



SDARC Newsletter

www.sdarc.us

Volume 4, Issue 1
October 2010

UTAH SET: Each year the American Radio Relay league conducts a Simulated Emergency Test (SET) in every state in the country. The mission of the SET is to conduct a series of exercises designed to test and improve emergency communications on all levels under adverse conditions.

Covering every county of Utah, this year's SET begins November 6th at 08:30 and continues to November 7, 07:30. With a severe winter storm, 3 earthquakes, and a flood, the scenario will prove to be a handful for agencies and our amateur radio operators. Emergency agencies and communications groups must register now to take part at www.utahset2010.org and participate in this test. All instructions are on the site.

The scenario begins at 01:00 on Saturday night, November 6th, 2010 as a large winter storm engulfs the entire state. By 08:29 there are 2 feet of snow in most areas with higher elevations receiving over 5 feet. At 08:30 a 7.4 magnitude earthquake, centered in North Salt Lake City occurs, quickly followed by two additional quakes of 6.5 magnitude. One is centered in Central Utah near Green River and the other near St. George.

As a result of the initial quake the Great Salt Lake bed heaves and rises 6 feet. The Salt Lake valley floor fills with an average of 2 feet of water. The Jordan River bottom and low points of the valley are flooded to water levels exceeding 6 feet. Initial deaths are 4500 confirmed with estimated injuries exceeding 31,000. Three thousand people are stranded at the Salt Lake Airport and 300 at bus stations. An aircraft has crashed at the Salt Lake International Airport with most passengers requiring immediate medical care. Reports of widespread building destruction are being received.

Overpasses on I-15 and I-80 have failed and fallen. Traffic is minimal but escalating as first responders attempt to report to their agencies. The power system is down, natural gas lines are ruptured, fuel trucks are unable to resupply generators. Phone lines are down and cellular service has reached its saturation point. Mountain top installations are intact as are the NOAA and NWS radio stations.

Sewer systems are in failure. Potable water is compromised requiring boiling and

treatment. The National Weather Service has issued an emergency alert and warns of more significant snowfall to arrive in the early evening.

For more information contact: Roger

Public Service

Get ready for the...

2010 ARRL Simulated
Emergency Test

▶ [Learn More](#)

<http://utahset2010.org/>



Kehr, N3AOQ, Utah SET Chairman, at cottonwoodheightsradio@gmail.com or call 801-450-0454. Additional Link: <http://www.arrl.org/chapter-2-simulated-emergency-test-set>

Inside this issue:

<i>Why Choose a Loop Antenna</i>	2
<i>Castleview Hospital Partnership</i>	3
<i>SDARC Minutes 5 August 2010</i>	4
<i>New HF at Cedar Mountain</i>	4
<i>Spotlight: Dusty E. Zeeman KF7DPX</i>	5
<i>Recipe: Strawberry Spinach Salad</i>	6
<i>Decals</i>	6

Upcoming meetings:

November 4, 2010,
Los 2 Amigos
December 2, 2010
Old Orangeville Fire House

SDARC on the web:

For latest news, repeater updates as well as other great ham resources check us out the Club site: www.sdarc.us

2010 SDARC Club Officers

North Vice-President

Allen Henrie KE7PDO

South Vice-President

Bret Mills WX7Y

Secretary / Treasurer

Anita Mills KB7GFV

Communications Officer

Jim Anderson KJ7S



CJ at Spring Campout by newly tested Technician Pam Anderson KF7JMA

Why Choose a Loop Antenna

Submitted by Jim KJ7S (from website that belongs to KG9OM and is done I believe by him and K5UA)

Loops are usually cut a full wavelength long on the lowest expected operating frequency. The formula for a full wave loop antenna is Length (feet) = 1005/f MHz. For example, a loop for the frequency of 3.800 MHz would be calculated as follows: 1005/3.8 = 264 feet. A multi-band loop antenna offers significant advantages especially for hams who prefer to only use one wire antenna for all bands:

A loop is quite forgiving and perfect symmetry is not essential. Ideally the loop should be in a configuration providing the greatest enclosed area at the highest height possible. Since the loop can be erected in unusual places and still perform *Submitted by Jim KJ7S (from website that belongs to KG9OM and is done I believe by him and K5UA)*

Loops are usually cut a full wavelength long on the lowest expected operating frequency. The formula for a full wave loop antenna is Length (feet) = 1005/f MHz. For example, a loop for the frequency of 3.800 MHz would be calculated as follows: 1005/3.8 = 264 feet. A multi-band loop antenna offers significant advantages especially for hams who prefer to only use one wire antenna for all bands:

Club Decals are available. For prices and orders contact George Ingram K3RZD at 435-613-0350 or e-mail him: g@ingram-tech.com

Those decals personalized with call signs have been printed and will be delivered at November's club meeting unless you contact George to pick them up personally.

A loop is quite forgiving and perfect symmetry is not essential. Ideally the loop should be in a configuration providing the greatest enclosed area at the highest height possible. Since the loop can be erected in unusual places and still perform well, treetop suspension is often used. I rely on heavy duty nylon or black Dacron halyards with nylon pulleys at each attachment point to keep equal strain on each leg of the loop. A slingshot, fishing line and heavy sinker get the halyards up and over the trees as necessary.

Unlike a center fed dipole, the loop can be fed at any convenient point.

Since the design of a loop is typically a square or delta form, the need for a long straight run of wire such as a dipole is diminished.

A loop makes for an efficient broadband radiator, even when low to the ground or close to obstructions such as tree limbs. The majority of the amateur bands are harmonically related, typically the 1st harmonic. A loop is easily tuned to resonance on all harmonics of its fundamental frequency. A dipole by



Angela Paskett KL7JFZ of Ferron, taking her technician exam at the Spring Campout April 2010



Antenna project at Spring 2010 SDARC Campout, The Wedge



Loop Antennae (cont'd)

contrast is easily tuned to resonance only on its odd harmonics. A loop starts out with 1.2 dB of gain over a dipole on its fundamental frequency.

A loop's gain over a resonant dipole increases with the increasing frequency of operation. Therefore, when used on its harmonics, a loop's signal advantage over a dipole likewise increases. At higher bands, radiation angle is lowered resulting in improved DX performance.

The venerable loop is easy for a balanced line capable tuner to match on all bands when fed with 300 or 450 ohm balanced feed lines.

Although I'm not convinced, most hams who use loops often claim that a loop is less susceptible to atmospheric and man-made noise.

Ladder line fed loops significantly reduce the chances of rfi in the shack. The antenna does not rely on the need for a good RF ground to the same extent as unbalanced coax fed dipoles or loops. There is widespread misconception on this point. More about this below...

Many hams find it difficult to bring ladder line all the way into the shack to the tuner and resort to the use of remotely located coax fed balun (usually 4:1) connected to the ladder line. I have tried this approach and found that it usually works better on some bands than others. My recommendation is to avoid this technique if at all possible. Finally, try to use a tuner design that has been optimized for this type of antenna.

You too may want to consider the time-honored loop. It is simple and inexpensive to homebrew and can yield surprisingly effective performance. All things considered, it's a great multi-band antenna. (The remainder of this article regarding loss is available from Cynthia KE7KTV, cgrant@etv.net)

visit <http://www.cebik.com> for a theoretical examination of the effectiveness of large loop antennas.

Note: Visit <http://www.k5ua.com> for details of his 40 meter two element phased array.



SDARC members at the Friendship Cruise May 2010

Members of SDARC are committed to providing public service and have traditionally helped with numerous projects such as the Friendship Cruise down the Green River and back up the Colorado, exiting near Moab.



Castleview Partnership: SDARC is cooperating with Castleview Hospital in order to train ham operators among their staff to better prepare for emergencies which disrupt normal medical communications. Club members are also lending their expertise in recommending equipment to purchase and how best to work with the transmission problems they may encounter caused by the building and its location.

Harvey Peet, hospital project manager met with club members at their regular meeting in Price August 5, 2010. Allan Orton KA7LEG, Bryan Anderson K7GX and Bret Mills WX7Y have been meeting with Harvey to begin setting up the program at the hospital. Castleview officials wish to extend SDARC members a big thanks for their help and expertise and look forward to building a strong relationship!



SDARC Minutes 5 August 2010

*Sinbad Desert
Amateur Radio Club
meets the first
Thursday of each
month, alternating
between a Carbon
County site one
month and an
Emery County site
the next.
Next meeting will be
November 4, 2010.*

The Meeting of the SDARC was called to order at 7:05 by Allen Henrie at the Pioneer Park in Price. The minutes were read by JJ. Bret made a correction to the minutes that the Sheriff's rope was used to straighten out our antenna at Bruin and also that the Woodhill frequency is 448.300 UHF.

The treasurer's report was then given. We have \$2,820.52. Bret then moved to accept them and Big Jim KJ7S 2nd. Allen Henrie presented us with a bill for the rental of the Park. It was \$20. Jim made a motion to pay it, Paul, 2nd. It was taken care of. Also the bill for our insurance came from the ARRL. Jim moved to pay it, Bryan, 2nd.

Old Business—Willow Mountain was discussed. Bret talked to Corky Brewer. They want to do a site survey for frequencies before we put it on Willow. We also need to talk to Royce and see if it is really what we want. It will cover the freeway better for the handheld radios. Brian will check the coverage with his GPS coordinates.

Ford Ridge was then discussed. Rod from Emery Telcom wants to work with us. They have 2 buildings up there. We will try and work with them and see what we can do.

Abajo was next. No one has been able to get down there yet the weather is still not great and JJ told us that it was cloudy down there on Monday.

Next item was Bruin. We got the antenna straightened, and we need to get that finished and bolted down. The scaffolding that is being used up there should make that easier to work on it.

Next Bret checked on the permit for Boarding House when Commissioner Kofford came in. They were able to find all the paper work but that project will have to wait until next spring.

George then talked to us about the stickers. 13 people are all that have signed up to get them, and we need at least 60 orders at \$2 each to get the deal. Bret moved that the Club buys them, and then we can make a buck or two on each one as the club members and others want them. JJ, 2nd. There was some discussion about leaving room at the bottom for the individual call signs that can be added in later. These stickers are ones that go on the inside of the window and not outside. Bret then amended his motion to go ahead and order the ones that already want their call signs on theirs and the rest to be left blank for those not ready. Then the Club will pay for the rest of the order. JJ 2nd. George will submit the order after next Tuesday's net so if anyone still wants to add their call they will have that chance.

The Carbon County microwave is almost ready to go.

Brian got some of the paper work research done for the Starr Point site. The pictures show that the site is not in the mining area, but no information was available.

Wood Hill was talked about. It is now live. Ross had a problem with the controller, and so they are still both stand alone repeaters and not linked to anything. Some work still needs to be done to get them hooked into the system.

Old and New Business— The Henries were discussed. Lightning struck, so it needs work badly, but no one has had a chance to get down there, hopefully soon.

Allen let us know that Ross is officially moved to SLC and working for the Power Company. He and his family are very happy, and we hope they do well. He will try and make it down for some meetings and campouts.

Huntington Stake is going to have a Preparedness Fair, and they would like the Club to come over and help.



SDARC club meeting September 2, 2010, in Orangeville at the park pavilion



Minutes (cont'd)

Starr Pt. was discussed some more. Bret talked to Dennis Ware. They have some issues about the site. Brian showed us his research, and we should have no problems.

Bret has made several trips to Bruin and has done lots of work. He still needs to go to the Henries and Ford.

Then Bret did a show and tell. He talked to a company that sells equipment and asked them about some controllers. Later that day they called him back and asked him if they could send him out a couple for free and let him do some testing and try to debug them and let them know how things go. He explained how they work and what he wants to do with them.

We have a new visitor from Castlevie Hospital. His name is Harvey Peet. The Hospital has a lot of need to get more communications, so they would like to get some employees at the Hospital to get their licenses and maybe even their spouses so that in case of an emergency they will be able to still communicate with the necessary people. Lots of ideas were discussed and tossed around. Classes were discussed. We could try to have them in both Carbon and Emery Counties. We will do more discussion on this later.

Next meeting will be in Orangeville at the Old Fire Station. Cynthia is to get the key. It will be September 2nd. JJ made a motion to adjourn and Brian 2nd. Meeting adjourned at 9:16 pm. There were 20 members and visitors present.

New HF Repeater at Cedar Mountain

Thanks a lot to Ross AA7AM, Bryan K7GX, JJ K7JNJ, Paul K7BFE, Jim KJ7S, Jim KA7YIV, John K1HOD and a special thanks to Anita KB7GFV for all of her patience and understanding while this project has taken a lot of my time during the evenings through this past 10 months.

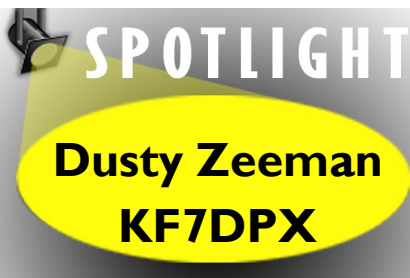
The install at Cedar Mountain went like clockwork. After about 3 hours we had things running and on the air with a NEW 147.140 repeater linked to the rest of the Sinbad Repeater system, and the NEW 448.550 up and on the air with the TS-2000 HF Remote Base. The HF remote base has a Carolina Window antenna and covers 80 thru 6 meters using the HF radio's internal antenna tuner.

During our Club campout on Friday through Sunday we played a lot with the HF remote and put it through its paces. It is very impressive and works very well. Saturday we had a training class at 10 am on the repeaters new command structure that we are going to be using and the HF Remote Base commands and showed a demo of the HF Remote.

Thanks again everyone! It was built for all to enjoy, but please don't abuse it. If you have a question using it, please contact me.

We will be getting some cards laminated so those who want to use it can have a quick reference for the HF remote.

73's everyone! Bret Mills WX7Y



Dusty from near Gunnison, Utah is one of the youngest SDARC hams. He became a Technician June 30, 2009, and has been going great guns ever since.

My name is Dusty, KF7DPX and I am a licensed amateur radio operator with my technician license. I became a radio operator because my dad did. It was really neat to watch him get on the radio and I wanted to be able to do that too. Even though it was really hard to pass my test it was worth it. It took me three times to be able to pass it. I passed my test at field day last summer, and I think they heard me yell in Castle Dale when I passed it. My Dad and Mom gave me a radio when I passed, and I use it all the time.

It is been great to be able to contact my Dad when he is working because a lot of time he is out of phone range. I also have learned how to fox hunt with it and I also have been able to keep in touch with my amateur radio friends. I have been able to make contacts on the 10 meter radio into California and Hawaii as well as a few others with my dad, N7RVS as control. I also participated in JOTA last year and I am looking forward to doing it again this year. I am currently working on getting my signaling merit badge for scouts this year. I also enjoy going to campouts with the club and learning new things.





Visit us at www.sdarc.us

Please send submissions for the SDARC Newsletter, published quarterly, to Cynthia Grant KE7KTV at cgrant@etv.net.

Nominate your favorite ham for the newsletter spotlight by sending a picture and brief article, each issue.



Club Decals are available. For prices and orders contact George Ingram K3RZD at 435-613-0350 or e-mail him: g@ingram-tech.com

Those decals personalized with call signs have been printed and will be delivered at November's club meeting unless you contact George to pick them up personally.

Please use the following form to pay dues, to give a donation, and/or to update your contact information.

Please update your contact information below.

Address

City

State

Zip

Daytime Telephone

Evening Telephone

E-mail Address



Dues—\$25.00 (per year, per member)	\$
Donations (If any)	\$
Total	\$

Please make checks payable to below and send to:

Sinbad Desert Amateur Radio Club
P.O. Box 1073
Castle Dale, UT 84513

Check here to receive the newsletter by e-mail instead.

Ilene's Grant's

Strawberry Spinach Salad

(share request from September 2, 2010 meeting)

Adapted From *Worldwide Ward Cookbook* compiled by Buxton

Salad: Combine ingredients and serve with Homemade Poppy Seed Dressing

- 10 oz baby spinach
- 10 strawberries, sliced lengthwise
- 3/4 c. sliced almonds
- 1/4 c. dried cranberries
- 1 c. mandarin oranges

Optional: 1/2 c. pistachios; 1/2 c. Feta cheese, crumbled; 2 chicken breasts, boiled and shredded

Homemade Poppy Seed Dressing: (combine all ingredients in a jar. Cover and shake until well blended. Refrigerate immediately)

- 3/4 c. mayonnaise
- 3 Tb. Vinegar
- 1/2 C. sugar
- 1/3 C. whole milk
- 3 Tb. Poppy seeds

Makes 8 servings

The Sinbad Desert Amateur Radio Club is a general-purpose club that mainly serves the Carbon and Emery Counties but has members from all over Utah and surrounding states. The Club was formed by local Hams in Eastern Utah in 1982 by individuals with a common interest. Those interests range from a "ragchew" on one of the standalone repeaters or on the SDARC repeater system to the many different modes on the low bands.