



Cathay January 2025

www.cathayradio.org

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Mission: The Cathay Amateur Radio Club is basically an active social club of Ham Radio Operators and their spouses. We support local community requests for HAM emergency communications. Several of us are trained in CPR/ First Aid and are involved with community disaster preparedness.

Monday Night Net Time: 9 PM Local Time/PST, As of 8/21/2023 we are switching over from using Repeater: WB6TCS to **Nick Cassarino's Repeater: WA6GEL UHF 444.800 Mhz, Offset +5 Mhz, CTCSS/Tone PL 179.9 Hz on Monument Peak, Milpitas.**

If you cannot reach the fore-mentioned machine, please use Ralph Kugler's KC6YDH cross band repeater at 147.51MHz VHF (Simplex, Carrier Access) during the radio net time. Coverage is western side of San Francisco and central Daly City.

The CARC Monday night net is the best way to find out the latest club news. All check-in are welcome.

Message on Behalf of the President: Leonard Tom, *NX6E*

Hello CARC Members and Friends;

Wishing all you folks Happy New Year!

Many thanks to both Nick Cassarino for the use of repeater – WA6GEL and Ralph Kugler's cross band repeater - KC6YDH for our CARC Monday Night Net.

Additional folks are needed to help out with conducting the CARC radio net on Monday nights. Please contact Ed Fong (edison_fong@hotmail.com) if you are interested.

I wish to thank our CARC members that set aside their valuable time to participate in our Monday night's nets.



Chinese New Year for 2025 is on Wednesday January 29, 2025, the Year of the Wood Element Snake

According to the Chinese calendar, folks born in the year of Snake are in 1917, 1929, 1941, 1953, 1965, 1977, 1989, 2001, 2013, and 2025.

People born in the year of the snake are wise, deep thinkers, have a calm demeanor, thoughtful, resourceful, curious, observant, cautious, charming, tend to analyze situations before taking action and once having set a goal are determined to achieve it.

They are also financially secure and do not need to be concerned about money. They have a great deal of empathy for others and want to do anything to help their fellow humans.

Another trait is that the element wood brings is that of being cool headed, precise, creative, logical and flexible.

However, they do have tendencies toward being jealous, paranoid, materialistic, easily stressed, devious, and secretive.

Below is extract from website:

https://www.travelchinaguide.com/intro/social_customs/zodiac/snake/love-compatibility.htm?srltid=AfmBOooDCsI9xkgoDbZS2zUI4SPtHe1qvKC64W8Bg4jbVfuA0oHCiEdP

Snake's Compatibility with 12 Zodiac Animals												
	Rat	Ox	Tiger	Rabbit	Dragon	Snake	Horse	Sheep	Monkey	Rooster	Dog	Pig
Snake	😊	🍷	⊗	⊗	❤️	⊗	😊	⊗	😊	❤️	😐	⊗
❤️	Perfect match			🍷	Complementary			❤️💀	Good match or enemy			
😊	Good friend			😐	Average			⊗	Worst couple			

► Perfect Matches

Dragon	They are all very smart people, and can be best partners in business. If the two get together, they can create a bright future and gain an everlasting relationship.
Rooster	Both of them are ambitious, and they are good at learning from each other, which make them the best couple. They can get satisfaction from their life and family, for their life is always sweet and happy.

► Complementary Match

Ox	They have a tacit understanding on each other, and they both pursue life with high quality. One is modest and decent; the other is generous and shrewd. They give enough admiration and respect to each other.
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► Acceptable Match

Dog	They are an average couple, for there is no big rise and fall in their lifetime. Although little conflicts happen, they can always find a way to smooth them. They will lead a harmonious and peaceful life, and the relationship is long-lasting.
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► Intimate Friends

Rat	They can find the shinning points on each other and learn from it. They can be best partners to take advantage of each other's resources.
Horse	Both of them are energetic and passionate. They can find a lot in common, but still keep their own space as friends.
Monkey	They can gain friendship that go through any obstacles. Although they barely contact with each other when in different places, they can always show up when one of them get into trouble.

► Avoid

Tiger	They all keep their own secret, which makes them more skeptical. They weigh more what they gain from a relationship than what they can contribute. Split will take place sooner or later.
Rabbit	They love each other, but it's hard for them to give in on disagreement, and that would make their relationship fade away gradually.
Snake	Both of them have high egos. They have different aims in most occasions, and a poor manner of communication – being silent when a frank confession is needed.
Sheep	Their personality is so different. They can find little in common, so the life together would be dull and boring. They may be able to survive one or two years, but after that, a separation is doomed to occur.
Pig	Because of the age gap, they cannot understand each other. They hold different lifestyle and value in financial management. Squabbles are inevitable.

People born in the year of the snake are generally very loyal to their friends and loved ones.

Introduction to Tech Section:

The James Webb Telescope has been a real boon to the scientist community continuing time and again that its discoveries has been money well spent.

The James Webb Telescope in conjunction with the Hubble Telescope has confirmed that the know universe is expanding about 8% faster than predicted.

For further information see the Tech Section of this newsletter.

Introduction to Summary of CARC Annual Christmas Party

Both Pictures and Summary write up of the CARC Christmas Party Hosted by Ed Fong is provided in the Summary section.

For further information please read the details at the bottom of this newsletter.

Introduction to Special Announcement:

The Foothills Amateur Radio Society (FARS) Winter Banquet will be held in Cupertino on Friday, February 21, 2025. All CARC members are welcome to attend the FARS Winter Banquet.

For further information is toward the end of this newsletter.

CARC Final News Wrap Up

Chat sub s'em to all you CARC members! - Leonard Tom, *NX6E*

Public Service Announcements

HAM CRAM / HAM Licensing

For upcoming HAM Licensing locations please refer to:

<http://www.arrl.org/find-an-amateur-radio-license-exam-session>

Auxiliary Communications Service (ACS)

The Auxiliary Communications Service (ACS) is a unit of trained professionals who supply communications support to the agencies of the City and County of San Francisco, particularly during major events/incidents. ACS goals are the support of

gathering and distribution of information necessary to respond to and recover from a disaster.

The ACS Net begins at 1930 hours (7:30 p.m. PT) local time each Thursday evening, on the WA6GG repeater at 442.050 MHz, positive offset, tone 127.3 Hz. The purpose of this net is to practice Net Control skills, practice checking in with deployment status in a formal net, and to share information regarding upcoming ACS events. Guests are welcome to check in. ACS members perform Net Control duty on a regular basis. On the second Thursday of each month, the net is conducted in simplex mode on the output frequency of the WA6GG repeater, 442.050 MHz no offset, tone 127.3 Hz.

ACS holds its General Meetings on the third Tuesday of each month from 1900 hours to 2100 hours local time. Currently meetings are exclusively conducted over Zoom during the COVID-19 pandemic, ACS looks forward to meeting in person again as soon as possible.

Upcoming meeting dates in 2025 are:

- Jan 21, 2025
- Feb 18, 2025
- Mar 18, 2025

Location of in person future ACS meetings are yet to be determined as the regular location is under reconstruction. All interested persons are welcome to attend. For further information contact Corey Siegel KJ6LDJ <kj6ldj@gmail.com>.

For more information, please attend an ACS meeting, check in on the ACS radio net, or call 415-558-2717.

Free Disaster Preparedness Classes In San Francisco – NERT Taught by San Francisco Fire Department (SFFD).

<https://sf-fire.org/nert/nert-calendar-meetings-trainings-events>

Training Classes: see above website. TBD

+ Recertifications

TBD

***SFFD DOT** is the Fire Department Division of Training. All participants walking, biking or driving **enter through the driveway gate on 19th St.** between Folsom and Shotwell. Parking is allowed along the back toward the cinderblock wall.

Visit www.sfgov.org/sffdnert to learn more about the training, other locations, and register on line. Upcoming Special NERT Events.

San Francisco Police Department: Auxiliary Law Enforcement Response Team (ALERT)

The Auxiliary Law Enforcement Response Team (ALERT) is a citizen disaster preparedness program designed. The ALERT program is for volunteers 16 years of age or older, who live, work, or attend high school in San Francisco.

Graduates of the San Francisco Police Activities League (P.A.L) Law Enforcement Cadet Academy are also eligible to join.

ALERT volunteers will no longer need to complete the Fire Department's Neighborhood Emergency Response Team (NERT) (www.sfgov.org/sfnert) training and then graduate into two 8 hour Police Department course specifically designed for ALERT team members.

ALERT members will work closely with full-time and/or Reserve Police Officers in the event they are deployed after a disaster. The Basic ALERT volunteer will have no law enforcement powers other than those available to all citizens.

SFPD ALERT Training (New Members)

The next SFPD ALERT training class has been scheduled for: TBD

*Class date indicated are only for new members

IMPORTANT- All participants must complete the background interview process in order to be eligible to attend the ALERT training class.

Eligible ALERT participants may register for a training class by contacting the ALERT Program Coordinator, marina.chacon@sfgov.org, or by telephone at 415-401-4615.

SFPD ALERT Practice/Training Drill

All active/trained ALERT members are asked to join us for our next training drill, via scheduled for on TBD

For more information on the San Francisco Police Department ALERT Program, email us at sfpdalert@sfgov.org, or call Lt. Marina Chacon (SFPD Ret.), SFPD ALERT Program Coordinator, at (415) 401-4615.

For additional information on the web please refer to:
<https://sfgov.org/policecommission/alert>



More than 20,000 galaxies appear in this image by the James Webb Space Telescope.

CREDIT:NASA, ESA, CSA

Webb telescope's largest study of universe expansion confirms challenge to cosmic theory

The findings offer a crucial cross-check for previous Hubble Space Telescope measurements of the universe's mysterious expansion

<https://hub.jhu.edu/2024/12/09/webb-telescope-hubble-tension-universe-expansion/>

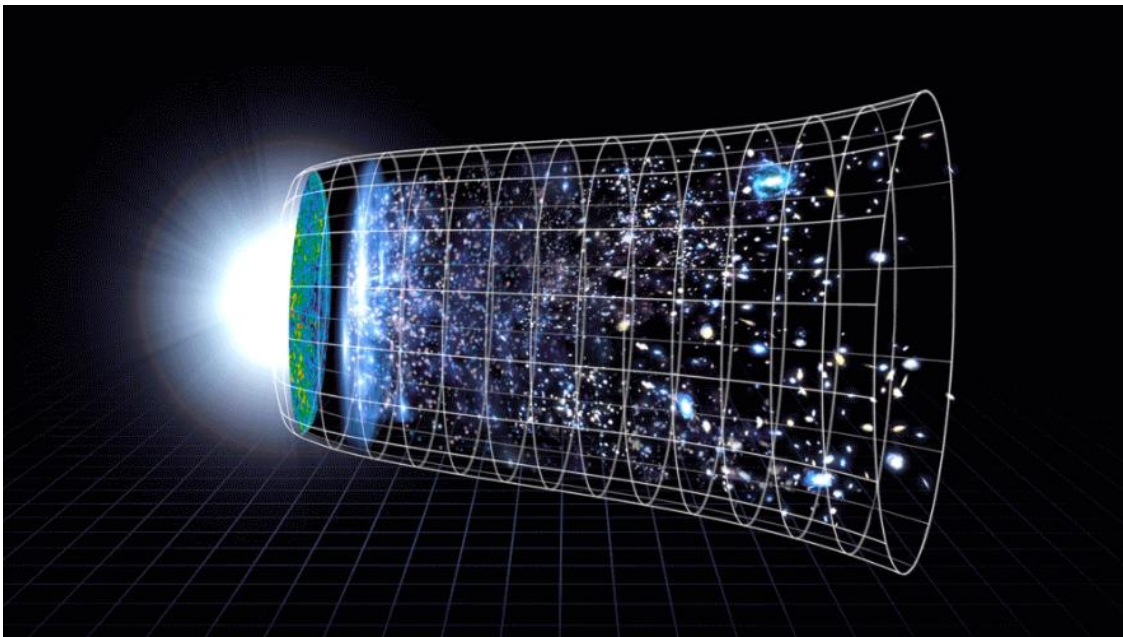
by Roberto Molar Candanosa Date: 12/09/2025

New observations from the James Webb Space Telescope suggest that a new feature in the universe—not a flaw in telescope measurements—may be behind the decadelong mystery of why the universe is expanding faster today than it did in its infancy billions of years ago.

The new data confirms Hubble Space Telescope measurements of distances between nearby stars and galaxies, offering a crucial cross-check to address the mismatch in measurements of the universe's mysterious expansion. Known as the Hubble tension, the discrepancy remains unexplained even by the best cosmology models.

"The discrepancy between the observed expansion rate of the universe and the predictions of the standard model suggests that our understanding of the universe may be incomplete," said Nobel laureate and lead author Adam Riess, a Bloomberg Distinguished Professor and professor of Physics and Astronomy at Johns Hopkins University. "With two NASA flagship telescopes now confirming each other's findings, we must take this [Hubble tension] problem very seriously—it's a challenge but also an incredible opportunity to learn more about our universe."

Published in *The Astrophysical Journal*, the research builds on Riess' Nobel Prize-winning discovery that the universe's expansion is accelerating owing to a mysterious "dark energy" permeating vast stretches of space between stars and galaxies.



A representation of the evolution of the universe over 13.77 billion years.

The far left depicts the earliest moment we can now probe, when a period of "inflation" produced a burst of exponential growth in the universe. (Size is depicted by the vertical extent of the grid in this graphic.)

For the next several billion years, the expansion of the universe gradually slowed down as the matter in the universe pulled on itself via gravity.

More recently, the expansion has begun to speed up again as the repulsive effects of dark energy have come to dominate the expansion of the universe.

Image credit: NASA's Goddard Space Flight Center

Riess' team used the largest sample of Webb data collected over its first two years in space to verify the Hubble telescope's measure of the expansion rate of the universe, a number known as the Hubble constant.

They used three different methods to measure distances to galaxies that hosted supernovae, focusing on distances previously gauged by the Hubble telescope and known to produce the most precise "local" measurements of this number. Observations from both telescopes aligned closely, revealing that Hubble's measurements are accurate and ruling out an inaccuracy large enough to attribute the tension to an error by Hubble.

Still, the Hubble constant remains a puzzle because measurements based on telescope observations of the present universe produce higher values compared to projections made using the "standard model of cosmology," a widely accepted framework of how the universe works calibrated with data of cosmic microwave background, the faint radiation left over from the big bang.

While the standard model yields a Hubble constant of about 67-68 kilometers per second per megaparsec, measurements based on telescope observations regularly give a higher value of 70 to 76, with a mean of 73 km/s/Mpc. This mismatch has perplexed cosmologists for more than a decade because a 5-6 km/s/Mpc difference is too large to be explained simply by flaws in measurement or observational technique. (Megaparsecs are huge distances. Each is 3.26 million light-years, and a light-year is the distance light travels in one year: 9.4 trillion kilometers, or 5.8 trillion miles.)

Since Webb's new data rules out significant biases in Hubble's measurements, the Hubble tension may stem from unknown factors or gaps in cosmologists' understanding of physics yet to be discovered, Riess' team reports.

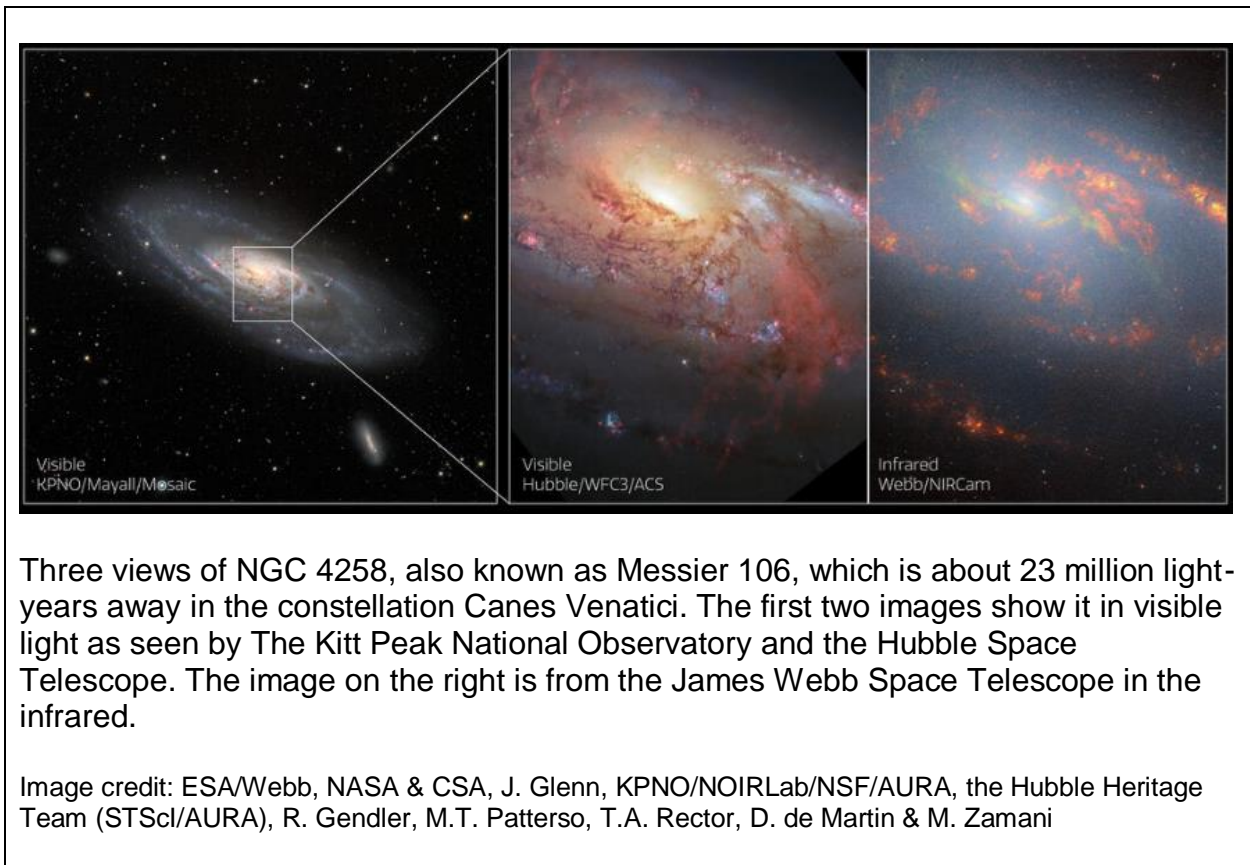
"The Webb data is like looking at the universe in high definition for the first time and really improves the signal-to-noise of the measurements," said Siyang Li, a graduate student working at Johns Hopkins University on the study.

The new study covered roughly a third of Hubble's full galaxy sample, using the known distance to a galaxy called NGC 4258 as a reference point. Despite the smaller dataset, the team achieved impressive precision, showing differences between measurements of under 2%—far smaller than the approximately 8-9% size of the Hubble tension discrepancy.

In addition to their analysis of pulsating stars called Cepheid variables, the gold standard for measuring cosmic distances, the team cross-checked measurements based on carbon-rich stars and the brightest red giants across the same galaxies. All galaxies observed by Webb together with their supernovae yielded a Hubble constant of 72.6 km/s/Mpc, nearly identical to the value of 72.8 km/s/Mpc found by Hubble for the very same galaxies.

The study included samples of Webb data from two groups that work independently to refine the Hubble constant, one from Riess' SH0ES team (Supernova, H0, for the Equation of State of Dark Energy) and one from the Carnegie-Chicago Hubble Program, as well as from other teams.

The combined measurements make for the most precise determination yet about the accuracy of the distances measured using the Hubble Telescope Cepheid stars, which are fundamental for determining the Hubble constant.



Although the Hubble constant does not have a practical effect on the solar system, Earth, or daily life, it reveals the evolution of the universe at extremely large scales, with vast areas of space itself stretching and pushing distant galaxies away from one another like raisins in rising dough. It is a key value scientists use to map the structure of the universe, deepen their understanding of its state 13-14 billion years after the big bang, and calculate other fundamental aspects of the cosmos.

Resolving the Hubble tension could reveal new insights into more discrepancies with the standard cosmological model that have come to light in recent years, said Marc Kamionkowski, a Johns Hopkins cosmologist who helped calculate the Hubble constant and has recently helped develop a possible new explanation for the tension.

The standard model explains the evolution of galaxies, cosmic microwave background from the big bang, the abundances of chemical elements in the universe, and many other key observations based on the known laws of physics. However, it does not fully explain the nature of dark matter and dark energy, mysterious components of the universe estimated to be responsible for 96% of its makeup and accelerated expansion.

"One possible explanation for the Hubble tension would be if there was something missing in our understanding of the early universe, such as a new component of matter—early dark energy—that gave the universe an unexpected kick after the big bang," said Kamionkowski, who was not involved in the new study. "And there are other ideas, like funny dark matter properties, exotic particles, changing electron mass, or primordial magnetic fields that may do the trick. Theorists have license to get pretty creative."

Other authors are Dan Scolnic and Tianrui Wu of Duke University; Gagandeep S. Anand, Stefano Casertano, and Rachael Beaton of the Space Telescope Science Institute; Louise Breuval, Wenlong Yuan, Yukei S. Murakami, Graeme E. Addison, and Charles Bennett of Johns Hopkins University; Lucas M. Macri of NSF NOIRLab; Caroline D. Huang of The Center for Astrophysics | Harvard & Smithsonian; Saurabh Jha of Rutgers, The State University of New Jersey; Dillon Brout of Boston University; Richard I. Anderson of École Polytechnique Fédérale de Lausanne; Alexei V. Filippenko of University of California, Berkeley; and Anthony Carr of University of Queensland, Brisbane.

This research is supported by Department of Energy grant DE-SC0010007, the David and Lucile Packard Foundation, the Templeton Foundation, Sloan Foundation, JWST GO-1685 and GO-2875, HST GO-16744 and GO-17312, and the Christopher R. Redlich Fund.

Summary CARC Annual Christmas Party Hosted by Ed Fong WB6IQN

Both Ed Fong – WB6IQN and Sharadon Fong (xyl) pulled off another well attended fun filled CARC Annual Christmas Party on Saturday, December 7, 2024 at their home in Sunnyvale. It was well attended by some 50 plus people. Many of the attendees brought home made dishes for all to enjoy. People ended up taking home left overs.



Background left to right: Richard Yee, Robert Yee, Ron Quan.

Foreground: Robert Chinn, Amanda, Bennett Chew, Don



Left to right: Jim Fahy and attendee



Left to right: Marv Benadict, Amand Paul, Steve Ron Quan Robert, Mark Mertzler, Sara Mentzer, Paul, Robert, Roger Pease, Thomas, and Don



Left to right: Violet Fong and Theresa Schindler



Left to right: Sara, Andrew Weiser



Left to right: Rodney Yee, attendee1, attendee 2, and Theresa Schindler



The drinks & desert table



Left to right: David, Paul, and Roger



Left to right: Ravi ,Sharadon Fong and Violet Fong



Left to right: Theresa Schindler, Fred, Adrian, and Farnouz



Left to right: Sara, Linda, and Alan



Left to right: Andrew and Ravi



Co-host Sharadon Fong



Left to right: Ed Fong and Andy Korsack's wife who won the top raffle prize, a laptop.



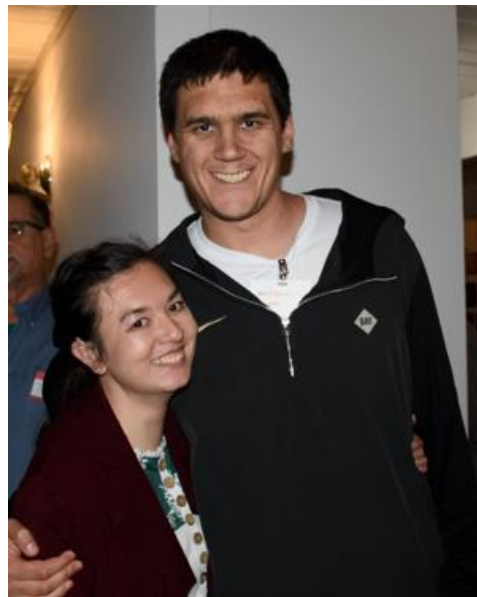
Left to right: Host Ed Fong and daughter Violet Fong.



Left to right: Bob and Ed Fong



Left to right: Adrian and Ed Fong



Left to right Violet Fong and Andrew



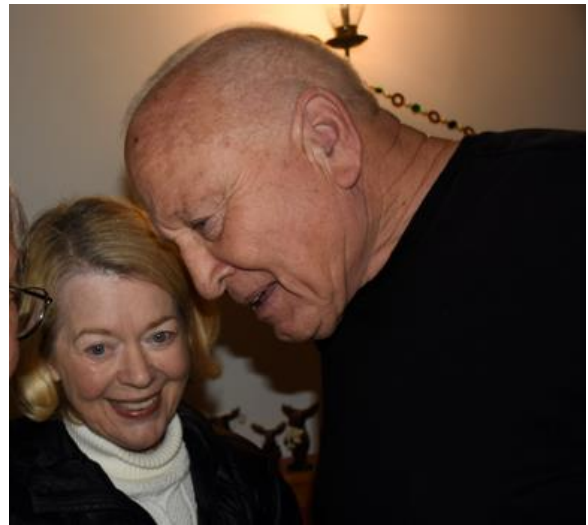
Left to right: Ron Quan and Richard Yee



Left to right: Ed Fong, Tereas Schindler and Violet Fong



Left to right: Sharadon Fong and daughter Mei-lin Fong



Left to right: Sara and Mark Metzner

Special Announcement:

Foothills Amateur Radio Society (FARS) Winter Banquet

The FARS Winter Banquet 2025 is happening at the Blue Pheasant in Cupertino on Friday, February 21, 2025. CARC members are welcome to attend.

Our speaker is Robert Moffat, KG4UHM who talks about some of the history of remote power and some modern practical applications.

Please share this announcement with others to get the word out for people to sign up.

A mostly complete raffle prize list has been posted on the banquet page (k6ya.org/bq). The top prize is an Yaesu FT710 HF SDR radio. A very nice prize.

There is an increase in the price over last year to inflation in the past years, but it's still a good deal.

I hope to see you at the banquet.

-- Thanks,

Mikel, kn6qi

FARS Winter Banquet February 21st, 2025 Program to be Announced

*Robert Moffett,
KG4UHM*



February 21st, 2025 - 6:00PM

The Blue Pheasant
22100 Stevens Creek Blvd
Cupertino, CA 95014
408-255-3300



Schedule

6:00 PM	Arrivals and Mixing.
7:00 PM	Dinner Service begins.
7:45 PM	Introductions, program.
9:00 PM	Raffle and wrap up.

Meal Choices

Beef	Roast Prime Rib of Beef, au jus	\$59
Fish	Broiled Salmon w/ dill sauce	\$44
Chicken	Breast of Chicken Jerusalem	\$44
Veg	Pasta Primavera	\$44

Over a dozen raffle prizes including:

- Yaesu FT-710 - HF Radio
- Nano VNA - H4 4 - Network Analyzer
- Tiny SA - Spectrum Analyzer
- uSDX+ - QRP HF transceiver
- Radioddity QB25 - Mobile transceiver
- AT5-20 - All mode receiver
- Baofeng UV5R x3 - Tri-band HT

To sign up for the banquet, please use the form below to sign-up by mail, or go on-line at <https://www.fars.k6ya.org/banquet/banquet2025/> to sign-up.

After February 13, 2025, use the on-line sign-up instead of this form. If we receive your sign-up after February 17th, it will be handled as a late sign-up.

More information at: <https://www.fars.k6ya.org/banquet/banquet2025/>.

Mail this completed form with your check, payable to FARS, to:

FARS
 PO Box 112551
 Campbell, CA 95011-255

FARS WINTER BANQUET SIGN UP FORM (February 21, 2025)

	Name & Call Sign	Meal Choice	Amount
You	_____	_____	_____
Email	_____		
Guest	_____	_____	_____
Guest	_____	_____	_____
Other (Dues \$25)	_____		_____
		Total	_____

FARS WINTER BANQUET SIGN UP FORM (February 21, 2025)

	Name & Call Sign	Meal Choice	Amount
You	_____	_____	_____
Email	_____		
Guest	_____	_____	_____
Guest	_____	_____	_____
Other (Dues \$25)	_____		_____
		Total	_____

Updated: December 29, 2024