



Cathay June 2021

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, Repeater: WB6TCS - RX 147.210, TX 147.810, Offset +0.6 MHz, CTCSS/Tone PL100 Hz

Please note: Repeater: N6MNV UHF 442.700 Mhz, Offset +5MHz, CTCSS/Tone PL 173.8 Hz in South San Francisco is cross linked every Monday Night Net at 9 p.m. to WB6TCS 2-meter repeater.

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

Message from the President: George Chong, W6BUR

Hello CARC Members and Friends;

Many thanks to Mr. Denis L. Moore – WB6TCS for the use of his repeater for our CARC Monday Night Net.

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

Due to ongoing COVID-19 safety concerns, the CARC Annual 2021 Field Day has been deferred until 2022. This has been verified by CARC member, Ed Fong - WB6IQN. I am aware that many of you are disappointed with this news but at the same time look forward to getting together in 2022. We just have to be a little more patient!

Silent Key Tribute to CARC Member: John Tim – W6QNT



John Chan Tim – W6QNT (Sept 7, 1927 - Jan 20, 2021) past president of CARC, at the age of 93 peacefully passed way in San Diego, California.

John was born and raised in the farming community, Suisun Valley, California. His dear friend Bill Fong – W6BBA used to refer to John Tim as “Farmer John”. John was also very good friends with CARC member and US Army buddy: Joe Lee – W6DOB (now deceased). John served in the US Army in WWII.

After graduating college, John worked 35 years for US government as a contract negotiator before retiring in Pinole, California.

In addition to his love of Ham Radio, he was avid outdoorsman who enjoyed hunting, fishing and skiing.

After retiring in 1994, John and his wife of 50 years; Lois enjoyed their retirement traveling. They visited Europe, the Middle East, South America, Australia, New Zealand, Alaska, China, South East Asia and several ocean cruises.

In additional to John and Lois world travels, they found time to be very active CARC members. Lois passed away in 2015. John is survived by three children and seven grandkids.

In Sept 2019 he moved to San Diego to be closer to and be well looked after for by his loving family members.

John Tim will be greatly missed by the CARC members and all that knew him as a very gentle and kind man.

Silent Key Tribute to CARC member and CARC net controller: TERRY W. ARNALL WB6TA. Written by Maxine Arnall, Wife



Terry W. Arnall - WB6TA age 72, (1948 - May 10, 2021) passed away after a prolong illness.

Accomplishments: Terry accomplished through the years with Ham Cram as Technician, General and Extra Class Ham Radio. He was also involved with International Ham communication. He set up in his workshop known as Ham Shack as he expanded his Ham experience for 30+ years. Terry enjoyed being active in the Hayward Ham Radio as net control and Cathay Clubs. He also enjoyed many geo caching hunts.

Another accomplishment is being certified in Community Emergency Response Team on Monday May 6, 2013 with the City of Hayward Fire Department. He was professionally trained in First Aid and CPR classes. He specialized in putting out fires and Search and Rescue.

Terry's first real job was working for AT&T for 15 years in the Fire Alarm/Burglar Department assigned to Napa/Sonoma wineries and high-profile homes. Then he became certified in Heavy Crane Operator to advance for another company. He then retired from EBMUD after 20+ years in 2011.

On a personal level: Terry was married to Maxine since 1968, both were born in 1948. This October would have been 53 years of marriage. Both loved riding motorcycles, first a Harley then a BMW road bike. Both loved camping in Oregon, California, Nevada and even Death Valley.

He always enjoyed electronics, trouble shooting, maintenance, welding, building and MacGyvering things. He updated many home projects. Also built a pond in the backyard 20 years ago and that is still stocked with several generations of gold fishes, turtles and frogs.

Terry was very involved with his spiritual life since 1973. He used his many talents to benefit the congregation. He helped his Friends in so many ways.

California COVID-19 Vaccines

The California COVID-19 Vaccine age requirements have been relaxed such that everybody age 16 and up may now qualify to receive the COVID-19 vaccination shot.

Please visit web site <https://myturn.ca.gov/> to schedule a vaccination shot at one of the multiple sites that are close by your home/office and are taking and scheduling appointments.

As of 5/24/2021, 49.2% of people in California have been fully vaccinated ((<https://covid19.ca.gov/vaccination-progress-data/>). The nation (USA) as a whole currently has a 39.6% full vaccination rate.

Fully vaccination population percentage in other countries

- <https://covid19.ca.gov/vaccination-progress-data/>
- <https://www.nytimes.com/interactive/2021/world/covid-vaccinations-tracker.html>
- <https://time.com/5956371/olympics-covid-vaccinations-japan/>
- <https://www.dw.com/en/covid-19-why-is-chinas-vaccination-rate-so-low/a-57183859>

Australia: 14%	France: 15%	Italy: 17%	Spain 17%
Canada 4.4%	Germany 14%	Japan 2.1%	South Korea: 3.4%
Chile: 41%	Ireland: 10.0%	Mexico: 9.3%	UK: 34%
China: ???	Israel: 57%	Russia:7.7%	India: 1.9%

Tech Article Introduction:

This month's tech article contains a breakthrough in semiconductor technology that continues to push along the limits of Gordon Moore's Law that states "the number of transistors per silicon chip doubles every year".

Please read the latest press release from IBM in the Tech Article Section of this newsletter.

Chat sub s'em to all you CARC members! - George W6BUR.

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) was organized by the San Francisco Office of Emergency Services (OES) following the 1989 Loma Prieta Earthquake to support the communications needs of the City and County of San Francisco when responding to emergencies and special events.

The Auxiliary Communications Service holds General Meetings on the third Tuesday of each month at the San Francisco Emergency Operations Center, 1011 Turk Street (between Gough Street and Laguna Street), from 1900 hours to 2100 hours local time. All interested persons are welcome to attend.

The ACS Net begins at 1930 hours (7:30 p.m.) 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 should perform Net Control duty on a regular basis. On the second Thursday of each month, the net will be conducted on the output frequency of the WA6GG repeater, 442.050 MHz no offset, tone 127.3 Hz, simplex.

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

Upcoming meetings: TBD

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

<http://sf-fire.org/calendar-special-events>

+ TBD

Spring into Readiness!

This Virtual Drill will take place from 9am-12pm with virtual skill rotations and words from some special guests!

Invitation and sign-up coming next week!

+ Recertifications - Coming Soon!

Now that San Francisco has entered the Red Tier for COVID-19 Transmission (see <https://covid19.ca.gov/safer-economy/#county-status> for more details), we are working to schedule recertification trainings for NERTs who were current as of

December 2019 or later. Stay tuned for details and times over the next month!
(At this time, all class 5&6 recerts will take place outdoors only, at the SFFD Division of Training at 19th St & Folsom St in the Mission.)

***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

#028 Saturday 08/21/2021 9 AM – 1 PM via ZOOM

#029 Saturday 11/06/2021 6pm -10 pm via ZOOM (Night Exercise)

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



IBM Unveils World's First 2 Nanometer Chip Technology, Opening a New Frontier for Semiconductors

New chip milestone to propel major leaps forward in performance and energy efficiency

https://newsroom.ibm.com/2021-05-06-IBM-Unveils-Worlds-First-2-Nanometer-Chip-Technology,-Opening-a-New-Frontier-for-Semiconductors#assets_all

ALBANY, N.Y., May 6, 2021 /[PRNewswire](#)/ -- IBM (NYSE: [IBM](#)) today unveiled a breakthrough in semiconductor design and process with the development of the world's first chip announced with 2 nanometer (nm) nanosheet technology. Semiconductors play critical roles in everything from computing, to appliances, to communication devices, transportation systems, and critical infrastructure.

Demand for increased chip performance and energy efficiency continues to rise, especially in the era of hybrid cloud, AI, and the Internet of Things. IBM's new 2 nm chip technology helps advance the state-of-the-art in the semiconductor industry, addressing this growing demand. It is projected to achieve 45 percent higher performance, or 75 percent lower energy use, than today's most advanced 7 nm node chipsⁱ.

The potential benefits of these advanced 2 nm chips could include:

- **Quadrupling cell phone battery life**, only requiring users to charge their devices every four daysⁱⁱ.
- **Slashing the carbon footprint of data centers**, which account for one percent of global energy useⁱⁱⁱ. Changing all of their servers to 2 nm-based processors could potentially reduce that number significantly.
- **Drastically speeding up a laptop's functions**, ranging from quicker processing in applications, to assisting in language translation more easily, to faster internet access.
- **Contributing to faster object detection** and reaction time in autonomous vehicles like self-driving cars.

"The IBM innovation reflected in this new 2 nm chip is essential to the entire semiconductor and IT industry," said Darío Gil, SVP and Director of IBM Research. "It is the product of IBM's approach of taking on hard tech challenges and a demonstration of how breakthroughs can result from sustained investments and a collaborative R&D ecosystem approach."

IBM at the forefront of semiconductor innovation

This latest breakthrough builds on decades of IBM leadership in semiconductor innovation. The company's semiconductor development efforts are based at its research lab located at the Albany Nanotech Complex in Albany, NY, where IBM scientists work in close collaboration with public and private sector partners to push the boundaries of logic scaling and semiconductor capabilities.

This collaborative approach to innovation makes IBM Research Albany a world-leading ecosystem for semiconductor research and creates a strong innovation pipeline, helping to address manufacturing demands and accelerate the growth of the global chip industry.

IBM's legacy of semiconductor breakthroughs also includes the first implementation of 7 nm and 5 nm process technologies, single cell DRAM, the Dennard Scaling Laws, chemically amplified photoresists, copper interconnect wiring, Silicon on Insulator technology, multi core microprocessors, High-k gate dielectrics, embedded DRAM, and 3D chip stacking. IBM's first commercialized offering including IBM Research 7 nm advancements will [debut later this year in IBM POWER10](#)-based IBM Power Systems.

50 billion transistors on a fingernail-sized chip

Increasing the number of transistors per chip can make them smaller, faster, more reliable, and more efficient. The 2 nm design demonstrates the advanced scaling of semiconductors using IBM's [nanosheet technology](#). Its architecture is an industry first. Developed less than four years after IBM announced its milestone 5 nm design, this latest breakthrough will allow the 2 nm chip to fit up to 50 billion transistors on a chip the size of a fingernail.

More transistors on a chip also means processor designers have more options to infuse core-level innovations to improve capabilities for leading edge workloads like AI and cloud computing, as well as new pathways for hardware-enforced security and encryption. IBM is already implementing other innovative core-level enhancements in the latest generations of IBM hardware, like IBM POWER10 and IBM z15.

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ⁱ Based on the projected industry standard scaling roadmap

ⁱⁱ Based on current usage statistics for 7 nm-based cell phones

ⁱⁱⁱ <https://science.sciencemag.org/content/367/6481/984>