MAY 2015

THE MONTHLY NEWSLETTER of the SANTA CRUZ COUNTY AMATEUR RADIO CLUB

SHORT SKiP

Visalia Contest Academy 2015

A cornucopia of contest content!

By Don K6GHA and Tom KW6S

Once a year in April, international contesters and DXers converge on Visalia California for two full days of tribal knowledge exchange

unlike any other event in the world. This year's 66th International DX Convention has concluded, and if you were there, you really enjoyed some excellent presentations, a super showcase of products, and a social experience which can only be described as energizing.

As part of this event, the NCDXC and NCCC sponsored ten sessions diving into all aspects of contesting called the 'Contest Academy'. We were honored to have had world class presenters offering advice for novices and experts alike. Talks ranged from beginning contesting, terrain analysis, hardware and software efficiencies, and a live session to test your contest skills. We would like to thank the following presenter's for their contribution:

Bob K6XX, Tom ND2T, Tom K5RC, Dean N6BV, Andrew W7VJ, John K6MM, Bob N6TV, Kevin K6TD, Kurt W6PH, Hank W6SX, Jeff WK6I

With over 190 registered guest, and ~50 people attending per each of the ten Contest Academy (CA) sessions, this year's event was a smashing success.

With the entry fee for Friday's Contest Academy, you were granted access to the DX University (DXU) sessions! Concurrently running against the Contest Academy, there were tough decisions on which presentation to attend, from the entire offerings. The successful DXU sessions were coordinated by Darryl K7UT and Wayne N7NG.

At this point, if you are feeling like you really missed something special, you did!

With over 190 registered attendees, the information shared generated comments like:

"Great. I wish I could have done them both!", "Great instructors, great information", "Good job, keep doing it", and a request for "More time needed for each session, there is a lot of great info here."

So, how can you catch up and get ready for next year? Download the slides and see what you missed!

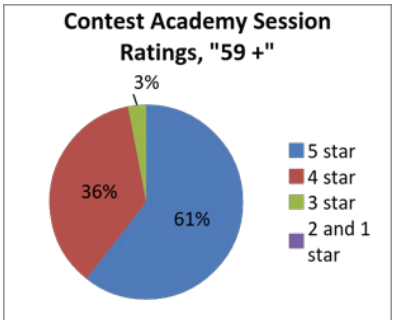
Contest Academy = http://ncdxc.org/presentations/2015/idxc2015-ca.zip (zip download)

DX University = http://www.dxuniversity.com/classroom/session.php?crid=29 (web page)

The Contest Academy ended on a high note by binging back some of the presenters, adding in some luminaries, and have a great rag chew, where the audience could ask the Contest Wizards.

And ask they did! Since there was no recording of the session, you will just have to imagine a solid, nonstop, pile-up of super questions from the attending audience. It is a great reason to attend.

So, download and review the slides, set your calendars for the 67th IDXC in Visalia in April 2016, and participate in a jam packed, fast paced, leaning experience at next year's Contest Academy!



Field Day ....

A discussion about this year's Field Day events will take place at the May SCCARC meeting.

We Are Pleased To Offer PayPal, However....

By Suellene Petersen, K6CPA

Using PayPal is a great convenience for many of our members when they send payments for dues, or for other purposes. However, PayPal charges the recipient of the payment a transaction fee of 2.9% plus $0.30 of each transaction amount that is sent to SCCARC. So that means that when you send dues for $25.00, the Club receives only $23.97. If you send us $31.00 for the family plan fee, the Club gets only $29.80.

As you can see, the impact of the transaction fee is to discount the values of the dues paid through using the PayPal method. People who either pay cash or submit a check might feel that if they can cover the cost of postage, envelopes, etc. that it is only fair for PayPal users to pay for the transaction fee. So far, the Board has never raised dues and hopefully we do not have to do so in the near future. We want to keep our dues affordable especially for our members on fixed incomes.

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CLUB MEETING FRIDAY MAY 15, 7:30PM

The CAKE session on April 18

We certainly felt the absence of our Visalians but with Kerry K3RRY, Frank K6BDK Eric KK6IZY and Reed N1WC we found plenty to talk about. The prime exhibit was a book published in 1914 entitled A Complete Description of the New Wireless Law by A.P.Morgan. This rare volume was full of wonderful illustrations, one of which was an Amateur station of that era. Our super sleuth Kerry found the book in pristine condition.

Naturally this lead to the use of sparks as a source of RF like Heinrich Hertz used to prove the existence of wireless propagation as predicted by Maxwell in his famous equations. We digressed into discussions about Tesla's experiments and, at a more mundane level to automobile spark plugs. We digressed further from our history by thinking about the use of IR light as a communications and heating source.

Eric described the tedious efforts by a certain group who were attempting to put some old Motorola repeater gear into service. Eric posed the question Have you ever wonder why we have such strange values like 4.7, 6.8, 8.2 etc ? He then explained that by combining items of different values, with say a 5% tolerance, it is possible to obtain a more accurate single component. Seems a useful idea for leaded components but perhaps less so for SMD.

Reed has a tower project needing a base, we discussed some various techniques for mixing cement and whether salt water could be used. My only experience with raw sea water says definitely not. The degree of salination might be a factor but hopefully not an issue for Reed living up in the hills.

Ron showed the matching unit used in his Cushraft R6000 multi band vertical. This had been working flawlessly for over 10 years but developed an intermittent fault. Tracing this back to an unsoldered joint took a lot of time and effort- as the case in most intermittent problems. Once located the R6000 was simple to fix. Kerry recalled a particularly difficult time he and his father had to diagnose and fix a problem in the family car.

Adverts for the R6000 show two large torroids and we discussed what their functions might be. One has a single winding of coax and the immediate thought suggested that it was a "choke balun" a term used by W7EL in his study of baluns, (Ron argues this label is redundant). We pondered why it was needed as the antenna and feed-line were both unbalanced, as Reed pointed out it was a 1:1 Un-Un. One answer was just the usual function of rejecting common mode current on a feed-line. Another idea was that the length of the coax was behaving partly as a transmission line transformer at the higher frequency bands.

Turning our attention to the other torroid it first appears to be a conventional 4:1 impedance transformer because it had 2 bifilar windings. It is certainly a transformer but with a turns ratio of 12:9 the impedance conversion is about 1.8. The story doesn't end there since a series capacitor connects to the feed-point. In essence we were unable to conclude just how it works.

We ended our session with a brief discussion on Centennial preparations and agreed that a tentative program of events would be very helpful to generate interest and support. Ron will be out of the area until mid July but will remain active on this subject and be looking forward to hearing suggestions. A fascinating historical topic for our celebrations is "our" John Reinarz who (among many other distinctions) was the radio operator on the ship Bowdoin during the MacMillan expedition to the Artic in 1926.

1st and 3rd Saturdays at the Abbey Y'all

73 to all, have a Vibrant summer

—Ron W6WO

Our Shrinking World

Most of us can no doubt remember holding in our hand a pea shaped object with three prongs poking from it called a transistor. That was then, this is now - A recent issue of the IEEE Spectrum magazine stated that in 2014, 250 billion billion (250x 1018) transistors were produced. This is literally production on an astronomical scale. Every second of that year, on average 8 trillion transistors were made. That figure is about 25x the number of statrs in the Milky Way and some 75 X the number of galaxies in the known universe.

Amateur Video Now Transmitting From Iss

As of Friday May 1st the Ham Video transmitter on board the Columbus module of the International Space Station is powered on and is transmitting in its Blank Transmission or BT mode. In this mode the transmitter is operated without camera but the digital TV signal is fully formatted. From a technical perspective, the BT signal is all that is needed for testing and fine tuning ground stations.

To that end, a European network of chained ground stations is nearly complete. Six stations span the continent in "X" formation. For each ascending and descending pass over Europe, four of these stations provide about ten minutes of solid copy. The chained ground stations are streaming to the British Amateur Television Club server which has set up a multi viewer page at www dot batc dot tv. This web page shows all six streams with each view having the ability to be maximized to full screen.

This operational mode is dubbed ARISS Ham TV. The video transmitter will stay on as long as orbit operations permit. When the ground stations are operating reliably, the transmitter will be used to enhance ARISS school contacts. Uplink for audio will remain VHF only. More information is available at www.ariss-eu.org/columbus.htm (ON4WF)

-Amateur Radio Newsline

Army To Quit Teaching Morse Code

The US Army will quit teaching Morse code to soldiers at its training center at Fort Huachuca in Arizona.

The Army has used the code since shortly after its invention by Samuel Morse in 1844. During the Cival War both the Union and Confederate armies heavily relied on Morse code. But its use decreased significantly since World War II. These days the military has satellites and other channels of communications that offer voice services and text messaging on the battlefield.

But for the overall military Morse is not completely going away. Because some forces still use the code troops that need to know it will have the option of going to an Air Force sponsored course taught in Texas. (Gazelle.com)

—Amatuer Radio Newline

What Would You Do?

By Dan Romanchik, KB6NU

For the past three or four years, I've been threatening to buy a new radio to replace my ICOM IC-746PRO. The IC-746PRO is a great rig, though, and I've had trouble pulling the trigger on a $3k – $5k or more purchase. The radio that I've had my eye on is the Elecraft K3. Without a doubt the K3 is a better rig than the 746PRO, and it's certainly worth the price that Elecraft is asking. The question I keep asking myself, though, is, "Am I going to have $5,000 more fun with a K3?"

To put it another way, the question is, assuming that I have a $5,000 budget to spend on amateur radio gear over the next year or two or three, what's the best way to spend it? How can I maximize my purchases so that I have the most fun?

At this point, I think that I've decided not to buy that new rig and instead buy equipment that will help me make my own rigs. Some of the items that I have my eye on include:

* Aoyue 968A+ SMD Digital Hot Air Rework Station (I have actually already purchased this unit.)

* Rigol DS1102E 100MHz, Dual Channel, 1 GSa/s Digital Oscilloscope

* Rigol DSA815-TG Spectrum Analyzer

* A more professional workbench to replace the folding table that I'm currently using.

* Peaberry SDR V2 Kit

* More keys! I'd love to get a fancy Begali or N3ZN paddle, and the other day someone told me about the UR5CDX keys, which look like great deals.

Even if I purchased everything on this list, I'll have spent less than $5,000.

One consequence of going this route is that I'll have less time for operating. I'm betting (hoping?) that the extra time spent on tinkering will be just as much fun, or even more fun than I'm having now.

It also means that I'll be going to Dayton with a much different mindset than I have the past couple of years. Instead of spending my time configuring the perfect K3 in my head, I'll be looking for kits and scouring the flea market looking for parts.

I may be overthinking this, but like most amateurs, I have a limited budget to spend on amateur radio. That being the case, making conscious decisions about how to spend that money should help me have more fun with ham radio, and that's the goal, isn't it?

What do you think? Is this the right way to go, or am I going to regret this decision? If you've made a similar decision, I'd love to hear from you.

When not making crucial decisions about his amateur radio career, you'll find KB6NU working on updates to his "No Nonsense" study guides, teaching one-day Tech classes, or blogging about amateur radio at www.kb6nu.com.

By Art Lee WF6P

CHATTER

The cover of the April issue of QST was great, as always. The photo was interesting. Curiously, two very intent young operators at their operating station were staring at computer screens. Each wore a headset with their hands operating a mouse and a keyboard. In the background, a senior operator was typing on a keyboard at his station. After a few minutes, I realized that this is the ham radio of today. The cover story on page 72, "W1AW/p The Year In Review," was accompanied by eight photos from the various states participating. Nearly every photo involved a laptop and keyboard. Times have changed, dramatically, since hamming in the 1940s and earlier. Sitting in a dark room on a cold winter night listening to dits and dahs while staring into the yellowed glow of a dial of a Hallicrafters S 20 R or Hammarlund HQ- 129x receiver (if you could afford one!) was fun. I consulted Webster's for the most recent definition of fun. So here goes: Fun. Noun,adj.; enjoyment; pleasure; a thing that makes you feel happy. My conclusion: ham radio is still fun, no matter what form it takes. Sitting on a rock with a flashlight exchanging blinker signals with a pal on another mountain is fun 'if it ain't snowin'!

On page 77 was the article, "FCC's Paperless License Policy is in Effect." That's good, saves money on printing and mailing, but it was always nice to have your framed FCC ham license proudly displayed in your ham shack. We were required by the FCC to have a copy available when operating other stations or when going mobile. Ah yes, times have changed. Our licenses now exist as a line of code in a distant computer bank.

This morning I went to watch my buddies bat a ball over a net, a game I enjoyed for years. There were two new players: Ed and Jerry. I waved to acknowledge the introduction but the one named "Jerry," said "Hi Art," as if he knew me. Jerry, clad in a neat blue and white tennis regalia with his hat's visor partially covering his face, was serving. He slammed the fuzzy yellow sphere into the receiver's court. The ball kicked high. His opponent swung and missed. That was impressive! For the rest of the game he drove the balls over the net with such velocity that it was hard for his opponents to make returns. When they switched sides of the court, Jerry walked up to me with a smile. It was our own Jerry Inman, AE6I! I never expected to see him outside of ham radio circles. When not playing tennis, Jerry keeps busy as our local ARES Director and as a docent on the USS Hornet at Alameda. He has operated many field day events from the ship's flight deck. His recent motorcycle trip From Monterey Bay to Prudhoe Bay above the Arctic Circle is an adventure story that needs telling. When asked about his contacts on ham radio on the road, he said, "There weren't any! There are very few or no repeaters in the isolate parts of Canada or Alaska."

Santa Cruz answer to electric cars

Mini R390?? Jack Woolridge

I spent many a mid-shift fighting sleep snuggled up next to a warm R390.

For those interested: http://floridajim.com/onlycups.html

SCCARC Board - 2015

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MONTEREY BAY REPEATER ACTIVITY

Santa Cruz County	K6BJ 146.790- PL 94.8 Santa Cruz (linked to KI6EH) KI6EH 147.945- PL 94.8 Watsonville (linked to K6BJ) K6BJ 440.925+ PL 123.0 Santa Cruz (not linked) K6BJ D-Star 441.675 +5MHz (D Star link: tinyurl.com/dstar-sc) • SCCARC Net Monday 7:30 PM 146.79- /147.945- /147.180+ linked • SCCARC 10 Meter Net Monday 7:00 PM 28.308 MHz USB
ARES Net	SC County Wide ARES Tuesday 7:30 PM on 147.180+ PL 94.8 and 443.600+ PL 110.9 linked
San Lorenzo Valley	WR6AOK 147.120+ PL 94.8 Ben Lomond • SLV Net Thursday 7:30 PM
Loma Prieta	AB6VS 440.550+ / AE6KE 146.835- PL 94.8 (linked for net) • LP ARES / LPARC Net Tuesday 7:15 PM
Monterey	K6LY 146.97- PL 94.8 / 444.700+ PL123 (linked for net) Monterey • Monterey Co. ARES Net Wednesday 7:30 PM K6LY 146.970- (PL 94.8) • NPSARC Net Wednesday at 8 PM on K6LY/R
LPRC	WR6ABD 146.640- PL 162.2 / 442.900+ PL 162.2 (winsystem.org) • LPRC Net Tuesday 8:00 PM 146.640-(PL 162.2) • Amateur Radio Newsline broadcast Tuesday

• 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

ARES Meeting (prior to club meeting)	Friday	May 15
SCCARC Meeting	Friday	May 15
Cake Meetings	1st and 3rd Sat	
Board Meeting	Thurday	May 28
Short Skip articles due	Monday	Jun 7
SCCARC Meeting	Friday	Jun 19

MONTHLY MEETINGS.

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

Net Control Schedule:

5/11	Becky KI6TKB
5/18	Lou NJ6H
5/25	Chris KG6DOZ
6/1	Phil KE6UWH
6/8	Tom K6TG
6/15	Becky KI6TKB

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Writer: Ron Skelton, W6WO

Dues continued

Since a growing number of our members are using PayPal to transmit dues, we do not want to eliminate that service. What the Board requests is that the members who use the PayPal service to add a little extra to pay for the transaction fee. For example, if you are paying dues, the payment schedule will be as follows:

- $25.00 + $1.03 = $26.03
- $31.00 + $1.20 = $32.20

Thank you for adding back the transaction fee.

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