

A Fresno Amateur Radio Club Newsletter Dec., 2023 Volume 86, Issue 12



Dues! The Fresno ARC encourages all old and new members to fill out the form on the last page of any Skip and send with checks to the club P.O. Box. Remember to make checks out to "Fresno Amateur Radio Club, INC."

## FARC Next Event-Dinner Dec. 8, Fri.

FARC BOARD meets the 1st Tuesday of the month.

### **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



Remember to check into our FARC nets when you can, on the W6TO repeater (146.94-). Drive time net Monday through Friday at oh dark thirty, and the Sunday night net at 7 P.M.

Look on page one for information on the Christmas dinner, which is in leu of the Dec. meeting. Only 15 seats left, get your reservation in!

Regular meetings resume in January.

Pictures from our 2022 December FARC dinner.

The Allen Ross award is given out each year at the December dinner meeting.





Paul W6VPS and Jim W6NIF looking at the many prizes at the 2022 dinner.

FARC- New Members! 2023 dues now due! Stay on the membership list! Send your dues check to Fresno Amateur Radio Club, INC., PO Box 5912, Fresno 93755-5912 Board meeting on the first Tuesday of the month.

At the 2023 Swapmeet Joe W0PJD and Ben WB6GBS met up at Joe's swap table, which had a number of old radios, including multiple S-38's.

Jerry K6PKO was seen walking off with one of them, no doubt to be cleaned up and displayed in his shack.

Ben is our early morning net control who for years has entertained us and advised us of the current conditions in our area while taking check ins and keeping us alert on our morning commutes.





#### **FARC BOARD OF DIRECTORS**

FARC Officers and Board members:

<u> </u>	<u> </u>	
Ken Holden, WA6OIB Pres.	wa6oib@w6to.com (559) 289-2891	12/2024
Aaron Lusk K6USY V.P.	k6usy@w6to.com (559) 905-4180	12/2023
Marcus Beedle KG6QNY Treas.	kg6qny@w6to.com (559) 360-7444	12/2024
Jim Erbe, W6NIF Sec.	w6nif@w6to.com (559) 903-2200	12/2024
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Skip Editor John Morrice, K6MI k6mi@pacbell.net (559) 275-7373 (550) 906-7031 cell



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

On the even years four directors are elected, and on odd years three directors are elected.

For sale adds on the next to last page of Skip!

Take advantage of the opportunity, send your adds to K6MI at pacbell.net

## Banquet dinner Dec. 8, 6 P.M.

Jan. 12 Meeting 7 P.M.

Feb. 9 Meeting 7 P.M.

March 8 Meeting 7 P.M.

April 12 Meeting 7 P.M.

#### May 10 Meeting 7 P.M.

San Joaquin Valley Nets:

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 3918 khz, 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 3.857.5 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 Pa-

cific Time. Handling traffic on CW is a good way to improve your CW skills.

Sunday Night FARC 2m net 7 P.M. 146.94 Mc. Sunday and Wed. Night 2m Bozo Net, 7:30 P.M. 144.24 Mc. USB

Monday 220 Mc. 7:30 P.M. USB 222.1 Mc followed by check ins on 50.140 Mc. USB Tuesday 7:30 P.M. USB 1296.1 Mc.

Thursday 7:30 P.M. 05B 1296.1 Mc. Thursday 7:30 P.M. 432.1 SSB net

Wednesday 7 P.M. 10M cw net, 28.140 Wednesday 8 P.M. 10M ssb net 28.445

Every Wednesday night is an enjoyable time for all ham operators. At 7PM local time, there is a CW net on 28.140 MHz-the NCS is Guss, KF6ZXO- welcomes all hams regardless of CW speed. Then around 8 PM local, there is the USB net on 28.445 MHz.

The *Noontime Net* is a public service Amateur Radio *Net* that meets everyday on 7284 kHz. and 3970 kHz. with an <u>alternate frequency of 7265 kHz for both *nets*.</u>

QCWA net on 146.85 pl 141.3 7 P.M. on Monday. Meeting on the fourth Tuesday of the month.

Backup FARC repeater if 146.94 is down— 146.61 pl 141.3



Jerry K6PKO walking around the swap in November, with Rob WB6COT holding up a mobile 40m high power antenna found in the antennas for sale pile.





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# Local Amateur Radio Repeaters

		Madio Mepedic	JI J	
<u>Organization</u>	Call Sign	Frequency	Offset	<u> PL</u>
CARP	K6ARP	146.865	-	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 backup	WA6OIB	146.61	-	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	5 -	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	KJĞOUG	147.150	+	141.3
KE6JZ	KE6JZ	146.820	-	141.3
TURLOCK ARC	W6BXN	147.030	+	100.0
Fresno Low	K6WGJ	145.43	+	141.3
Meadow	N6VRC	147.165	+	141.3
Meadow	N6VRC	440.025	+	141.3
Santa Rita	N6VRC	147.285	+	141.3
Santa Rita	N6VRC	442.275	+	141.3
Visalia	N6VRC	442.525	+	141.3
Porterville	N6VRC	443.825	+	141.3
Fresno Low	K6WGJ	444.975	+	141.3
Bear Mt.	N6VRC	443.950	+	141.3
Mt. Bullion	N6VRC	442.350	+	141.3
Bear	N6VRC	927.05	+	141.3
WA6IPZ	WA6IPZ	52.84	-	82.5
Tulare CARC	WA6BAI	146.88	-	103.5

## **Birthdays**

12/02 Karry WA6BZL 12/07 Mike WA6AAJ 12/05 Barry K9AMO 12/24 Rob KM6SSR 12/27 David WB6DJJ 12/29 Bob KIRLP 12/29 Duane KI6QEL

## **Anniversaries**

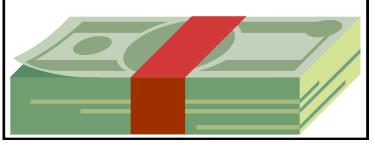
12/21 Mary & Detlev KN6UDE 12/26 David W6DAH Ten meter net, CW and Phone, every Wednesday 7 P.M. for CW at 28.140

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.

# The monthly attendance prize!

Next drawing will be \$40 at the Dec. Dinner. This is the one time a year when the names will continue to be drawn until there is a present winner. Oct. winner was not present.



QCWA Quarter Century Wireless Association Jeb's Blueberry Hill Café 3851 N. Blackstone Fresno, CA 93726

QCWA Net on Mondays at 7 P.M. on 146.85 pl 141.3. Every Monday!

Nest meeting on the forth Tuesday of Jan. (Jan. 23, Tuesday noon)

Joe, W0PJD had his copy of 200 meters & Down at the swap meet, and found his ticket to the Dayton Hamfest when he went there a few years ago.

In the book it talks about "One of the earliest and most successful was the Wireless Association of Central California, formed at Fresno on May 27, 1910. It's membership reached 200 by 1913".





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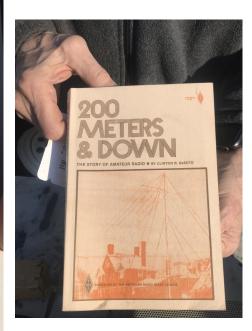
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In the absence of legislation on the control of radio, some of the problems of administration were handled by the United States Navy) which had rapidly-developing radio interests. Amateurs were under no compulsion to observe the suggestions made by the Navy Department, yet many of them applied for "certificates of skill in radio communication" which were being issued in lieu of operator licenses (even commercial operators were not required to be licensed until the passage of the Wireless Ship Act on June 24, 1910). By September 30, 1910, the Navy Department had issued 477 of these certificates of proficiency, the Department of Commerce had issued 30, and a number had been granted by the War Department at Fort Omaha. While it is not known how many of these were issued to amateurs, the probability is that amateurs got the greater percentage of them.

Another significant development in amateur radio in 1910 was the beginning of the "wireless club" era. All over the country, in every large city, wireless associations were formed. The first of these on record is the Radio Club of Salt Lake City (Utah), founded in September, 1909. One of the earliest and most successful was the Wireless Association of Central California, formed at Fresno on May 27, 1910. Its membership reached 200 by 1913.







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#### **Tube of the Month**

## **WE 241B**

Western Electric was a major manufacturer of equipment and tubes for the military and broadcasting in the 1920s. Military types developed in WW1 were refined for civilian use.

In 1921, Western Electric announced a new triode that looked like an enlarged "U" pliotron or WE 211A, but was about 13 inches tall. In 1924 a refined type called the <u>WE 212D</u> replaced the original tube. Many of Western Electric's commercial broadcast transmitters utilized the 212D in their finals and modulators. The 212D could operate at full power up to 1500 KHz, but up to 4500 KHz, it had to operate at reduced power.

The late 1920s saw much development in the use of higher frequencies in the "short waves" for long distance communications (DXing). W6AM's "California Kilowatt" on 40 meters is an example. Western Electric wished to enter this market for sales as well as for its in-house equipment.

The basis 212 envelope was equipped with a plate cap and was introduced as the 214A in 1928 followed by the 214B in 1934. This new tube was rated as having a dissipation of 275 watts with a maximum of 3000 volts at 350 ma on the plate. The filament uses 14 volts at 6 amps. Maximum full power is 7.5 MHz but could be used at 22.5 MHz with 1000 volts on the plate. This tube is 14.5 inches tall and 3.63 inches in diameter. The base is a bayonet style with a side pin, but has only 3 pins.

The 241B was in production into the 1950s, but is a seldom seen tube today. The old 212D and E tubes were produced in much larger quantities. Their usefulness as modulator tubes wasn't affected by their poor frequency range.

One reason that this tube wasn't widely used, is because of its competition. In 1934, some hams in California began offering the EIMAC <u>150T</u> (later 250T) that filled that operational niche and dominated the competition.

Norm N6JV

Visit the museum at N6JV.com



## **MODULATION**

Amateur radio involves the use of various modulation techniques to transmit and receive information over the radio spectrum.

Modulation is the process of varying a carrier signal's properties to convey information. There are several types of modulation used in amateur radio, each with its own characteristics and applications.

Here are some of the most common modulation types used by amateur radio operators:

## **Amplitude Modulation (AM):**

In AM, the amplitude (strength) of the carrier signal is modulated to convey information. It is relatively simple and allows for voice and music transmissions.

AM is used in the HF (High-Frequency) bands for long-distance communication.

#### Frequency Modulation (FM):

FM modulates the carrier signal's frequency to encode information.

It provides high-quality audio transmission and is less susceptible to noise and interference. FM is commonly used in the VHF (Very High Frequency) and UHF (Ultra High Frequency) bands for local and regional communication.

## Single-Sideband (SSB):

SSB is a more bandwidth-efficient form of AM where only one sideband (USB or LSB) is transmitted, along with the carrier frequency.

It is widely used in HF bands for long-distance communication, especially during contests and DXing.

#### Continuous Wave (CW):

CW modulation involves transmitting a continuous carrier wave that is turned on and off to encode Morse code.

It is a very efficient and widely used mode for long-distance communication, especially on the HF bands.

#### Phase-Shift Keying (PSK):

PSK changes the phase of the carrier signal to represent binary data.



ARRL Headquarters transmitters.

Daily bulletins on several modes and code practice are sent on several bands at the same time.

It is used in various digital modes, such as BPSK (Binary Phase-Shift Keying), QPSK (Quadrature Phase-Shift Keying), and others for data communication and digital modes like PSK31.

## **Digital Modes:**

Various digital modes like RTTY (Radio Teletype), SSTV (Slow Scan Television), and FT8 use different modulation techniques to transmit data over amateur radio bands.

These modes are commonly used for text, image, and data transmission, often with the help of computer software and soundcard interfaces.

## Frequency-Shift Keying (FSK):

FSK modulates the carrier frequency to represent binary data by shifting between two discrete frequencies.

It is used in various digital modes like RTTY and APRS (Automatic Packet Reporting System).

## **Orthogonal Frequency Division Multiplexing (OFDM):**

OFDM is a digital modulation technique that divides the data into multiple subcarriers, each modulated with different phase and amplitude.

It is used in modes like PSK63 and PSK125 for data transmission, particularly in crowded or noisy bands.

Amateur radio operators use different modulation types depending on the communication goals, frequency bands available, and equipment capabilities.

They may also adapt their choice of modulation to match the current propagation conditions and the specific requirements of their contacts or activities, such as emergency communication, contests, or experimentation.

From Duane KI6QEL

I compiled the following list which may be of interest to members with radios that need repair:

- 1. Ham Radio repair backlog to end of November
- 2. Sarts1.com -
- 3. MTS not taking new customers
- 4. W7ARS budgarside@juno.com
- 5. affordable radio repair N0BXE

Most have websites and good ratings from eHam.com reviews. I still hope to find a local solution.

Hope you find it useful. 73, Richard N6FUB



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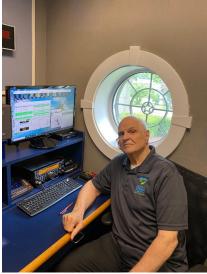
For Sale Yaesu Digital Voice Recorder Fits FT-900, FT-1000 and FT-1000D Have RTS program disk for Yaesu, Belfang, and some other radios. If you need programming call me. Want Bendix King programming cable for EPH HT. Dennis KI6NVG 559 323-7386 Anything to sell? Send info to k6mi@pacbell.net for next month's Skip

Your add or card here!
Talk to the treasurer about the yearly fee!

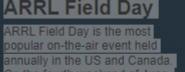
Looking for input, stories or pictures or just a sentence about your ham activities this month for the next. Skip.

Thanks, John K6MI

Joe W0PJD visiting ARRL back in Connecticut







On the fourth weekend of June, more than 35,000 radio amateurs gather with their clubs, groups or simply with friends to operate from remote locations.



2024 FD will be June 22-23

Always a good idea to mark it on your Calander!

## Fresno Amateur Radio Club — Membership Application

Name	Call	\$20 DuesDate
Street Address City State	Zip	
Home Phone ()	Cell Phone	()
Email ADR		(for delivery of Skip Newsletter)
License Class	Year 1st Licensed	ARRL member
Birthday (Month/Day)	Wedding Anniversary (Month/Day)	
Spouse's name		

Additional licensed Family Member(s) in same household (\$5 each)

FRESNO AMATEUR RADIO CLUB, INC. P.O. Box 5912 Fresno, CA 93755-5912



