April 2025

Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Inside this issue:

Next OCRACES Meeting

Monday, April 7, 2025, 7:30 p.m., at Loma Ridge

Training on 800 MHz Portable Radios

Orange County Sheriff's Department
Emergency Management Division

CRO's Nest

by Ken Bourne, W6HK, OCRACES Chief Radio Officer

Surge/Noise/Ground-Loop Protection for USB Devices

I'll bet most of us have not provided surge protection on a cable between our transceiver and a computer. But it might be a good idea. Consider using a USB isolator, which is an inline device that provides surge protection between two devices with USB ports, such as a transceiver and a computer. It also protects against noise and ground-loop errors.

Lightning pulses or voltage pulses from a commercial AC power main can propagate on USB interface cables between equipment. For example, a damaging surge can occur if a transceiver is connected to an antenna feedline that is not lightning protected, while a USB cable runs from the transceiver to a computer, which is connected to a commercial AC power main without a surge protector. A USB isolator would protect the transceiver from a voltage surge coming from the computer, and would protect the computer from a surge from the transceiver.

One such USB isolator is the DX Engineering DXE-ISO-USB. It is an inline solid-state device that provides surge protection between two USB 2.0 devices, such as a transceiver and a computer. It is a passive device that requires no power. It has two ports, one USB A and one USB B.

A ham's existing cable for connecting the transceiver to the computer would run from one of those devices to the USB isolator. The DXE-ISO-USB is supplied with a 19.7-inch cable to connect from the isolator to the ham's other device.

DX Engineering USB isolator DXE-ISO-USB.

The maximum USB 2.0 speed of the DXE-ISO-USB is 480 Mb/s. This supports RS-232 COM port data speeds greater than the fastest 115,200 b/s baud rate selection found in most USB capable equipment. However, the DXE-ISO-USB does not support USB C Gb/s data speeds, and it does not pass sufficient DC current for charging or powering a device. Maximum current is 100 mA. It cannot be used for data-storage devices and is not to be used for charging.

Other less-expensive USB isolators are available. But claimed USB 2.0 speed should be verified. For example, CableMAX CM-M4-160-ISO specifications at https://cablemax.com/cm-m4160-iso state full data speed is 12 Mb/s, whereas the listing on Amazon claims 480 Mb/s. Some USB isolators are USB 3.0 compatible but may not provide adequate surge protection.

USB isolators are available in various applications, supporting different USB speeds and isolation voltages. ✸

Next OCRACES Meeting: April 7th at OC EOC

RACES Members to Receive Public-Safety 800-MHz Portable Radio Training

Long-time OCRACES members recall that occasionally we use 800-MHz radios to support a RACES activation. At the April 7, 2025 OCRACES meeting at Loma Ridge, members will be provided training on the operation of the Motorola APX public-safety radio, as well as protocols and procedures for the radio system. Members will receive training on how to power on and off the radio, select a talkgroup or channel, how to receive and transmit, radio protocols, and various features of the radio including the emergency button. We will also learn about the various public-safety radio channels that may be used by OCRACES during an activation, including trunked talkgroups, conventional repeaters, and simplex modes of communication.

The meeting will be on Monday, April 7, 2025, at 7:30 p.m., at the Orange County EOC at Loma Ridge. Robert Stoffel, KD6DAQ, will provide the training on operating the 800-MHz portable radios. City RACES members may also attend, especially those who are with an agency that might deploy them with a Motorola APX 800-MHz radio. RACES PSRs may register for this meeting on the InTime Calendar.

Please join us at the April 7th OCRACES meeting for this informational training session. ✸

FCC Wants Input on Rules to Delete or Amend

In a Public Notice titled "In Re: Delete, Delete, Delete," issued on March 12, 2025, the FCC is soliciting public input on any FCC rules in any service that members of the public believe should be deleted or modified "for the purpose of alleviating unnecessary regulatory burdens." This is the latest in a series of similar proceedings going back to 1996, when the Communications Act was amended to require the FCC to periodically review its rules.

ARRL The National Association for Amateur Radio®, through its Executive Committee and FCC Counsel, is conducting a review of the provisions in Part 97 and other related rules that apply to radio amateurs. ARRL is also soliciting feedback from its members. Rules identified as outmoded, obsolete, or that for other reasons should be repealed or modified, will be included in ARRL's filing to be submitted no later than the FCC deadline of April 11, 2025. The deadline for filing reply comments is April 28, 2025

It is expected that the Commission will incorporate suggestions that it decides worthy of its consideration in a future Notice of Proposed Rulemaking (NPRM) that could be issued later this year. There will then be an opportunity for public comment on the specific rules that the Commission proposes for deletion or modification. A PDF of the FCC Public Notice is available here: https://docs.fcc.gov/public/attachments/DA-25-219A1.pdf. ✸

Don't Mess with the FCC

Enforcement of the radio spectrum has taken a new twist! Are you prepared for a visit from the FCC every week? If you hear "garbage" on the ham bands, be sure to call the FCC. FCC Environmental Services also collects, treats, recycles, recovers energy, and disposes solid urban waste (such as obsolete transceivers).

FCC has evolved into one of the world's largest waste management and recycling companies, spanning over 35 countries. It has a workforce of over 60,000 employees. (Here, you thought the FCC was a federal agency serving only in the United States! Maybe DOGE should look into this!) ✸

If you hear any trash talk on the ham bands, call the FCC!

OA EOC Functional Exercise: April 30th

OCRACES will participate in the County and Operational Area EOC Functional Exercise "Off the Grid 2025" on Wednesday, April 30, 2025. City RACES and EmComm organizations are welcome and encouraged to participate as well. The normal City/County RACES & EmComm ACS drill held on the first Saturday in May will not be held this year because of the April 30th exercise.

The details of the exercise are still being finalized and instructions will be distributed by about mid-April. Winlink will be the preferred communication method due to the higher amount of message traffic it can handle. Voice messages will still be supported for those organizations without Winlink capability.

It is recommended that each city RACES and EmComm organization identify one or more Winlink operators that will act as their primary point(s) of contact for sending and receiving messages for their organization. Once your organization has identified this/these Winlink operator(s), please let Scott MacGillivray, KM6RTE, know their callsign(s). Scott's email address is csmacg45@outlook.com.

For this exercise only, the location of the operator does not need to be located near their city EOC or organization's Operations Center. The Winlink messages sent and received during this drill (only) won't need to be passed to/from their EOC or Ops Center. However, future exercises or a real-world emergency will require the ability to pass Winlink messages to/from their EOC or organization's Ops Center.

This is a great time for all Winlink operators in Orange County to check that their equipment is up-to-date and working. This includes Winlink gateway operators as well.

Exercise Objectives

The exercise plan is still in draft form, which lists the following objectives:

- Demonstrate the County's ability to coordinate situational awareness information with Operational Area partners via jurisdictional EOCs using WebEOC system and/or backup communication format.
- Determine the County EOC and OA jurisdictional EOC's ability to coordinate resource needs and prioritization with impacted jurisdictions using status boards and resource request process within the WebEOC system and/or backup form(s).
- Communicate and coordinate a plan of action to provide comprehensive life-sustaining support to individuals affected by incident, fostering inclusive and collaborative planning efforts with volunteer organizations and for donations management.
- Demonstrate the County's ability to coordinate and deliver effective, consistent, and inclusive emergency communications to impacted communities, as outlined in the County's Emergency Public Information Plan.

Overview

The draft exercise plan states that on April 30, 2025, at approximately 1:00 a.m., analysts from the Orange County Intelligence Assessment Center (OCIAC) were alerted and have been assessing a cyberattack intrusion incident. Orange County officials were notified of the incident, impacting agencies and jurisdictions within the County region. The intelligence team has identified possible cyberattack intrusion to various utility providers throughout the Orange County Areas of Responsibility (AOR). The OCIAC Cyber Branch in coordination with other Orange County Officials is engaged and evaluating relevant cyber threat intelligence for the cyberattack intrusion incident to Orange County AOR. Cyber threat intelligence including Indicators of Compromise (IOCs), Indicators of Attack (IOAs), and Cyber Threat Actors (CTA) Tactics Techniques and Procedures (TTPs) will be shared with Orange County Officials, when available.

To our knowledge, the impacts include power and gas providers. As the investigation into the overall intrusion incident is ongoing, there may be additional utility operators impacted.

Preliminary information shows portions of the County have had large areas impacted by power outages including San Juan Capistrano, San Clemente, Dana Point, and some pockets of neighboring jurisdictions—impacting over 200K communities. As San Diego Gas and Electric (SDG&E) and Southern California Edison (SCE) try to find a way to work around the cyberattack intrusion incident, jurisdictions are requesting support from the power utilities. SDG&E and SCE representatives are being sent to the OA EOC to assist with messaging and information flow. Due to the prolonged outages, intersection signals have gone dark, causing traffic delays. Residents are unable to make it to their residence, work, or schools to pick-up their kids, and electric cars will quickly run out of power and will not be functional.

Small portions of the County power have been restored since the onset of the cyberattack intrusion incident. However, there are still large swaths of the County without power at this time. Establishing Care and Reception Center or Shelters should be considered to assist those with medical devices or are unable to get to their residences.

9-1-1 Dispatchers have received numerous calls reporting impacts from residents. Emergency response efforts are being handled by public agencies throughout the County. Officials notified the OA EOC and requested activation to support incident response.

As of 1:15 am, the Director of Emergency Services has made a request to the County Emergency Manager to activate the County and Operational Area EOC to its highest level to support response efforts due to the cyberattack intrusion incident.

DX Convention in Visalia: April 11-13

While most RACES members probably list emergency communications as their primary amateur radio focus, many are involved in other aspects of ham radio as well, such as RF experimenting, computer control of their stations, and chasing DX (working stations in foreign countries). If you like chasing DX, consider joining DX enthusiasts from around the world as they gather for the 76th International DX Convention in Visalia, California. The popular event runs April 11-13, 2025. This ARRL convention will feature several days of exciting programming, forums, and seminars. It is sponsored by the Northern California DX Club.

On Friday, April 11, a full-day track of the Next Generation DXing Program will feature the latest in how DXpedition leaders are planning missions, using innovative technologies like Radio In a Box (RIB), providing data links in extreme and remote conditions, and building teams to deliver incredible numbers of contacts with hams around the world.

ARRL representatives will be on hand for the event, and to document some of the seminars on video for the ARRLHQ YouTube channel and the ARRL Learning Center. ARRL Southwestern Division Vice Director Ned Stearns, AA7A, is among the co-chairs who have organized the convention. There will be on-site DXCC card checking. An exhibit hall will let attendees visit with manufacturers and retailers of amateur radio gear. Other exciting learning opportunities include a Contest Academy and DX Academy.

More information about the event, including registration and accommodations, can be found at https://dxconvention.com. Preregistration rates are valid until April 3, 2025. ✸

Tsunami Exercise Conducted in Puerto Rico

Earthquakes and tsunamis are a possibility in Orange County, and we might gather some information on emergency communications procedures to use in such an event by observing how amateur radio operators in Puerto Rico participated in the Caribe Wave 2025 Tsunami exercise on March 20, 2025.

The event is an annual tsunami exercise of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS) of the Oceanographic Commission (IOC) of the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The exercise is designed to validate and advance tsunami preparedness efforts in the Caribbean and adjacent regions. The National Oceanic and Atmospheric Administration (NOAA) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) International Tsunami Information Center (CTIC) served as exercise coordinators.

A CARIBE EWS CARIBE WAVE task team is responsible for the overall conduct of the exercise. The NOAA/UNESCO IOC International Tsunami Information Center Caribbean Office (ITIC-CAR) serves as exercise coordinator with the Caribbean Tsunami Information Center (CTIC). Regional emergency management stakeholders (CEPREDENAC [Coordination Centre for the Prevention of Natural Disasters in Central America], CDEMA [Caribbean Disaster Emergency Management Agency], and EMIZA [French Inter-Ministerial for the Antilles Estate Major Zone]) also contribute to the successful conduct of the exercise.

In Puerto Rico, the exercise was coordinated by the Puerto Rico Seismic Network (PRSN) in conjunction with NOAA and the Puerto Rico Emergency Management Bureau (PREMB). Prior to the event, a meeting was held between PRSN representatives, ARRL Section Emergency Coordinator Emmanuel Cruz, NP4D, and regional emergency coordinators to delineate a plan to disseminate all messages directly by PRSN personnel to the local amateur radio packet BBS systems and then retransmit them via voice on all radio services including GMRS, FRS, MURS, CB, and amateur radio.

The scenario chosen for Caribe Wave 2025 was a tsunami generated by a magnitude 8.5 earthquake located approximately 168 miles off the coast of Portugal, with the expected tsunami wave arriving 8 hours later. The exercise started at 11 a.m. EST with an alert on radio and TV stations made by the Emergency Alert System (EAS). Some cellphone companies also sent the tsunami alert, and all systems stated very clearly that it was a test.

As the PRSN began to receive the tsunami alert bulletins, sent thru the KP4NTS and KP4DOG packet nodes, the information was sent to different coordinated amateur radio frequencies for emergency events on VHF, 40 meters, and 5403.5 MHz island-wide. ARRL Puerto Rico Section Manager Carmen Greene, KP4QVQ, was stationed at the Zone 5 PREMB office in Mayagüez to follow how the bulletins were sent thru various amateur radio outlets. The exercise for the amateur radio part concluded at 1 p.m.

Siren systems were also tested, evacuation drills were practiced on coastal cities, and some amateur radio groups formed special nets to gather information on how they received the advisory alert. ✸

Using what3words for Locations

by Scott MacGillivray, KM6RTE

If you haven't already heard of, or are familiar with, the location application called "what3words," I highly recommend installing and using it.

What3words (https://what3words.com/) is a geocode system designed to identify any location on the surface of Earth with a resolution of approximately 3 meters (9.8 ft). They have divided the world into 3-meter squares and gave each square a unique combination of three words. It's an easy way to find and share exact locations.

It is used by many organizations and families to help share detailed locations. Here are some examples of how it can be used:

- Paramedic trying to find a person in a remote area of a county park (///recycler.tile.superb)
- Coordinating family members where to meet within a large entertainment venue (/// nutrients.tabloid.arrow)
- A good place to meet up at Irvine Regional Park for a hike (/// mornings.annoying.sneezed)
- Exchange point during Baker to Vegas race in the middle of nowhere, in the middle of the night [i.e., no landmarks, no light] (/// melon.sunsets.acclaim)
- There are hundreds of other uses…

The app is free and can be downloaded from the Google Play store or Apple App Store.

In support of our upcoming countywide OCRACES drill on April 30, 2025, we will be requesting participants report their location using what3words. This will make it much, much easier for us to record your location quickly during hectic net operations. In addition, it provides the ability to compile the reports into a GIS (Geographic Information System) database to quickly generate a map of key situational data (is your power on or off?) in the county.

For our upcoming drill "Off the Grid 2025", the scenario involves electrical power unavailable in portions of the county, as well as most communications systems (e.g., cellphones, internet). The situation reports received by OCRACES at Loma Ridge that include your what3words location will provide a very helpful way of determining where the power is out. ✸

Download the FEMA App to Check Disasters

The FEMA app is your personalized disaster resource, so you feel empowered and ready to take charge of any disaster life throws your way.

PLAN: Learn how to prepare for common hazards quickly and easily.

Whether you're experienced or just starting out, the FEMA app can help you learn basic preparedness strategies like how to create a family emergency communication plan, what to pack in your emergency kit, and what to do right after a disaster.

PROTECT: Knowing when and how to protect yourself, your loved ones, and your property during a disaster can make all the difference.

With the FEMA app, you can receive real-time weather and emergency alerts from the National Weather Service for up to five locations nationwide. It can also help you find a nearby shelter if you need to evacuate to a safe space.

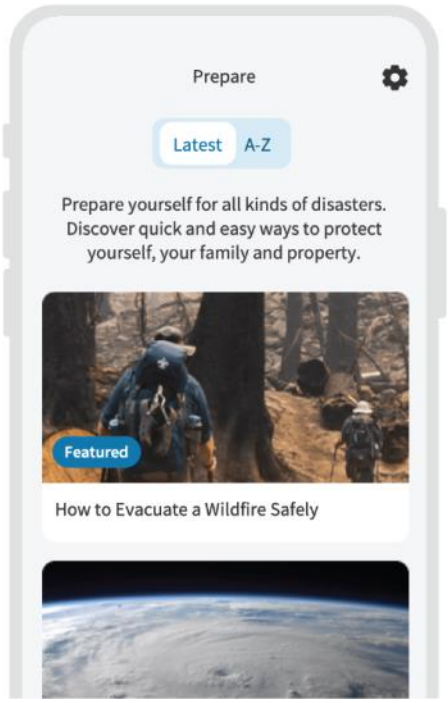
RECOVER: The FEMA App gives you the tools you need to recover after a disaster.

Find out if your location is eligible for FEMA assistance, find Disaster Recovery Center locations, and get answers to your most pressing questions. Instantly connect with FEMA's disaster resources so you find the help that you need when you need it most.

INCLUSIVE DESIGN: An app for everyone.

The FEMA app is compatible with screen reader technology (Voice Over / TalkBack). The app follows federal accessibility requirements and also includes inclusive design principles such as consistent user interfaces, plain language and ALT text descriptions. To ensure the best screen reader experience, we recommend using iOS 11.0 and later and Android 5.0 and later.

✸



The FEMA app is free and available for both Android and iOS. You can download on Google Play and on the Apple App Store.

Countywide RACES/EmComm News

"RACES/ EmComm News" provides an opportunity to share information from all City & County RACES/ACS units and EmComm organizations and supportive amateur radio clubs in and near Orange County, as well as from Cal OES and federal agencies.

Please send your news to *NetControl* Editor Ken Bourne, W6HK, at:

kbourne.ocsd@earthlink.net

Orange County Sheriff's Department Lake Forest Police Services

Devon Baughman, who is the Admin Deputy for Lake Forest, has advised that planning has started for the annual Lake Forest 4th of July Parade & 5K Run event. The event is up on InTime for sworn Reserves and PSRs to sign up. Almost every OCSD Contract City hosts some sort of 4th of July event and requests help from the Reserves, but this is a morning event which runs from 0400 t0 1400 hours. (They are usually done by 1300 hours.)

If you have any questions, email Devon at dbaughman@ocsheriff.gov or call his cell phone at (714) 398-0303. At this point, it is unknown if OCRACES will be activated to provide auxiliary communications for this event. Nevertheless, RACES PSRs may still sign up on InTime for possible other assignments.

ARRL San Joaquin Valley Section

The ARRL San Joaquin Valley Section (SJV) conducted "Perfect Storm," an amateur radio emergency exercise, on March 5-7, 2025.

Section Emergency Coordinator (SEC) Dan Sohn, WL7COO, asked that a section-wide exercise be created that would engage both amateur radio operators and non-amateurs to become more active in their community's emergency preparedness and response capabilities.

There were 120 participants from 9 counties within the SJV Section, including Calaveras, Fresno, Kern, Madera, Mariposa, Merced, Stanislaus, Tulare, and Tuolumne, and two counties outside the section, Los Angeles and San Diego.

Both amateurs and participants equipped with General Mobile Radio Service (GMRS) radios gathered local situational awareness data. The exercise culminated with a two-hour period during which local groups forwarded their data to a mock Incident Command Post. At the same time, leaders of the groups were asked to participate in a live "hot wash" on Zoom, where the results were reviewed, and errors could be corrected in real time.

SJV Section Manager Steven Hendricks, KK6JTB, said the Perfect Storm exceeded expectations and SEC Sohn reported the exercise was a resounding success.

"We wanted to engage many different organizations and especially young hams," said Hendricks. "It's important to tap into their excitement and engage them so when a disaster does strike, they can become a vital part of team." The SJV Section is now planning to have two exercises every year.

California Tsunami Program (CTP)

The California Tsunami Program (CTP) is a collaboration between the California Geological Survey (CGS) Tsunami Unit, the California Governor's Office of Emergency Services (Cal OES), and entities at the local level (counties, cities, community workgroups). For tsunami hazard mapping, the CTP works closely with the Tsunami Research Center at the University of Southern California and others to produce statewide Tsunami Hazard Area Maps and preparedness information for California. The CGS is also the scientific representative for California on the National Tsunami Hazard Mitigation Program Coordinating Committee, a state and federal cooperative responsible for developing policies and standards for tsunami mitigation efforts in the United States and its territories.

California tsunami hazard maps show where areas on land can become quickly flooded from a tsunami's waves. Tsunami hazard maps are intended to be used to help people plan how they can get from dangerous areas to safe areas by showing where high, safe ground is located. These maps can be used by anyone to plan a safe evacuation route. You can practice walking out of the tsunami zone to be better prepared for a real tsunami. CGS has also developed an easy to use California Tsunami Preparedness Guide for the public.

For more information about tsunamis, including a website about the impacts of 2011 Great East Japan Earthquake and Tsunami in Japan and California, please visit the CGS Tsunami Website at https://www.conservation.ca.gov/cgs/tsunami/.

April 2025

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5 Weekly 60 m ACS Net
6	7 Weekly 2 m ACS Net & OCRACES Meeting	8	9	10	11	12 Weekly 60 m ACS Net
13	14 Weekly 2 m ACS Net	15	16	17	18	19 Weekly 60 m ACS net
20	21 Weekly 2 m ACS Net	22	23	24	25 Orange County Amateur Radio Club Meeting	26 Weekly 60 m ACS Net
27	28 Weekly 2 m ACS Net	29	30 County and OA EOC Functional Exercise			

Upcoming Events:

- **April 7, 1930-2130 hours:** OCRACES Meeting at OC EOC at Loma Ridge; training on 800 MHz pack sets
- **April 25, 1900 hours:** Orange County Amateur Radio Club meeting, American Red Cross (George M. Chitty Building), 600 Parkcenter Drive, Santa Ana
- **April 30:** County and Operational Area EOC Functional Exercise

https://ocraces.org

Mission Statement

County of Orange RACES has made a commitment to provide all Public Safety departments in Orange County with the most efficient response possible to supplement emergency/disaster and routine Public Safety communications events and activities. We will provide the highest level of service using Amateur and Public Safety radio resources coupled with technology, teamwork, safety, and excellence. We will do so in an efficient, professional, and courteous manner, accepting accountability for all actions. We dedicate ourselves to working in partnership with the Public Safety community to professionally excel in the ability to provide emergency communications resources and services.

County of Orange RACES Frequencies

60 m: 5371.5 kHz USB (dial) (Channel 4) (OC ACS Net—Saturdays, 1000 hours)
6 m: 52.620 MHz output, 52.120 MHz input, 103.5 Hz PL
2 m: 146.895 MHz output, 146.295 MHz input, 136.5 Hz PL*
2 m: 146.595 MHz simplex
1.25 m: 223.760 MHz output, 222.160 MHz input, 110.9 Hz PL (down for repair)
70 cm: 446.000 MHz simplex
70 cm: 448.320 MHz output, 443.320 MHz input, 141.3 Hz PL (private)
70 cm: 449.100 MHz output, 444.100 MHz input, 110.9 Hz PL (private)
70 cm: 449.180 MHz output, 444.180 MHz input, 107.2 Hz PL (private)
70 cm: 449.680 MHz output, 444.680 MHz input, 131.8 Hz PL (private)
*Primary Net—Mondays, 1900 hours

OCSD RACES Coordinator
Lee Kaser, KK6VIV, (714) 628-7081

Chief Radio Officer
Ken Bourne, W6HK, (714) 997-0073

Radio Officer
Scott Byington, KC6MMF

Assistant Radio Officer
Randy Benicky, N6PRL

County of Orange RACES

Orange County Sheriff's Department, Emergency Management Division
2644 Santiago Canyon Road, Silverado, CA 92676
Telephone: (714) 628-7081 • Fax: (714) 628-7154
Email: LKaser@OCSheriff.gov

County of Orange RACES

OCSD Emergency Management Division
2644 Santiago Canyon Road
Silverado, CA 92676

Telephone – (714) 628-7081
Fax – (714) 628-7154
E-mail: LKaser@OCSheriff.gov

Visit Our Web Site
https://ocraces.org
It's Where It's @!

Questions or Comments?
Contact *NetControl* Editor Ken Bourne, W6HK
kbourne.ocsd@earthlink.net

"W6ACS ... Serving Orange County"

Meet Your County of Orange RACES Members!

Officers

Ken Bourne
W6HK

Scott Byington
KC6MMF

Randy Benicky
N6PRL

OCSD RACES Coordinator

Lee Kaser
KK6VIV

Heide Aguire
K3TOG

Joel Bishop
AJ6ZP

Eric Bowen
W6RTR

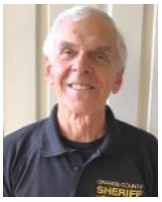
Bill Ehart
KM6ZHO

Ted Lavino
KG6LZP

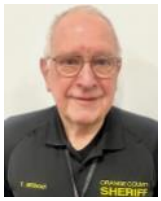
Steve Livingston
NJ6R

Scott MacGillivray
KM6RTE

Robert Moore
KW6B



Ron Mosher
K0PGE

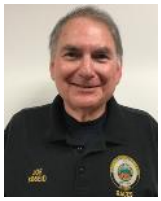


Fran Needham
KJ6UJS

Chi Nguyen
KE6MVS

Dick Palm
KN6RVU

Lance Rzepiejewski
KO6CXL



Joe Selikov
KB6EID

Robert Stoffel
KD6DAQ

Chuck Streitz
KK6HFS

Ken Tucker
WF6F