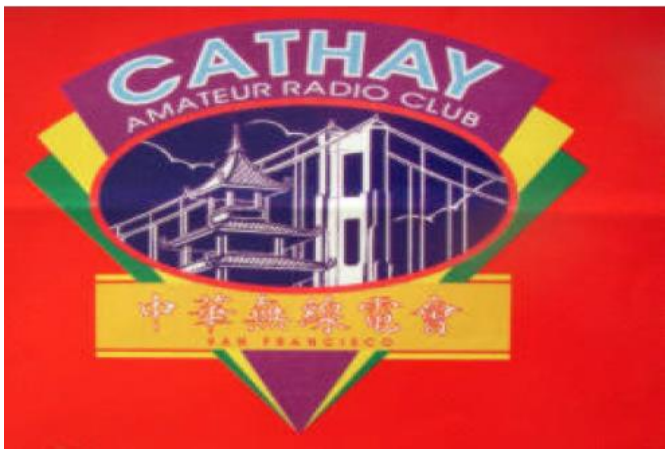


Cathay November 2025

www.cathayradio.org

President North: Leonard Tom, *NX6E* **email:**nx6e@sonic.net
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: Rodney Yee, *KJ6DZI* - **email:**rodyee2000@yahoo.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 Cassarino's Repeater: WA6GEL UHF 444.800 Mhz, Offset +5 Mhz, CTCCS/Tone PL 179.9 Hz on Monument Peak, Milpitas. If you are in the North Bay, one can use the WA6GEL repeater North Bay located on Mt. San Bruno - 444.8 MHz offset +5 Mhz, CTCCS/Tone PL173.3 Hz**

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;

I hope you all had a Happy Thanksgiving!

Many thanks to both Nick Cassarino for the use of repeater – WA6GEL 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.

Introduction to Tech Section:

Potential New Treatment To Heal Isachemic Stroke Victims

There are two main types of stroke: ischemic and hemmorhagic.

An ischemic stroke is the blockage of an artery leading to the brain, and is usually the result of a blood clot caused by plaque buildup.

A hemorrhagic stroke, on the other hand—which can sometimes (but not always) be caused by a cerebral aneurysm—is much rarer, and involves the rupture of a blood vessel with blood seeping into and building pressure in surrounding tissues.

Ischemic stokes are the most common kind of strokes and ongoing research is being conducted using stem cells to repair the brain damage

For more details, see the Tech Section of this newsletter.

Introduction to Special CARC Holiday Announcement

Esteemed CARC Member Ed Fong - WB6IQN is hosting his Annual Christ Party at his home on Saturday, December 13, 2023 from 6pm – 10pm.

Additional information is at the end of this newsletter. So save the date for a food filled fun blow out event and meet your fellow HAMs.

Urgent Request from Ed Fong that needs action from our HAM community.

See details at bottom of newsletter about removing restrictions on HAMs ability to install antennas on private land / HOA.

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 / 2026 are:

- November 19, 2025
- January 21, 2026
- February 18, 2026
- March 18, 2026

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 fora 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

Tech Article

Stanford Report

A game-changing way to treat stroke | Stanford Report

June 4th, 2025

A game-changing way to treat stroke

Researchers at Stanford have developed a new technology for removing blood clots that is more than twice as effective as current techniques. It could significantly improve success rates in treating strokes, heart attacks, pulmonary embolisms, and other clot-related diseases.

Stanford faculty Jeremy J. Heit and Renee Zhao demonstrate how to insert the milli-spinner using a life-sized model of the human circulatory system. | Aaron Kehoe

When treating an ischemic stroke – where a clot is blocking the flow of oxygen to the brain – every minute counts. The more quickly doctors can remove the clot and restore blood flow, the more brain cells will survive, and the more likely patients are to have a good outcome. But current technologies only successfully remove clots on the first try about 50% of the time, and in about 15% of cases, they fail completely.

Researchers at Stanford Engineering have developed a new technique called the milli-spinner thrombectomy that could significantly improve success rates in treating strokes, as well as heart attacks, pulmonary embolisms, and other clot-related diseases. In a paper **published** June 4 in *Nature*, the researchers used both flow models and animal studies to show that the milli-spinner significantly outperforms available treatments and offers a new approach for fast, easy, and complete clot removal.

“For most cases, we’re more than doubling the efficacy of current technology, and for the toughest clots – which we’re only removing about 11% of the time with current devices – we’re getting the artery open on the first try 90% of the time,” said co-author **Jeremy Heit**, chief of Neuroimaging and Neurointervention at Stanford and an

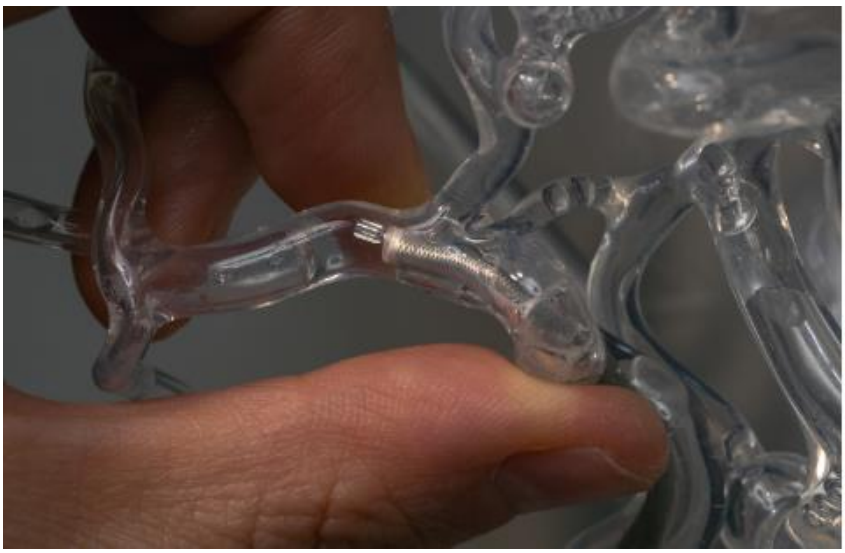
associate professor of radiology. “It’s unbelievable. This is a sea-change technology that will drastically improve our ability to help people.”

Taking advantage of tangles

Blood clots are held together by tangles of fibrin, a tough, thread-like protein that traps red blood cells and other material to form a sticky clump. Typically, doctors try to remove them by inserting a catheter into the artery and either vacuuming up the clot or snaring it with wire mesh. But these methods don’t always work and can snap the fibrin threads, causing pieces of the clot to break off and get lodged in new, harder to reach places.

“With existing technology, there’s no way to reduce the size of the clot. They rely on deforming and rupturing the clot to remove it,” said **Renee Zhao**, an assistant professor of mechanical engineering and senior author on the paper. “What’s unique about the milli-spinner is that it applies compression and shear forces to shrink the entire clot, dramatically reducing the volume without causing rupture.”

The milli-spinner, which also reaches the clot through a catheter, consists of a long, hollow tube that can rotate rapidly, with a series of fins and slits that help create a localized suction near the clot. This applies two forces – compression and shear – to roll the fibrin threads into a tight ball without breaking them.



Close-up of the milli-spinner, which consists of a long, hollow tube that can rotate rapidly, with a series of fins and slits near the clot that help create a localized suction. Through its innovative design, the milli-spinner can shrink blood clots without rupturing them. | Andrew Brodhead

Imagine a loose ball of cotton fibers (or a handful of long hair pulled from a hairbrush, if you'd prefer). If you press it between your palms (compression) and rub your hands together in a circle (shear), the fibers will become increasingly tangled into a smaller, denser ball. The milli-spinner is able to do this same thing to the fibrin threads in a clot, using suction to compress the clot against the end of the tube and rapidly spinning to create the necessary shear.

Zhao and her colleagues showed that the milli-spinner could reduce a clot to as little as 5% of its original volume. The process shakes free the red blood cells, which move normally through the body once they aren't trapped in fibrin, and the now-tiny fibrin ball is sucked into the milli-spinner and out of the body.

"It works so well, for a wide range of clot compositions and sizes," Zhao said. "Even for tough, fibrin-rich clots, which are impossible to treat with current technologies, our milli-spinner can treat them using this simple yet powerful mechanics concept to densify the fibrin network and shrink the clot."

A surprising success

The milli-spinner design is an extension of Zhao's work on **millirobots** – tiny, origami-based robots built to swim through the body to dispense medicine or assist with diagnostics. The spinning hollow structure with fins and slits was intended as a propulsion mechanism, but when the researchers realized that it was also creating localized suction, they decided to see if it could have other uses as well.

"At first, we simply wondered whether this suction could help remove a blood clot," Zhao said. "But when we tested the spinner on a clot, we observed a striking clot color change, from red to white, along with a dramatic reduction in volume. Honestly, it felt like magic. We didn't fully understand the mechanism at the time."

Intrigued by this unexpected and unprecedented clot response, the researchers set out to uncover the underlying mechanism and then went through hundreds of design iterations to make the milli-spinner as efficient and effective as possible. But they haven't forgotten about its propulsion possibilities. Zhao and her colleagues are also working on an untethered version of the milli-spinner that could swim freely through blood vessels to target and treat clots.

While they have focused on treating blood clots first, there are many other potential uses for the milli-spinner, Zhao said. She and her team are already working on using the milli-spinner's localized suction to capture and remove kidney stone fragments.

"We're exploring other biomedical applications for the milli-spinner design, and even possibilities beyond medicine, Zhao said. "There are some very exciting opportunities ahead."

Knowing the difference, it could make for stroke patients and those with other blood clot-related diseases, Zhao, Heit, and their colleagues are hoping to get the milli-spinner thrombectomy approved for patient use as soon as possible.

“What makes this technology truly exciting is its unique mechanism to actively reshape and compact clots, rather than just extracting them,” Zhao said. “We’re working to bring this into clinical settings, where it could significantly boost the success rate of thrombectomy procedures and save patients’ lives.”

Renee Zhao is also an assistant professor, by courtesy, of materials science and engineering; a member of **Stanford Bio-X**, the **Stanford Cardiovascular Institute**, the **Wu Tsai Human Performance Alliance**, and the **Wu Tsai Neurosciences Institute**; and a faculty fellow of **Sarafan ChEM-H**.

Jeremy Heit is also an associate professor, by courtesy, of neurosurgery; director of neuroradiology at the **Stanford Stroke Center** and of the Stanford Neurointerventional Surgery Fellowship; and a member of Bio-X and the Wu Tsai Neurosciences Institute.

Additional Stanford co-authors of this research include graduate students **Yilong Chang**, **Shuai Wu**, and **Qi Li**; **Paul Yock**, the Martha Meier Weiland Professor in the **School of Medicine** and a professor emeritus of bioengineering; **Darren Salmi**, a clinical associate professor of pathology; and **Benjamin Pulli**, a clinical assistant professor, by courtesy, of neurosurgery.

The research was supported by Stanford programs including the Wu Tsai Neurosciences Institute **Neuroscience:Translate Award**, Stanford-Coulter Translational Research Grants, High Impact Technology (HIT) fund, Terman Fellowship and Gabilan Fellowship; as well as a shared instrumentation grant from the National Institutes of Health.

< End of Tech Article >

Special CARC Holiday Announcement

Ed Fong’s Annual Christmas Party – Saturday, December 13, 2025 6-10 PM

Where: 1163 Quince Ave. Sunnyvale, CA -

Format: Potluck – bring your favorite dish.

Door Prize - uSDX+ HF transceiver, 120 MHz dual trace oscilloscope, 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

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.

DSO03D12 120 MHz dual trace scope with probes - features a built in DVM , Signal generator, and FFT spectrum analyzer.

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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

Radtel RT-860 1024 channel 2 mt, 1.25mt, 70 cm transceiver- full HF all mode receiver - All local repeaters VHF/UHF and 220 MHz have been programmed in. Includes whip antenna for SW reception

Tx/Rx 136 MHz-174 MHz full power
220-225 MHz reduced power
400-480 MHz full power

Rec only - 18-520 MHz AM/FM (includes aircraft and broadcast)
SW 2 -30 MHz (AM, SSB, CW) includes BW selection 500 Hz -4KHz

MW – AM 520-1720 KHz

LW - 153-279 KHz

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

Urgent Message from Edison Fong

Date: November 29, 2025

ARRL has launched a nationwide grassroots campaign aimed at securing the passage of federal legislation that would grant Amateur Radio Operators the same rights to install antennas on their property as those enjoyed by users of TV antennas, wireless internet, and flagpoles.

The campaign, announced in an ARRL Member Bulletin on September 17, 2025, follows the reintroduction of the *Amateur Radio Emergency Preparedness Act* in February 2025 (see ARRL News 02/07/2025). The bipartisan bills -- H.R.1094 in the House and S.459 in the Senate -- are designed to prevent restrictive homeowners' association (HOA) rules that currently prohibit or severely limit the installation of amateur radio antennas, even when such antennas are hidden in trees, placed in attics, mounted on vehicles, or look like flagpoles.

"This legislation is about restoring equal rights to licensed Amateur Radio operators," said ARRL President Rick Roderick. **"These restrictions hinder not only the enjoyment of Amateur Radio, but also its vital role in emergency communication during disasters."**

Public Support Needed for Passage

To advance the legislation, ARRL is calling on its members and all licensees of the US Amateur Radio Service to take action by sending letters to their congressional

representatives. Through a dedicated online tool at https://send-a-letter.org/hoa/, hams can easily generate and submit pre-drafted letters with a few clicks.
Go to — https://send-a-letter.org/hoa/

— and help us by sending your letters to your Representative and Senators.
ARRL has emphasized that every letter matters. Your Representative and Senators need to know that the passage of this legislation is important to you.

Send Your Letters Now

Go to — https://send-a-letter.org/hoa/
— and help us by sending your letters to your Representative and Senators.

This is really important and really easy to use. I did it in less than 2 minutes. Just go to the website, enter you call sign and it does the rest.