

Cathay August 2020

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, 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.

QSO Today Virtual Ham Expo August 8-9, 2020 Announcement



For Immediate Release: July 20, 2020
QSO Today Virtual Ham Expo
Tel: +1-213-577-0092
brad.grob@qsotoday.com

11,000+ Early Registrations For QSO Today Virtual Ham Expo!

Los Angeles, CA: QSO Today host Eric Guth, 4Z1UG, announced that the first QSO Today Virtual Ham Expo scheduled for August 8-9, 2020 has already registered over 11,000 hams.

“Since the Expo is a completely new experience for the ham radio community, it’s great that so many people are excited and already registered. And with almost 3 weeks before the event, the number of registrants continues to increase significantly every day”, said Eric, 4Z1UG.

**ARRL
Sanctioned
Hamfest**



For more information, go to www.qsotodayhamexpo.com. Attendance is

free and there are early bird prize incentives (donated by sponsors) for registering by July 24, 2020.

This Expo is built on a live virtual platform commonly used by Fortune 500 companies and major universities. It’s much more than just a Zoom meeting – the platform simulates a convention experience with an exhibit hall and booths staffed by live attendants, speaker auditorium, and lobby.

Anybody can attend virtually with an internet connection and computer, tablet, or smartphone.

At the Expo, participants can take advantage of this technology in different ways.

- There are 4 different speaker tracks on a variety of topics with plenty of great content for everyone. Speakers will present via video and have prepared excellent, engaging presentations. Speakers can also provide related material such as slides and white papers which attendees can download.
- Every session will have a Q&A where people can submit questions in real time via chat and then speakers will answer those questions using video or audio. There are 30+ booths for attendees to visit. Exhibitors have many options to

engage with attendees. For example, Elecraft has created professional video demonstrations of their latest transceivers. Each booth can provide downloadable content including videos, spec sheets, and manuals.

- Content can be saved by attendees in a virtual briefcase for reading later or emailing to a friend. Attendees can easily interact one-on-one with booth representatives via video, voice, or text chat using a system similar to Skype. While most booths will be staff during from 8:00 AM to 6:00 PM PST on August 8 and 9, some Exhibitors will extend hours through their overseas reps.
- The Expo organizers will attempt to integrate radio with the virtual platform by having DMR, Allstar, D-Star, and other talk groups available for hams to meet on the air around the Expo.

Said Eric, 4Z1UG, “the experience of a virtual Expo is not meant to replace in-person conventions. However, I strongly believe that virtual events in our industry are here to stay permanently. Given COVID-19 and its likely lasting impact on travel, especially given our demographic, this virtual Expo enables the ham community to continue coming together to learn and engage. It also provides an opportunity for those who have never been to an in-person event to participate in this amazing experience. Younger hams who have grown up with the Internet will feel right at home with our platform, making it easier for them to participate and find their place in this remarkable hobby.”

Attendees will be able to access all speaker presentations and Exhibitor booth content for 30 days after the Expo by simply returning to the Expo site.

Icom is the Expo’s Platinum Sponsor, along with Gold Sponsors: GigaParts, RT Systems, FlexRadio, RFinder, DX Engineering, Elecraft, RigExpert, and NCG (Comet Antenna).

Coming to your laptop, tablet, and smartphone on: August 8 and 9, 2020

Event	Zulu (GMT)	Pacific	Eastern
Expo Opens	8/8/2020 0:45:00	8/7/2020 17:45:00	8/7/2020 20:45:00
Keynote Address	8/8/2020 1:00:00	8/7/2020 18:00:00	8/7/2020 21:00:00
Saturday Speakers Begin	8/8/2020 15:00:00	8/8/2020 8:00:00	8/8/2020 11:00:00
Sunday Speakers Begin	8/9/2020 15:00:00	8/9/2020 8:00:00	8/9/2020 11:00:00
Live Expo Ends	8/10/2020 0:45:00	8/9/2020 17:45:00	8/9/2020 20:45:00
On-Demand Expo Begins	8/10/2020 1:00:00	8/9/2020 18:00:00	8/9/2020 21:00:00
On-Demand Expo Ends	9/9/2020 0:45:00	9/8/2020 17:45:00	9/8/2020 20:45:00

Register by July 24, 2020 to receive early bird prize incentives!

For more information and to register, go to www.qsotodayhamexpo.com. Attendance is free and there are early bird prize incentives for registering by July 24, 2020.

QSO Today Virtual Ham Radio Expo, KEG Media, Inc., 4470 W Sunset Blvd #92485, Los Angeles, CA 90027, USA, +1-213-577-0091

Pacificon October 16-18, 2020 Event - COVID-19 Announcement

Since the COVID-19 pandemic began in March, the Mt. Diablo Amateur Radio Club has been monitoring events, hoping that the pandemic would come under control in time for Pacificon to proceed unaltered. But it is not to be. After full consideration, we simply could not find a practical scenario that would bring all the many factors together to produce a successful Pacificon this year. The government restrictions on travel and large group gatherings, continuing level of infections occurring in the pandemic, and the increased level of risk by a substantial portion of our attendees are just a few of the factors we considered.

So with considerable regret, Pacificon 2020 will not be held as an in-person event.

Although we're very disappointed, we intend to focus our plans on making Pacificon 2021 the best ham radio convention in the western U.S. We look forward to seeing all of you in person at the San Ramon Marriott Hotel, Oct. 15-17, 2021.

All is not lost for this year, however. The Pacificon Committee is investigating the possibility of having a virtual convention, on-line. No details yet, but we hope to make some announcements next month. Please keep checking our web site at www.pacificon.org; or send us an email with any questions to info@pacificon.org.

Thank you for your understanding. 06/25/2020

Please see our [Announcements page](#) for prior notes.

Ham Tech Intro

There is much concern about N95 mask and reuse. Please see the full the Ham Tech Section for more information.

Additional Thoughts



I wanted to share with you my lament at the recent loss of another San Francisco hidden gem of a restaurant, “The House”.

It was in business for 26 + years and run by a dynamic and energetic Chinese American husband and wife: Larry and Angela Tse. They had to make the very difficult and emotional decision to shut down their iconic and beloved restaurant in the North Beach neighborhood due to the very restrictive restaurant operating rules resulting from the COVID-19 issued laws.

The reviews on the yelp website (<https://www.yelp.com/biz/the-house-san-francisco>) can better explain the wonderful Asian fusion style foods, incredible selection of fine wines and joyful memories that were enjoyed by the public at the “The House” restaurant located at 1230 Grant Avenue, San Francisco, CA 94133.

Yes, it was definitely one of my favorite upscale San Francisco restaurants that I will greatly miss. When I last ate at the “The House” I noticed that it filled up very, very quickly with patrons that enjoyed the finer things in life. It actually served good size honest portions of delicious food that would be hard to replicate or find anywhere in the Bay Area. You did not walk out of there feeling both still hungry and short changed!

Down the road, one can only hope both Larry and Angela Tse will choose to reestablish a new restaurant after this COVID-19 Pandemic is completely brought under control by an effective vaccine.

A promising COVID-19 vaccine by the Oxford Vaccine Group is currently undergoing drug trials and expected to be available as early as January 2021. According to the June 16, 2020 Forbes article: Globally, there are more than 100 vaccines under development — with nine of them in human clinical trials already, asserts equity analyst Sel Hardy, in CFRA Research's flagship newsletter, The Outlook.

In the meantime; we will all have to help protect each other by continuing to wear masks and practice social distancing.

Our best wishes to both Larry and Angela Tse during these very difficult times that we are all going through.

Rodney Yee – KJ6DZI

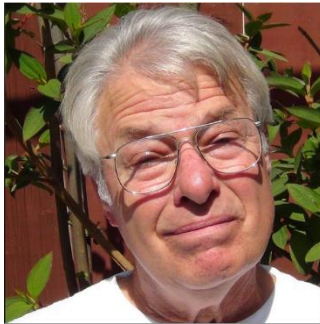


The CARC July 2020 newsletter contained a Silent Key memorial to our recently departed and distinguished CARC member; Bill .Chin - KC6POF, August 19, 1949 – June 22, 2020. Bill's family were completely devastated at the unexpected and sudden passing of Bill and chose to have a private funeral service.

The family recognizes that there is an out pouring of affection for Bill by folks that knew him. Those wishing to express their condolences are encouraged to send cards to Bill's family.

Please send those sympathy cards to Bill's address: 43 Norwood Ave, Daly City, CA 94015. Donations in his name can also be sent to the First Chinese Baptist Church, 15 Waverly Place, San Francisco, CA 94108.

Both Bill and his wife Flo worshipped for many years at the First Chinese Baptist Church located in the heart of San Francisco Chinatown and where he grew up. Bill never forgot his roots and sought to provide community service to his beloved San Francisco Chinatown by his active memberships with the First Chinese Baptist Church and the NICOS Chinatown Disaster Preparedness Committee,



On a personal note, I wish to send our prayers for our CARC NET Controller member Terry Arnall WB6TA , who is gravely ill.

For many years, Terry has been one of our key Cathay Radio Net Controller that we have come to rely upon every third Monday.

Terry is a retired Plant Maintenance Mechanic at SD-1 at East Bay Municipal Utility District (EBMUD). He recently gave up his CARC Net Controller role due to his illness

I wish to thank all of our CARC members especially our dedicated Net controllers that set aside their valuable time to participate in our Monday night's nets.

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 Pending COVID-19 Updates

Gilbert Gin (KJ6HKD)

Free Disaster Preparedness Classes In Oakland:
<http://www.oaklandnet.com/fire/core/index2.html>

CORE is a free training program for individuals, neighborhood groups and community-based organizations in Oakland. The underlying premise is that a major disaster will overwhelm first responders, leaving many citizens on their own for the first 72 hours or longer after the emergency.

If you have questions about the recertification process, you may contact the CORE Coordinator at 510-238-6351 or core@oaklandnet.com.

SFPD ALERT Practice/Training Drill

All active/trained ALERT members are asked to join us for our next training drill, scheduled for on **TBD** from 9 AM – 1pm. Details will be emailed to active ALERT members, prior to the date of the exercise. Participation is not required, but strongly encouraged.

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

The CARC is very grateful to the Sage Organization: SAGES Webmaster <sagesweb@sages.org> for granting permission on reprinting their following article.



N95 Mask Re-Use Strategies

April 17, 2020 by [SAGES Webmaster](#)

<https://www.sages.org/n-95-re-use-instructions/>

This document was updated and re-released April 17, 2020. This content supersedes the previous versions.

Did you find this information helpful?

Please consider joining [SAGES](#) or [making a donation to the SAGES Education and Research Foundation](#) so we can continue to bring content like this to the surgical community for free.

Personal protective equipment (PPE) shortages during the COVID-19 pandemic have precipitated a wave of creative solutions for repurposing of N95 masks. A growing influx of new information can make it difficult to discern best practices for mask re-use. Below we provide resources and tips on this topic. This page will be updated regularly as new information comes in.

Note that based on manufacturer recommendations, N95 masks are designed for one-time use. The CDC and NIOSH do not formally recommend decontamination and re-use of N95 masks, but acknowledge that in times of scarcity, the strategies below are options that can be considered based on individual clinical judgment and the institutional resources available.^[1]

How do N95 masks work?

The filtration media contained in the N95 is designed to capture at least 95% of particles measuring a median of 0.3 Åµm. Even though viral particles are a few orders of magnitude smaller than this, nanoparticles mainly travel by Brownian motion and are effectively captured within the N95 filter via mechanical and electrostatic forces.[2] The

outer mask material is typically hydrophobic polypropylene. Importantly, extended use, re-use, or re-processing of masks all affect the filtration capacity of the mask.

What are my options for extending the life of my N95 mask?

It is important to differentiate between extended use, re-use, and mask re-processing.

Extended use

The [CDC](#) reports that prolonged N95 mask use (including between patients) can be safe for up to 8 hours, and encourages each user to review each manufacturer's recommendations prior to following this strategy. Current guidelines encourage wearing a face shield over the N95 to decrease the chances of soiling the mask.

Re-use

Because coronaviruses lose their viability significantly after 72 hours^{[3],[4]}, many organizations have promoted a rotation and re-use strategy. Assuming there is no soiling and minimal to no viral contamination to the mask, the CDC suggests that masks can be re-used up to 5 times with the following strategy:

Mask Rotation

Acquire a set number of N95 masks (at least 5 per the CDC), and rotate their use each day, allowing them to dry for long enough that the virus is no longer viable (> 72 hours). Proper storage for this technique requires either hanging the respirators to dry, or keeping them in a clean, breathable container like a paper bag between uses. Make sure the masks do not touch each other, and that you do not share your respirator with other people. A [user seal check](#) should be performed before each use.

Importantly, when planning to reuse an N-95 mask, *practice fastidious donning/doffing to avoid contamination of the inside or outside of the mask at all times* (see below methods for donning and doffing). If the mask is damaged or significantly contaminated from aerosol-generating procedures or bodily fluids, the CDC recommends discarding it.

Reprocessing/Decontamination

Mask decontamination strategies are actively being investigated by the [CDC](#), [mask companies](#), and [large academic/industry collaboratives](#). General principles of re-processing include:

1. The method must sufficiently inactivate the viral load on the mask.
2. The mask cannot be soiled (bodily fluids, makeup[a]).
3. The filtration capacity and electrostatic charge must be preserved as much as possible.

4. The fit of the mask cannot be compromised.

Most studies on N95 decontamination were performed with flu virus or bacterial spores and cautious extrapolation to the current pandemic is being exercised. Fortunately, recent publications have started to test SARS-CoV-2 specifically, and have found [promising results](#).

Below is a brief summary of the decontamination methods supported by current data. Due to the rapid nature of this research, some publications are not yet peer-reviewed. Additionally, note that there are many [versions](#) of N95 masks, with different strap materials and shapes. Thus, one method may work well for one mask type, and not for another.

Hydrogen Peroxide Vaporization

Hydrogen peroxide vapor (HPV) decontamination has been shown in pilot studies to allow multiple cycles of N95 processing with acceptable preservation of function.^[5] It is now approved by the FDA as an emergency method for N95 decontamination for healthcare personnel during the COVID-19 pandemic.^[6] This method of decontamination can only be used on N95 models that do not contain cellulose, such as the 1860. It is being utilized in industrial facilities such as [Battelle](#) (up to 20 cycles) as well as individual hospitals via [Sterrad](#) (up to 2 cycles) or [Steris](#) equipment (up to 10 cycles).

UV treatment

Proper UV treatment of N95 masks requires specific dosing protocols and full surface area illumination to ensure proper inactivation of viral particles with minimal mask degradation.^[7] Due to the precision required, home UV light use is not recommended. This method of decontamination has been implemented by some hospital systems in the United States.^{[8],[9]}

Moist Heat

Moist heat (heating at 60-70°C and 80-85% relative humidity) has been shown to be effective for flu viruses, but there is limited data on the temperature, humidity, and time required to completely inactivate SARS-COV-2 viral particles. Moreover, the parameters required to kill the virus may adversely affect filtration efficacy of the mask. Due to the dearth of specific data on a protocol to achieve both aims, this method is not currently recommended.^[10]

Dry Heat

Dry heating of the mask at 70°C for 30 minutes has been suggested as a method of decontamination which can adequately kill virus and preserve the filter integrity for re-use.^{[11], [12]} Recent tests at the NIH utilizing SARS-CoV-2 specifically indicated that this

method can be used for two cycles to kill the virus without compromising fit.^[13] Research efforts are ongoing to determine optimal parameters (temperature and duration), and this is not yet recommended by the CDC.

[Please also see our COVID-19 Medical Device Repository for more information on N95 Facepiece Respirator Decontamination Systems.](#)

My hospital only provides one N95 at a time and I cannot utilize the rotation or decontamination strategies. What are my options?

If your hospital has one-day turnaround capability for the above strategies, this is a potential option. Otherwise, unfortunately there are no at-home strategies recommended by the CDC. The best method is to follow meticulous donning and doffing to avoid touching the inside or outside of the mask, and to prevent soilage. If new methods become available, this section will be updated.

What methods are pending/promising?

The [CDC](#) lists a few methods undergoing investigation that may eventually become viable:

- *Steam*
- *Liquid Hydrogen Peroxide*

Which methods are NOT approved?

- *Bleach*
- *Alcohol*
- *Baking*
- *Boiling*
- *Ethylene oxide* - May be toxic to the wearer
- *Microwave* - At-home microwaving is not recommended because of variable power settings, and metal portions of the masks may catch fire.
- *Sanitizing wipes*
- *Soapy Water*

Are there alternatives to N95 Masks?

The CDC recently allowed use of particular non-NIOSH masks from other countries. The approved list is [here](#).

Certain hospital systems have created masks from available hospital materials. These are listed here for informational purposes only, but are not endorsed by the FDA:

- [Reusable Elastomeric Respirator](#)
- [Halyard Masks](#)

Home-made or fashion-industry N95-like masks made from materials such as HEPA filters or fabric are unproven and have potential hazards (HEPA filters may expose the user to fiberglass), and are not recommended at this time.

How do I spot a counterfeit?

The NIOSH has an [approved list of N95 vendors](#) that is regularly updated. Check to see if your mask is on this list. The manufacturer of the mask should have certifications readily available for you to view. In addition, there are telltale [signs of counterfeits](#) listed on the NIOSH website. Do not use a non-NIOSH mask unless you have ensured it is authentic.

My hospital is no longer doing fit testing, or no longer carries the mask I was originally fitted for. Do I have options for performing a seal check at home?

The CDC does not consider a user seal check an adequate substitute for a fit test.^[14]

If you have to wear a new type of N95 mask, a formal fit test is recommended. To ensure that your mask continues to have an adequate seal with repeat uses, the CDC and OSHA recommend performing a [user seal check](#) each time the mask is re-used.

Additional Tips

The University of Nebraska has a compilation of [PPE protocols](#) available to healthcare personnel that are based on their extensive experience as a National Ebola Training and Education center.

Other problems encountered on the ground include:

- Facial hair is an important consideration when it comes to mask fit. The CDC has [recommendations](#) for acceptable configurations. For people who still cannot achieve an adequate seal with an N95, half-face masks or powered air purifying respirators (PAPR) are the next options.^[15]
- There are various online videos with methods of donning and doffing that help to minimize contact to the front of the mask. Here is a representative example: <https://www.youtube.com/watch?v=EhxpJFDHAel>

Summary

There is no definitive best practice for N95 re-use and re-processing. These methods are options for times of crisis and should not be used routinely if mask supply is sufficient. Based on the resources available at each institution, the optimal strategy for each person or institution will vary.

References

[a] Residue on the mask may adversely affect the integrity of the material after re-processing. It is recommended that foundation, sunscreen, or other forms of make-up not be worn underneath.

[1] <https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html>

[2] <https://multimedia.3m.com/mws/media/376179O/nanotechnology-and-respirator-use.pdf>

[3] van Doremalen N, Bushmaker T, Morris DH, et al. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1 [published online ahead of print, 2020 Mar 17]. *N Engl J Med*. 2020;10.1056/NEJMc2004973. doi:10.1056/NEJMc2004973

[4] <https://www.facs.org/covid-19/ppe/additional>

[5] <https://www.fda.gov/emergency-preparedness-and-response/mcm-regulatory-science/investigating-decontamination-and-reuse-respirators-public-health-emergencies>

[6] <https://www.fda.gov/media/136529/download>

[7] <https://www.n95decon.org/uvc>

[8] <https://www.nebraskamed.com/sites/default/files/documents/covid-19/n-95-decon-process.pdf>

[9] <https://www.wbur.org/commonhealth/2020/03/27/umass-memorial-disinfects-masks-ultraviolet-light>

[10] <https://www.n95decon.org/heat>

[11] <https://utr.tennessee.edu/information-faqs-performance-protection-sterilization-of-masks-against-covid-19/>

[12] https://news.stonybrook.edu/sb_medicine/dry-heat-ovens-can-effectively-disinfect-n95-masks

[13] <https://www.medrxiv.org/content/10.1101/2020.04.11.20062018v1>

[14] <https://www.cdc.gov/niosh/docs/2018-130/pdfs/2018-130.pdf?id=10.26616/NIOSH PUB2018130>

[15] <https://www.osha.gov/Publications/OSHA3990.pdf>