



THE AIRWAVES

September 2007

SIERRA AMATEUR RADIO CLUB

An ARRL Special Service Club

RACES ARES

P O Box 1442

Ridgecrest

California

93556-1442

BOARD	President	Gene Brewer	KI6LO	446-1315
	First VP	John Andrus	KC6UWM	371-2190
OF	Second VP	Fred Moses	KG6STR	371-4034
	Secretary	Lloyd Brubaker	WA6KZV	375-7245
OFFICERS	Treasurer	Pam Evans	KC6UUS	375-4240

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 371-4034
RF Interference: Bill, WA6QYR 375-8566

Public Relations: John, KC6UWM 371-2190
Airwaves Editor: Mike, WA6ARA 375-5324
Emergency and Public Service: Mike, W6PA 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)

Sep 12 SARC Board Meeting
7 pm – Heritage Inn Conference Room

Sep 12 SARC General Meeting
730 pm – Heritage Inn Conference Room
Program – TBD

Sep 29 Annual Kiwanis Walk-a-thon
Contact Greg WA7IRW on 146.64 MHz or at 446-4383 See article inside.

Oct 06 Picnic In The Park
Ridgecrest to Kernville bicycle ride (See article inside) Contact: Elvy Hopkins NØLV
<lvrh7589@iwvisp.com> or 760-384-3589

AMATEUR RADIO LICENSE EXAMS

Every Even Month, Second Saturday

Oct 13 Volunteer License Exam Session
Location: Guns 4 Us, basement classroom
417 East Ridgecrest Blvd, Ridgecrest CA
No handicapped access Pre-reg by 8 Oct. Limited to 8 applicant All must register at 9 AM
Contact Elvy Hopkins NØLV 760-384-3589
E-mail <lvrh7589@iwvisp.com>

From the President's Shack

Well here we are again. Another summer survived and fall weather just around the corner. That means temperatures will soon start to get down to a comfortable level and we desert dwellers will begin to venture out of our cooled shacks and participate in outdoor activities more. That means more weekend functions that may require volunteers for communication support or repairing old antennas and installing new ones. I, for one, have plenty of antenna work to attend to.

Speaking of volunteering, there are a few activities coming up in the next couple of months that all of the club members should consider helping out with. Watch your newsletters, check into the Monday night emergency net and come to the monthly meetings to keep up with the latest information. If you are a new ham wanting to install some antennas or just need some help fixing up an existing install, come to the club meetings and bring up your needs to your fellow hams or contact the newsletter editor and insert a small announcement in an upcoming issue. There is plenty of help just waiting to assist.

If you have any ideas for programs for the remaining meetings, contact Fred Moses and discuss your ideas. He's always open for suggestions and help. Let's all get involved and make this second half of 2007 a great time in the club. Also let's not forget that the end of the year will be here before we know it and I would like to challenge everyone to consider running for a club officer position. Let's not wait till the last minute to think about it.

See ya at the meetings

Gene KI6LO

June Meeting Minutes

1. The meeting was called to order by by the president. The sign-in sheet was started around resulting in 24 sign-ins. Only four were board members.

2. A discussion was had concerning the purchase of the digital projector. The likely selection was over the \$800.00 limit imposed at the last meeting. It was decided to ignore the limit since the price of the projector was only a few dollars over \$800. No other action was taken. No brand names were mentioned.

3. It was suggested that mail be brought to the meetings rather than distributing to board members.

4. The general meeting was called to order by the president at 1929

5. The club is going dark for the summer with only the special meetings as usual. [Note item 7]

- a. The BBQ at Ron's house in July at the regular club time.
 - b. The Ice Cream Social in August at Jim's house at the regular club time.
- Any changes or clarifications will be announced on the Monday night net.

6. Greg gave a talk on his annual sailboat adventure to include a passing out for inspection some of the modifications he made to accommodate the sailboat rigging. He made 16 contacts through the satellites which is quite a feat since the satellites and the sailboat were both in motion!

7. Mike Herr has been searching for training programs that would assist the club with disaster preparedness and new equipment use. Do we want to undertake one of them. How about the Sept-Oct time frame?

8. The next FCC exam session is on August 11

9. A hilarious program was presented by Fred Moses on cheap antenna construction using materials found around the house (in the junk pile mostly). For each example he showed he gave the results of testing in terms of frequency's used, range vs power used, modes tried, and ease of construction. It was suggested not to try some of the models invented.Thanks Fred

10 Thanks Pam for the cookies!!!!

Respectfully submitted Lloyd Brubaker Secretary SARC

TREASURER'S REPORT

Treasurer's Report as of 03 September, 2007:

Draft Account	\$ 520.81
Share Account	\$ 4,703.57
BALANCE:	\$5,224.38

submitted by Pam Evans, KC6UUS

IWV Emergency Net Checkins

July 02 - 17
July 09 - 14
July 16 - 14
July 23 - 19
July 30 - 14
Aug 06 - 12
Aug 13 - 16
Aug 20 - 15
Aug 27 - 13
Sep 03 - 18

Thanks to all for helping out on net control.

N6TST

QST magazine, August 07, p 78: had a nice silent key write-up for Dave Rosenthal N6TST. Check it out.

Public Service Opportunities

Annual Kiwanis Walk-a-thon

The Kiwanis have again asked for ham radio support for the upcoming 20th anniversary Community WALK-A-THON on Saturday, Sept. 29. The Walk will use the shortened 2.5 mile route and will go in the reverse direction this year.

The Walk-a-thon is one of the easiest public service events in the area, can often be done with just a 1W handheld radio through the translator, and provides a lot of exposure of ham radio to the public. Four checkpoints/water stops will be located around the route. At least 5 hams are needed to provide health and welfare communications from the checkpoints to the start/finish at the Kern Regional Park across the street from the fire station and post office. Duties would include estimating the number of walkers passing through the checkpoint, monitoring water and cup quantities, requesting additional supplies if quantities get low, and reporting any health or safety problems with the walkers.

Volunteers should be at the park by about 0730 hours for assignments, and the walk will be mostly over by 0930-1000. Contact Greg WA7IRW on 146.64 MHz or at 446-4383 to volunteer.

Picnic In The Park Bicycle Ride

This sixty mile bicycle ride from Leroy Jackson Park in Ridgecrest to River Park in Kernville on Saturday 6 October is Sponsored by the High Sierra Bicyclists of Ridgecrest. Eight Hams are needed to man five check points, a radio relay point, start and finish. Hams also keep track of all riders by number as they pass each of the check points. Greg Roush WA7IRW will set up the SARC portable repeater on a hill south of Lake Itchi Belli for communications from Walker Pass to Kernville. The SARC translator is used on the east side of Walker Pass. A two meter mobile with external antenna is required for reliable communications. Start time is 6:00 AM at Leroy Jackson Park. T-Shirts and lunch tickets will be distributed then. Elvy Hopkins NØLV will coordinate the operations. Contact Elvy at lvrh7589@iwvisp.com or 760-384-3589.

New HF Net

From SARG (the Lake Isabella Club)... We have started an hf net. Originally it was for our Lake Isabella Club members who didn't want to participate in our vhf net. But it has broadened out considerably in our trials to pick a date, time, and purpose. We have more check-ins from outside our area than from our club: Mohave, Fresno, Oakhurst, Bakersfield to name a few. So we are re-configuring it to be a Sierra Nevada net,

intended also to cover the foothills and surrounding areas like IWV.

We're still in the experimental stages, picking a frequency first and foremost. Then a time and date which doesn't conflict with many other activities. Right now, it seems to be centered on 3805 kHz, with 40m another strong possibility. I believe our next session will be Saturday at 8 PM, but I'll get a message out via email to anyone who is interested enough to want confirmation.

If interested, please forward your email address to kokomogeo@earthlink.net to get on the contact list.

Skip, N6SR

This story was first ran in the Airways a few years ago. Considering this is the time of year that the IWV and SARC Amateurs start gearing up to provide communications support for the various Horse/Bicycle/Walking Shoe/Running Shoe/Motorcycle (any others?) events, we thought it would be good to run this story again. Hope you enjoy it.

Hey, Sign Me Up!

Why do I do it? I just got to stop doing this...this volunteering to do stuff. Maybe if I keep my hands in my pockets I won't raise them to volunteer. Got to remember to keep my mouth shut also. Duct tape? Maybe if I stop attending meetings and don't answer the phone when I see Jerry's phone number on the Caller ID Display will help.

Why do I do it? Bragging rights? No, but I like the pins and occasional T-Shirt. I'm bored? It's a good cause? If I don't do it, no one will? I'm the most qualified? Hardly.

Why do I do it? I'm sure we all like to brag a bit at times. Remember the Coso Bun Buster Horse Ride that had heavy rain, hail and wind, and I moved a box of bottled water in front of KB6NIZ's truck, which he later ran over? Hah! That was fun and funny, and I WAS THERE! How about the rain and snow during one of the January horse rides? Not much fun, got a bit cold, but I WAS THERE! How about the lucky Ham at Check Point One of the Kiwanis Walk-a-Thon trying to count the number of people going by. It goes something like "1, 2, 3....4, 5,... 150, 400..." Check Point Two is a little better, getting 8, 9, and 10 before jumping to 150. Things don't settle down until Check Point Four or Five. Regardless, I WAS THERE! How about some of those HOT Death Valley to Mt. Whitney bicycle races? Whew! Why does NØLV keep assigning me to the Darwin or Keeler check points? Well, at least he hasn't stuck me at the first day's finish line.... yet. Whatever, I WAS THERE!

But I don't like to brag. I do like my collections of pins and T-shirts from the various events I've helped out with. But I must have washed some of those shirts in HOT

water a few times because they don't fit anymore. I can't think of any other reason to cause them to shrink.

Why do I do it? Volunteering does give me something to do and it gives me a reason to put off drilling that 3/4" hole in the roof of my SUV. Just getting ready for these events can be very exciting. Imagine the night before the event, looking for the operating manuals for the two mobile rigs and five HTs that I *think* I might need. Are all the HT batteries charged up? Where are the batteries? Speaking of charged, where are the chargers? How much food, water, clothes, shelter, paper, pens...I better start a list right now before I forget I need a list.

Volunteering for the events that the Sierra Amateur Radio Club supports does make me feel good. The value of the communications support we provide is incalculable when someone's life or property is saved. Although I don't recall anytime where advanced medical support was necessary, if we hadn't been there and the horse/horse rider/ bicyclist/runner/walker had to return to base camp on their own, the outcome could have been totally different.

Whenever it comes down to me volunteering or the task doesn't get done, it probably didn't need to be done to begin with. As to being the "most qualified" at something, I don't think so. I'm very good at taking a bad situation and making it worse and I also get lost fairly easily when out hiking. But being the most qualified, nah.

So, what is my real reason for volunteering? Simple. It gives me the justification I need to purchase that new HT, mobile rig, HF/VHF/UHF all mode, mobile radio shack....

Hummm.....My bank statement says I have some credit available on my charge card. I see that Yaesu is coming out with a new DC to Light, All Mode, cross-band/in-band repeater, 100 watt transceiver that operates off of 2 AA batteries for 96 hours and small enough to fit in a shirt pocket, with the antenna attached.

Oh what the heck, HEY, SIGN ME UP!

Free to Air Reception from Equatorial Satellites, Pt 3 Continued...

By Joe Perry Jr, WB6DCO

WHERE ARE THOSE SIGNALS IN SPACE

Looking in the ORBIT magazine we see a list of 18 satellites that carry most all the United States and Canada and South America channels. Many have FTA channels, but now most have gone scrambled. The old BUD analog channels are down to only a few and a few wild feeds. Most all the down link signals are analog TV or MPEG2, or DVB or MPEG4 HD or Radio. HDTV is still a growing area and limited to a few satellites right

now (one at 105 and one at 121 west). There is no HD FTA satellite signals as far as I know.

If you speak any foreign language or you like foreign TV you can find an FTA TV channel on some satellite over the USA. Many of the Asia and Europe stations are linked to the USA via FTA up and down links. These are the bread and butter of the FTA receptions.

I will dwell on one satellite as the starting point for our FTA adventure. This satellite is T5, Galaxy-25, 97 degrees west of Greenwich, England. If you go to the Lyncsat.com web page and click on the America's and choose Galaxy-25 from the colorful list you will be shown all the transponders, all the channels both analog and digital (DVB) that can be found on this satellite. I believe there are about 139 separate DVB channels down linking from T5. Not all are FTA and many are scrambled in various methods. The TV consortiums have come up with their own scramble methods for many of the down-links. You can purchase descrambling equipment at various places, but I don't think you can buy a license to run the descrambler except at very high cost. T5 lists things like PBS, FOX and BYU and Occasional (the wild feeds) as MPEG-2 TV signals and 100rd's of DVB foreign stations. The signals can be analog or digital (DVB). Most any BUD with a C band and Ku band horn can receive the signals. Most satellites are using Ku downlinks since they can get more DVB stations on one transponder.

It can be a challenge to point a BUD at some satellite in the sky with in 1.5 degrees. The trick is usually you have a receiver like a 4DTV or older analog receiver that steers your dish across the sky from about the 60 degree west to the 137 degree west satellites. All you have to do is piggy back a Ku band horn when pointed at one of the standard satellite positions. Then turn on your FTA receiver and scan for the extra channels. Most of the satellite channels are standardized for down link frequency. All standard satellites use the same analog down-link transponder frequencies. They get around stepping on each other by having one satellite in Left Hand Polarization (LH), and the two satellites on its left and right will be Right Hand Polarization (RH). There are other polarizations like Right Circular, and Left Circular. Another trick of the satellites is to have ODD channels say LH, and the EVEN channels use RH. So the satellite to the left is using channel 1-LH, and the satellite in the middle uses channel 1-RH, and the next satellite uses channel 1-LH. This way they can be separated when received. So your receiver has to be smart enough to know if channel-1 on a satellite is LH or RH or LC or RC. There is a difference in the horns (LNBF horns) that are used to receive LH/RH and LC/RC. So, you have to buy the correct horn, or buy one of each because you don't know what you will find from a down-link until you try it. Most broadcast subscription TV satellites use LC/RC LNBF horns, while the other satellites like T5 require a LH/RH LNBF.

Most FTA is done with the 18" to 36" Ku antenna. You can use any old DISH or DTV antenna as a separate

stand alone antenna. The dishes run from 18" to up to 36" in diameter for Ku band down link reception. Feel free to buy the biggest dish you can afford or acquire. Bigger is more signal to noise and better resolution separation of the 1.5 degree satellites positions in space and time. Some times people move and you can ask to have the dish free by taking it down. Oval or Round dish it does not matter. An Oval dish will allow you to have more LNBF horns attached so you can receiver from multiple satellites on the same dish.

LNBF horns come in single and dual outputs. Buy the dual output LNBF versions. This way you can feed two separate FTA receivers from the same horn, or if one side burns out you still have the other diode side. Do not buy the combined LNBF horns that are enclosed in one cover as these are only for DISH or DTV reception boxes. There is a combination antenna that is called the Super-dish. This comes in two types. The left hand type is for DISH 105 HD TV and 110 satellite reception. The right hand type is for 119 and 121 HD TV reception. The super dish is very good for FTA work as you get a large collection antenna. You can mount up to 3 horns in a row to receive 3 satellites in a row. The next type of antenna is the toroidal dish. This will allow you to FTA up to 8 satellites in a row across the sky. The toroidal requires special reversed horns which makes this an expensive way to FTA.

You may need an LNBF for linear polarization ku band satellites. Great choice for Telstar 5, Galaxy 10R, Galaxy 3C, Telstar 6, AMC15 (Dishnetwork 105), Echostar 9 (Dishnetwork 121) and any other Linear Polarization Websites. Great for Vietames , Chinese , Spanish, Phillipino, Pakistan , Indian and other Great International Channels. Other Inbf's will have circular polarized horns for DISH and DTV satellites. Lnb works with all circular polarization ku band satellites. Great choice for Echostar 3 (Dishnetwork 61.5), Echostar 6/8 (Dishnetwork 110), Echostar 7 (Dishnetwork 119), Echostar ½ and Dishnetwork 148, All DTV and Bell Express Vu. So if you current working DISH or DTV horn seems to quit, all you do is go buy a new one at Wall-Mart and replace the horn yourself. There is nothing magic about your satellite system.

For Sale

2 each HP 600C mini Laptops, running Win95, \$50.00 each. 1 Docking Station for above \$50.00.
Buy 'em both and get a free vinyl carrying case

Palm M-130 PDA With USB stand, \$20.00. WB6GKI,
375-2156 or email at DrPepper5@verizon.net

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, badge and patch payments. All renewals are due 1 January. Memberships not renewed by 31 March are dropped from the membership role. Please mail this application and your payment to SARC, POB 1442, Ridgecrest, CA 93556-1442 or give them to the Secretary at a meeting.

<u>Type of membership</u>	<u>New or Renewal</u>	<u>July - December</u>
Individual	\$20.00	\$3.00 + \$1.50/mo.
Individual (Newsletter via Email only)	\$17.00	\$3.00 + \$1.50/mo.
Full time student or active duty military	\$10.00	\$1.50 + \$0.75/mo.
Family (<i>One Newsletter</i>)	\$30.00	\$4.50 + \$2.25/mo.
Family (<i>One Newsletter, via Email only</i>)	\$27.00	\$4.50 + \$2.25/mo.

Individual or First Family Member

Date _____

Name: Last _____ First _____ MI _____ Call Sign _____

Newsletter Format Printed via mail _____ Email PDF _____ Email Plain Text _____

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

Mailing address: _____ City _____

State _____ Zip _____

Phone: Home _____ Work _____ License Expire Date _____

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

Second Family Member (For more family members please duplicate)

Name: Last _____ First _____ MI _____

Phone: Home _____ Work _____ License Expire Date _____

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

TOTAL \$ _____

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.

First Badge

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

Amateur call for my badge is _____

Second Badge

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**

**THE AIRWAVES NEWSLETTER
September 2007**

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.

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