SKIP

FRESNO AMATEUR RADIO CLUB, INC.

A Fresno Amateur Radio Club Newsletter Feb., 2024 Volume 88, Issue 2

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– Meeting Feb. 9 , Fri. 7 P.M.

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
Morning Net 7:30 A.M.

Web page:
W6to.com

Dave WA6LOL probably traveled the farthest to get to the Jan. meeting, and won the first drawing prize to boot.

Dave is very active on long distance vhf and uhf.

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.

Regular meetings on the second Friday of the month.

Month	Topic	Summary
January	Antenna Analyzers	Bring your antennas and learn how to use the new generation of inexpensive antenna analyzers.
February	**YL Night**	**Bring your valentine and share some deserts.**
March	"OO" Night	What happens when you break the rules?
April	Logging - QRZ, eQSL, LOTW - Awards	Come learn about setting up logging software, LOTW, and applying for awards.
May	Wire Antennas	Learn how to deploy and tune Dipoles and End-Fed Half Wave wire antennas
June	Field Day	Prepare and organize for Field Day 2024 - June 22-23
July	Old Radio Night - Ice Cream	Bring your old radio gear to our annual show and tell meeting.

At the January meeting with Ken and Aaron demonstrating a range of SWR, impedance meters of all kinds.

Join us at the Valentine meeting! Bring your partners and family, and bring a desert to share. This is an inclusive family meeting.

In January there were prizes and donuts, which everyone enjoyed.

Rob KM6SRR had a demonstration table of his SWR tools.

FARC– New Members! 2024 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.

Added a 1.2Ghz beam to my antenna collection (now up to 6 antennas on the roof). It is currently pointed at 24 degrees so I can work K6MYC, KM6SRR, & W6BBS during the Bozo Net on Tuesday nights.
Thanks to K6MYC for the antenna, KM6SRR for the LMR-600, WA6OIB for the N connectors, and K6MI for the assistance installing the connectors. This was a group effort project. - K6USY

FARC BOARD OF DIRECTORS

FARC Officers and Board members:

Ken Holden, WA6OIB Pres.	wa6oib@w6to.com	(559) 289-2891	12/2024
Aaron LusK K6USY V.P.	k6usy@w6to.com	(559) 905-4180	12/2025
Marcus Beedle KG6QNY Treas.	kg6qny@w6to.com	(559) 360-7444	12/2024
Jim Erbe, W6NIF Sec.	w6nif@w6to.com	(559) 903-2200	12/2024
Larry Lion, W6OWL	larrylion2@outlook.com	(559) 227-5159	12/2024
Dennis Holloway, KI6NVG	dki6nvg@hotmail.com	(559) 323-7386	12/2025
Rob Egan, KM6SRR	egan@netptc.net	(559) 281-4730	12/2025

Web master Aaron Lusk, K6USY k6usy@w6to.com (559) 905-4180

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 to send your ads to K6MI at pacbell.net

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 Pacific 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. 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 alternate frequency of 7265 kHz for both *nets*.

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

Future ham exams are May 18, August 17. and Nov 16.
Exams are held at Hines Hospice on Shaw Ave

Local Amateur Radio Repeaters

Organization	*Call Sign*	*Frequency*	*Offset*	*PL*
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	-	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	KJ6OUG	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

2/05 Jeff WA6IMA
2/07 Patti Lion
2/11 Gary KN6TZD
211 David KD6WBA
2/17 Mary KN6PRZ
2/20 Jim W6NIF
2/27 Richard W6FUB

Anniversaries

2/06 Julie & Joe WA6FFJ

Keep your dues and information up to date!

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!

The drawing for $40 at the Jan. meeting was won by Gwynne WA6VZM.

Next month starts at $10.

Fresno Amateur Radio Club

QCWA Quarter Century Wireless Association
Next meeting Feb. 27, 2024 at noon
at Jeb's Blueberry Hill Café
3951 N. Blackstone Ave., Fresno, CA 93726

QCWA meetings on Monday nights at 7 P.M. on the QCWA repeater, 146.85, pl 141.3

Nice piece on licensed kids contacting the ISS. Might be interesting to members

https://www.today.com/video/high-school-students-use-ham-radio-skills-to-contact-space-station-201408581756

Roger KF6VCF

Antenna Gain submitted by Duane KI6QEL

In amateur radio and radio frequency (RF) communication, antenna gain refers to the ability of an antenna to focus or direct its radiated energy in a particular direction. It is a measure of the antenna's effectiveness in transmitting or receiving signals in a specific direction compared to an isotropic radiator, which radiates energy equally in all directions.
Antenna gain is typically expressed in decibels (dB) and is calculated by comparing the antenna's radiation pattern to that of an ideal isotropic radiator.

The formula for antenna gain in decibels is:
Gain (dB)=10□$\log_{10}$(Radiated Power in a Specific Direction/Radiated Power of Isotropic Antenna)

Key points about antenna gain:
Directionality: Antennas with higher gain are generally more directional, meaning they concentrate their radiation in a specific direction. This can be advantageous in focusing energy toward a desired target or in minimizing interference from unwanted directions.
Isotropic Radiator: An isotropic radiator is an imaginary point source that radiates energy uniformly in all directions. It serves as a reference point for comparing the radiation patterns of real antennas.

Effective Area: Another way to express antenna gain is in terms of effective area, which represents the ability of the antenna to capture or emit power. The effective area is proportional to the physical size of the antenna.

Beamwidth: Antenna gain is inversely proportional to the beamwidth. A higher gain antenna typically has a narrower beamwidth, concentrating energy in a smaller angular space.
Gain Patterns: Antennas can have different gain patterns, such as omnidirectional, bidirectional (dipole), or highly directional (parabolic dish). The choice of antenna depends on the specific requirements of the communication system.

It's important to note that while higher gain antennas can provide advantages in certain situations, they may also have limitations, such as a reduced field of view or increased susceptibility to misalignment. The selection of an antenna should consider the specific needs and constraints of the communication setup.

TURLOCK AMATEUR RADIO CLUB SPRING 2024 AUCTION

Saturday February 10, 2024, Doors open at 7:00 am and auction starts at 9:00 am

Turlock Salvation Army 893 Lander Ave. Turlock, CA 95380

Talk in TARC VHF Repeater 147.030+ pl 100.0

This auction features the estates of K6IXA Grady Williams and KI6PR Mike Siegel.

Coffee and donuts in the morning and Lunch (Sloppy Joes, chips, salad, and water) provided by the Turlock Salvation Army at no cost. **Donations are appreciated.**

Please check the Turlock Amateur Radio Club website (click on the auction tab) for updates at www.w6bxn.org . You will find on the web site:

- Auction guidelines
- Pictures of the equipment for auction

Payment can be made with credit card, check, or cash. There is a bidding paddle fee of $5.00.

Payment for auction items is not taken until the end of the auction.

Future ham exams are May 18, August 17. and Nov 16..

Amateur Radio VE Exam - Fresno

When: Saturday, February 17, 2024, 9:30 AM
Where: Hinds Hospice
2490 W Shaw Ave Fresno, CA 93711

Registration is recommended Payment In Full At Event Only Everyone US$ 15.00 (pay at venue)
Exams offered for Technician, General, and Amateur Extra Class

What to Bring:
1. Photo Identification - State issued Drivers License or ID Card, Passport, or Military ID Card.
2. FCC Registration Number (FRN) - Required prior to exam, see details below.
3. (if upgrading) Official Copy of current Amateur License or Successful Completion of Examination (CSCE certificate)
4. Valid Email address
5. Fee $15.00 per test session. Exact change please.

CORES FRN Requirement - Applicants must use an FCC Registration Number (FRN) for all license transactions with the FCC. Examinees must register in CORES and receive an FRN before exam day. Exam Candidates you are REQUIRED to register in the FCC CORES system and receive a FCC Registration Number (FRN) before exam day. Applications that do not have an FRN will be **rejected** by the FCC.
An instructional video provides step-by-step instructions on how to establish a CORES account, which is necessary for licensees to make administrative updates and download electronic license authorizations.

Email address - All filers must provide an email address on all applications. When an email is provided, applicants will receive an official electronic copy of their licenses once granted (allow incoming email from authorizations@fcc.gov). If no email is provided when filing applications will be rejected. ARRL VEC suggests that those without access to email to use the email address of a family member or friend.

FCC Application Fee - The $35 application fee applies to new, renewal, rule waiver, and modification applications that request a new vanity call sign. The fee is per application.

Administrative updates, such as a change of name, mailing or email address, and modification applications to upgrade an amateur radio licensee’s operator class or to request a sequentially issued call sign, are exempt from fees.

The fee will be per application.

When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate who then will have 10 calendar days from the date of the email to pay through the FCC CORES system

Tube of the Month No. 150

Y-448

When EIMAC saw an opportunity to develop a new tube for the public or military market, they attached "X" numbers to the different tubes produced in the experimental stages. Occasionally a customer needed a special tube for a specific use.

Often existing tubes were available that would work but the variability wouldn't be usable when they wanted all tubes to draw grid current in a tight range for instance. For these tubes, a "Y" number was assigned. The characteristics of these Y tubes was somewhat confidential as they were meant for a particular customer. A few of these tubes had a wider appeal and were eventually available to the market with the Y number or with a new standard product number.

All seasoned DXers are familiar with the 4-1000A tetrode. The Stanford Linear Accelerator Center (SLAC) in Menlo Park, CA had been using the 4-1000A or the pulse rated 4PR1000A version. These tubes were born on the same assembly line but the PR tubes passed a higher voltage breakdown test so they were separated and marked for pulse.

SLAC wanted a 4PR1000A that had a longer life and higher emission. The solution was to make a pulse tube with a higher current filament. The current was raised from 21 to 30 amps and this tube was designated the Y-448. In time, Y-448 tubes started appearing on the surplus market. There was no data sheet published and hams started trying them in their amps with mixed results. They worked fine until the filament transformer failed. I recently saw an amplifier with one 4-1000A and one Y-448 in it.

EIMAC has stopped making the glass tubes and Triton (as seen in the second example) has taken over production. Amperex has also made the Y-448 as seen in the last example. If you don't know what you have, bring it over as I have several clamp-on ammeters.

Visit the museum at N6JV.com

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

For Sale: Yaesu FT-847
All mode--160m-10m+WARC, 6m, 2m, 70cm
$700 OBO
contact: Richard (559) 285-9772
or rpolson47@gmail.com

Tnx/73 N6FUB

2024 FD will be June 22-23

Always a good idea to mark it on your Calander!

Dues due in January!

Fresno Amateur Radio Club — Membership Application

Name_____Call_____$20 Dues__Date_____

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)
Name_____Call_____Birthday_____

Make checks out to: Fresno Amateur Radio Club, Inc. (Do not abbreviate)

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