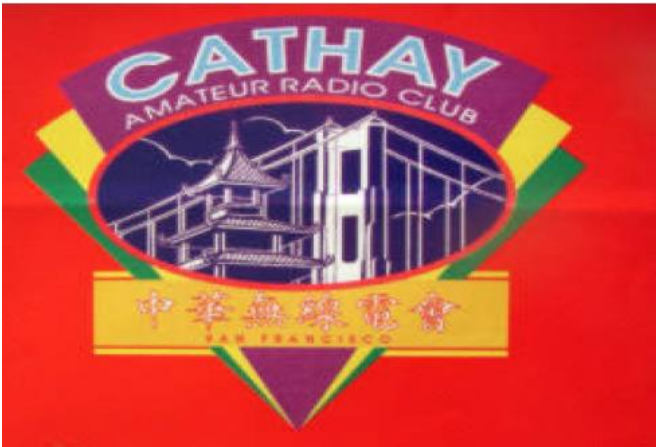




Cathay December 2023

www.cathayradio.org

President: George Chong, W6BUR **email:** W6BUR@comcast.net
Vice President North: Leonard Tom, NX6E **email:** nx6e@hotmail.com
Vice President South: Bill Fong, W6BBA - **email:** w6bba@arrl.net
Secretary/Membership: Rodney Yee, KJ6DZI - **email:** rodyee2000@yahoo.com
Editor: Rodney Yee, KJ6DZI - **email:** rodyee2000@yahoo.com
Treasurer: Vince Chinn aka Mingie, W6EE - **email:** vince@vincechinncpa.com
Web Master: Edison Fong – WB6IQN - **email:** edison_fong@hotmail.com
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 Carsion's Repeater: WA6GEL UHF 444.80000 Mhz, Offset +5Mhz, CTCSS/Tone PL 179.9 Hz on Monument Peak, Milpitas.**

If you cannot reach the fore-mentioned machine, please use WA6GEL UHF 448.8 Mhz Offset +5 Mhz, CTCSS/Tone PL173.8 which is on Mt. San Bruno.

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

Message from the President: George Chong, W6BUR

Hello CARC Members and Friends;

Many thanks to Nick Carsion for the use of repeater – WA6GEL for our CARC Monday Night Net.

I hope you all had a very Happy Thanksgiving. Wishing you all a very happy upcoming Merry Christmas.

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

CARC Annual Christmas Party

Ed Fong is hosting his CARC/SARES Annual Christmas party. Details are at the end of newsletter.

Introduction Tech Article:



Message in a Bottle: Send Your Name to Jupiter's Moon Europa.

Europa Clipper is an interplanetary mission in development by NASA comprising an orbiter. Planned for launch in October 2024, the spacecraft is being developed to study the Galilean moon Europa through a series of flybys while in orbit around Jupiter.

Send your name to Jupiter's moon Europa by signing a poem by U.S. Poet Laureate Ada Limón that will travel aboard NASA's [Europa Clipper](#) spacecraft. Your name will be engraved on the spacecraft before it travels 1.8 billion miles on a mission to see if this ocean world has conditions to support life.

Sunday, December 31, 2023 will be the last day to submit your name to travel on board Europa Clipper as it journeys 1.8 billion miles to explore Europa Moon. Estimated date of arrival is in 2030.

[Click here](#) to add your name to the poem and create your own customizable souvenir artwork.

To see the latest discoveries from the NASA James Webb Telescope, please refer to the Tech Article;

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 2023 are:

- January 16, 2024
- February 21, 2024
- March 19, 2024

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>

NERT Full Training Dec 6, 2023 – Jan 17, 2024

12/06/23 to 1/17/24 5:30pm - 9:30pm
2310 Folsom San Francisco, CA 94110
[Registration](#)

NERT Full Training, 2 Saturdays - January 6th & 13th - Treasure Island

1/06/24 to 1/13/24 8:00am - 6:00pm
850 Ave I (Treasure Island) San Francisco, CA 94130
[Registration](#)

+ Recertifications

[NERT Recertification Class: November 15th and 29th](#)

11/15/23 to 11/29/23 5:30pm - 9:00pm

2310 Folsom San Francisco, CA 94110

[Registration](#)

[NERT Recertification Class: January 10th and 17th](#)

1/10/2024 to 1/17/2024 5:30pm - 9:30pm

2310 Folsom San Francisco, CA 94110

[Registration](#)

***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 at sfpdalert@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>

Tech Article



<https://www.nasa.gov/missions/webb/nasas-webb-reveals-new-features-in-heart-of-milky-way/>

NASA's Webb Reveals New Features in Heart of Milky Way

The latest image from NASA's James Webb Space Telescope shows a portion of the dense center of our galaxy in unprecedented detail, including never-before-seen features astronomers have yet to explain. The star-forming region, named Sagittarius C (Sgr C), is about 300 light-years from the Milky Way's central supermassive black hole, Sagittarius A*.

Image: Sagittarius C (NIRCam)



The NIRCam (Near-Infrared Camera) instrument on NASA's James Webb Space Telescope's reveals a portion of the Milky Way's dense core in a new light. An estimated 500,000 stars shine in this image of the Sagittarius C (Sgr C) region, along with some as-yet unidentified features. A large region of ionized hydrogen, shown in cyan, contains intriguing needle-like structures that lack any uniform orientation.

NASA, ESA, CSA, STScI, and S. Crowe (University of Virginia).

"There's never been any infrared data on this region with the level of resolution and sensitivity we get with Webb, so we are seeing lots of features here for the first time," said the observation team's principal investigator Samuel Crowe, an undergraduate student at the University of Virginia in Charlottesville. "Webb reveals an incredible amount of detail, allowing us to study star formation in this sort of environment in a way that wasn't possible previously."

"The galactic center is the most extreme environment in our Milky Way galaxy, where current theories of star formation can be put to their most rigorous test," added professor Jonathan Tan, one of Crowe's advisors at the University of Virginia.

Protostars

Amid the estimated 500,000 stars in the image is a cluster of protostars – stars that are still forming and gaining mass – producing outflows that glow like a bonfire in the midst of an [infrared-dark cloud](#). At the heart of this young cluster is a previously known, massive protostar over 30 times the mass of our Sun. The cloud the protostars are emerging from is so dense that the light from stars behind it cannot reach Webb, making it appear less crowded when in fact it is one of the most densely packed areas of the image. Smaller infrared-dark clouds dot the image, looking like holes in the starfield. That's where future stars are forming.

Webb's NIRCam (Near-Infrared Camera) instrument also captured large-scale emission from ionized hydrogen surrounding the lower side of the dark cloud, shown cyan-colored in the image. Typically, Crowe says, this is the result of energetic photons being

emitted by young massive stars, but the [vast extent of the region](#) shown by Webb is something of a surprise that bears further investigation. Another feature of the region that Crowe plans to examine further is the needle-like structures in the ionized hydrogen, which appear oriented chaotically in many directions.

“The galactic center is a crowded, tumultuous place. There are turbulent, magnetized gas clouds that are forming stars, which then impact the surrounding gas with their outflowing winds, jets, and radiation,” said Rubén Fedriani, a co-investigator of the project at the Instituto Astrofísica de Andalucía in Spain. “Webb has provided us with a ton of data on this extreme environment, and we are just starting to dig into it.”

Image: Sagittarius C Features



Approximate outlines help to define the features in the Sagittarius C (Sgr C) region. Astronomers are studying data from NASA’s James Webb Space Telescope to understand the relationship between these features, as well as other influences in the chaotic galaxy center.

NASA, ESA, CSA, STScI, Samuel Crowe (UVA)

Around 25,000 light-years from Earth, the galactic center is close enough to study individual stars with the Webb telescope, allowing astronomers to gather unprecedented information on how stars form, and how this process may depend on the cosmic environment, especially compared to other regions of the galaxy. For example, are more massive stars formed in the center of the Milky Way, as opposed to the edges of its spiral arms?

“The image from Webb is stunning, and the science we will get from it is even better,” Crowe said. “Massive stars are factories that produce heavy elements in their nuclear cores, so understanding them better is like learning the origin story of much of the universe.”

The James Webb Space Telescope is the world's premier space science observatory. Webb is solving mysteries in our solar system, looking beyond to distant worlds around other stars, and probing the mysterious structures and origins of our universe and our place in it. Webb is an international program led by NASA with its partners, ESA (European Space Agency) and the Canadian Space Agency.

Media Contacts

Laura Betz – laura.e.betz@nasa.gov, **Rob Gutro** – rob.gutro@nasa.gov
NASA's [Goddard Space Flight Center](#), Greenbelt, Md.

Leah Ramsay lramsay@stsci.edu, **Christine Pulliam** cpulliam@stsci.edu

Space Telescope Science Institute, Baltimore, Md.

Annual CARC Christmas Party

Ed Fong Annual Christmas Party – Saturday, December 9, 2023 6-10 PM

Where: 1163 Quince Ave. Sunnyvale, CA –

Format: Potluck – bring your favorite dish.

Door Prize - Lenovo Thinkpad PC, uSDX_ HF transceiver, or Nano VNA-4H and more—each attendees gets one raffle ticket for FREE. Tickets will not be sold. If you bring a friend or spouse, each one will get a raffle ticket - FREE

Best directions given on www.googlemaps.com Call if you get lost 408-245-8210

Covid -19 is finally over and the annual Cathay Christmas party returns. This year we will not only have unsurpassed prizes but a few new World Famous folks have promised to attend.

Do you folks know of Prof. Hiroki Kato's AH6CY (formerly of Harvard University) work on preserving the history of WWII spy radios? Meet him in person. He is an authority on WWII secret organizations such as SOE (special operations executives). These were the brave folks that snuck into enemy lines and provide vital information to win the War. He is a fascinating person and just a world of knowledge. He was only 3 years old when the Bomb dropped in Hiroshima and he survived.

There is no excuse not to attend. Not only that, it is FREE to all attendees. Just bring a dish to share. If you have ever been to our Cathay Radio Christmas Party, you know this is the event to taste foods from all over the world. Does not matter whether you like – barbecue ribs, salads, seafood, Chinese, Mexican, Italian, Korean, it will be there. All kinds of desserts served at the dessert table. Get ready to eat your heart out and meet new friends as well.



Just some of the food at previous year's event.

Get a chance to meet some really cool folks that are movers and shakers in the Silicon Valley. Dr. Steven Stearns, Keith Synder, Ron Quan, Nick Cassarino, Jim Walker.

Rules for the raffle - Every attendee will receive one raffle ticket - no charge at the door. This will make you eligible for the grand prize and raffle. This is our way of saying thank you for your support during the year at the events we have held.

So mark your calendars. You must be present to win.

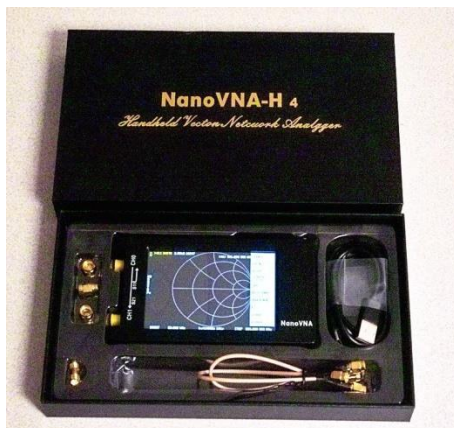


**1st Prize Lenovo –
Thinkpad X240 i5**
processor with 8GB of
memory and 256GB SSD

- Windows 10 Pro operating system
- CNET rates this laptop a 4.3/5
- Up to 15 hours battery life.
- PC benchmark 4,717 - very respectable.
- Less than 3 pounds 0.8

inches thick

- USB 3.0
- 12.5 inch screen - just perfect to carry around.
- Intel HD4400 graphics processor
- USB 3.0
- Intel Cetrino Wifi.



Nano VNA - H4 - 4 inch 1.5 GHz VNA - Tuned
antennas, duplexers, filters etc.

Full touch screen. Latest version includes functions
for TDR – time domain reflectometer.

Includes cables and full calibration kit.



uSDX+ - QRP HF transceiver - Covers 160-6 meters – SSB, CW, digital QRP transceiver. 5 watts CW – 10 watt SSB.

Built in CW decoder, full DSP noise reduction.

Complete with 4000 MaH LiOn battery, AC adapter/charger, Speaker/microphone



Cambridge Sound Works Ensemble II speakers with subwoofer. – These speakers were designed famous speaker designer - Dr. Henry Kloss - the Ensemble II is known for it small size but great sound.



Baofeng UV5R x2 dual band handie talkie

Drop in LiOn smart charge, 1800 Mahr LiOn, battery, belt clip, antenna

Frequency coverage:

- 65-108 MHz – FM broadcast – receive only
- 136-174 MHz – VHF – TX/RX
- 420- 520 - MHz - TX/RX

Full CTSS and DCS coding

Remaining prizes



Mil spec - 800 lumen aircraft aluminum LED flashlight with 18650 3000mAh battery and AAA battery adapter.



40 meter Pixie 500mW CW transceiver – completely built and tested.

Includes headphone, and rechargeable NiMH 9v battery