

# Sierra Signals

Sierra Foothills Amateur Radio Club  
Auburn, CA  
An ARRL Special Service Club

<http://www.sf-arc.org/>

NOVEMBER 2009

PO BOX 1005. NEWCASTLE. CA



At the key of SFARC

## OFFICERS

### PRESIDENT

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norm.linda@surewest.net

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### REPORTERS

Satellites: Greg, KO6TH

History: Gary, KQ6RT

Misc Radio: Fred, K6D6W

## RESOURCES

### REPEATERS

145.430 (-0.6 MHz/PL 162.2)

440.575 (+5.0 MHz/PL 94.8)

223.860 (-1.6 MHz/PL 100.0)

### CLUB NET

Thursdays, 7:30PM, W6EK/R

145.430

### CLUB MEETINGS

Second Friday of the month,

7:30PM at the Library, 350

Nevada St, Auburn CA

### CLUB BREAKFAST

Last Sat of the month at

Susie's Café, Cirby at Riverside,

Roseville - 8:00 AM

### NET CONTROL OPS

Dave Jenkins, WB6RBE

Gary Cunningham, KQ6RT

Norm Medland, W6AFR

Casey McPartland, W7IB

### NEWSLETTER EDITOR

Matthew Diridoni, KC6RUO

916-749-3032

matteod@comcast.net

S

F

A

R

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## Calendar of Events

11/7-8/2009 ARRL November Contest  
Sweepstakes (CW)  
[www.arrl.org/contests/calendar.html](http://www.arrl.org/contests/calendar.html)

11/7-8/2009 ARRL International EME  
Competition  
[www.arrl.org/contests/calendar.html](http://www.arrl.org/contests/calendar.html)

11/13/09 MEMBERSHIP MEETING  
and Elections

11/26/09 HAPPY THANKSGIVING!

12/4-6/09 ARRL 160 Meter Contest  
[www.arrl.org/contests/calendar.html](http://www.arrl.org/contests/calendar.html)

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## November Meeting Program

The "TechTen" topic will be introduction to Human RF Exposure part two.

The meeting presentation is **APRS** "Automatic Packet Reporting System" by Greg Dolkas, KO6TH. **APRS** was developed for local tactical digital communications, situational awareness and TWO-WAY information exchange.

Club Elections will also be during the November Meeting.

Bring a friend, visitors welcome!  
See you all there!

**We encourage members to receive Sierra Signals via email to save the Club the cost of reproduction and mailing**

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## Miscellaneous Radio

By Fred Jensen, K6DGW

N6A-2009 California QSO Party

As expeditions go, Alpine County isn't exactly DX but the



crew of “usual suspects” did it again this year, and as usual, it was an adventure. We obtained our usual 1x1 call which we've used for maybe 5 or 6 years now, it's become synonymous with Alpine County for the rest of the world, although this year we were not the only Alpine station. N6NA was set up in a resort somewhere near Lake Alpine as well. We were in our usual campsite at 38+40+54.7N, 119+37+48.6W, in grid DM08, right at the base of Leviathan Peak at an elevation of about 8,400 ft, and it is definitely not a “resort.” But, we're on a ridge with just about an optimum gentle slope to the east for our tribander, and since we're all just a tad competitive, we go for points, not comfort.

The photo was taken just before we left on Sunday afternoon, from the left, me, Don W6OA, Larry W4UAT [our “commander”], John WB6ETY, and Bill N6BM who was new this year. It was about 35°F in the sun.

As we have in the last several years, we used Larry's IC-765 Pro II, his AL800 amplifier, and the A3S tribander for 20, 15, and 10 [should it open which it didn't]. Larry had



constructed an almost full-sized rotatable dipole for 40, and we went back to the inverted V for 80. We had a 5KVA generator for the rig, and a Honda EU3000 for running everything else. The Honda is really a DC generator driving an inverter. As a result, under no or very low loads, it just idles very quietly and we leave it run all night to power the electric blankets ☺ Our camp may not be a resort but we do try to stay reasonably comfortable.

It's all set up in a fairly large tent. Larry is on CW in the photo; Bill has his back to the camera. This was before the contest [note laptop running TR-Log isn't on], by the end of the contest, the table is littered with soda cans, coffee cups, hats, scribbled notes, gloves, and other flotsam. Not visible is another comfort item, a propane space heater behind Larry that keeps it in sweatshirt temperatures in the middle of the night in the tent.

Don brought his 756 Pro II just in case. This was good thinking because it began to snow on Friday night and continued through most of Saturday. As best we can tell, we started to get some precipitation static from the snow, and finally it killed Larry's Pro II. It would snow again early Sunday morning, which ultimately killed Don's radio, and we finished the last several hours with John's little IC-706.

Weather is always “interesting” at 8,400 ft in the Sierra in early October. Don and I arrived midday on Wednesday, I was in cargo shorts and a T-shirt, and quite comfortable.



The automated weather station about 2 km from us had been reporting high 60's and low 40's for several days. We were fairly stoked that we'd have great weather, we subscribe to the First Order Markov Model of weather forecasting – “The weather tomorrow will be pretty much what it is today.” It turned out Markov was wrong. As the sun sank below the low hills to our west, the temperature assumed the glide angle of a brick. By this time, Larry and Bill had arrived, so we crawled into our sleeping bags under our [electric] blankets and slept until the long dark spell was over. Low Wed night was either 19°F or 16°F depending on which thermometer you chose to believe.

Thursday was cold, high might have been 40, but Thursday is antenna day, so we got plenty of exercise. Our antenna

field is littered with rocks sticking up and low sagebrush which you trip over a lot, but the antennas went up just fine. The tribander is on a crank-up mast, and Larry has an aluminum alloy military tower that comes apart into 5' sections, and it went up very smoothly with the 40m dipole and 80m Inverted-V.

I have an aircraft altimeter in my truck, and I set it to 8,400' when I get there. Thereafter, it is our barometer, and late Friday morning, our mountain began to rise alarmingly fast signaling that the barometer was falling -- fast. It began to cloud up and got windy. The cloud cover kept the low that night a little more reasonable, 22°F, however clouds are never good at our campsite and we woke up Saturday to about 5" of very dry snow. It snowed on and off most of Saturday and I took the photo from my tent trailer Sunday morning.

Radio conditions were surprisingly good, even if the weather sort of sucked. I pulled the first CW shift at 0900



on Saturday for about 2 hours and I was really surprised at the number of Europeans who called me with strong signals. I managed about 230 Q's for a 115 rate which is just a tad over our average for the first two hours.

In the interest of full and truthful journalism ... we do not have it all bad. We have a latrine which we put out on the point overlooking the Carson Valley and Minden/Gardnerville 4,500' below us. It's a great view, especially at night. You can see Slide Mt. and US 50 heading west out of Carson City. It's also a warm seat. The white cord off the side plugs into about 300' of extension cord to our generator and nicely warms the seat, effectively ending the need to chip ice off before your morning bathroom activities. We also have a microwave, last year Jim brought an espresso machine [I'm not making this up, "Starbucks in the Sierra"], Larry has a large 3-burner propane stove that can outdo any windstorm, and of course, there are the electric blankets.

Most of our crew are advancing in age at about one year per year [OK ... we all are, some of us just have a head start], and we have begun considering whether it's wise to continually push the Law of Large Numbers. We are very isolated on this expedition [I stop at the fire station at SR 89

and US 395 and tell them where we are], and eventually, some disaster is likely to occur. We're talking about another, somewhat more "resort oriented, site in Alpine County, and we'll see. I learned many years ago that despite my belief as a teenager, I was not bulletproof and definitely not immortal. But we all do really love this camp, despite the weather, and overcoming the challenges is not something any of us want to give up.

This photo is the A3S tribander on the crank-up mast. There's a short story behind the flag. Most of you know that Andrea and I adopt troops in combat zones. One of ours was Marine SSgt Ross Arnette, back in 2005/2006. He sent us the flag, he and his Marines had flown it over their camp in Iraq on the anniversary date that I accepted a commission in the Regular Air Force from a Marine Captain at his forward firebase NW of Da Nang, Vietnam. Most of you know that too. I took it to CQP in 2006 and we flew it from the same crank-up mast, most of the crew were



Veterans and it sort of mattered to us that we had a flag. We've done it every year thereafter. I put the photo on the little website we chronicle our expeditions on, and identified him as the source of the flag.

Last year, I got an email from a woman in Kentucky I didn't know. She said she was a good friend of Ross', had adopted him as we had and at about the same time, and had been sending him packages. Though she tried to stay somewhat arms length from her adopted troops, this Marine seems to have gotten over her fence. She was looking for an article in a Marine magazine or website which had featured him and his Marines, and she Googled his name. Our site came up as



the second hit. He had emailed us that he was about to deploy again, she said he had just left, ultimately gave us his address, and we got him on the package rotation again. You can all probably break the code here ... Ross came home early this year, and he and Kristy will marry early next year. It's a really small world, especially with the Internet. It's also kind of cool that our little website played a small role in love.

How'd we do? Well 15 really opened on Sunday, and all told, we made 1,274 QSO's in 57 of the 58 possible multipliers [never heard the VY1 who was on], for 208,164 points. All but 161 of the QSO's were on CW, for some reason we never could get much traction on phone ... only 8 on 40m.

I love this expedition, it involves a huge amount of radio in the mode that I love, and it is the signal to me that summer is ending. I've always needed to be on a team or crew, and I definitely get my "crew fix" from this trip, I do love these guys.

73,

Fred K6DGW

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**DON'T FORGET TO CHECK OUT OUR WEB PAGE**

<http://www.sf-arc.org/>



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Welcome to the Sierra Foothills Amateur Radio Club's Website

Please use the navigation buttons above to view our [site](#).



## **WF6J WANTS YOU! SFARC WEBMASTER SEEKS INPUT**

Fellow SFARC members, I am here to carry out your wishes and wants regarding your website. I would like to hear directly from each of you that would like to see some changes, specifically new features.

While it has meeting dates, list of officers and a 2 year archive of our newsletter, Sierra Signals, it is not much of an "active" site.

There has been a desire to have a photo gallery where we can post photos from club meetings and events. Some have asked for pdfs or printouts of meeting presentations. We could also have a password entry "classifieds" for selling or placing a want for equipment.

How about some links such as ARES, other Clubs or other organizations? The choice is yours! Please either talk with me at the meeting or better yet send me an email at: [wf6j@arrl.net](mailto:wf6j@arrl.net), or use the "webmaster" email on the front page of the website.

The future is up to each and every one of you. If you want changes, let me know. If not, let me know that also. The club is the sum of its membership and each and every one of you have a voice. I'll be expecting to get your email. TNX, WF6J

<http://www.sf-arc.org/>

## SFARC WHITE ELEPHANT SALE GETS "CHEESY", BUT IS A SUCCESS!



Things got a little "cheesy" at the white Elephant sale last month. Richard, WA6RWS and SFARC Life Member & "Auctioneer Extraordinaire" Len Taylor, WB6HGS, auction off a "Cheese Hat" along with all the great Amateur Radio gear donated.

"I am pleased to say that due to the generosity of our membership and some wonderful guests, plus some new members, we netted \$383.25! Wow!" Says SFARC Treasurer Leslie Nye, K7NYE.

In addition to the contributions for the White Elephant, we also got membership applications for three new members! So thank you for your efforts in getting this organized. This money will be deposited tomorrow, Oct 10<sup>th</sup> at Wells Fargo. Several other members renewed early, so that was good too.

On an related note, we are still waiting for the second 50% of the contribution from the Western States (or was it the Tevis Foundation, I'll have to check). George is still owed the 50% balance for the repeater purchase, so perhaps we can have Gene check with the remaining association once I confirm the one that already paid. I believe the Western States Trail Foundation already paid, but I'll double check and report back this weekend.

Again, it was a great evening and a great success!  
73,

Leslie, K7NYE

### TOTALLY COOL HAM SHACK!



If you want to see a totally cool Ham Shack, go to QRZ and look up W9EVT. There are numerous photos of the largest Ham Shack I have ever seen.

## SFARC Membership Meeting

### Minutes of the Meeting of October 9, 2009

The meeting was called to order at 7:30 PM by President Norm Medland, W6AFR. The flag salute was followed by the introduction of the officers and the members.

Secretary Wayne, W6DT, was asked to summarize the September meeting. A VE report was given by AI, NI2U, who advised that there were seven tests taken and five passes.

The satellite report, given by Greg, KO6TH, was succinct, "They are up there!" He then did provide additional information.

The repeater status was given by Richard, WA6RWS. The plan is to swap out the old unit with the new in the immediate future now that cool weather would make working in the vault a little more tolerable. The old repeater will then be moved to Jim's, KI6AZH, place high above Christian Valley and be installed as a back up, ready to go.

Matt Diridoni, KC6RUO, was recognized for the fine job he has been doing on the newsletter.

Carl, WF6J, was recognized for his fine efforts on the web site. He needs more input.

The monthly Tech Ten was presented by AI, NI2U, who summarized important information about RF exposure and had a hand out with the information including the evaluation requirements.

The ARES report was presented by Chuck, KG6FFP.

Our Treasurer, Leslie, K7NYE, advised that we were at about \$1197.

After a break, the White Elephant Sale was conducted by Len Taylor, WB6HGS, who did his usual outstanding job. The money raised will go to the Christmas Dinner. The meeting adjourned at 9:20 PM.

Respectfully submitted,  
Wayne Stilwell, W6DT

Secretary



### Fifty Years Ago at SFARC

Meeting of Nov. 4, 1959 Vice President Mike Bowman was chairman.

Herb Hartman gave an excellent talk on "Q" and answered questions of the members.

Treasurer reported that there was \$75.10 on hand. Three dollars more were collected making a balance of \$78.10 on hand.

Next meeting to be conducted by President Jim Carman, who will talk on the use of the oscilloscope.

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(916) 366-7408



### Local ARRL Exam Sessions Courtesy of the ARRL

07-Nov-2009

**Sponsor:** UNSPONSORED

**Time:** 8:00AM (Walk-ins allowed)

**Contact:** LARRY R HODGE

(916)361-2476

**Email:** [LARRYHODGE2000@COMCAST.NET](mailto:LARRYHODGE2000@COMCAST.NET)

**VEC:** ARRL/VEC

**Location:** RALEY'S COMMUNITY EVENT CENTER  
6845 DOUGLAS BLVD  
GRANITE BAY, CA 95746

21-Nov-2009

**Sponsor:** RIVER CITY ARCS

**Time:** 7:30 AM (Walk-ins allowed)

**Contact:** KENNETH M HALL

(916)492-6115

**Email:** [WO6J@ARRL.NET](mailto:WO6J@ARRL.NET)

**VEC:** ARRL/VEC

**Location:** CARMICHAEL ELKS LODGE-USE EAST  
ENTRANCE  
5631 CYPRESS AVE  
CARMICHAEL, CA 95608

05-Dec-2009

**Sponsor:** UNSPONSORED

**Time:** 8:00AM (Walk-ins allowed)

**Contact:** LARRY R HODGE

(916)361-2476

**Email:** [LARRYHODGE2000@COMCAST.NET](mailto:LARRYHODGE2000@COMCAST.NET)

**VEC:** ARRL/VEC

**Location:** RALEY'S COMMUNITY EVENT CENTER  
6845 DOUGLAS BLVD  
GRANITE BAY, CA 95746

19-Dec-2009

**Sponsor:** RIVER CITY ARCS

**Time:** 7:30 AM (Walk-ins allowed)

**Contact:** KENNETH M HALL

(916)492-6115

**Email:** [WO6J@ARRL.NET](mailto:WO6J@ARRL.NET)

**VEC:** ARRL/VEC

**Location:** CARMICHAEL ELKS LODGE-USE EAST  
ENTRANCE  
5631 CYPRESS AVE  
CARMICHAEL, CA 95608



**Some Very Basic  
Antenna Theory  
Chuck Baker  
AE6LR**

Many new amateurs start out with a 100 watt HF transceiver and the desire to contact other amateurs throughout the U.S. and around the world. They are inundated with so much information that it's intimidating. The connection between their radio and the world is the antenna. Reading about antennas in books, magazines, or on the Internet provides no end of technical information and construction details, but, if you don't have the basics down it's sometimes hard to understand! This is not a technical discourse filled with theory, formulas and such, it is merely meant to give some general information that may help in understanding antennas.

Let's use the analogy 100watt light bulb, it gives out just so much light, it's what we do with that light that makes the difference. If we place it in the air it emits light equally in a 360-degree sphere. If we want the light to be seen farther away we can raise it higher. If we want more of the light in a particular direction we make it a spot light by placing a reflector and/or lenses to concentrate the light in the desired direction. The sharper the beam of light the brighter the light is within the beam and the farther it reaches out. We still have only a 100watt bulb but now there is more illumination in one direction and less in other directions.

Antennas work in a comparable manner. The 100watt transceiver has just so much power (RF) to send out. It's what we do with that power that makes the difference. For an antenna to have gain (better performance) it has to change the radiation from a sphere into a directional pattern. The more the signal is concentrated the higher the gain.

A dipole is similar to that light bulb in that it basically radiates in all directions and, generally

speaking, the higher we place any antenna the better it works. A quarter wave vertical has a pattern that resembles a ball cut in half with the open end down and the round top up. If you want to send and receive from many directions without having to rotate the antenna then one of these antennas may be just the ticket.

Some designs like the  $5/8^{\text{th}}$  wave vertical still radiate 360 degrees horizontally but it redirects the radiation that was going straight up back towards the horizon. This pattern is more like a doughnut and creates some gain over the  $1/4$  wave vertical.

In order for us to concentrate more power so that our signal is stronger farther away we can use a "beam" antenna that "focuses" the RF into a sharper "beam". This is for both the transmitted and the received signals. A high gain (beam) antenna must therefore be rotated to enable us to communicate with amateurs in various directions. Remember the beam antenna is like a spot light, it doesn't light up the world, just a portion of it.

Increasing your power enables your signal to be stronger for a longer distance but it doesn't help on the receive end. If they hear you but you can not "hear" them you can not "work" them, and your signal may be interfering with others. An antenna with gain can increase your signal strength at the distant station and increases their signal to you.

This has been an overly simplified explanation meant to be a starting point for great adventures with antennas. This is one field of amateur radio that lends itself to home building and experimentation. Remember a 100watt station with a good antenna can outperform a 1000watt station with a poor antenna.

Chuck Baker AE6LR

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 2009 MEMBERSHIP APPLICATION**

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Phone Number: \_\_\_\_\_ Application: (Circle One) New Renewal

Member Dues: Circle Amounts That Apply. Applications (for new members only) received in the middle of the year will be pro rated. Contact the President or Treasurer for exact rate.

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Auto Patch Donation: (T)	\$ _____	Newsletter Booster: (V)	\$ _____
Misc. Donation: (X)	\$ _____	Christmas Donation: (W)	\$ _____
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