Sierra Signals

P.O. Box 6421 Auburn, CA 95604 **November 2013** http://w6ek.org info@w6ek.org

At The Key of SFARC:

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Dave Albright, NO6NO

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History: Gary, KQ6RT
Misc Radio: Fred, K6DGW
Sunshine: Richard, WA6RWS
rkuepper@surewest.net

REPEATERS
145.430 (-0.6 MHz/PL 162.2)
440.575 (+5.0 MHz/PL 162.2)
223.860 (-1.6 MHz/PL 162.2)

CLUB NET
Thursdays, 7:30PM, W6EK/R
145.430

CLUB MEETINGS
Second Friday of the month,
7:30PM at the Auburn City Hall,
1215 Lincoln Way, Auburn CA

CLUB BREAKFAST
Last Sat of the month at Mel's Diner
1730 Grass Valley Hwy, Auburn 7:30AM

NET CONTROL OPS
Dave Jenkins, WB6RBE
Gary Cunningham, KQ6RT
Norm Medland, W6AFR
Casey McPartland, W7IB

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WEBMASTER & ARRL PIO:
Carl A Schultz, WF6J

November Calendar

Saturday 2: Club Picnic

Friday 8: Club Meeting

Monday 11: Veteran's Day

Thursday 28: Thanksgiving

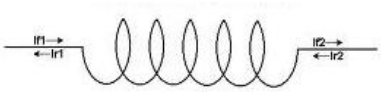
Saturday 30: Club Breakfast

Inside this issue:

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

The Loading Coil

By Bob -K6UDA, President



Truly Random Thoughts…

Pacificon

Although the great Pacificon road trip failed to materialize, I made the long and lonely trek myself. 300 miles and a few hundred dollars later, I say although it was a smaller venue than last year, I had a good time. I sat thru a D-Star Seminar hosted by some truly "big brains." These are the guys who have designed the infrastructure currently used in the D-star world, as well as some of the newest and coolest hardware. They let me know (without saying so) what a simpleton I really am. Quote of the day "there are no stupid questions, only stupid people." And yes, it was directed at me.

I spent the rest of my time shopping at the manufacturers "midway." This year I bought tools, antenna parts and other items. I got a chance to talk with **Gordon West WB6NOA** and thank him personally for getting me through the Extra exam. I was sporting my SFARC Field Day t-shirt which several hams commented on. Pacificon really is a must see event. Plan on being there next year if you can!

Experimenting with antennae

I make it no secret that I'm on the hunt for the perfect portable HF antenna. I've been playing with several compromise designs. I'm giving the Vantenna portable vertical another try with the 80 Meter attachment. I'm refining my Random Wire design and I'll bring that in for "show and tell" to a meeting soon. My newest toy is the Super-Antenna MP2 Portable Screwdriver antenna. I've spent way too much time designing and fabricating a portable control box to operate it. Looks cool and works good. Another toy for the "show and tell" tables.

Phonetics

While I'm thinking about it, why are there two sets of phonetic alphabets? As hams, we have to learn the International Phonetic Alphabet. In my daily life I have to use what I affectionately call "cop phonetics." When I occasionally slip in a delta or uniform at work, my co-workers accuse me of trying to be a secret seal team member. After 25 years "cop phonetics" is very natural for me, and I'll probably never be comfortable with ITU phonetics.

The Foothills Hamfest Preplanning Seminar

I think it's (hi) time we explore the idea of putting on our own hamfest. Think about the possibilities - a good indoor/outdoor venue, swap meet, short seminars, and maybe a few vendors or manufacturers. It could be big, very big, and a lot of fun. To me it's a no lose proposition. More on that later…

Club Contest?

With over 100 members in the SFARC rolls, how nice would it be to have our own club wide contest! We could have prizes, different bands, modes, 24 hrs of constant repeater use, 2 meter simplex, SSB, digital maybe even a DX or two. What a great way to get to know the others in the club. I know, I know… it's just another random thought.

(Continued on page 3)

Why The Sun?

Why does the sun do such wonderful and crappy things to radio waves? What does a sun spot number mean and how does a regular guy understand the whole propagation thing? Thoughts anyone?

10 Meter Magic

Look what came alive in the past two weeks - 10 Meters; aka the magic band has awakened from a long propagative sleep just in time for the world wide DX SSB contest. Japanese and Australian stations are as loud and clear as most of us sound on the local repeater. I've never heard 10 meters like this. I even made my first contact in China on 10 Meters. Unreal! If you're a Tech and want to experience DXing at its very best on any band, get on 10.28.300 to 28.500; it's where most of the action is.

And Finally,

How Do They Do That?

How does Baofeng offer a dual band HT with all of the features the UV-5R comes with for $36.00 delivered? What do you think it would cost them to make a few other configurations? 144,220,440 for $49.00? How about a D-Star Model for $89.00? 144 thru 1200mhz continuous coverage for $100? Where will it end?

Have a happy Thanksgiving and I look forward to seeing everyone at election night and at the Christmas Party.

D-Star for Dummies

By Bob, K6UDA

Contrary to popular belief, D-star is not an evil plot by Icom to take over the world. D-Star was created by the Japan Amateur Radio League. During my short time as a ham, I've been trying out various modes of ham radio. I've become infatuated with D-star and I've decided to write a series of articles about the subject for the Sierra Signals newsletter.

So what exactly is D-star and why should you consider spending enough money to fund nearly a dozen Baofeng wonders? Easy. D-star is a blast. Icom, who builds awesome radios, is currently the only major manufacture to put out D-star radios. They are very well built and easy to program and use. D-star itself is a truly digital protocol. Once programmed, each time you key the mic you are sending your call sign out over the airwaves. D-star works on all bands, HF, VHF, UHF, Microwave, and theoretically satellite/eme. The audio signal is processed and digitized by the radio, and then sent out along with nine bits of data which normally contain your call sign and possibly a short message.

Most new D-star hams will buy either a D-star handheld like the Icom IC-92AD or one of the new preprogrammed radios like the IC-51. Both will locate itself using GPS and program itself with the local D-star repeaters. But what if there are no D-star repeaters where you are? This is where new manufacturers come in. For as little as $45.00 you can create a D-star hotspot or repeater using a Raspberry Pi. There are several out there built with all the hardware necessary to get on D-star in under an hour. To create the Raspberry Pi Repeater, you hook an old analog radio to the Raspberry Pi, which is hooked up to your internet connection.

(Continued on page 4)

Like crossbanding, you talk to your Raspberry Pi repeater on a simplex frequency using your D-star HT. The HT is digitizing the audio and sending it out as RF to the analog radio. That radio is then passing the RF signal through to the Raspberry Pi without filtering it. The Raspberry Pi is sending out the pure digital information over the internet and out to a D-star user, a D-star Repeater gateway, or a reflector. Return information reverses the pattern. There are two more "plug n play" options to get you onto D-star; the DVDongle and the DVap. The Dongle is a USB device that turns your PC or Mac into a D-star device much like Echolink. The DVap is a USB device that works more like the Raspberry Pi in that you can use your HT to talk on D-star from around your house or neighborhood.

Repeaters, Reflectors, Gateways & Call signs

Repeaters are local registered D-star repeaters. They can be used as local repeaters or connected gateways using an internet connection. The Ham using the repeater decides how he/she will use it. The Gateway is simply the internet connection used by the Repeater. Reflectors is a way of routing to a geographical area or set of connected repeaters without having to call sign route. We'll do more on that later.

What makes D-star so great is the use of routing. Once registered as a D-star user, you'll be able to control gateway repeaters and use call sign routing. So how does it work? Suppose George, KG6LSB brings his D-star HT with him on a trip to England, which is a lousy place with D-star repeaters. If I want to have a QSO with George but I don't know where he is or if he is on a reflector, I can enter KG6LSB into the UR field of my D-star radio. If I'm hooked up to a gateway repeater or have my own, my radio sends out Georges Call sign like a digital CQ. The D-Star interconnected system then goes out and finds George, who may be on an international reflector. My call sign then flashes across his radio screen and he can hear me talking. He can then put my call sign in his UR field and talk to me directly. Pretty great, huh?

Talking Simplex & HF & Data Via D-Rats

One of the truly underutilized modes in D-star is Simplex. If you're within range, D-star can provide crystal clear almost secure voice and data communications. D-star has a sound on analog radio, a very light data hiss. Without a D-star radio, near impossible to intercept. I work D-star on HF (80 Meters thru 6 Meters) UHF, VHF and will start trying out 1200mhz once I build an antenna. A program called D-Rats is used by ARES groups all over the country for incredible data over RF. D-rats is like an RF Intranet. In future editions, I'll go into some of the different modes and methods of D-Star. That's it for now.

Bob K6UDA

Everyone, the SFARC Picnic is on November 2nd. There will be an ARES Exercise going on, led by Fred KF7QVB for some of the time. The exercise will involve operators from out of state.

But the most important part is our contests. There are two: a QUEST QUIZ and a QLF Contest. The QUEST QUIZ is ten questions drawn from the current question pools. The prize for the QUEST QUIZ is a new ARRL Handbook. The QLF Contest Prize is a new ARRL Operating Manual. The prizes will be presented at the Christmas Party. In the event of a tie, the tied winners will perform a Rock-Paper-Scissors to determine the eventual winner.

Al Martin, NI2U
Picnic Chair

MISCELLANEOUS RADIO

Coding and Ham Radio

"Real" Forward Error Correction

Last month, we delved into character encodings … patterns of bits that correspond to each character in our system alphabet. The word "alphabet in this context means "the set of characters included in the system's data." ASCII, probably the most familiar, encodes all the upper and lower case Latin letters, all ten digits, lots of punctuation, special symbols, and control characters into 256 8-bit sequences.[1] The ITA2 encoding [Baudot] uses five bits for each alphabet character. There are only 32 combinations in a 5-bit character which isn't enough for the Latin alphabet, 10 digits, and miscellaneous punctuation, so ITA2 has two characters that cause the receiver to shift between cases, and the same codes that print letters in one case print numbers and punctuation in the other.

What's important in those two examples is that every combination of bits encodes for some alphabet character. As a result, an error in any bit position will transform the character sent into another character at the receiver, and the receiver doesn't have any way to detect that. The CCIR 476 encoding changes all that. It's a 7-bit encoding, however it also has a "4 of 7" encoding rule … every character must have exactly four 1-bits and three 0-bits. That leaves quite a few bit combinations unassigned [unused "space" in the code], and allows the receiver to determine if a received bit is in error in each character.

And, we introduced the concept of Minimum Euclidean Distance [MED], which for binary encodings is simply the smallest number of bits by which any two characters differ. For the CCIR 476 encoding, that distance is 2, meaning it will take 2 bits in error to transform one valid character into another valid character. All 1-bit errors will create invalid characters at the receiver and thus be detected as errors. So far so good.

Minimum Euclidean Distance - *d* > 2: What would happen if we could find a character encoding that had *d* greater than 2 … like 3 for example. We know that, for all character codes, it requires *d* errors to transform one valid character into another, so if we found a code with *d*=3, we would expect that it would take 3 error bits in a character to transform it into another valid character, and thus our receiver could detect up to 2 error bits per character.

Well, here is just such a code. We'll get into how I came up with it shortly but for now, please just take my word for it. It will encode a total of 16 "characters" which I've arbitrarily called A-P in the "CH" column[2]. They are encoded in 7 bits [numbered 0-6) and for those willing to take off their shoes and count in hexadecimal, the HEX column makes it a bit easier to see the codes.

CH	BIT POS							HEX
	6	5	4	3	2	1	0	
A	0	0	0	0	0	0	0	0x00
B	1	1	0	1	0	0	1	0x69
C	0	1	0	1	0	1	0	0x2A
D	1	0	0	0	0	1	1	0x43
E	1	0	0	1	1	0	1	0x4B
F	0	1	0	0	1	0	0	0x24
G	1	1	0	0	1	1	1	0x63
H	0	0	0	1	1	1	0	0x0E
I	1	1	1	0	0	0	1	0x71
J	0	0	1	1	0	0	0	0x18
K	1	0	1	1	0	1	1	0x53
L	0	1	1	0	0	1	0	0x32
M	0	1	1	1	1	0	0	0x3C
N	1	0	1	0	1	0	1	0x55
O	0	0	1	0	1	1	0	0x16
P	1	1	1	1	1	1	1	0x7F

(7, 4, 3) Encoding

Now, while there are only 16 possible characters being encoded, there are $2^7 = 128$ possible combinations of 7 bits. The 16 listed in the table at the left are valid. All of the rest are not. What's more, if you check it … and with only 16 codes, you actually can check it by hand … you will discover that changing one code into another takes at least 3 bit errors.

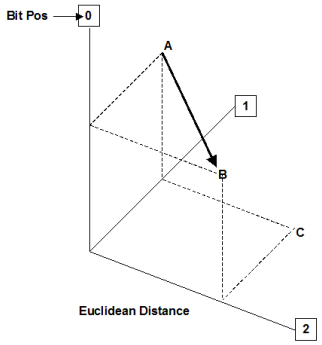
This code has a name, it's a "(*7,4,3*) Hamming code," and we'll make a short digression to discuss the name a little. In the information coding business we need a way to identify various codes and tell them apart. The math dudes that revel in this stuff have come up with a scheme to do that … (*n, k, d*). *n* denotes the number of bits in each codeword. In my example, it is 7 and is what we actually transmit when we want send the associated character. *k* denotes the number of bits in the data word, 4 in this example – *n* is always greater than *k*. And, *d* is our now familiar minimum Euclidean distance for the code.

"Hamming" refers to Richard Hamming, an early researcher into data communications and coding which ultimately morphed into Information Theory, so the answer to, "How I came up with it …", is, "I looked in one of his many papers." ☺

[1] There are really several "ASCII" encodings, the 256-bit one is the most general. ASCII-128 is a 7-bit encoding that exactly matches the first 128 ASCII-256 characters. The 8th bit is often used as a parity bit for the other 7.

[2] I say "arbitrarily" because it doesn't make any difference what symbols you assign to the 16 binary codes.

Maximum Likelihood Decoding: Up to this point we haven't discussed how you might encode and decode these codes, and we'll come back to that later, but for now, how about a simple table lookup? For encoding, you have two columns and as many rows as there are characters in your alphabet. The 4-bit character comes in, you find it in the first column, and the second column for that row contains the 7-bit code you will send. The receiver has a similar table except it has as many rows as there are 7-bit codes that can be received, it finds the code it received in the first column and the second column for that row contains one of two things: the corresponding character that was sent; or something that signals an invalid code.

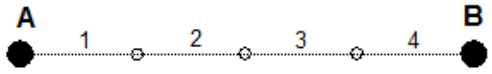


But wait! There's more!! Remember that somewhat crude attempt last month to illustrate the Euclidean distance? It's to the right in case you don't. That made-up code would be a (*3*, *2*, *2*) code in our new nomenclature, 3-bits in the channel, data characters of 2 bits, and a minimum Euclidean distance of 2. I can represent the code words as points in *3*-space, A, B, and C. In fact, I can represent any binary code in *n*-space that way, including the (*7*, *4*, *3*) Hamming code, but if you think my graphic skills are underwhelming in 3 dimensions, you really don't want to see them in 7 dimensions[3]. ☺ Fortunately, the mathematics doesn't really care if I or you can't draw a diagram, there's just more terms in the equations, all the rules are the same.

For our (*7*, *4*, *3*) Hamming code, there will be 16 valid points that represent one of our alphabet characters scattered around in whatever 7-space looks like, and scattered around with them will be 112 code points that are invalid combinations. And, while I really don't know what that looks like, I <u>do</u> know that none of the 16 valid points are closer to each other than 3 units.

[***spoiler alert***: here comes the "Ahh Ha moment"] If I receive an invalid code, I know one or more errors occurred. But … if the received code word is 1 unit away from a valid code word in 7-space, it is at least 2 units away from the other 15 valid codes, why don't I pick the closest valid neighbor to the received code and call it the correct code? If there really is only one bit in error, I'm guaranteed to be right in all cases! And, here we enter the fascinating world of "Real Forward Error Correction," and a new rule: "Any binary code will <u>detect</u> *d*-1 errors, **and** will allow you to <u>correct</u> (*d*-1)/2 errors." There's a caveat in that rule that comes from the Second Law of Thermodynamics, "It will do one or the other, but not both at the same time." This is called Maximum Likelihood Decoding because, for any invalid code, I'm choosing the nearest valid neighbor as the most likely code word.

At the beginning of this stroll through information theory, I mentioned that "coding and even numbers" don't mix well. I'll be a little more specific … "Coding and even values for *d* don't mix well," and we can now see why. If I had a code with *d*=4, it would detect 3 error bits per character. That's OK. But it would correct (*d*-1)/2 errors which is 1 ½. error bits. What does "1/2" a bit mean? The answer is, "nothing." Such a code would correct all 1-bit errors per character, and it would correct some, but not all, 2-bit errors, which isn't exactly helpful since the receiver can't tell in real-time the right ones from the wrong ones. We can see it graphically in the diagram. A and B represent two valid characters points in *n*-space, separated by 4 units. A 2-bit error puts the received character in the middle, equidistant from both A and B. How do I pick which one is nearest? Other valid characters may be 5 units apart, and I can pick the nearest one. These would be corrected. Characters an even number of bits apart will fail to correct.



For this non-helpful feature, we've added additional bits to the characters [to increase *d* to 4] and thus slowed the information transfer in our channel. So, in binary codes, *d* will always be an odd number.

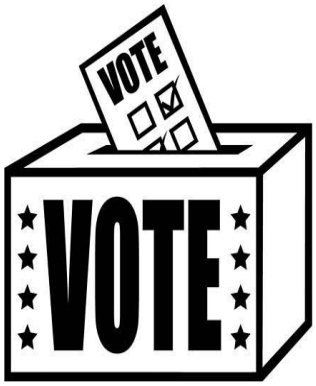
I can use this (*7*, *4*, *3*) code to either detect up to 2 bits in error <u>or</u> correct 1 bit errors in each character. That's where the "Forward" comes from in Forward Error Correction … I can "fire-and-forget" knowing that the receiver can correct (*d*-1)/2 errors in each character in the received data. What if there is more than one bit error in the received codeword? Well, that will put it closer to another codeword in the 7-space diagram, I'll pick it, and I'll be wrong. That's a primary characteristic of FEC … the decoder will <u>always</u> report a data character. If the BER gets high enough … QSB or QRN … so more than (*d*-1)/2 bit errors occur in a character, it will be wrong.

Fred K6DGW

[3] I have no concept of what 7 mutually orthogonal axes would look like. ☺

The Club has an election this year with several running for the two Director Positions and two Hams vying for President. Each candidate has provided a statement outlining his or hers background. Please review the provided information prior to the election at the November SFARC Meeting. Bob K6UDA certainly has led us in getting to our election this year.

Al Martin, NI2U
Election Committee Chair



PRESIDENT:

Bob K6UDA

As I wind down my second term as President of SFARC, I wanted the club to have some real honest to goodness elections for the officers and board. Two months back, I said I'd be willing to serve again and run for president. Not that I have some great desire to be president, but to give the membership a choice. Now I haven't been in the club for a long but for the past two years, elections have looked more like appointments. If this is the last thing I do as president, fantastic.
Over the past two years we've made some great improvements in this club. I don't take credit for any of it. What I've done is be your cheerleader. The membership has done all the hard work. This year, Tyghe Richardson has agreed to run for president. I think he would make a fine president of SFARC. I was a little disappointed that more members didn't want to run for this office and that is why I'm running again. The club needs a constant infusion of new blood to keep it vital. It's my hope that come election night, one or two more leaders will step up and get involved. It's my hope that my enthusiasm will be infectious and next year, more people will step up to the plate. It's not about winning or losing, it's about choice.

Bob K6UDA

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Tyghe KD6MLH

If elected to the office of president I will do my best to help keep the club running the way it is now and promote growth in the club. I will look for ways to promote growth in membership. I think it is important for the new hams to feel welcome and continue in the hobby. I think that our club has been a great place for new and veteran hams to meet and exchange ideas and knowledge; I want to see this continue. I remember when I first joined the club in 1992 as a new ham, I was welcomed and some of the veteran hams taught myself and my father many things about the hobby. I think a club for such meeting and passing of knowledge is very important to our hobby. I will continue to promote involvement in the local events; I think that we as a group have been volunteering and helping our community since the formation of the club and I would like to see that continue.

On Election Day please vote for me. Thank you!
Tyghe Richardson KD6MLH

VICE PRESIDENT:

Dave, NO6NO

I am running for the office of Vice President. I am the incumbent Vice President. I have been a Ham since 1955 and am currently an Extra Class Amateur. I am also the Supervising Volunteer Examiner for the SFARC VE Sessions. I have demonstrated my qualifications for this office by fulfilling the requirements for the past year, mainly by having programs for every meeting. There have been no lapses during my tenure. I will continue to perform this job the same way as to programs.
There will be a change in the standing committee chairman because the President & myself will enlist the chairmen of the committees as soon after elections as possible. As Vice President I will continue to provide all the support needed by the chairman, but the chairman will report their progress and status to the President and the Club on a regular and timely basis. This change will allow committees to have the maximum planning time available to carry out their necessary duties. By the way this method is already spelled out by the Club Bylaws.

A vote for me will assure programs and other duties will continue as they have this last year.
Thank you for nominating me to the office
Sincerely Dave Albright NO6NO

SECRETARY:

Dennis, WU6X

I've been happy to serve SFARC as the Secretary for the past year and a 1/2. I add the1/2 because I volunteered mid-term after joining the Club when I saw it was vacant with no takers. With my background in writing technical manuals, and being a good listener, it has been a good fit. I would be pleased to continue as Secretary and promise to do the best job that I can if re-elected ... However, I would not be disappointed to train someone else to take over the office either.

Respectively,
Dennis Gregory - WU6X

TREASURER:

Richard, WA6RWS

I have been a member of the club since 1995. I have served in all offices except vice-president. I am the trustee and one of the techs for our repeater system. I also email the newsletter and have it printed for mailing. I am the greeter and sunshine reporter. I am currently the treasurer and am running again for that office. I enjoy the friendliness and helpfulness of our club members. It is one of the best clubs that I have belonged to since becoming a ham.

DIRECTORS:

Birton, N6UG

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Bruce, K6BAA

Hello fellow club members. I am running for the position of Club Director. I have been an amateur radio operator for 21 years, active mostly on 6 meters and more recently 10 meters with the current sunspot cycle. As a youth I built several Heathkit projects and now have an interest in antique military radios having restored a 1942 Army radio jeep for show and parades. I am a 34 year law enforcement veteran and an Army veteran. I joined the Sierra Foothills Amateur Radio Club last year and have been impressed with the current direction and activities of the club. I look forward to working with the leadership of this club and my fellow club members. The future of this club is bright and exciting.

73, Bruce Anderson
K6BAA

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Dick, WB6EDR

Yes, I will accept the election Committee's nomination for a director position in the SFARC and, if elected, will accept the duties of that office for the terms as prescribed by the bylaws of the SFARC.

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Jim, W8MPA

Issued my amateur Novice license in 1964 and General ticket in 1965 in Cleveland Ohio. I upgraded to the Advanced license in 1969 and then Extra Class in 2012 I have served as an officer for The Society of Broadcast Engineers and more recently been an officer of the Northern California Society of Motion Picture Engineers (SMPTE). Most of my Amateur activity has been on HF enjoying 40 -10 meters SSB. I began attending SFARC meetings 3 years ago and presently serve as refreshment host. My background is Broadcast engineering and I have 40 years experience in this field as CE of AM, FM and TV facilities in Ohio, NC and CA.

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Robert, W6RBL

Fellow SFARC members, I am seeking nomination for the position of Director in our club. I have been a licensed Amateur Radio operator since 1993. I became an active HAM radio participant in 2009 when I joined SFARC. Seeing the dedication of our club members to serve the community has made me a proud member. I believe my 18 years of profitable small business ownership will bring another supporting voice of reason, fiscal responsibility, and productivity to our club. I look forward to serving you and our club as our membership continues to grow.

In service, Robert Bell

Basic Antenna Principles

By Dennis, WU6X

1. Changing the length of a feedline does not change SWR, but it may help because ... Changing the length of a feedline can drastically change series resistance (Rs) and series reactance (Xs) if the SWR is high. And, this may make your transmitter or tuner "happier", but the SWR is virtually unchanged, except for the effects of transmission line losses.

2. The SWR is always a little lower at the transmitter end of the feedline than at the antenna due to line loss. Consider this when measuring SWR with a meter at the transmitter end. If SWR is marginal there, it will be worse at the antenna.

3. An antenna tuner does not change SWR on the feedline ... it only makes your transmitter "happier" since it sees the lower SWR. However, all the line losses caused by SWR are still there. In addition, the tuner introduces additional line loss, which can be significant. To avoid most of these losses, use an efficient matching network right at the antenna.

BOARD OF DIRECTORS MEETING MINUTES
October 11, 2013

The SFARC Board meeting for October commenced at 1801 hours at Round Table Pizza in Elm Avenue shopping center in Auburn.

Roll Call: President Bob Brodovsky-K6UDA and all officers and Directors were present with exception of Board members Mark-W8BIT and Donna-W6CQX. Also in attendance were Robert-W6RBL, Al-NI2U and Alan-KI6WDV.

REPORTS and DISCUSSIONS

President's Report: no report.

VP/VE Report: Dave-NO6NO discussed Christmas party venue options while Al-NI2U reported the pros/cons of either the Veterans Hall or the Senior Center. The Board agreed on the Veteran's Hall. Richard-WA6RWS moved to have the party on the Saturday the 14th of December rather than on the regular meeting night as in past years to make it easier for working people to attend. Dave-NO6NO 2nd the motion and it passed un-opposed. The Party will officially start at 6:30pm this year.

Secretary's Report: no report.

Treasurer's Report: Richard-WA6RWS reported net cash on hand at beginning of September as $5,960.95; expenses of $223.86; income of $464.00 and balance of $6,201.09.

Repeater Report: Richard-WA6RWS Richard also reported that the repeater is operating normally now and of plans to connect the 440 box to the controller.

Web/PIO Report: Carl-WF6J reported on the ARRL video promo and suggested we participate, but his #1 priority is to get the NO6NO video completed and posted first.

OTHER DISCUSSIONS:

Elections Committee: Officers and Board discussed Al's Election Committee report. Mark-W8BIT is selected as the carry-over Board member. We are hoping for more volunteers to step up so we can have a real election.

Club Picnic: A sign-up sheet to be passed around at tonight's General meeting.

Presentations: no presentations are planned as tonight's meeting is the annual White Elephant Sale.

Meeting adjourned at 1845 hours.

Submitted by *Dennis Gregory-WU6X, SFARC Secretary*

GENERAL MEETING MINUTES
October 11, 2013

The SFARC General meeting for October commenced at 1930 hours at the Auburn City Hall Rose Room, President Bob Brodovsky-K6UDA presiding. All Officers and Directors were present except for Board members Mark-W8BIT and Donna-W6CQX. Bob led approximately 40 attendees in a Pledge of Allegiance to the flag followed by an introduction of Officers, members and guests.

REPORTS:

Past minutes: The minutes of the past General Meeting as posted in the Newsletter were approved as submitted on motion by Mark-WA8MPA, 2nd by Birton-N6UG.

President's Report: Bob reported the Board's decision to use the Veteran's Hall for the Christmas Party this year. A date change to Saturday the 14th was also noted rather than on meeting night as in year's past.

NOTE: Due to the planned White Elephant Auction at tonight's meeting, Officer's reports and some committee reports were postponed until next General meeting.

OLD BUSINESS:

Elections Committee: Al-NI2U reported on the *Elections Committee* progress and status.

Club Picnic: Al-NI2U reported on planned activities at the picnic and circulated a sign-up sheet. Two contests are planned; a ten-question quiz and a QLF contest (Secretary's note: you'll have to attend to see what this is all about)

NEW BUSINESS:

White Elephant Sale: The White Elephant Auction went as planned with many, many bargains available. Proceeds will go into the Christmas Party fund.

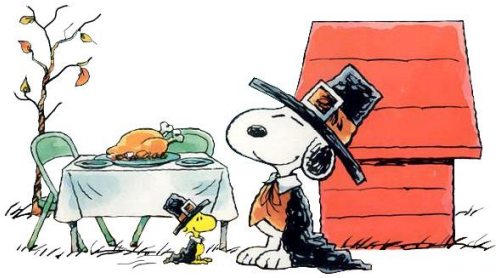
General Announcements:

Fred-KF7QVB reported that a Simulated Emergency Test (SET) is planned by ARES for the same day as the Picnic.

Richard-WA6RWS reminded everyone in attendance that the Christmas Party is for Members ONLY and their guests.

The meeting adjourned at 1942 and the White Elephant Auction commenced and continued until all items were sold

Submitted by Dennis–WU6X, Club Secretary



SIERRA FOOTHILLS AMATEUR RADIO CLUB
P.O. Box 6421, Auburn, CA 95604

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SIERRA FOOTHILLS AMATEUR RADIO CLUB **2013 MEMBERSHIP APPLICATION**
P.O. Box 6421, Auburn, CA 95604

Name: _____ Call: _____ Class: ___ e-mail: _____

Address: _____ City: _____ State: _____ Zip: _____

Associate Name: _____ Call: _____ Class: ____ email: _____

Phone: _____ Cellphone: _____ Application is: (Circle) New Renewal

Dues / Donations:

Membership: yearly*	$ 22.00	Name Badge:	$ 7.00	Yes	(special name)_____
Associate: yearly*	$ 7.00	Repeater Donation:	$_____		
Auto Patch Donation:	$_____	Newsletter Booster:	$_____		
Misc. Donation:	$_____	Christmas Donation:	$_____	ARRL member? (circle)	Yes No
		TOTAL:	**$**_____	**Please add $1 if paying via PayPal**	

*Prorated dues for NEW Members/Associates Only

July	$ 20 /6	October	$ 14/3 + following year
August	$ 18/5	November	$ 12/2+ following year
September	$ 16/4	December	$ 10/1 + following year

OFFICE USE ONLY: DO NOT WRITE BELOW THIS LINE

Date: _____ Treasurer: _____ Secretary: _____ Roster: _____

Payment: _____ Check Number: _____ Cash: _____ PayPal:_____

Rev. Nov 2012