

We'll be ZOOMing our next Meeting

Time 7:00 PM October

13th (Wednesday)

ZOOM: meeting \*\*\*\*\*

Password: \*\*\*\*\*

There's also a direct link

to ZOOM posted at:

[http: www.redxa.com/](http://www.redxa.com/)

Check your email for the "Meeting ID" and pass-word. You should have received an email with this information. If not, contact one of the club officers.



**Volume XXIII**

**Number VIII**

**October 2021**

### **Club Officers:**

**PRESIDENT:**

Roger Cooper, N3RC  
rogen3rc@gmail.com

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**TREASURER:**

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**N6YEU@aol.com**

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jsemi@hotmail.com

**EDITOR:**

Alan Eshleman K6SRZ  
Saraj Cory, KU6F

### **Mee#ng Announcement**

We're s(II Zooming, but the end is in sight. This month REDXA is pleased to host, Ma@ Heere N3NWX who has given many pitches in online forums. The program for Oct Zoom will be on POTA.

A note from your Editor in absentia:

Carol and I are alive and recovery. CQP travel plans cancelled and Sweepstakes plans in limbo. Health and family are more important than radio sport. Usher the therapy dog stands ready to serve. Next surgery is October 17th at Kaiser SF.

Alan, K6SRZ

### **Nominating Committee for 2022 officers**

I am heading up the nominating committee with Marilyn, N6VAW, riding shot gun. Expect emails, phone calls, or just get it over with and volunteer now. Interested parties? Email me directly at saraj@sonic.net.

Saraj, KU6F

## **PRESIDENT'S COMMENTARY**

Well, another Covid month! XYL and I scrapped our Croatia trip and took the RV to Yosemite, Pismo Beach, and San Diego for 3 weeks. We had great time and used our fat tire e-bikes a lot. Drove back from San Diego on Friday so only put a couple of hours in on CQP. Did work Fred N6YEU/8 in WV. I see that REDXA had 3 members over 1000q in CQP(N6ZFO, W6PZ(K6SRZ) and N6IE) which is pretty decent.

Saraj has agreed to chair the election nominating committee which is to report out in December. Doug WW6D has asked to leave the Secretary position. We are actively looking for candidates for many positions.

The program for Oct Zoom will be on POTA. Our host will be Matt Heere N3NWV who has given many pitches in online forums.

Fred N6YEU/8 hoped to activate some parks on his WV sojourn so we might get to hear from him about his travels and any POTA activations.

The club donated \$250 to the new Bouvet Island DXpedition thru NCDXC Foundation.

It has been suggested that until Covid abates, sunspots rise, and we can meet in person, that a quarterly Zoom meeting might be more appropriate. We could do Sunspots monthly or bimonthly. That might also increase the number of Zoom sign ins which have been pretty sketchy.

73 Roger N3RC

## **REDXA Treasury report for Sept 30, 2021**

Balance at start of September: \$3,849.72

Income: \$00.00

Outgo: \$250.00 (Donation to Northern California DX Foundation)

Ending Balance as of September 30: \$3,599.72

Respectively submitted,  
Fred N6YEU Treasurer REDXA

## In Memory, Darlene LeMont

I am deeply saddened to hear of the passing of Jim Robinson's wife, Darlene LeMont. She & I became very close during our Field Day campouts, Jim's & her love for travel, resulting in her excellent photographic skills will always be among my memories.

Marilyn, N6VAW



## Nominating Committee for 2022 officers

Just in case you missed the first notice: I am heading up the nominating committee with Marilyn, N6VAW, riding shotgun. Expect emails, phone calls, or just get it over with and volunteer now. Interested parties? Email me directly at [saraj@sonic.net](mailto:saraj@sonic.net).

## California QSO Party – IS A WRAP

California QSO Party from "the other side"

As most of you know, my wife and I drove back to our daughter's home in West Virginia taking a somewhat convoluted path to get here. I had grand plans of being able to "borrow" a local ham station of one of the hams I have met on previous trips back here. Unfortunately, both were unavailable and I didn't feel comfortable approaching any others I had not previously met. This left me with one option: set up in back yard at my daughter's place.

I did this once before here in 2017 for CQP. I used my trusty home brew linked dipole (used at PJ5 and several Parks on the Air activations on the way here). I support it as an inverted VEE using a 10 meter fiberglass Spiderpole. I bungeed the pole to a trampoline frame and tied off one end to a fence and the other to a tent peg in the ground. I had set up the pole with a small pulley at top to be able to raise and lower the antenna in order to change bands. This is accomplished my connecting or disconnecting the various segments to have a resonant antenna. I have it set up for 15-17-20-30 and 40 meters  
My "shack" was outside under an overhang. Fortunately the weather was comfortable with just a sprinkle of rain on Sunday.

Things started out well. I was set up two days in advance and thought 20 meters would be where to begin the contest. While tuning around I heard Bill-WX6B about 20 minutes before the start so gave him a call. We had a nice chat and wished each other good luck. I then thought I might see if 15 might be open. I heard a few signals so decided to change the antenna and start on 15. While lowering the antenna using the pulley the coax and wires got all twisted and it took awhile to get things back in order. I decided not to use the pulley but just raise and lower the Spiderpole as it comes in multiple segments and I just lowered it enough to reach the connections to change bands.

After finally getting started I did some on 15 the switched to 20. I operated three bans for the weekend, 15, 20 and 40 concentrating on CW as it helps when one is a "little pistol". Conditions seemed pretty good and I was pleased that 15 was a very good band for me.

I ended up with 189 CW and 80 phone QSOs on the three bands for a total of 269 QSOs with 50 multipliers ( eleven counties with only one Q!)

The real fun of the contest was working REDXA members. I managed to log the following: K6ANP, WX6B (2), N6ZFO (5), KE6ZSN, W6PZ (K6SRZ)(2), N6TQ (2), W6XU, K6RIM, N6IE (4) and N3RC! Ron -N6IE and Bill-N6ZFO had big sigs on all bands I was on. WX6B (multi) was also quite loud on 20.

I tried calling CQ a few times with little success except a mobile from San Joaquin and a San Francisco called me for the only stations worked from those counties so I guess it was worth it!

While operating from back east would have been better from a "real" station I did enjoy myself and did the best I could. It does take some getting used to the 3 hour time difference as to which bands are open to CA but that's part of the challenge. Thanks to all for helping make CQP a memorable one for me.

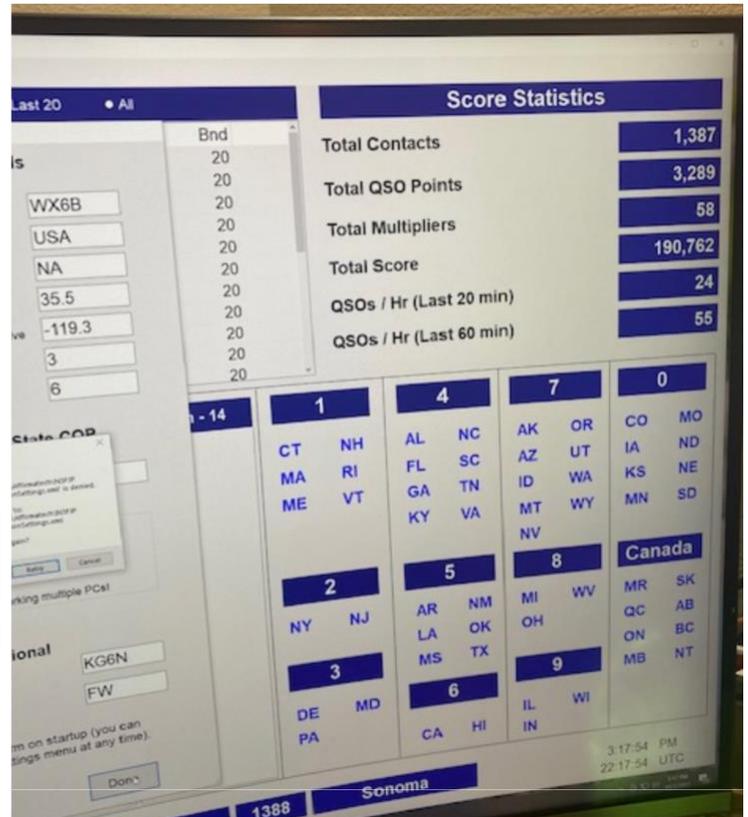
73, Fred-N6YEU/8, West Virginia



## CQP from WX6B QTH

Multi-Op, Single: Frank, KG6N, Bill WX6B and Rem K6BBQ.

Looks like they did well enough! Bravo guys.



## N6YEU and Wife Cross Country Trip and Parks on the Air Activations

On September 5 my wife Debbie started our journey eastward working our way to West Virginia to visit our daughter and family. We actually headed north at the start as we wanted to follow U.S. Highway 2 across the so called "Northern Route". We saw some beautiful parts of our country along the way while visiting the following states and provinces:

OR, WA, ID, MT, ND, MN, WI, MI, ON, QC, VT, NH, ME, MA, RI, CT, NY, NJ, PA, MD, VA and WV.

We visited 3 national parks: Glacier (MT), Acadia (ME) and Shenandoah (VA) Other highlights were Ben and Jerry's Ice Cream in Vermont and a stop at ARRL headquarters in Newington, CT (unfortunately closed on the only day we could be there).

As I had mentioned before, I had hoped to "activate" some parks for the Parks on the Air program (POTA) and the parallel program WWFF (World Wide Flora and Fauna).

Arriving at camp I was usually able to set up my simple inverted Vee and make some contacts. Day one I was able to operate briefly at Castle Crags State Park near Shasta K-1135 for 13 QSOs, but this was the first ever activation there.

Other activations were as follows: K-3231 Millersylvania State Park (WA) 33 QSOs, Riverside State Park (Spokane) 15 QSOs, K-2577 Hell Creek State Park (MT) 136 QSOs, Another first activation, K-2768 Turtle River State Park (ND) 132 QSOs, VE-0373 Samuel de Champlain Provincial Park (ON) 104 QSOs, VE-0421 Voyageur Provincial Park (ON) 62 QSOs, K-3129 Little River State Park (VT) 108 QSOs, K-5484 George Washington Memorial State Forest (RI) 220 QSOs!, K-1356 Gifford Pinchot State Park (PA) 134 QSOs, and K-0064 Shenandoah National Park (VA) 47 QSOs for a total of 1001 QSOs operating pretty casually. Good fun. I operated mostly on 20 and 40 meters (using my trusty linked dipole as inverted Vee and IC-7300) with some 30 added occasionally with both phone and CW modes (no digital). I was amazed at how well I could get out from some sites that were totally surrounded by trees but I still got some excellent reports. There are many rabid POTA "hunters" so I started to recognize calls from working them at my different parks. Lots of DX called also especially the more east I went. EA1AF and WP4F were regulars. San N7PIB popped in one day.

I also participated in CQP as N6YEU/8 here in WV and worked several REDXA members which was a thrill. I hope to do a couple local POTA activations while here and also during our trip home so keep an ear open for me. Take care.

73, Fred, N6YEU/8 Ona, WV

Fred, N6YEU, at Hell Creek State Park (MT) on the shore of Fort Peck Reservoir  
(more shoreline than state of CA!)



"We Shall Overcome" and once again have a "normal" CQP one day

Alan, K6SRZ



# WE SHALL OVERCOME

\* New words and music arrangement by  
Zilphia Horton, Frank Hamilton,  
Guy Carawan and Pete Seeger

*Slowly*

1. We shall o - ver - come, We shall o - ver - come,  
2. We'll walk hand in hand, We'll walk hand in hand,  
We shall o - ver - come some day, Oh,  
We'll walk hand in hand some day, Oh,  
Deep in my heart I do be - lieve  
Deep in my heart I do be - lieve  
We shall o - ver - come some day.

The musical score is handwritten on aged paper. It features five staves of music. The first staff is the vocal line, starting with a treble clef and a common time signature. The second staff is the bass line, starting with a bass clef and a common time signature. The lyrics are written below the staves, with two verses. Chords are indicated by letters (C, F, Am, G, D7, Em, G7) above or below the notes. The tempo is marked 'Slowly'.

## **RTTY Returns to KPH Schedule**

by Doug WW6D

As reported in the latest Maritime Radio Historical Society Newsletter No. 77, RTTY (in addition to the existing CW) bulletins will be now featured on their Saturday schedule. Here's the info:

"MRHS is proud to announce that RTTY is back on the air. Prior to the Covid shutdown there was a shortage of antennas due to needed repairs as ones available were repurposed for CW. Now that the needed antenna repairs have been carried out you can look forward to it as Service starts at 1100 Pacific (1800Z) time with Baudot [45 baud] followed by SITOR FEC. Transmitters are the original KPH Henry HF5000D. Frequencies are: 6324.5, 8427.0 - (Not yet in full service but test transmissions may be heard ), and 12585.5. You don't need a teletype machine to decode these broadcasts as there are computer programs that do a fine job."

MMTTY is a free download that is exclusively RTTY. Another free option is FLDigi.

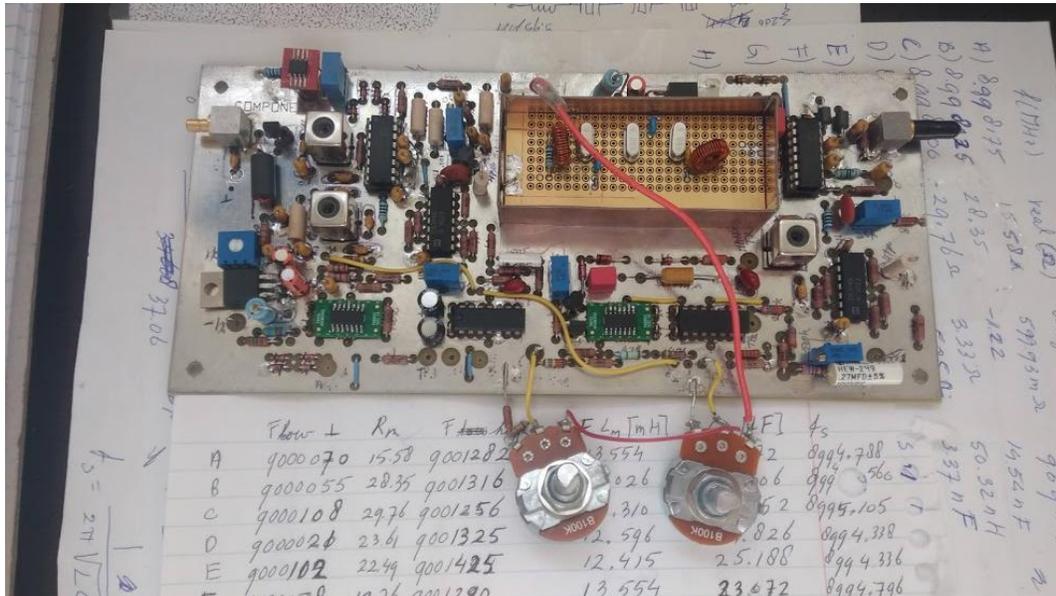
### **W7AAZ IF/AGC amplifier build**

Bart Schrijver, KK6BC

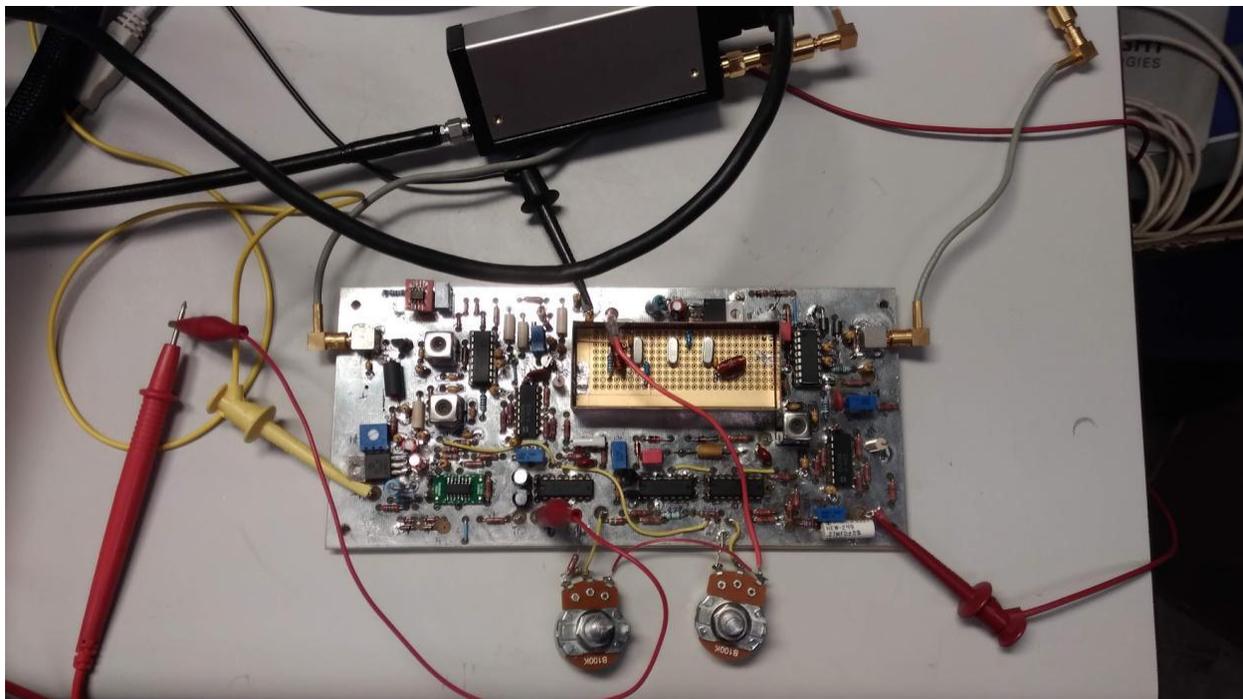
This is my build of the W7AAZ IF amplifier with build-in AGC system. This was published in QST in May 1996. The PCB can s(II be purchased from FAR Circuits in Illinois. I created this amplifier for a 9 MHz IF. The shielded box in the middle is a three pole 9 MHz crystal ladder filter with approx. 3 dB bandwidth of 5 kHz. This filter is needed to keep wide band noise out of the system since so much gain is available. The amplifier is designed around two AD600 variable gain amplifier (VGA) ICs that each have two 40 dB VGAs. So theoret(ally  $4 \times 40 = 160$  dB would be possible, however, the total gain of this design is limited to 120 dB with the last stage of the second AD600 used for gain reduc(on and leveling. These are pricy ICs at \$45 a pop.

The four IC on the bo@om are TL084 4x OPAMPs for AGC gain control. Two more ICs are CA3046 (long obsolete) 5x transistors on a monolithic chip configured as logarithmic detectors. Only four of the five transistors are used in each. The pot on the right controls the total gain and the pot on the lef controls AGC hang (me from 0.1 s to 2 s. Input is on the lef and output on the right in the form of SMC push on connectors.

Handwritten numbers on the paper below are sorted 9 MHz crystal parameters, since I had to select three closest crystals from a batch of 50 to make the three-pole filter. I selected A, B and F.



Below is the amp in a test set up. Here I measure the dynamic range and output power, which should remain constant. The silver box above is a 90 dB step attenuator. Red, yellow, and black leads are the +12, -12, ground power connections.



Below HP 8482A 100 kHz to 18 GHz power sensor connected to the output measuring total output power.



Step attenuator control on top with signal generator below creating 9 MHz at -22 dBm. The steps in the attenuator are 10, 20, 30, 30 dB. All steps are engaged here so total input to the amp is -112 dBm.



Power read out from the power sensor on HP 437B power meter at -22.193 dBm. This is the leveled power out at -112 dBm on the input of the amp.



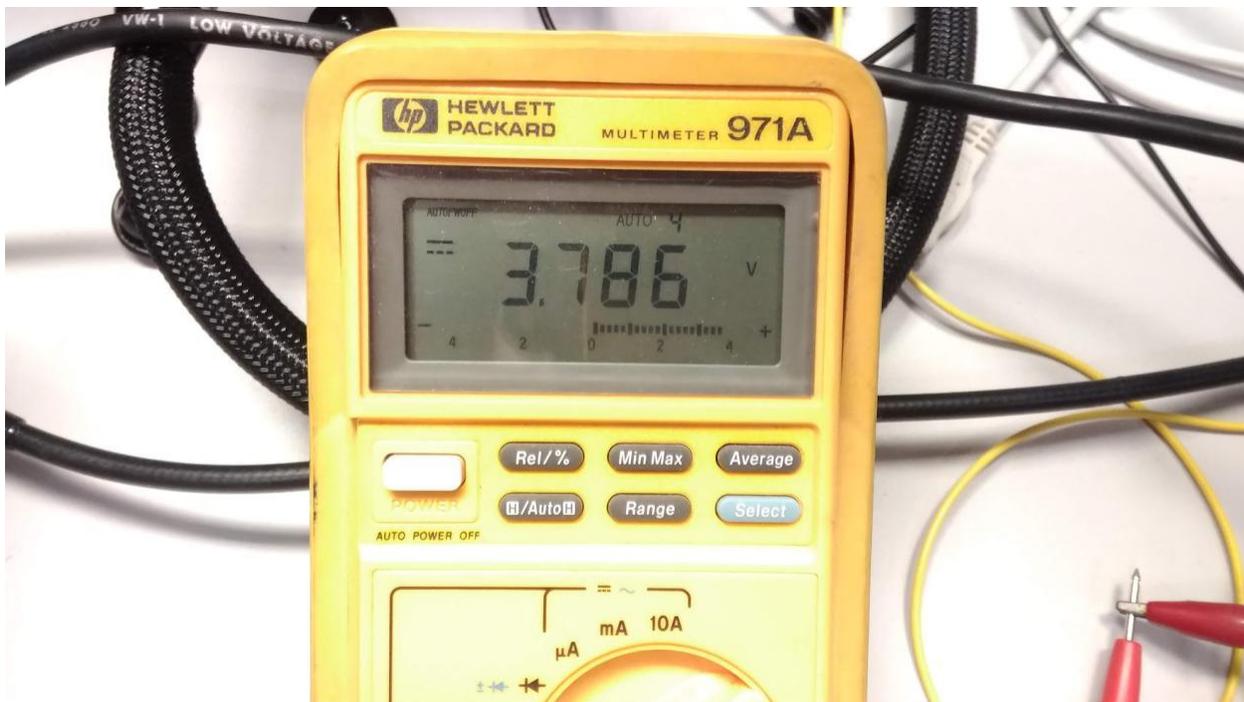
All steps are disengaged here, and signal generator is set to -6 dBm a change of 106 dB from previous picture.

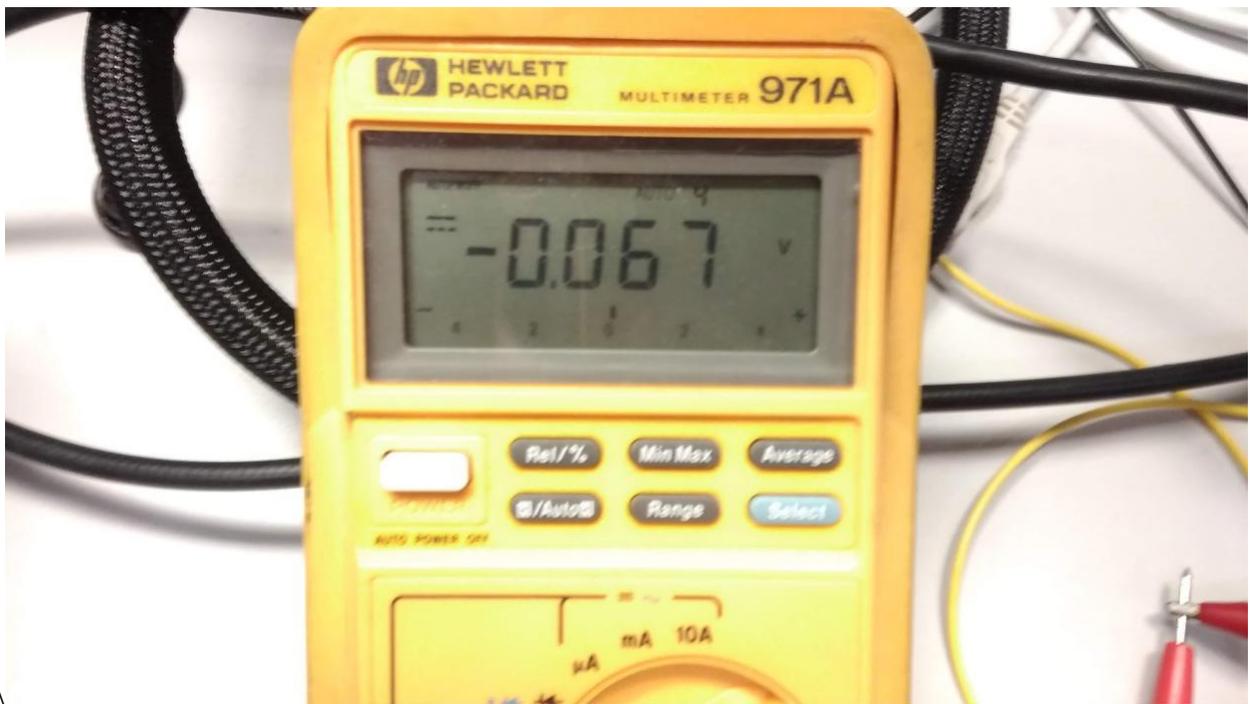


Power out is now -20.119 dBm with in at -6 dBm. Only about 2 dB of change over 106 dB of change on the input. The magic func(on of an AGC.

Voltage at the first detector control opamp, this is equivalent to an S-meter read out. 3.786 V at -6 dBm in and -0.067 V at -112dBm in. 3.87 V is approximately full scale. This voltage is propor(onal at  $32\text{dB/V} = 0.03125\text{V/dB}$  a func(on of the AD600 design.

I determined that -112 dBm in was not yet at the noise floor for this amplifier. I have determined that this is approximately at -115 dBm. With a filter bandwidth of 5000 Hz, the calculated noise floor would be  $-115 - \log(5000)*10 = -152 \text{ dBm/Hz}$ , which is quite amazing.





## SEPTEMBER MEETING MINUTES

by Doug WW6D, Secretary

The monthly meeting was held on Zoom September 8, 2021. Social hour began at 6:30 pm, hosted by President Roger Cooper, N3RC. Formal meeting began around 7 pm. During the meeting, 13 participants were noted.

**Old business:** none.

**Program: Improve Rate Using N1MM's Spot Capabilities by Kevan Nason, N4XL.** Kevan considers himself a "Little Pistol" and does not have an amplifier. His primary focus currently is HF Contesting. He addressed the issue of how to integrate the various spotting networks and tips on how to make it work for you using the N1MM Plus contesting software. From Kevan's summary:

"Surprisingly, many contesters are unaware of the tools offered by N1MM to effectively find workable stations using Search and Pounce. Whether you operate from a Multi-Multi Super Station, have a modest 100 watt Little Pistol setup with a low tribander and wires, or live in an HOA controlled development using compromised antennas, you can improve your scores by using these tips. SO2R operators have also benefited by more productively using their second radio. Although geared primarily towards Assisted operators, ideas for those who prefer to avoid clusters will also be presented."

**New business:** Minutes and Treasurer's report for August were approved as published in the Sunspots newsletter.

Further, the club approved its annual contribution to the NCDXF of \$250.

Meeting adjourned at 8:22 pm.

## REDXA Calendar of Upcoming Events

by Doug WW6D

**Oct 13 \* REDXA Monthly Meeting**

**Oct 15-17 Pacificon 2021 - ARRL Pacific Div Ham Radio**

**Convention <http://www.pacificon.org/>**

**Nov 10 \* REDXA Monthly Meeting (Election of Club Officers)**

**Dec 8 \* REDXA Monthly Meeting**

***Refer to <https://www.contestcalendar.com/contestcal.html> for more contest information.***



**Boulevard Café & Grill**  
1096 Petaluma Blvd. North, Petaluma, CA

The Café is open again , including inside service. They're not able to host gatherings like our REDXA meetings yet but I encourage you to stop in for breakfast or lunch.

Please thank Daniel and his staff for their support over the past years.

REDXA's first place small club CQP plaque is prominently displayed here on the wall alongside plaques from other service clubs

We will con(nue Zoom mee(ngs for the (me being; stand by.

