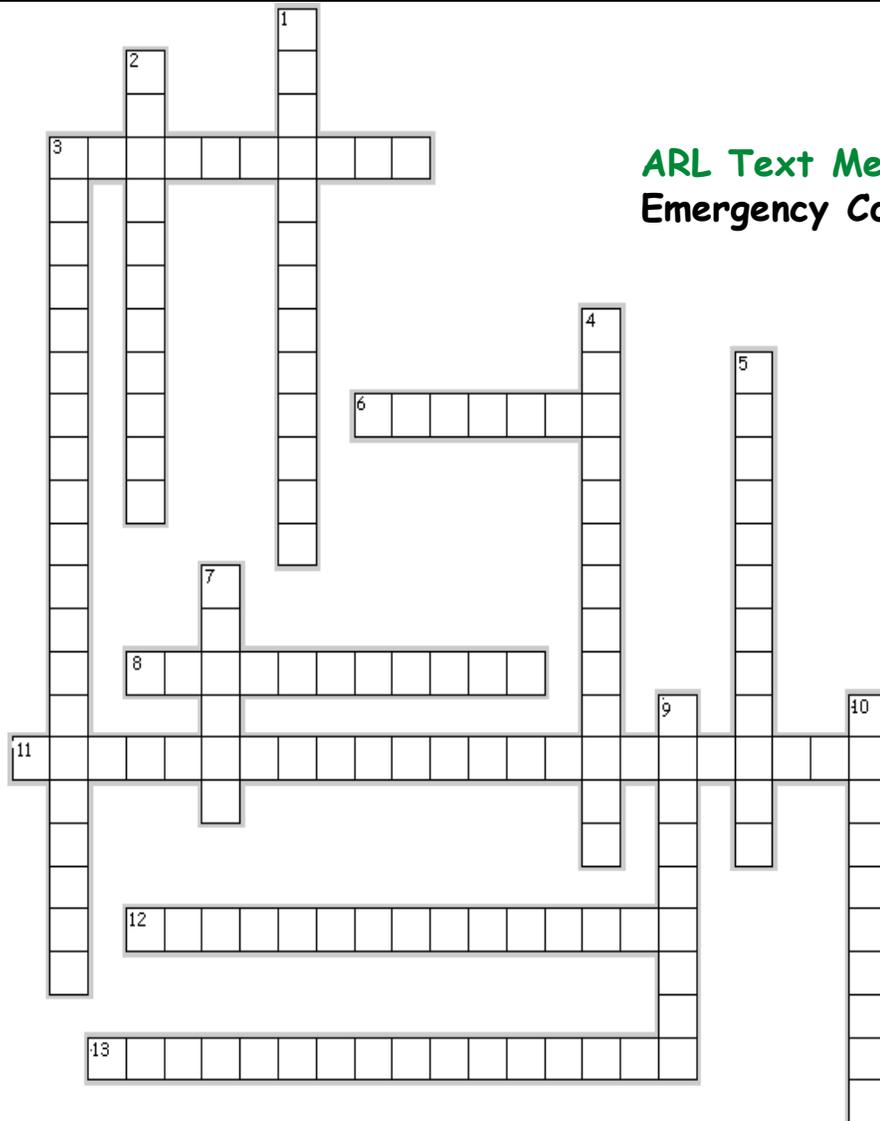
The AMSAT/ARISS team already is looking forward to a SuitSat-2. "Correcting the signal strength issue would be a top priority for this flight," Bauer said. "So would be a longer-term power generation device, like solar arrays."
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"Plain Language" Communications

From the FEMA NIMS FAQ: The use of plain language in emergency response situations is a matter of public safety, especially the safety of first responders and those affected by the incident. It is critical that all local responders, as well as those coming into the impacted area from other jurisdictions, know and use commonly established operational structures, terminology, policies and procedures. This is what NIMS and the Incident Command System (ICS) are all about - achieving interoperability across jurisdictions and disciplines.

The use of common terminology is about the ability of area commanders, state and local EOC personnel, federal operational coordinators, and responders to communicate clearly with each other and effectively coordinate response activities, no matter what the size, scope or complexity of the incident. FEMA requires that plain English be used for multi-agency, multi-jurisdiction and multi-discipline events, such as major disasters and exercises. Beginning in the fiscal year that starts on Oct. 1, 2007, federal preparedness grant funding is contingent on the use of plain English in major incidents requiring assistance from responders from other agencies, jurisdictions and functional disciplines. It is important to practice everyday terminology and procedures that will need to be used in emergency incidents and disasters. NIMS implementation is a long-term effort and it's probably not possible to persuade everyone to change ingrained habits overnight. But over time, everyone will understand the importance of using common terminology, that is, plain English, every day.
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ARL Text Messages: Emergency Communications Shorthand

Across

3. Property damage very severe in this area.
6. Only slight property damage here.
8. Situation becoming critical.
11. ARL Fifty
12. ARL Twenty One
13. ARL Thirteen

Down

1. Evacuation of residents from this area urgently needed.
2. Please contact me ASAP.
3. ARL Twelve
4. ARL Sixty Four
5. ARL One
7. Will contact you ASAP.
9. Temporarily stranded.
10. ARL Two



Created with EclipsoCrossword - www.eclipsocrossword.com

February Crossword Solution: Presidential Trivia

Across

3. GARFIELD—Second president to be assassinated in office
7. ADAMS—Reportedly kept an alligator and silk worms as pets
8. REAGAN—Oldest president and successful Hollywood actor.
10. WASHINGTON—Portrait on the ONE dollar bill
11. JACKSON—Portrait on the TWENTY dollar bill
13. LINCOLN—Tallest president
14. EISENHOWER—Supreme Commander, Allied Forces in Europe during WW I I

Down

1. JEFFERSON—Considered the author of the Declaration of Independence
2. BUCHANAN—Only bachelor president
4. BUSH—Pets include Barney and Miss Beazley
5. MADISON—Shortest president
6. HARRISON—First president to die in office
9. ROOSEVELT—Leader of the Rough Riders in the Spanish-American War.
12. KENNEDY—Youngest elected president

RECOMMENDATION ON USE OF AMATEUR RADIO IN DISASTERS

A revised International Telecommunication Union (ITU) Telecommunication Development Sector (ITU-D) Recommendation is now in force to promote “effective utilization of the amateur services in disaster mitigation and relief operations.”

“This is an updated version of a Recommendation that administrations include the amateur services in their national disaster plans, reduce barriers to effective use of the amateur services for disaster communications, and develop memoranda of understanding with amateur and disaster relief organizations,” explained ARRL CEO David Sumner, K1ZZ. The recommendation advises cooperation among all parties in making available model agreements and “best practices” in disaster telecommunications.

One change in the revised recommendations provides that Amateur Radio stations may be used to transmit international communications on behalf of third parties in case of emergencies or for disaster relief. Another encourages administrations “to take the necessary steps to allow amateur stations to prepare for and meet communication needs in support of disaster relief.” The FCC recently adopted changes to its Part 97 Amateur Service rules to reflect these and other WRC-03 actions.

The recommendation recognizes that effective Amateur Radio disaster communication depends “largely on the availability of amateur operators located throughout a country,” and that post-disaster international humanitarian assistance “often includes the provision of amateur operators and of equipment from an assisting country.”

It further acknowledges that barriers in terms of gaining permission to operate and to move equipment and operators into a disaster zone “in many cases hindered the full use of telecommunications capabilities available from outside an affected country.”

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Portable Operations

If you haven’t checked into the weekly net lately you are missing some interesting operation. ARES members are setting up portable operation from various sites throughout the county during the Monday evening net. The portable operations are usually at lower power using antennas at lower elevation than home stations. This gives everyone the opportunity to see how their station performs in communications with various sites within the county under less than perfect conditions. These are valuable lessons learned in preparation for an emergency operation.

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Quick Training Tips

Station to Station Contact

The most important function of a directed emergency net is to facilitate the movement of information from one location to another in support of the served agency.

The station-to-station contact procedure has evolved over time to support accurate, rapid communication. Let’s take a look at the process step by step. We’ll use tactical callsigns in this example.

A station calls the NECOS (net control station) and announces, “Shelter One with one priority for Red Com, OVER.”

The NECOS acknowledges the traffic and directs the stations involved to pass the traffic by saying, “Shelter One ROGER, call Red Com and pass one priority, OUT.”

The station receiving the traffic answers first. Red Com would respond to the NECOS direction by saying, “Red Com ready to copy, OVER.” The sending station would then send the message starting with, “Message follows, . . .”

This procedure may seem confusing at first but keep in mind our objectives of accuracy and speed. When the receiving station answers first, the NECOS immediately knows several important facts. First, the receiving station received the NECOS direction. Second, the receiving station, Red Com, can copy the sending station, Shelter One. Third, the receiving station is ready to copy the message. All this information is transmitted with four words, “Ready to copy, OVER.”

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ARES Breakfast

Don't forget your HT this month!

Saturday March 11th

7:30AM

Perkins Restaurant

Savage, MN

NECOS Schedule - March 2006

6 Mar	KB0FH Bob
13 Mar	AB0YQ Steve
20 Mar	K0KTW Pat
27 Mar	W0NFE Bob
3 Apr	KB0FH Bob