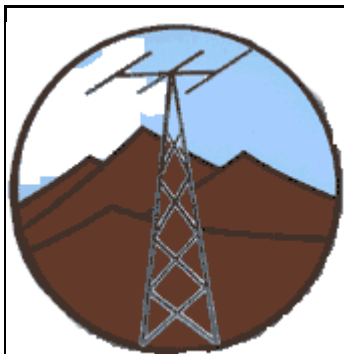


2009 SARC Membership Dues are Due!



THE AIRWAVES

January 2009

SIERRA AMATEUR RADIO CLUB

An ARRL Special Service Club

RACES ARES

P O Box 1442

Ridgecrest

California

93556-1442

BOARD	President	Greg Roush	WA7IRW	446-4383
	First VP	John Andrus	KC6UWM	371-2190
OF	Second VP	Fred Moses	KG6STR	371-3582
	Secretary	Paula Herr	N6VGW	375-5324
OFFICERS	Treasurer	Ed Czajka	KI6PSP	384-4726

SARC OWNED AND MAINTAINED REPEATERS

Randsburg	WA6YBN 145.34 MHz (-), PL 100.0 Hz, Wide Area, Emergency Power, linked to 147.00
Ridgecrest	WA6YBN 146.64 MHz (-), Translator, No Squelch Tail, Emergency Power
Ridgecrest	WA6YBN 147.00 MHz (+), PL 107.2 Hz, Autopatch, linked to 145.34
Ridgecrest	YBNBBS:WA6YBN, 145.050 MHz, Bulletin Board, 1200 Baud
Ridgecrest	#YBNSW:WA6YBN-4, 223.580 MHz, Node, 1200 Baud
Ridgecrest	#YBNSW:WA6YBN-4, 439.025 MHz, Node, 9600 Baud

SARC Committees

Technical Assistance: Greg, WA7IRW 446-4383

Program: Fred, KG6STR 371-3582

RF Interference: Bill, WA6QYR 375-8566

Public Relations: John, KC6UWM 371-2190

Airwaves Editor: Mike, WA6ARA 375-5324

Emergency and Public Service: Mike, W6PM 793-0541

THE AIRWAVES CALENDAR

Every	ARRL Audio News 1910 (7:10 p.m.) on 146.64 MHz
Monday	IWV Emergency Net Visitors Welcomed! 1930 hrs (7:30pm) WA6YBN Translator 146.64 MHz (-)
Night	East Kern County Emergency Net Visitors Welcomed! Rand repeater 145.340, pl 100 2000 hrs (8pm)
Jan 14	SARC Annual Installation Dinner 6:30 pm, at Casey's Steaks & Bar-B-Q 1400 N. Norma. See details inside

**Jan 17 Transmitter Hunt 0900 – See
inside for details**

**Jan 24 Fire Mountain 30/50 Horse Ride – See
inside for details**

AMATEUR RADIO LICENSE EXAMS Every Even Month, Second Saturday

14 Feb Volunteer License Exam Session
Location: Guns 4 Us, basement classroom
417 East Ridgecrest Blvd, Ridgecrest CA
No handicapped access Pre-reg by 10 Feb.
Limited to 8 applicant All must register at 9 AM
Contact Elvy Hopkins NØLV 760-384-3589
E-mail <lvrh7589@iwvisp.com>

2009 SARC Dues are due!

Yes, it's that time of the year once again. Your 2009 SARC dues are due. Your dues support numerous repeaters, some possible repeater expansion, insurance, meeting site, licensing classes, this newsletter and host of other items. Please use the application at the end of this newsletter and rejoin, better, bring it to the January Installation Dinner. Also, please consider using the email option for the newsletter

From the President's Shack

I hope everyone is having a healthy and happy new year so far. If you didn't get any radio stuff over the holidays, come to the January installation dinner. A lucky number of folks will win some nice prizes. If you did get an interesting ham radio-related gift over the holidays, please bring it to the February meeting to show and tell. January is the start of our public service event season. The Fire Mountain 50 mile endurance ride on January 24th is usually a pretty nice time to enjoy the desert. Please consider helping out once a month. We can also use more net control operators, meeting "goodies" providers and presenters, and RACES volunteers. If you have ideas for meeting topics, please call or email Fred or myself. The more folks who help out, the easier and more interesting for all of us.

I get the weekly propagation report from the ARRL. I was part of the crowd that was predicting (optimistically hoping) 2008 was the start of the new sunspot cycle, but had our hopes dashed. 2008 was worse than 2007. Any day now we ought to see new sunspots emerge... any week... any month. Forever optimistic! DX opportunities do exist at the bottom of a sunspot cycle. One must either monitor the bands a lot or use one of the propagation prediction programs to guide one to the most likely time period to work DX in a particular region. Unfortunately, the real-time on-line one I usually recommend is in the process of changing "owners" and servers. Let me know which propagation prediction software you use.

73,
Greg
WA7IRW@arrl.net

General Meeting Minutes December 2008

The meeting was brought to order by the club President, Greg Roush, WA7IRW. There were no new members or visitors. No DX news was mentioned. It was reported that the ultra-marathon went smoothly.

There were a number of business items addressed. The slate of officers was unanimously voted in. It was moved, seconded and voted to allot \$500 for door prizes. It was decided that the installation dinner would be held at Casey's Steaks & Bar-B-Q, 1400 N. Norma, Jan. 14th, at 6:30 p.m. An audit committee was sought, with only Paula, N6VGW volunteering.

The program was a mini amateur radio quiz, and a "Show & Tell" of ham items. Fred, KG6STR, administered the quiz. Dennis, W6DWF, brought in and discussed some rig mounts. Gene, KI6LO, showed off an auto tuner, balun, and Bluetooth GPS Receiver. Greg, WA7IRW, demonstrated his new mini VNA.

Treasures Report

Treasurer report as of 04 November 2008

Draft Account	\$413.88
Share Account	\$3,826.27
Balance	\$4,240.15

submitted by Ed, KI6PSP

SARC 2009 Installation Dinner!

The 2009 SARC installation dinner will be held on January 14, 6:30 pm, at Casey's Steaks & Bar-B-Q, 1400 N. Norma. We will be welcoming our 2009 board President - WA7IRW Greg, 1st VP - KC6UWM John, 2nd VP - KG6STR Fred, Secretary - N6VGW, Paula and Treasurer - KI6PSP, Ed

The grand prize this year will be a Heil Pro Set headphone / boom mic. At least 9 other prizes will be awarded along with the typical brown bags of mystery. Every 2008 SARC member in attendance will receive a ticket, as well as any new 2009 SARC member. You must be in attendance to win.

And a Special Event at the Dinner!

As a special event, we will be holding a drawing of those who completed and earned their General Class license at the recent SARC Class a donated IC-735 all-band HF transceiver with auto tuner and power supply. For this one you need not be there to win, but it sure would be nice. This is limited to those that attended and completed the SARC General License Class this fall and earned their General Class tickets. We know who you are and your names have already been entered into the drawing.

Badges

The secretary has badges for :

Allen KD7GXI

Jeff KD5HML

Transmitter Hunt!

It's time again to start up the Transmitter Hunts. These are fun activities for the whole family. The object is to track down and locate a hidden transmitter some place in or near town. If you don't have equipment, or just not sure what to do, come on down and we will link you up with an experienced hunter. We will be meeting at the Heritage Inn parking lot (same as the general SARC meeting) at about 0900 Saturday the 17th of January. It will last about an hour. Hope to see you all there.

73

Mike WA6ARA

Upcoming SARC Communication Event

The 30th annual Fire Mountain 30/50 mile Endurance Ride

This is the first of the year horse rides that SARC members support with communications. They have 7 locations around their loops plus a base station they would like manned. All of these are on dirt roads in Rademacher hills to the south of Ridgecrest. There is only one location that might be rough to get to and would require a pick up truck with high clearance. All the rest a normal car or Greg's motor home can make. The ride starts at 0600 Saturday morning January 24. The first water stop needs to be on site by 630 and the rest from 7 am on as the ride goes. To start the ride we will be using 147.06 MHz simplex to coordinate on. We will be using the portable repeater on 147.06/.66 MHz during the later part of the ride. Most of the close in sites can be worked with an HT. The others will need a mobile rig with 30 or so watts to work through the repeater. The ride provides lunch if you would like it. The ride is generally over mid afternoon. Our purpose in supporting the ride is practice with our radios in communicating on field sites, in addition to providing lost rider and water needs to the ride folks. It is fun to spend the day out in the field with out lots of stress. Bill, WA6QYR will be lead on the event so give him a phone call (375-8566) or sign up at the January 14 installation dinner at Casey's.

GPS Antennas

Now you can (legally) mount your GPS on the windshield (sorta)

From the California Vehicle Code at

<http://www.dmv.ca.gov/pubs/vctop/d12/vc26708.htm>

26708(b)(12) A portable Global Positioning System (GPS), which may be mounted in a 7-inch square in the lower corner of the windshield farthest removed from the driver or in a 5-inch square in the lower corner of the windshield nearest to the driver, if the system is used only for door-to-door navigation while the motor vehicle is being operated and outside of an airbag deployment zone. ...Dennis, W6DWF

Ask Elmer!

Ask Elmer! is a chance for anyone, both new and old hams, to ask a question and get, hopefully, accurate and useful information. This can be a basic question of operating or a detailed one on a new mode. Send the editor your questions and I will distribute them to a group of local hams who will come up with the answer. If they don't know, I'll go out and find the answer to the amateur community outside of the IWV.

The Question... From a pair of hams discussing the goings on of the universe...

"How does RF power into an antenna and the Gain of the antenna give us effective radiated power of the antenna? We know that you can not have more RF power out that you put in. If you start with 100 watts the most you can have is 100 watts out in a perfect antenna system. So if say your antenna has a gain of 6db over a dipole in free space and you feed it with 100 Watts from your radio minus the loss in the connectors and coax what do you really have?"

The Answer...

You are right, if you start with 100 watts out of your transmitter, then the most you can radiate is 100 watts. The antenna system, including the antenna, feedline, tuner and all the various connectors, are passive and cannot "create" power. But they can consume it. So, 100 watts starts out at the transmitter, through various connectors, maybe a tuner, up a feed line and finally to the antenna. All along the way each component has an efficiency associated with it. The efficiencies change with the design of the component and the frequency involved. Typically, the better the quality, the better the design and the lower the frequency, the more efficient the component. But, no matter what, there are always losses, and the power never exceeds that which you put into it, and it is always less. At 40 meters, the losses might be rather low, so an antenna system might reach 95%. On the other hand, a well built 440 Mhz antenna system with a long coax run might only be 60%.

Ok, still, we have 100 watts going in and say 95 watts at the antenna. What's this gain stuff, anyhow? A good analogy is a flashlight. Remove the lens and reflector and turn it on. The bulb radiates out in all directions (more or less), and it is ok to dimly light up a small room but you really can't see any detail. Now add the reflector and lens. Now turn it on and there is a difference. The light is concentrated in one general direction. In front of the beam it is much, much brighter, while behind it, darkness. The reflector and lens has formed a directional antenna for the RF (light waves), with considerable gain.

Your 6db antenna is the same. It is being compared to the mythical dipole in free space. If we look at the radiation pattern, the direction the RF goes out from the antenna, for the dipole in free space, we see it is, for the most part, omni directional. That is, it radiates outwardly the same in all directions. The 6db antenna pattern is distorted. If this is a vertical antenna, if you look at the pattern it will emphasize the horizon and almost nothing going straight up. If you want to work repeater on distant mountains, that is exactly what you want. On the other hand, if you want to talk to your buddy flying a glider overhead, not so good. You have sacrificed radiation going up and moved it to the horizon.

Beam antennas work the same way. The available energy is "focused" in a preferred direction. The increased radiation in that direction, at the cost of less radiation in the others, is the "gain". So, if we started out with 100 watts, loss 5 watts due to connectors, cable, etc, we have 95 watts. With every 3db of gain we are doubling the power. So for 95 watts at 3 db we have 190

watts effective radiated power (ERP), and at 6db that would be 380 watts ERP *in that direction only*. Of course, at the wrong end of the antenna it would be way less than the 95 watts.

Remember, the antenna system is a passive device, it does not add power to the signal. So if we could collect together all the power radiated by our gain antenna, we would be right back to the original 95 watts (and maybe a bit less due to the gain antenna efficiencies).

Straight Key Night Report

Straight Key Night, or SKN is a unique operating event. It is a 24 hour event, from 0000UTC to 2400UTC on 1Jan. Because we are talking UTC time and date, it is really New Years Eve through New Years Day. The object is to greet the new year in while operating using straight keys. Straight keys are the classic hand key used to pump out Morse code.

This is not a typical event or contest, rather the objective is to have nice relaxing QSOs using Morse code at slow speeds. There is no tracking of sections or regions, nor serial numbers to hand out. Rather, just sit back and relax. Recently it has taken on the mantle of also using old rigs, usually tube style. Although not really part of the ARRL Straight Key Night "rules", hearing the older rigs drift and chirp along certainly adds to the flavor of the night. Suddenly it is 1965 again.

I've been operating most straight key nights when I am available. As you would expect, most of the operation is on HF, although I and others make SKN contacts via low earth orbit satellites as well. Recently one local ham questioned the sanity of using one of the oldest modes through one of the most modern paths.

The photo shows my set up. One subject of discussion on SKN during the QSO is the key that you use. A couple of years ago I built what I call the "SKN spider". This allows me to connect up to 7 keys in parallel. This way I can rapidly move from key to key, usually on the fly during a QSO.



From left to right, the first key is a kit key I won at Pacificon. This was it's first time out. The next key was my father's (WB6MNX) and his brother (my uncle) before him (W6MMA). So there is good karma in that key. Next is a plastic Ameco key. This was a typical starter key for many a young ham, usually first showing up in a code practice kit. Along side of the Ameco key is a Jardillier leg strap key, I believe was built for certain foreign military. It straps on to the leg, and I've used it a lot camping and backpacking over the years. The gold key up next is the 2007 Christmas key. It is small but very functional, really a piece of art work. The manufacturer comes out with a new key every year. The key along side of it is a half scale J-38 key. Very small but well built and fully functional. Last is a J-45 key. This is a J-38 key mounted on a metal leg strap. It clamps around the leg and provides a very stable mount for tickling the aether.

Overall I had a blast. I didn't make as many QSOs as I had in the past, but each one was fun. N0TU has put together an excellent video capturing the essence of SKN. It can be viewed at

<http://www.youtube.com/watch?v=aAk7gRdwpGs>

I hope to be on next year. With any luck, I should have my dream 1960's Novice station on the air, consisting of a DX-60B transmitter, HR-10 receiver and the HG-10B VFO.

73 and hope to see you at SKN
Mike WA6ARA

Check out the SARC Web Page
www.qsl.net/wa6ybn/

MEMBERSHIP APPLICATION
SIERRA AMATEUR RADIO CLUB of the HIGH MOJAVE

Please fill out this form. It is used to make the club roster and newsletter mailing list. This form must accompany all membership and badge payments. All renewals are due 31 March. Please mail this application and your payment to SARC, POB 1442, Ridgecrest, CA 93556-1442 or give them to the Secretary at a meeting.

Membership – Please circle one

Individual via Mail - \$20.00	Individual via Email - \$17.00
Family via Mail - \$30.00	Family via Email - \$27.00
Full time student via Mail - \$10.00	Full time student via Email - \$8.50
Active Duty Military via Mail - \$10.00	Active Duty Military via Email - \$8.50

Individual or First Family Member

Date _____

Name: Last _____ First _____ Call Sign _____

Novice ___ Tech ___ Gen ___ Adv ___ Ex ___ ARRL Member : Yes ___ No ___

E-Mail Address _____ (Note: Email address is not shared, for newsletter only)

Mailing address: _____ City _____

State _____ Zip _____

Phone: _____

Second Family Member (For more family members please duplicate)

Name: Last _____ First _____ Call Sign _____

Novice ___ Tech ___ Gen ___ Adv ___ Ex ___ ARRL Member : Yes ___ No ___

DO NOT DETACH

BADGE ORDER

DO NOT DETACH

The club badge shows your Amateur Call, your Name and Sierra Amateur Radio Club. It will identify you at club meetings and public service events. To order a badge, provide the information below and, include \$11.00, for *each* badge in Membership Application total above or with this form and mail to SARC, POB 1442, Ridgecrest, CA 93556-1442 or give it to the Treasurer at a meeting.

Name to put on my badge is _____ (What you like to be called)

Amateur call for my badge is _____

**RACES, ARES and INDIAN WELLS VALLEY
EMERGENCY NET MEMBERS**

In case of impending or current emergency, monitor the SARC translator on 146.64/04 MHz or the backup simplex frequency of 146.52 MHz. W6PM, Mike or AI6A, John, the local RACES ECs, will coordinate mobilization. An Emergency Net Control Station will direct radio communications. Check in. State your capabilities. Be prepared to go outside the IWV for at least three days. An E-Pac should contain: your RACES card, radios and accessories, batteries, charger, paper, pen, clipboard, flashlight with spare batteries, timepiece, headgear, sunglasses, spare glasses, your medications, your medical history, first aid kit, severe weather clothing, non-perishable food, 3 gal. water, sleeping bag.

**THE AIRWAVES NEWSLETTER
JANUARY 2009**

**SIERRA AMATEUR RADIO CLUB
POST OFFICE BOX 1442
RIDGECREST, CA 93556-1442**