



FARC General Meetings

are held the 2nd Friday of each month, 7 p.m. at the University of California Center on Shaw Ave. unless otherwise noted. Stay tuned in for new announcements.

2019 FARC BOARD MEETING DATES

This Oct, the 2nd Tuesday of the month at 2 P.M., at WB6VRJ's QTH

FARC Nets

Morning Drive Time Net:
Weekday mornings-7:30—
8:00 a.m.
W6TO/R 146.940

FARC Net:

Sundays @ 7:00 pm
W6TO/R 146.940

Web page:

W6to.com

Meeting location! East of Hwy. 41 on Shaw Av. 7 P.M. on the second Friday of the month at the University of California Center at 550 E. Shaw.



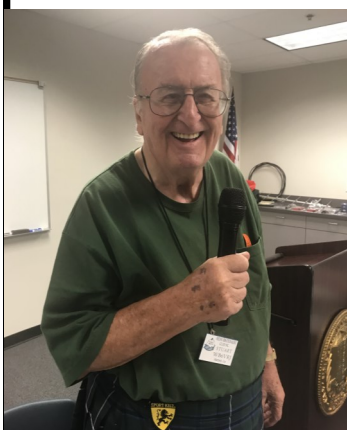
Jim Nelson, W6ALE (SK) passed away last week after a long illness. He was a former treasurer and Skip editor for the FARC, and active on 2 meters. His wife Lisa is also a ham. He will be remembered.

There seems to be some question about the picture of the club van in the September issue of Skip.

It was taken in 1983 and was published in World Radio July addition. This was the one that had the information of the Coal- inga Earthquake.

I have the article framed and on the wall of my shack. I was one of the first of the FARC members to respond. I helped set up the van at the CHP office. I climbed their tower and put up our dipole.

Glen T. Caine N6HEW



President Stu, WB6VRJ, welcomes everyone at the September meeting.



The October meeting will feature our returning DXpeditioner Erik, NI6G, who will be back from a trip to S79, in the Indian Ocean.

January: Ken, WA6OIB, led a good presentation on the stations at W1AW, ARRL headquarters.

The February meeting had a presentation by Jim, W6NIF, who has found a way to take old computer power supplies, and make them useful for 12v 15 amp power supplies

The March program was a very interesting video on the beginnings of USA ham licensing.

April brought us a program on oil and oil changes by our member with great insight on this, Larry, W6OWL.

The May meeting program was presented by Pat, W6YEP, on the origins of radios and the universe.

The June meeting is a FD meeting. FD chairman Dennis, KI6NVG, pre-

sided.

July was "Old Radio and Ice Cream" night. Something Old, Something New, and Something Blew. New radio from Dayton (Icom IC-9700), old radio (TS-790?), and a blown up radio (and Root Beer Floats).

September meeting was video night, and a proposed new slate of directors were nominated.

November meeting is a Sat. Swapmeet in place of the regular meeting.

December brings us to the banquet.

**October 11th
7 P.M. Club
meeting!**

Friday night!

FARC

Send your dues check to FARC, PO Box 5912, Fresno 93755-5912

Board meeting on the first Tuesday at Stu's place.

Fresno Amateur Radio Club

**AMATEUR RADIO EXAMS
IN FRESNO**

Exams given for **TECHNICIAN, GENERAL, and AMATEUR EXTRA**

Sponsored By the **FRESNO VE TEAM**

And The **FRESNO AMATEUR RADIO CLUB, INC.**

November 16 2019

Exams for all Amateur license classes will be conducted on the following dates in Fresno California. All exams are given on Saturday and begin at 9:30 AM.

LOCATION:St. James Episcopal Cathedral, 4147 E. Dakota, Fresno CA 93726

DIRECTIONS: This is at the northwest corner of Cedar and Dakota in Fresno. Enter the campus from Dakota. There is a large parking lot. Exams are given in Room 2.

Theory exams are multiple choice. First Class mail is used to send paperwork to ARRL, who sends data to FCC via electronic mail, thus assuring the fastest possible service on new licenses, which typically are posted to the FCC database by the end of the second week following the exam.

BRING. Two ID's, one with photo. Taxpayer ID Number (Social Security Number), or FCC Registration Number (**preferred**). Fee **\$15.00** per test session. Bring exact change. **Original** and **copy** of **Amateur License**. Talk in on 146.94 repeater.

Walk in's only, no pre-registration. More Info?? Contact Charles, (559) 431-2038

Larry and Jamie Miller (WA6ZBL and N6PSB) had a great visit and tour of the ARRL Headquarters and W1AW in September. Larry took a turn as guest operator at W1AW.

The tour was lead by Tom KE1R, formerly WB6SXM. He was with the FCC in 1966 and 1967 and came to Fresno several times to conduct the quarterly exams which were held in the basement of the old Main Post Office. Some of us have memories of taking exams there.

For the people newer to Fresno, the old Post Office is now the the Fresno Unified School District administrative office on Tulare Street.

Larry Miller WA6ZBL



FARC BOARD OF DIRECTORS

FARC Officers and Board members:

Stuart Home, WB6VRJ President	wb6vrj@w6to.com	(559) 485-8659	12/2019
Ken Holden, WA6OIB VP	wa6oib@w6to.com	(559) 323-6753	12/2020
Ted Miller, W6TLM Tres.	w6tln@comcast.net	(559) 431-1441	12/2020
Jim Erbe, W6NIF Sec.	w6nif@w6to.com	(559) 222-7524	12/2020
Bob Sherwood, W6AIY	w6aiy@w6to.com	(559) 275-4319	12/2019
Larry Lion, W6OWL	larrylion2@outlook.com	(559) 227-5159	12/2020
Dennis Holloway, KI6NVG	dki6nvg@hotmail.com	(559) 323-7386	12/2019

Web master

Aaron Lusk, K6USY	k6usy@w6to.com	(559) 301-1022
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Skip Editor

John Morrice, K6MI	k6mi@pacbell.net	(559) 275-7373
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Breakfast on Saturdays at Blueberry Hill located at Blackstone North of Dakota, starting at 6:30 A.M.. Join the DX'ers and all the area hams for breakfast

Also Breakfast every Tuesday at 8 A.M. at Denny's on Shaw, East of West.

The Quarter Century Wireless Association Lunch is held on the fourth Tuesday of the month at Jeb's Blueberry Cafe on Blackstone at 11:30 to 1 P.M..

The Thursday ham radio lunch get-together meeting location is:
Jeb's Blueberry Hill
3851 North Blackstone Avenue
Fresno, CA 93726

The Tuesday morning breakfast group at Denny's on Shaw, East of West.



Send Skip items to Skip editor John Morrice, K6MI at: k6mi@pacbell.net

You can download this and past Skip issues under the Document Archive menu by visiting **w6to.com**.

Event-Date

Oct. 5-6 Cal. QSO Pary Help put Fresno Co. on the air!

Oct. 11 FARC meeting

Oct. 19 Pacificon

Nov. 9 Sat. Club Swap (no regular meeting)

Dec. 13 Friday Club Banquet

San Joaquin Valley Nets:

The Noontime net meets on 7.268.5 MHz. This net handles a lot of messages.

The California Traffic Net meets daily on 3.906 MHz and 6:00 PM local time.

The Golden Bear Amateur Radio Net meets nightly at 7:00 PM local time on 3.975 MHz.

Northern California Net (NCN), the Section Traffic Net, meets nightly on 3.533 MHz at 7 PM Pacific Time.

San Joaquin Net meets Monday-Saturday on 3918khz, at 6 PM Pacific Time.

Western Public Service System (WPSS) meets nightly on 3952khz, roll - at 7:30 PM local Pacific Time.

The Mission Trail Net meets nightly on 3.856 MHz at 8:00 PM local time.

Northern California Net 2 (NCN2) The slow speed training session of NCN, meets nightly on 3.533 MHz at 9 PM Pacific Time. Handling traffic on CW is a good way to improve your CW skills.

Sunday and Wed. Night 2m Bozo Net, 8 P.M. 144.24 Mc. USB

Monday 220 Mc. 8 P.M. USB 222.1 Mc



Fresno Amateur Radio Club

FRESNO AMATEUR RADIO

ANNUAL HAM RADIO SWAP MEET ***OPEN TO EVERYONE***

Being held on: **NOVEMBER 9, 2019**

Clean out that HAM shack of any surplus types:
HAM RADIO EQUIPMENT, ANTENNAS, and/or
TOWERS

Buy, sell, trade, and enjoy the Swap Meet.

SELLERS arrive and set up: 7:30 AM

GATES OPEN TO BUYERS: 8:00 AM to 1:00 PM

Admission is FREE for Everyone

(Donations for food and refreshments are accepted)

Talk-In on 146.940
T-Hunt Contest

LOCATION OF SWAP MEET:

LION AUTOMOTIVE
2944 Phillip Avenue
Clovis, CA 93612-3934

DIRECTIONS: From Clovis Ave., turn East onto Gettysburg Ave. and travel 2 blocks, turn South on Phillip Ave., proceed to Lion Automotive building and Parking Lot—you may park in the Parking Lot.

Walk through OPEN GATE to the Swap Meet.

(SWAP MEET to be held in the Fenced Yard attached to building)

Fresno Amateur Radio Club

Local Amateur Radio Repeaters

<u>Organization</u>	<u>Call Sign</u>	<u>Frequency</u>	<u>Offset</u>	<u>PL</u>
CARP	K6ARP	147.675	-	141.3
CARP	N6JXL	224.380	-	141.3
CARP	K6ARP	444.725	+	141.3
CARP	NI6M	440.350	+	141.3
CONDOR	WB6BRU	224.900	-	156.7
FARC	W6TO	146.940	-	141.3
FARC	W6TO	223.940	-	141.3
FARC	W6TO	444.200	+	141.3
BRA	W6FSC	145.230	-	141.3
BRA	W6FSC	443.450	+	141.3
KINGS ARC	N6CVC	145.110/444.95	-	100.0
NC9RS	NC9RS	927.6625/902.0125	-	146.2
MADERA ARC	W6WGZ	147.180	+	146.2
MADERA ARC	W6WGZ	441.175	+	146.2
QCWA	WQ6CWA	146.850	-	141.3
QCWA	WQ6CWA	443.250	+	107.2
RACES	N6HEW	147.150	+	141.3
SJVARs	KE6JZ	146.820	-	141.3
TURLOCK ARC	W6BXN	147.030	+	100.0
CVRC	K6WGJ Fresno Low	145.43	+	141.3
CVRC	N6VRC Meadow	147.165	+	141.3
CVRC	N6VRC Meadow	440.025	+	141.3
CVRC	N6VRC Santa Rita	147.285	+	141.3
CVRC	N6VRC Santa Rita	442.275	+	141.3
CVRC	N6VRC Visalia	442.525	+	141.3
CRVC	N6VRC Porterville	443.825	+	141.3
CVRC	K6WGJ Fresno Low	444.975	+	141.3
CVRC	N6VRC Bear Mt.	443.950	+	141.3
CVRC	N6VRC Mt. Bullion	442.350	+	141.3
CVRC	Bear	927.05	+	141.3
Meadow Lakes	WA6OIB	146.61	-	141.3
WA6IPZ	WA6IPZ	52.84	-	82.5

Remember to keep you dues current for both the attendance prize and the birthday and anniversary listings.

Ten meter net, CW and Phone, every Wednesday
7 P.M. for CW at 28.140
8 P.M. for SSB at 28.445

This is a local net, the cw part run by KF6ZXO, and the SSB with various net control ops.. Have fun checking in on one or both modes.

Birthdays

10/01 Bob KK6LT
10/20 Joe W0PJD
10/23 Ted W6TLM
10/26 Jerry W6KEG
10/26 Larry w6OWL
10/27 Dave KI6JQ

Anniversaries

10/02 Jill and Jerry W6KEG

The monthly attendance prize!

The attendance prize in September was won by Ken, WA6OIB, who was present. Must be present to win. Next drawing will be \$10, at the October meeting.



THE DX CORNER

By Charles McConnell W6DPD

October 2019

"DX is the one you want but you don't have. That is the way it has always been, that is the way it will always be."

Of the most recent DXpeditions, "If you worked it, it was the best DXpedition ever. If you missed it, it was probably not so good." "And so it goes."

All things are relative, some more than others. Thanks Hugh Cassidy, WA6AUD SK.

If you want help with DX, you can contact the local members of the Central California DX Club for some assistance. Charles W6DPD 431-2038, or Perry K6XJ 299-2802, can give you advice. The big thing about finding DX is to tune the bands.

The DX Breakfast is every Saturday at Jeb's Blueberry Hill Café, 3851 N. Blackstone Ave in Fresno. This group gathers about 06:30 AM. All are welcome.

Check out www.spaceweather.com and www.solarham.net for information on the solar cycle. The higher the solar flux and the lower the A and K Indices, the better the band conditions.

As the solar cycle heads toward the minimum by the end of the decade, working DX becomes more of a challenge. The high bands become less useful until the solar cycle heads toward the maximum, some years from now. There were over 100 sunspot free days in 2017

The address of the Sixth District QSL Bureau is P. O. Box 970, Fairfax CA 94978-0970. You can send up to 10 address labels and \$0.80 for each envelope to the address above. They will put 1 unit of First Class postage on the envelope. You can contribute \$10 or \$20 online using Paypal. If you work DX, you should have envelopes at the bureau so you can get your cards. You may be able to check your status at the bureau at <http://www.qslbureau.org/>

The ARRL Outgoing QSL Service has **rolled back the rates** to those of 2011. The rate is \$2 for up to 10 cards, \$3 for 11 to 20 cards in one envelope, and \$0.75 per ounce for 21 or more cards. There is no longer a transaction fee. These changes began May 15, 2019.

Overseas postage is still \$1.15 per ounce. Domestic postage is \$0.55 for 1 ounce. Additional ounce for domestic mail will go from \$0.21 to \$0.15. Postcards stay \$0.35. Postage for flat rate boxes and envelopes will increase.

If you don't get a DX Bulletin and you belong to ARRL, you should register on the members only web page and check the box for the ARRL DX Bulletin. This one is emailed each Thursday. Or you can go to the ARRL web page in the News/ Bulletin section and view the bulletins there.

You can also read the OPDX Bulletin or the 425 DX Bulletin on the web. Search OPDX Bulletin or 425 DX Bulletin to get the URL. You can subscribe to the Daily DX, or Weekly DX. These bulletins will keep you informed of DX operations and QSL information.

Scientists writing in NATURE magazine are predicting a Grand Solar Minimum beginning in 2020 are lasting for 3 solar cycles. Hopefully, they are wrong.

Fresno Amateur Radio Club

Continued from the last page

The following operations are scheduled:

Sudan **ST2NH** is learning FT8 and is active

Bouvet **3Y0I** Will try in fall 2019

Djibouti **J28PJ** for 3 to 5 years

Ascension Island **ZD8AC** now for 2 years

Senegal **6W1SU** now for 2 to 3 years

Rwanda **9X0TA** August 5, 2017 for 3 years

Antarctica **VK0HZ** Davis Station for 1 year

Antarctica **ZL5A** Scott Base for 1 year

South Sudan **Z81C** now for at least a year

Ecuador **HC2PY** September 15, 2019 for one year

Seychelles **S79VU** September 30 to June 30, 2021

Chad **TT8RR** March 2019 **POSPONED DUE TO SECURITY ISSUES**

Tonga **A35JT** September 23 to October 7, 2019

Liberia **A82X** and **A82Z** September 30 to October 11, 2019

Tristan da Cunha and Gough **ZD9EI?** September/October 2019

St. Pierre and Miquelon Island **FP/KV1J** September 24 to October 8, 2019

St. Pierre and Miquelon Island **T08SP** October 2 to October 14, 2019

Uganda **5X0T** September/October 2019

Gabon **TR8CR** October 1 to December 15, 2019

British Virgin Islands **VP2VEM** October 4 to October 13, 2019

Western Kirabati **T30GC** October 7 to October 23, 2019

North Cook Islands **E51GC** October 10 to October 28, 2019

San Andres and Providenciales **5K0K** October 15 to October 30, 2019

Pitcairn Island **VP6R** October 18 to November 1, 2019

Tokelau **ZK3** September 25 to October 16, 2019

Lakshadweep Islands **VU7RI** October 19 to November 23, 2019

Western Kirabati **T30GC** October 7 to October 23, 2019

Norfolk Island **VK9/N** October 18 to November 11, 2019

Fernando de Noronha **PY0F** October 21 to October 25, 2019

Lakwadsheep Island **VU7RI** **October 19 to October 31, 2019**

Vietnam **3W9QR** October 23 to November 1, 2019

Marquesas Island **TX7T** November 6 to November 17, 2019

Maldives **8Q7XR** November 10 to December 30, 2019

Tanzania **5H3EME** and **5H3UA** November 15 to November 30, 2019

Micronesia **V63AR** November 18 to November 26, 2019

Ghana **9G5W** November 16 to November 27, 2019

Lord Howe Island **VK9LQ** November 21 to November 27, 2019

Cocos Keeling Island **VK9CZ** November 17 to November 27, 2019

Vietnam **XV9D** November 17 to November 30, 2-19

Micronesia **V6K** December 2 to December 10, 2019

Cocos Island **TI9C** January 30 to February 9, 2020

Tanzania **5I5TT** and **5I5ZZ** February 4 to February 20, 2020

Norfolk Island **VK9NK** January 12 to April 12, 2020

Midway Island **KH6VV/KH4** February 2020

Sable Island **CY0C** postponed to Fall 2020

South Orkney Isl **VP8/VP8DXU** February 20 to March 5, 2020



Charles, W6DPD

Watch the DX Bulletins for up to date information. As the time for the operation is at hand, watch the DX Summit (www.newdxsummit.fi) for listings. There are a number of state QSO parties each year. Check the contest corral in QST or the ARRL web page. State QSO parties are a good place to collect states for your Worked All States award. Good luck, tune the dial, and listen.

Fresno Amateur Radio Club



EC Report for September 2019

Hello,

The schedule for the month of September, 2019, was 1 Monthly F.C. EmComm Meeting, 4 Monday Night Nets, 2 Message Handling Practices, 2 Digital Practices, 1 EmComm & Coffee, and 2 Public Service Events.

North Fork Grizzly Century 2019

I was out of town during this event but was told that all went well. I want to thank all that took part, your time and effort is appreciated.

Tour de Fresno Ride 2019

This event seemed to go smoothly. We had two riders hurt, one went down and needed to be transported and another was hit by a car and also was transported by ambulance. We had a few communication problems but nothing dramatic.

Thanks to all that donated their time and energy to make this a successful event.

Net Manager Change

I would like to thank Gary Greenberg (KI6OYW) for the years of service as our Net Manager. Due to other commitments he has asked to be relieved of his duties as NM. Gary will still be an active member of the ARES/RACES Group just not an officer.

I am grateful to Pearl Thompson (K7UNA) for stepping up and taking over the position. I know that she also will do a fantastic job. If you would like to help her out by acting as a Net Control please contact her either by phone (559-900-4073) or by email at beyhoctb@yahoo.com. Let us give her all the support she needs to keep the nets running smoothly.

Shake Out Earthquake Drill

The world's largest earthquake drill will be taking place October 17, 2019. This is a great opportunity to check if you are prepared for an earthquake or not. If you would like to check out the plethora of information available on their website go to: <https://www.shakeout.org/> This sight will lead you to links that can help you put together a disaster plan and organize disaster supplies. If you are interested in participating in the exercise, you can also register. You will then receive bulletins and any other information they provide.

ARES Traffic/Digital Practice

Fresno ARES/RACES is conducting an on-the-air Traffic Handling practice twice a month alternating with FLDIGI after our regular Monday night EmComm Nets. Brian has been sending a message using the ARRL Message Form. After the practice the copied message was emailed to Brian to check accuracy and log your time on ARES Connect.

On the digital side we have a short net using Fldigi with Psk-31. This lets us iron out any problems we are having and allowing us practice using macro setting. We will soon be applying Flmsg into the mix; this will allow us to send message forms preparing us to better serve our served agencies.

If you are interested in taking part with the digital modes and would like assistance getting started you may go to our website and read the slide presentation provided by Brian (K6OGR) in the training section. If you need more help, you may contact Brian (K6OGR) at k6ogr@outlook.com, Richard (KE6SHL) at Richard_pac@prodigy.net or myself at N6HEW2@gmail.com.

The practice will continue after the nets, please join us.

EmComm Website

We are now posting events and meetings on the calendar as well as posting articles on the home page. There is a lot of new information and links added to the site as well thanks to our **Webmaster Brian (K6OGR)**. Check us out at fcomm.org

Upcoming Emcomm Service Events

As you know, we assist CARP with their Public Service Events which are used as a training venue. Please consider helping with these events, they are not only great training but offer interaction with other HAMs. After you sign up, please go to ARES Connect and check the events on the calendar so you will get your time logged onto ARES Connect when you participate.

2019 EMCOMM EVENTS

October 12, 2019 – FCC Bass Lake Double Century Bicycle Ride – Sign up

November 16, 2019 – FCC Raymond Gravel Grinder Ride -- If you are interested and want to sign up for one or more events, please go to the CARP Website (k6arp.org) and go to their sign up link.

Net Control Staff Needed

We are looking for volunteers to take a turn as net control on Monday nights. This is not a difficult task. We will provide the preamble and net roster. This is a great way to enhance your skills running a net for emergency situations. If you are interested, please contact Pearl Thompson (K7UNA) at 559-900-4073 or email beyhocht@yahoo.com.

Our Calendar

Don't forget the **Monday Night EmComm Net** at 19:30 hr. on the 147.15 MHz PI 141.3. We have some good information and camaraderie. On the third Friday of the month at 07:00 hr there is the **EmComm & Coffee** located at **BJ'S Kountry Kitchen. (address is 4109 W. Ashlan Ave. just west of Cedar on the north side of the road)**. Last but not least the EmComm Meetings are held on the Fourth Thursday of month. **at 1900 hr.** at the **Hinds Hospice Building, 2490 W. Shaw Fresno.**

Best of 73's
GLEN CAINE (N6HEW)
Fresno County ARES EC/ RACES Officer
559-999-7590
N6HEW2@gmail.com



"look at you – folding the laundry.
And last night it was doing the
dishes. Just exactly what part of
'No you're not buying another
radio' don't you understand?"

PREXY SEZ:

OCT 2019

It sure has been a busy summer! With all the activities that went on, it was great to see so many club members participating!

Of course, Participation is a key [pun intended] factor in hamming. We talk to each other, whether by CW, SSB, or some of the newer fangled means of communication- and that is what makes this hobby so great!

The camaraderie, the getting together, the rag-chewing, or just the simple act of contacting is what helps make this hobby so great. Yep, there are other aspects, and they are all quite important-you can take pride in designing and building and writing about an aspect of ham radio-but then you get to show it off to your fellow hams, be they next door, or on a far-away island.

So what I am saying is something that all of you know-Hamming, sometimes referred to as Amateur Radio, is a lot of fun because it does have so many aspects. If there is a key command to this hobby, it is ENJOY! 73, Stu, WB6VRJ

The Lowdown on Ham Radios



Ham radios might seem like a relic of the past to you, but if you're preparing for disaster, you might want to consider looking into getting yourself set up with a Ham radio system.

Ham radios, also called Amateur Radio Service, is a 2-way radio system between yourself and other operators of ham radios. It is not the only system for 2-way radios, but ham radios are considered to be the best for emergencies, due to its long range and multiple channels.

They used to be far more popular, before the advent of so many means of constant communication, such as the internet and smart phones. But of course, in a disaster, it is most likely that these systems will fail, while ham radio would still be operable.

If you are concerned about staying in touch with what is happening in your region or even the country, being able to communicate with family members or others when cell phones and the internet fails, then amateur radio might be the answer.

The big downside of ham radio is that while you don't need any special kind of certification to purchase a ham radio system, you do need a license to operate it.

In recent memory, ham radios have proven very useful in the midst of mass, chaotic disasters such as 9/11 and Hurricane Katrina, to keep people informed on what was happening when other communication systems were down.

Tube of the Month

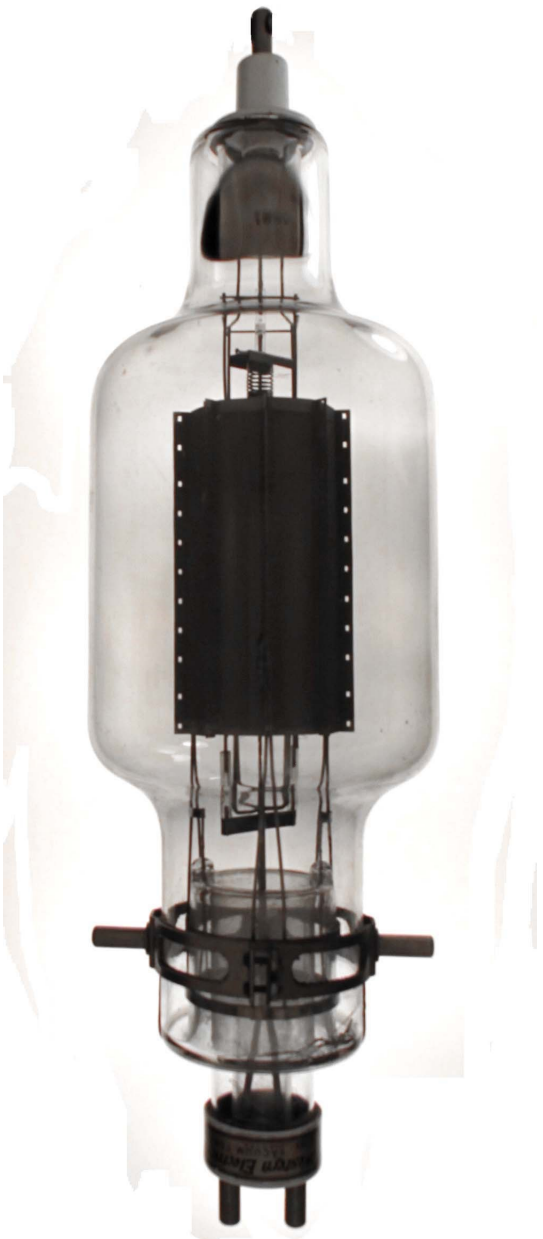
WE 279A

In the 1920s, several manufacturers produced water cooled tubes in the 5 KW range that were intended for commercial and military use. Most glass tubes were limited to 250 watt dissipation. Western Electric decided to make new larger tubes that would fill the gap up to where water cooling would become necessary. It would be over 20 years before ceramic power tubes would be available. In 1930, Western Electric started producing the 1000 watt dissipation 251A and the 1200 watt 279A. These tubes would operate well into the short wave bands where most existing tubes wouldn't. The 279A was the most powerful glass tube produced up to that date.

The 279A was a monster at 21.5 inches tall and 6 inches in diameter. It was also built "upside down". The base only had 2 large pins for the filament and the grid came out the top. The two plate connections came out the side a few inches above the base. I imagine it was plugged in much like a giant fuse. The tube could be used at full power up to 20 MHz. There was a complex system of springs to keep proper filament tension. The 279A had a mu of 10 and operated at 3000 VDC at 800 ma. The huge cylindrical plate would glow cherry red at maximum dissipation.

The 279A was used in several amplifiers to produce 1000 watts or better. Applications included aviation ground control, police, military and commercial broadcasting. In 1941 it was replaced by the WE379A and in 1948 all production of large transmitting tubes was transferred to Machlett. Other manufacturers such as Amperex and Sylvania produced their versions of the tube.

Visit the museum at N6JV.com Norm N6JV



Sunspot Cycle 25

If you haven't checked out Dr Tamith Skov's web site, be sure to do so. It is at:
<http://www.spaceweatherwoman.com>

She also has a weekly YouTube video:
<https://www.youtube.com/watch?v=4MzEV4SRFSM>

Dr Skov is a ham, and has a lot of knowledge of the solar environment that she shares very well. She was one of the presenters at Contest University held at the last Dayton Hamvention.

Realize also that earth is well inside the sun's atmosphere and its effects on our environment cannot be understated. Understanding it, while difficult since we can't actually go there and probe, is a very worth while exercise.

If you get a chance to see one of Dr Skov's presentations. It is very much worth while.

73! Jack, W6FB



What's Jerry up to now?

Jerry has two operating positions, and regularly adds radios and swaps them around. This month in the upper picture he has a FT-101e, TS-920s, and an Alpha 76 amp.

In the lower picture he has a Yaesu FT-2000 tied into a Quadra amp, giving him a kw from 160m to 6 meters, completely integrated and cleaned up.

K6PKO is often heard on 40 LSB in the mornings, and any of the vhf uhf simplex frequencies.

Great ground with kitten litter

By Guy Atkins

Bentonite is great for getting an excellent conductive ground.
Bentonite?

That's the stuff used in clumping kitty litters.

I had forgotten that the "clumping" litters are Bentonite. The brand we buy for our Siamese cat says that it's "a natural clay product..."

That's the Bentonite!

If you can locate a supply of the mineral called Bentonite, it makes an excellent ion-rich (and non-corrosive) backfill for ground rods and grounding systems. Professional antenna installations and electrical substations use Bentonite for lowering the resistance to earth.

I have read that Bentonite is sold at animal feed stores; it is used as an additive to cattle & pig feed. Also, ceramic supply stores sometimes carry Bentonite, as it is a special clay used by potters.

During a vacation one year, I got my initial supply of Bentonite directly from a refinery in Wyoming where they mine the stuff... they gave me some bags of Bentonite free because the bags were slightly ripped and they couldn't sell them.

To use the Bentonite, you dig a hole eight inches or more in diameter, perhaps three feet deep (post-hole digger helps), and suspend the ground rod in the middle. Put in a few inches of the powdered or crushed Bentonite, water it thoroughly (it swells up tremendously with water), and then add another layer. Water that layer, and continue with water-soaked layers of Bentonite until the hole is filled up.

The Bentonite absorbs the water, expands, and holds the ground rod very tightly in the center. Because of the expansion and Bentonite's conductive qualities, a lower resistance path to ground is achieved. It's sort of like using an eight-inch diameter ground rod at your site. The Bentonite never dries out, as it is "hydrophilic" and absorbs moisture from the soil to remain hydrated.

If you do a web search on the term "bentonite" you'll come up with a lot more information about this mineral. Besides improving ground systems, it is used as a colloidal (suspension) product for everything from vinyl plastics to chocolate(!) to cosmetics. Also, Bentonite, in a highly refined form, is the key active ingredient in disposable baby diapers (I'm not kidding!). I know this trivia because Bentonite mining is one of the industries in the region of Wyoming where my wife's family resides.

[It is also to be used as protective shock absorber for nuclear waste, dumped deep inside Sweden's rocky ground. -- hcdx editor]

Here in Bonney Lake, WA, our soil is very rocky, ancient glacial debris from Mt. Rainier. Even though we live on a small island and are surrounded by water, the soil is still very dry and rocky. Bentonite surrounding my ground rods has improved the directionality of my impedance-matched, terminated 175 ft. longwire. In my opinion there was an improvement in directivity to Papua New Guinea and Irian Jaya after improving the ground with Bentonite.

I also use the same ground for K9AY electronics (the head unit), although I'm not positive this is really helping. It's worth a try, though, especially for poor soil.

There was a IEEE paper written some years ago about Bentonite grounds. The careful measurements and comparisons they did showed clearly that resistance-to-ground was lowered when Bentonite was used. This method is clearly preferred over adding various salts to the soil... Bentonite won't corrode the ground rod nor harm the soil or surrounding vegetation

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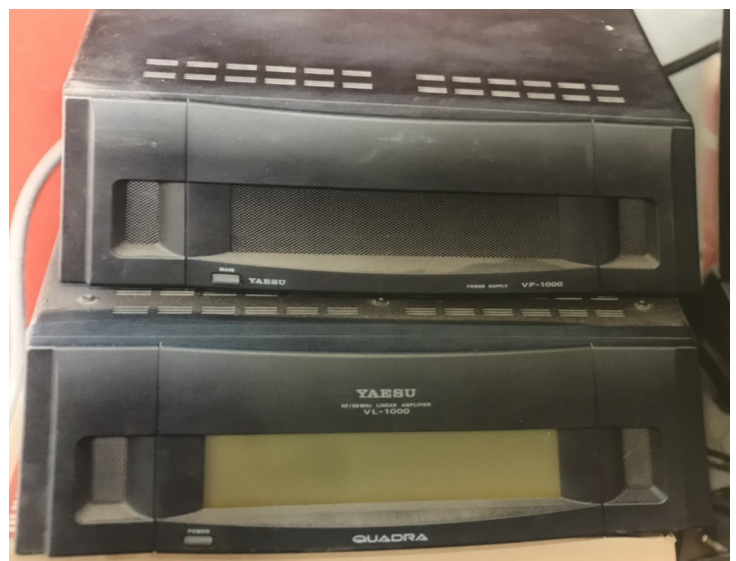
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