

CONTRAILS

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MONTHLY CLUB MEETING – April 10th

The Convair/220 Amateur Radio Club will meet (in person) at 1800 hours at the Kearny Mesa Recreation Center, 3170 Armstrong St. The program will be “Capturing the Magic of Six Meters.”

MEETING HIGHLIGHTS & REPORTS -- March

The February meeting was an in-person event. The program was “Build an RF Sniffer” by John W6NBC.

CLUB NET

Be sure to check into these informative and interesting nets. The Monday night net is held at 7:30 PM on the Convair/220 ARC repeater. It features news of upcoming club activities, followed by a no net-control roundtable discussion.

Alan K6HPO Writes:

The Valley center A.R.C. has just recently instituted an HF net on Sunday evenings at 7:00 P.M., 1900 hours.

Forty meters is quite busy, so I am told at this time. As a consequence, the net frequency varies. Primary frequency is 7.210 kHz with an alternate of 7.205 kHz. Every Ham is invited to join in.

PRESIDENT'S MESSAGE



Welcome to April. Just last week there was a huge earthquake in Myanmar, but it seems to have faded from the news in light of the stock market crash after the announcement of tariffs. It makes me wonder what this next week will bring.

Hopefully good news, maybe like the San Diego Padres have had their best start to the season ever. (They usually have a dismal start and have to struggle to catch up.) Only time will tell whether this works to their benefit, but it is fun to watch it play out. World Amateur Radio Day is coming on April 18 celebrating the IARU's 100 years of existence. Sunday was an amateur radio day for me. I checked into one of the morning HF nets and in the afternoon, I chased some SOTA/POTA stations. It did not work out as expected. I made some contacts but Bill K1CT and Andre N6DRE had weaker signals than expected. We finally made a couple of contacts just before they headed down the mountain. I'll have to plot the path between us, as I know they worked other stations, but to my station the signals were marginal. There must be some hills between us. Some of us used another mode today, dStar, it seems the new Kenwood TH-D75A is now a tri-band radio including 220 MHz and dStar digital voice. There were some dStar contacts since some of the radios being used are new enough to include this mode, counting as another mode for SOTA/POTA contacts. I was surprised at how many stations were decoded. With the sunspot numbers at their maximum, band conditions are usually pretty good. Unfortunately the sunspot maximum also includes Coronal Mass Ejections (CMEs) from the sun, which play havoc with band conditions, but before and after propagation is good. This goes all the way up to 6 meters and can even affect VHF and UHF bands. 6 meters is known as the “Magic Band” because of this. This month our program is “How to Capture the Magic of 6 Meters” and the meeting is Thursday night April 10 at the Kearny Mesa Rec Center, 6:00 PM to 8:00 PM. This month our meeting comes BEFORE the ARES meeting on Saturday April 12. Of course the DX Convention in Visalia is 4/11-4/13 and the Big Bear Ham Escape is 4/25-4/27. So there are lots of activities of interest in April. Hope to see you Thursday night!

73, Duane Naugle, KO6BT
Convair/220 ARC President

TREASURER'S REPORT

Financials for March 2025
Balance Forward 1090.93
Income
Membership 250.00
Interest .01
Expenses
None 0.00
New Balance 1340.94

Submitted by Duane KO6BT

Club membership renewals are due each April.

See: <https://k1ct.freeshell.org/c220.html> for application/renewal form for dues submission to:

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K1CT Reports

ARES Activity Day 29 March 2025

San Diego holds an aperiodic outdoor ham radio event known as ARES activity day. The nexus of the activity is the Kerny Mesa Community park (behind the recreation center). At this event impromptu meetings can be held such as the central district confab, led by Dennis N1TEN. Various ham radio specialty systems/techniques are on display and mentoring occurred. Ham radio exams were conducted in the recreation center activity room under the guidance of Heather KM6Z.

This time out, Frank NB1Z brought his 10 GHz microwave station and showed off listening to the 10.3683 GHz CW beacon atop Mount Miguel. The beacon puts out a robust signal that we were able to hear from many directions other than boresight. We attempted to set up Frank's gear on the small hill in the park (the one where the club set up one of its HF stations for Field Day). We attempted to listen for the Mount Frazier 10.368 GHz CW beacon but were skunked, probably because of the robust foliage in the way absorbing the fickle microwave energy from the beacon, which was appx. 170 miles away.

Mooneer K6AQ demonstrated his portable/mobile HF Winlink set-up with an amplified IC-705. Mooneer was participating in the ongoing Tsunami drill reporting in for San Diego providing local conditions and any possible (exercise) damage reports via HF Winlink. Mooneer mentored many on this set-up as well as on his efforts with HF digital voice using FreeDV.

Patrick K6PFG mentored many of the new hams with a get-on-the-air workshop. This focused on programming handie-talkies to local repeater and SIMPLEX frequencies and how to talk on the radio—with an eye to proper amateur radio voice procedure.

Duane KO6BT set up a Convair/220 Amateur Radio Club promotional table recruiting new members and answering new ham questions.

Roger KD6EFQ along with several other club members (W6TWM, AF5T, K1CT, and others) circulated among the attendees promoting the club and SOTA/POTA portable operations.

Pictures: Left is Duane KO6BT at Convair/220 Club table, assisted by Jim WX8F and M3LI. On the right is Mooneer K6AQ showing off his portable/mobile HF Winlink set-up to Jim WX8F.



C-220 ARC Portable Operations SIG Activity

We had an impressive amount of Portable Operations Special Interest Group activity over the past month:

KD6EFQ and K1CT made a Sunday afternoon hike up Owens Peak (AKA P-Mountain) San Marcos for a VHF activation of W6/SC-454, achieving full activation (four or more stations contacted) for both old Zulu day as well as new Zulu day.

KD6EFQ, KO6ET, and K1CT made a Sunday afternoon hike up Merriam Mountains High Point (west of Lawrence Welk Village) Escondido for a VHF, HF and DV activation of W6/SC-323 for both old and new Zulu day. AF5T provided POTA contacts from Carlsbad state beach. Nick KO6EFG hiked to the top of an un-named mountain (some call it little Iron Mountain) between Poway and Ramona to provide summit to summit QSOs from W6/SC-366

K1CT and M3LI made an impromptu Tuesday afternoon activation of Mount Helix in La Mesa for a VHF activation of this drive up SOTA summit W6/SC-352. Club members provided an ample supply of chasers to achieve a full activation of 223.5 MHz.

N6DRE and K1CT made a Sunday afternoon hike up Monserate Mountain in Fallbrook for a VHF and HF activation of W6/CT-235. We were unsuccessful at achieving our four on old Zulu day but on new Zulu day K1CT broke out the 20 meter CW set-up and made the coveted four QSOs. This location isn't so good for VHF getting back to San Diego, as signals were very weak (probably due to intervening terrain.) A 50 Watt radio would have helped here. Marty AF5T POTA activated Palomar Mountain state park and provided several QSO to the SOTA team. Nick KO6EFG activated Mt. Helix to provide summit to summit QSOs for the event. We attempted dStar for our activation where we could hear several chasers but we were unable to be heard. I suspect a configuration problem with the Icom ID-31A dStar HT which hasn't been used for over ten years.

Thanks and kudos to club member chasers which included: KO6BT, WX8F, WB9RKN, AJ6GK, W6TWM, and N1TEN.

Pictures: Top shows Andre N6DRE operating atop Mount Monserate. Bottom Left shows Roger KD6EFQ and Steve KO6ET operating from Merriam Mountains high point. Bottom Right shows M3LE working 223.5 MHz from atop Mount Helix.



From the DR0NK Radio Network: A Close Call



Greetings everyone (and hopefully 220 enthusiasts),

As many of you are aware, though many of you are not, a recent interference situation surfaced in the Los Angeles area regarding 222MHz. A firm applied for and received experimental licenses within the 222-225MHz band. Bear in mind, this band is a Primary spectrum allocation to the Amateur Radio Service.

This entity, Caos Capital LLC, applied for their experimental licenses under Part 5 of the FCC's rules. The terms of this license and Part 5 operations specify operation on a non-interference basis with existing services. They were perfectly legitimate in submitting an application. Where the problems came were in next steps. The responsible parties who received and processed the application, as far as we can tell, did so without knowledge of the existing spectrum users - in this case, Amateur Radio. They were "unaware of any existing operations that would pose any issues nor was there any notable existing use."

That was the first major red flag. The existence of a Primary Service Allocation seemed completely ignored or unknown to exist. Second, what cross-checks were performed if any. Unknown. And so, the licenses were issued as WP2XGY and WP2FXD. The bandwidth requested for these licenses was noted as 223.000MHz - 224.900MHz. ERPs in the Kilowatts were requested and authorized. It is implied from our sources that neither the applicant nor the processor of the application understood that Amateur Radio was present. This lack of awareness at FCC is most disturbing. And must be corrected by appropriate education.

This article continues on the next two pages.

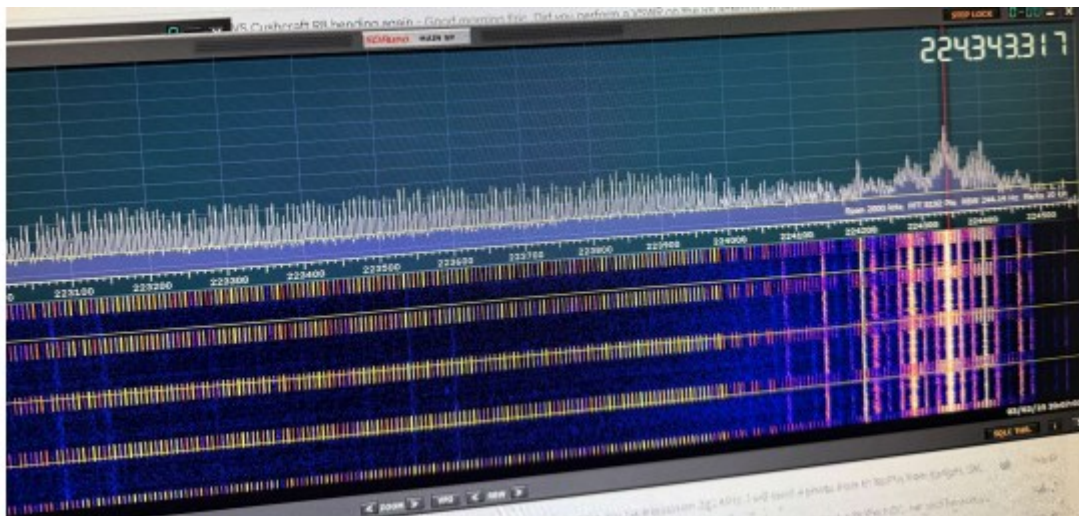
From the DR0NK Radio Network: A Close Call (cont.)

Granted in December of 2024, the existence of these licenses were unknown to us until some sleuthing following repeated instances of interference. One such example of interference began to occur earlier in the year, cause then unknown, to a repeater we operate on Saddle Peak above Malibu, CA. The behavior manifested as if someone or something were jamming the input with unmodulated carriers. Its duration roughly 1.5 seconds and spaced 3-4 seconds apart. At first, it seemed either malicious interference or a device gone awry. Perhaps spurious. It would come and go without much reason.

This interference continued until just days ago. Our Saddle Peak 224.34 system was unusable during its activity. Beyond random interference to our day-to-day communications, interference occurred in January during the Palisades Fire disaster. At a time when our system was handling emergency traffic, we were precluded from using 220. Numerous 220 repeaters in the west side/south bay were most affected with more beyond through the overall test period.

Some diligent research revealed the who, the what and the where. The licenses and supporting documentation were discovered and disseminated as system operators affected communicated with each other. This is where we learned of the experimental licenses, their locations, their purpose and their operator - Chaos Capital LLC. The interfering signals were documented by spectrum captures showing multiple behaviors. Often, a wide bandwidth signal would occupy the 223.000-224.900 area and beyond. Narrower carriers would rise above this and manifest the 1.5s/3.5s type of cycling we observed spaced across this same bandwidth.

Affected also were simplex operators, not solely repeaters. LA DCS Simplex operations among them were subject to significant interference. The noise floor of affected receivers at repeater sites, mobiles, base stations and handhelds in the area was raised substantially thus reducing their effective sensitivity. Even without a carrier present on channel from the experimental system, this wideband noise drowned out all but the strongest of intended signals.



From the DR0NK Radio Network: A Close Call (cont.)

A documentation and complaint submission effort ensued over the last month's time. Coordinating these efforts is Skip Blomer (KD6JA), retired from LA County SO Communications and active with LA DCS. Working with him is Deane Bouvier (N5DQ) among others. These gentlemen gave us first insight into the true nature of this problem. Working together, it appears efforts to resist this incursion into our 222MHz band have succeeded. As of yesterday 03/26, we were told the FCC directed Caos Capital to terminate operations. Through our coordinated efforts of documenting and communicating real issues, and channeling this to the appropriate officials, this step has succeeded.

However, let us not rest on our laurels and declare premature total victory. This case clearly demonstrates the threat to Amateur Radio spectrum remains clear and present. If we expect to retain it, we must promote awareness beyond simply utilizing the spectrum itself. Community involvement, education, demonstration,

presence are key. The price of freedom, and of spectrum, is eternal vigilance. Use it, defend it or lose it. My late colleague Andy Seybold (W6AMS), known to many of you, warned me about 3 years ago that we should expect a challenge to the 222-225MHz band. This may be the first in multiple challenges we face. Andy was deeply wise and interlaced into the Telecommunications sector at all levels.

I want to thank Skip Blomer (KD6JA) in particular for spearheading efforts of this latest defense. And to Deane Bouvier (N5DQ), John Hudson (WA6HYQ), Sam Skolfield (KJ6QFS), Joe Lanphen (WB6MYD) and others providing input, observed data and more toward making this happen. And last but not least, those at the FCC who, when presented with the evidence, took the necessary action curtailing it. As you will note in the attached document, representatives of Caos Capital LLC indicated initial operation from March 2024 occurred "without complaint." This aligns with issues many of us were having prior to the November/December grant of the Part 5 licenses. Troubles which we collectively had not identified & correlated and likely considered transitory in nature. A reminder to pay attention and follow through.

Let's be sure we learn the lessons and apply that knowledge going forward. If you find strange occurrences on the airwaves, there may be a greater story behind it. Observe, record and report. Had this situation been ignored, it could've cost us 222-225MHz like our loss of 220-222MHz in the 1990s. Let's avoid unforced errors and loss.

Regards,
Matt Lechlitter W6XC
The GRONK Radio Network

EDITOR'S NOTE: Beware, this article is from screenshots rather than native text (and thus was unable to be properly paginated or formatted in this newsletter.) Aka, what you see is what you get. Fortunately it's great as is.

K6RJF: ARES Activity Plan

UPCOMING EVENTS

April 12, 2025 Hams support Oriflamme Canyon 50K near Mt Laguna and Box Canyon area of Anza Borrego Desert State Park.

April 12 ARES meeting at Sharp Tech Way. Program: HIPPA refresher.

April 17 ARES Hospital EMS communications drill.

April 25-27, 2025 Big Bear HamEscape at Big Bear Lake <https://bigbearhamescape.com/>

May 3, 2025 Tentative General Upgrade Cram Class (contact sandiegohamclasses@me.com for info.)

May 10, 2025 ARES In-Person Meeting at Sharp Spectrum

May 10, 2025 Hams support PCT50 Mile Run in Buckman Springs, Sunrise Hwy, and Mt Laguna areas of Cleveland National Forest

May 31, 2025 ARES Activity Day at dispersed locations including Kearny Mesa

June 6, 2025 Hams support SD100 Mile Run in Lake Cuyamaca, Descanso, Sunrise Hwy, and Mt Laguna areas

June 14, 2025 ARES In-Person Meeting at Sharp Spectrum

NET REMINDER

ARES Simplex Net. (5th Thurs of month.) The ARES simplex net will start on the K6RRR Otay repeater 449.440(-) PL107.2 (and affiliates) this evening (Thursday) at 7:30 p.m. then will move to simplex.

ARES DMR Net starts on DMR Talkgroup (TG) 310343.

People who check in commonly use one of many DMR repeaters available in the area. People on travel sometimes check in using a hotspot.

If your usual DMR repeater is off the air, search for a DMR repeater that can connect you to the net talkgroup. The DMR net will be pre-empted by the SIMPLEX net drill on the fifth Thursday of the month.

OTHER ARES VHF/UHF ANALOG NETS

Sunday @ 0830, PARC/ARES Net on PARC Palomar repeater 146.730(-) PL 107.2

Sunday @ 0900, Imperial Valley RACES/ARES/SATERN Net on SANDRA Mt Laguna 147.150(+) PL 107.2

Sunday @ 0930, Imperial Valley 6-Meter Net on 50.125 MHz USB voice

Sunday @ 0815, San Diego Northern HF Net on **3924 kHz** LSB voice (net control in Valley Center, Julian, Fallbrook, or Encinitas)

Sunday @ 0830, Imperial Valley HF Net on **7204 kHz** LSB voice (net control in Heber, Brawley, El Centro, or Japattul Valley)

Sunday @ 0900, San Diego Central HF Net on **7204 kHz** LSB voice (net control in Clairemont Mesa, Serra Mesa, Valley Center, La Jolla, or Scripps Ranch)

Sunday @ 0915, 60M Net on 60M Channel 1 **5330.50 kHz** dial USB voice (net control in Clairemont Mesa, Serra Mesa, Valley Center, La Jolla, or Scripps Ranch)

(If 60M Ch 1 is busy, move up to Ch 2.)

DIGITAL ARES KEYBOARD NETS

Sunday @ 0925, FLDIGI NBEMS Digital Net on 7072 kHz USB with voice coord on DMR TG 310343 and Convair-220 ARC Mt. Palomar repeater 224.90(-) MHz PL 107.2.

OTHER NON-ARES NETS

Monday @ 1930, **San Diego Ham Forum** on the CORA K6KTA linked five-repeater system.