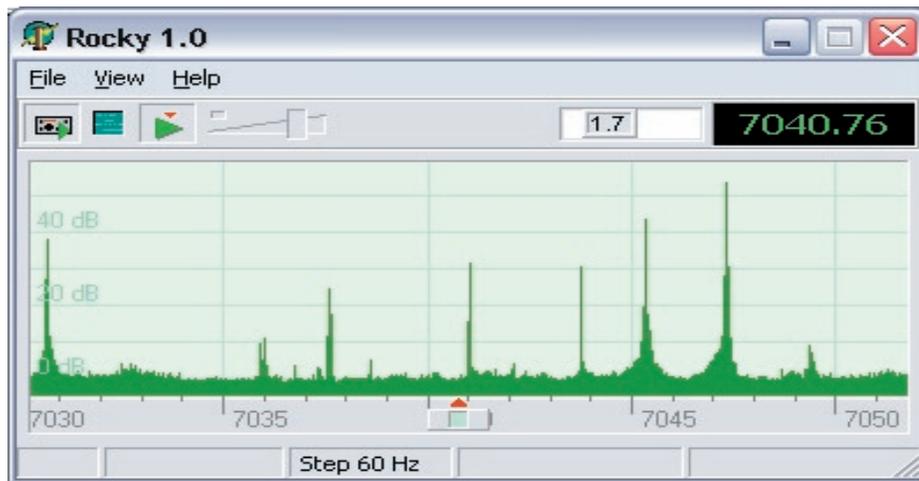


SHORT SKIP



Softrock Radio Challenge

High Altitude Balloon Launch



Yesterday's High Altitude Balloon track/recovery adventure was certainly an E ticket, and I would recommend similar activities to any in the ham community. We met in a huge clear parking lot, east end of the Casa De Fruta Complex, east of Hollister. Much of the Stanford and Stratofox crew were already there, tending to the balloon and payload preparations.....

Quite a lot of stuff going on there at that time (at this time in any high alt balloon launch) Huge tarps were laid out to allow careful preps of the fragile balloons, bridles, and their APRS/Scientific Packages. Filling the helium balloon is a exciting, if slightly tense time. Lots that can go wrong to spoil the mission, and a fair amount of money at stake (yesterday the balloon used about \$70 of helium) Not only that, but the BIO payload by Stanford, I later learned, had about \$6-10K of hardware, to say nothing of the intellectual, and academic capital investments by the Stanford students.

This balloon fill, and launch phase was not without drama, as it took 3 tries to get the right amount of helium into the balloon to carry the 2 packages aloft. That meant, twice, the payloads were released, and holding our breaths, they lifted, descended, bounced, dragged on the ground, and we were able to recover and add helium to the balloon. The formula is simple, make a weight that is 25 percent more than the total payload, and hang that on the balloon, as you fill it, to just lift the weight off the ground. For some so far, unknown reason, that was not enough for the first two inflation attempts. Third time was a charm and the balloon soared into the clear blue sky, and Data Packets began to fill the air, and the be shipped via the internet to the various laptops on the tailgates of teams cars in the launch site.

You can probably tell how excited I am at the developments taking place in the Softrock (we might fairly call the low end of Software Defined Radio) arena. Quite remarkable is the similarity with what is also occurring in the HighPerformance Software Defined Radio (that we might equally call the high end) initiative.

But I digress On offer is a kit (donated by Reed (N1WC) to build a Softrock 40 receiver and receive some hand holding to construct and test it. We wish to particularly target this offer to new hams or those who have renewed their licenses since 1/1/06. No prior experience of the kind is required.

We can also accommodate up to 2 additional "students" who wish to purchase (\$30 + shipping) one of the Softrock kits for themselves. These two "students' need not be newly licensed. You will need to be committed to spend at least 10 hours of effort to construct and test the kit while learning something about it.

I recommend that you read more detail in the next issue of Short Skip and if you would like to take part, your next step will be to do some homework and then complete the application on page 3

Continued page 3

WA6HHQ August Speaker

Eric WA6HHQ of Elecraft will be our speaker at the August meeting.

Eric's talk is entitled " Inside the Elecraft K3 radio" It has only recently been introduced and is very much a native product.

August Raffle

Help Fill Your Club's Coffers

It's shack-cleaning time again—bring your no-longer-needed items for the raffle at our August membership meeting! Come a little early so everyone can check them out and buy tickets. We are not limited to radio-related items. Your discards may be someone else's treasure!

--Kathleen, KI6AIE

Continued page 3



Our session today first dealt with a subject that, best I could tell, was the question of how skunks communicate. Once several memorable stories were told we proceeded with our normal lines of enquiry.

Larry (WB6MVK) showed one of the earliest amateur VHF radios- a Clegg FM-DX. Larry; you might find that some OT pining for the "good old days" would be glad of it. Dave (W8FLL) brought along a Norcal Cascade radio that he had modified in very creative ways. Marc (W6ZZZ) showed some home made antenna insulators and an antenna kit that would be of interest to new members. Marc also brought along an ARRL book entitled Simple and Fun Antennas. This book contains a wealth of practical information, likely to be of high interest to newer members. Larry (WB6MVK) would be interested in any articles for building digital to analog converters for the time when analog TV broadcasting is discontinued. JV (K6HJU) described the Sommer multi-band beam that he has for sale. I am very familiar with this antenna as it is what I have at my Ky QTH. Some discussion ensued on the question of how to make verticals work well. Conventional wisdom is that you must have an extensive ground plane. I prove that this isn't always true any time that I get on the air.

We welcomed Peter- (KF6YCS) in our midst for the first time. Peter has taken delivery of a RXTX Softrock 6.2 kit. He indicated a high level of professionalism by showing the project binder that he has ready to record this project. My bet is that the \$30 will be the best investment in technical know-how that he has ever made. Peter BTW works with Field Programmable Gate Arrays and analytical software so he has a lot to offer us and we hope vice versa. We look forward to future reports Peter.

We played our equivalent of the game "what do you do when the lights go out". Yes, it seems our HF bands are in the doldrums but if we all stay off the air that's just what they would sound like. So the advice of the group is GOTAA anyway! In fact there are so many dimensions to the hobby it is hard to imagine any intelligent person being bored.

Here is the random list of activities the group (and some others who contacted me) came up with.

- Get on 2 meter SSB to represent our grid square, you will be rare DX
- Check in, or at least listen to, the Ham marine net on 14.300 at 8:00 PM each night
- Monitor 6 meters and 220 for long distance openings
- Build something from either a kit or from scratch. There are many ways to go. I am told HSC (over in San Jose) has kits for \$12 to build a Norcal Pixe2. Then we have the R2pro direct conversion kits and the Softrock series.
- Take part in more community service events, they really are an important and fun part of the hobby
- Write something for Short Skip
- Try modelling programs like EZNEC and ELSIE
- Use Echolink or IRLP to make Ham friends all over the world
- Write some code
- Measure something, don't assume that your antennas stay in good condition.
- Try some different modes like APRS and PSK31
- Install Winrad or Rocky and plug in some audio
- Join a Yahoo discussion group related to Ham Radio-the Softrock 40 group is a great example. Sign up for the digests
- Read something on a current topic- find out what's behind the interest in I and Q signals
- Check-out the callendars for contest and DXpeditions
- Draw a circuit diagram on a computer (on paper if you must!) pretend it is for a printed circuit board
- Use a CW exerciser such as Rufz
- Check beacons and HF propagation
- Consider running a class for basic tasks like soldering, putting on coax connectors etc
- Become a VE and run exams
- Help new hams make their own stuff
- Conduct a power-line noise study of the area
- See what the Lowfers (Low frequency activists) are doing below 500 kHz
- Design and run a month-long activity contest for club members
- Offer yourself as a Mentor (hams say Elmer) one a one-on-one basis
- Think what you will do for the Calif QSO Party (CQP) weekend- where everyone wants to work the California counties- our great opportunity to become world-famous. Note the date is the first weekend in October and begins at 1600 UTC on the 6th So try a few of these activities to Augment Reality!!!

The Board would like to hear from someone willing to host our annual BBQ

In conclusion we congratulated Raplh (W6ENE) for reaching an important milestone. However he was unaware that this meant he had to take his ham test again and the original CW requirements still applied !

Thanks for the support Y'all

—Ron W6WO

Eastern Cake

A couple of questions that have been bugging me of late may provide interesting interaction at the next CAKE meeting. Or not as the case may be. I would like to know the consensus of opinion of these questions if possible.

1. I am considering a HF horizontal loop antenna around the periphery of my lot in Cambridge. There is a steel chain link fence running around most of the periphery. The lot (it is strangely trapezoidal in shape likely due to a gentle bend in Franklin St.) is about 82 ft by 34 by 83 by 32 ft or about 230 ft. I would like to know any pointers concerning such an antenna of such dimensions and tips on ameliorating potential interaction with the house and other antennas inside such an antenna. Has any one in our group built anything like this? Most loops that I have seen are built in open fields.

2. It seems that many countries have standard electrical connectors than we do. Is there any inherent superiority among the different types? From my Physio-Control days we used to ship product (Hospital defibrillators/EKG machines) without AC connectors because there were so many different kinds. That was in 1977-79. It is amazing to me to think how far we have come in the last 30 years. We have advanced from manual defibrillators used by a physician only and found almost exclusively in hospitals to personal, implantable and totally automatic ones. I was also wondering if anyone had an idea which electrical distribution systems were particularly more dangerous than others. I have always thought that having 220-240 as in Europe as the primary voltage was kind of a bad idea. This is due to several unfortunate experiences as a part/full load with several 110-120 VAC circuits and a couple of 220-240 circuits.

I may be missing from the internet for a while as we are heading off on another trip.

—N1IPP

Balloon

Then we headed to towards Patterson, to listen for and DF the Balloon packages, and do the recovery part of the mission. The landing place for the APRS package was accessible, but not easily, being the hills east of Patterson. We parked along side the road, and a team hiked in from two different locations, and we even had a "Bear in the Air" looking. Air Bear, had precise coordinates, but was unable to spot it visually, but gave direction to the ground teams, who had a lot of trouble, also locating it. Eventually Jamie (Professor Cutler of Stanford) retrieved the package, but was surprised to see that it was only the Ham APRS package, which had separated from the other payload and balloon, and had free fallen some thousands of feet.

No sign of the parachute or the Stanford Payload. The hike into and out of the landing spot was non trivial, especially int the 100 degree heat, and I think we that hike in, in the search for the payloads, all learned of the safety/necessity of having plenty of water with us, to keep hydrated. Jamie and his crew approached from the South, found, and retrieved the APRS payload, and we all headed to Mountain Mike's Pizza, for Pizza and debrief. Pouring over the tracking data, the tracker brain trust modeled the balloon trajectory, now modified, knowing a several pound payload separated at considerable height

We were pretty glum, without much hope of locating the Stanford Payload, but Jamie and crew left Mountain Mikes, (late in the evening, with a plan, and got a considerable boost with a data packet with a location for the missing Stanford payload. As Jamie recounts below, they found the second payload, and recovered it. I highly recommend this activity for any hams looking for great Saturday worthwhile adventure.

I'll try to get some of the Stratofox tracker brain trust to give a meeting presentation.. You may be able to retrieve from the APRS servers archives from yesterday.

Search for: KG6LSA-11

Don't Need Short Skip

In Your Mailbox?

If you're getting Short Skip by postal mail but would rather just read it on the Club's web site, just let me know at ki6aie@k6bj.org and I'll take care of it. If you're on the K6BJ email reflector, you'll get notification when each month's Short Skip has been posted to the Club web site.

Softrock

I wish to be selected for the free Softrock40 kit and tuition.

Name _____ Call _____ Date most recently licensed _____

I am currently an SCCARC member _____

I fully intend to renew my SCCARC membership in '08 _____

I am currently a member of the ARRL _____

I have computer with a soundcard or built-in audio. _____

The operating system in use is _____

Having read the builders notes (to be found in the files of the Yahoo Softrock40 group)

I know that one way(s) we can use a wooden toothpick is to _____

I know the best way to count turns when winding a torroid is to _____

Here are a few (<50) words (Attach) to explain why I am prepared to make the effort involved.

In the event that I am not selected I am prepared to purchase a kit for myself _____

My availability will be mainly in the evenings or on weekends ? _____

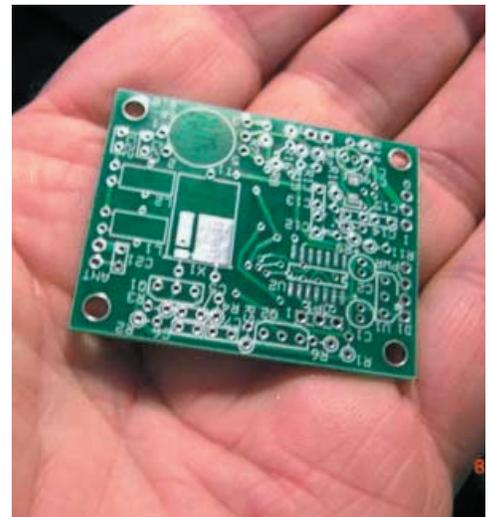
Date of submitting this application _____

Edit this note and return it to me on or before Sept 10th. We will announce the "winners" during the September Club meeting

I have received some are questions on how to get access to information and to order Sofrock products. Initially these were handled by the AMQRP club but that is no longer the case. The best way to find all the info needed is to sign onto the Yahoo Softrock40 group. Tony parks KB9YIG is the main man. Anyone contemplating buying a kit should consider the RXTX v 6.2 aversion 7.0 is also in the wings

Contact me in the meanwhile if you have any questions

—Ron W6WO



Treasurer's Report

At the July 25 Board of Directors meeting, Treasurer Kathleen McQuilling, KI6AIE, reported that the SCCARC treasury had \$5,669.50 in cash and bank accounts. At that time all financial obligations had been met.

HRO Discount for Club members

SCCARC members are eligible for a 5 percent discount at HRO in Sunnyvale on any purchase over \$20 excluding radios. Show them your current membership card once and they will update their database for future discounts.

Special Deal: Holiday Luncheon and Membership Renewal

If you renew your membership when you pay for the December 15 holiday luncheon, you'll get an extra five (count 'em, five) tickets for the holiday luncheon raffle! That's in addition to the one raffle ticket that is included with your \$15 for the luncheon. For most of you, that will mean \$40, preferably paid ahead of time, either at a Club meeting or by mail (SCCARC, P.O. Box 238, Santa Cruz, CA 95061-0238).

--Kathleen, KI6AIE, SCCARC Treasurer

SCCARC Board - 2007

President	Christopher Angelos	KG6DOZ	688-3562
Vice President	Pat Barthelow	AA6EG	
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	Ron Skelton	W6WVO	477-1021
K6BJ Trustee	Allen Fugelseth	WB6RWU	475-8846

MONTEREY BAY REPEATER ACTIVITY

Santa Cruz County ARC	K6BJ 146.790- PL 94.8 Santa Cruz KI6EH 147.945- PL 94.8 Watsonville K6BJ 440.925+ PL 123.0 Santa Cruz • SCCARC Net Monday 7:30 PM 146.79- /147.180+ /440.925+ linked • SCCARC 10 Meter Net 28.308 MHz USB Monday 7:00 PM
San Lorenzo Valley ARC	WR6AOK 147.120+ PL 94.8 Ben Lomond • SLVARC Net Thursday 7:30 PM
Loma Prieta RC	WR6ABD 146.640-(PL 162.2) • LPRC Net Tuesday 8:00 PM
Naval Postgraduate School ARC	K6LY 146.97- PL 94.8 / 444.700+ PL 123 (Linked) Monterey • NPSARC Net Wednesday at 8 PM on K6LY/R • Monterey ARES Net Wednesday 7:30 PM K6LY 146.970- (PL 94.9)
ARES Nets	SC County Wide ARES Tuesday 7:15 PM on AB6VS 440.550- W6WLS 147.180+ AE6KE 146.835-(Linked repeaters / PL 94.8)
Followed directly by	• SLV ARES W6JWS 146.745-(PL 94.8) & WR6AOK 147.120+(PL 94.8) on alternate Tuesdays • South County ARES K6RMW 147.00+ (PL 94.8) • LPrieta ARES AE6KE 146.835- / AB6VS 440.550+ (Linked /PL 94.8) • Santa Cruz ARES K6BJ 146.79- / (PL 94.8)
	• Newline (Ham News) Broadcast Wednesday at end of NPSARC Net • Santa Clara Valley Section Traffic NET Tuesday 9:00PM 146.640- (PL 162.2)

FOR MORE INFO SEE: <http://www.k6bj.org/freq.html>

SCCARC Calendar of Events

SCCARC Meeting	Friday	May 18
Board Meeting	Wednesday	May 23
Short Skip Deadline	Monday	Jun 4
SCCARC Meeting	Friday	Jun 15

MONTHLY MEETINGS.

The SCCARC Meets at 7:30 PM, on the THIRD FRIDAY of the each month (except December). Meetings are at Dominican Hospital, 1555 Soquel Drive, Santa Cruz.

NET CONTROL SCHEDULE

(Subject to Change)

8/13	Allen WB6RWU
8/20	Chris KG6DOZ
8/27	Tom K6TG
9/3	Cody KG6YPK
9/10	Phil KE6UWH
9/17	Allen WB6RWU

Short Skip
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