June 2020





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OCRACES Online Meeting on Zoom: Monday, June 1, 2020, at 7:30 PM

Orange County Sheriff's Department Technology Division



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Captain's Corner by RACES Captain Ken Bourne, W6HK, Chief Radio Officer

Cleaning Connections

While sequestered at home during the COVID-19 pandemic, now's your chance to do some maintenance around your ham shack and increase the reliability of your equipment. Have you checked your battery -powered equipment (even flashlights) recently, especially products that you haven't used for quite some time? The other day, I turned on my RigExpert AA-54 antenna analyzer. Uh, oh! It didn't turn on! I opened it up to check the batteries. They were corroded, with that white stuff all over the contacts. I immediately scolded myself for not removing the batteries from a relatively expensive instrument, to prevent battery acid from corroding and possibly destroying contacts when not used for a while. I removed the batteries, gently

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batteries, gently scraped the corrosion from the contacts, and installed new batteries. It still didn't work! What now?

There are several recommendations for removing alkaline battery corrosion. One is to use cotton swabs or a toothbrush dipped in vinegar or lemon juice. The acid from these will help

dissolve the corrosion. Scrub with the swap or toothbrush to remove as much corrosion as possible. Any remaining residue can be removed with baking soda and a tiny bit of water.

Instead of following this recommendation, I grabbed my can of DeoxIT Gold G5 and sprayed the contacts. That



DeoxIT D5.

fixed it! That stuff is magic, and has restored many contacts for me over the years, including outdoor antenna RF connectors.

Caig Laboratories, which manufactures DeoxIT Gold, also makes DeoxIT D5, which is popular with hams. The DeoxIT D -Series products are intended for all metal surfaces with oxidation and corrosion. Oxidation or corrosion is indicated if there is a discoloration of the metal. DeoxIT D-Series dissolves this contamination, improves the connection, and lubricates and protects the surface. It has approximately 20% cleaning action.

DeoxIT Gold G5 is for plated surfaces (gold and other precious metals) or severe environments. Caig Laboratories says it is the only product that actually penetrates

DeoxIT Gold G5.

Captain's Corner Continued from page 1

plated surfaces, molecularly bonding to the base metals to seal and protect both surfaces. This conditioning solution improves conductivity and provides long-lasting protection on gold, base metals, and other precious metal contacts and connections (gold, silver, rhodium, copper, bronze, nickel, etc.). Not only does it improve conductivity, but Caig says it also maintains optimum signal quality, reduces wear and abrasion, prevents fretting/dendrite corrosion, forms protective anti-tarnishing coating, stabilizes connections between similar and dissimilar metals, and reduces arcing, RFI, and intermittent connections. DeoxIT Gold has 0.5% cleaning action for removing minor amounts of oxidation. If you have heavy oxidation, use DeoxIT D5 first. Then apply DeoxIT Gold if your contacts are plated or precious metal.



WD-40 Specialist Electrical Contact Cleaner Spray.

Another product for this purpose that some hams recommend is WD-40 Specialist Electrical Contact Cleaner Spray. The manufacturer says it's safe to use and 50-state VOC compliant, and it's ideal for use on printed circuit boards, controls, switches, precision instruments, and electric panels. It's reportedly safe to use on electrical equipment, plastic, rubber, and metal. I don't have personal experience with this product, but it's worth a try. Just don't confuse it with the more common WD-40 water -displacing spray lubricant. which is not recommended for cleaning electrical and RF contacts.

Another contact cleaner used by radio amateurs is Super Contact Cleaner with PPE (polyphenyl ether) from MG Chemicals that cleans, lubricates, and protects. It contains a slowdrying, plastic-safe solvent that removes stubborn residues. The PPE enhances conductivity and long-term protection from oxidation. It also bonds onto the surface of metals and is particularly effective on gold, protecting gold contacts for life. This reduces scrubbing, connection wear, and abrasion failures. It also protects and lubricates connectors, jacks, relays, contacts, switches, plugs, batteries, controls, potentiometers, and more.

Over the years, I have used silicon grease on outdoor antenna connections to seal connectors against harsh weather (very effec-



Super Contact Cleaner with PPE.

tive in northern Illinois, where I'm from) and to allow easy disconnecting of PL-259 connectors from antennas. While researching Caig Laboratories literature for producing this article, I discovered a product that appears much better for this purpose than silicon grease. It's DeoxIT L260 and L260D lithium-based greases, available with or without particles of copper, aluminum, quartz, graphite, Teflon, or custom, and I intend to give it a try (without the conductive particles, to avoid conduction across dielectric surfaces). Type L260 is supposed to provide good lubrication, excellent wear resistance, excellent pressure resistance, excellent oxidation (galvanic corrosion) protection, and high dripping-point characteristics. Type L260D is infused with DeoxIT D-Series Dx100L to remove oxidation and corrosion. Uses include antenna connections, battery terminals, Buss bars, commutators, conductor rails, conductors, contactors, disconnects, high -amperage/high-voltage applications, power tools, relays and switches, etc.

New SSTV Software Is Now Available

The following information was posted on the ARRL website on May 7, 2020-Editor.

An update of the popular MMSSTV slow-scan television (SSTV) software is now available. Eugenio Fernández, EA1ADA, has introduced YONIQ, which he calls a modern version of MMSSTV. "We are excited to finally be able to offer the entire radio community the revamped MMSSTV with the nickname YONIQ also in English," he said. YONIQ is available in English and Spanish. The software offers several improvements, including an indication of the percentage of image sent and received, improved image reception settings, and a more-modern interface, among other things. Download YONIQ by clicking on the link "Descarga de MMSSTV 1.13 YONIQ" on the Grupo Radio Galena website at http://radiogalena.es/yoniq/.

June 1st OCRACES Meeting to Be on Zoom

Due to the COVID-19 pandemic and Sheriff's Department orders to stand down on all RACES activities outside the home, the next OCRACES meeting again will be online, using Zoom, on Monday, June 1, 2020, at 7:30 PM, with the meeting ID and password sent to the mailing lists for OCRACES members and city RACES and MOU officers and selected members. Joe Selikov, KB6EID, will once again be the meeting host. Everyone who wishes to participate should download and install the Zoom software at https://zoom.us. The "Basic" plan is free.

No Sheriff's Department business will be conducted during OCRACES Zoom meetings, due to security concerns. Zoom meetings are for socializing only, such as discussing amateur radio technical projects and on-the-air activities. We will not discuss activation policies and procedures, EOC RACES equipment, etc.

Zoom claims to have substantially increased the security of its system. Nevertheless, we will continue to use Zoom with caution. If you installed the Zoom software on your computer, be sure it is the newest version, currently 5.0.4.

Protecting Yourself During COVID-19 Outbreak

Cal OES, California Health & Human Services Agency, and California Department of Public Health produced the following steps on how people can protect themselves during the COVID-19 pandemic. "We are all in this together. We are working rapidly to keep our state healthy. Every person has a role to play. Your actions save lives."

DO:

- Stay home
- Avoid people outside your household
- Wash hands with soap and water for at least 20 seconds
- Cover your cough or sneeze
- Frequently clean and disinfect touched objects and surfaces
- Maintain physical distance of 6 feet whenever outside of the house

DON'T:

- Leave the house except for essential activities
- Shake hands
- Touch your face
- Go to the doctor if you are not sick
- Stockpile masks or gloves

It is also important that anyone experiencing symptoms of COVID-19 call their health-care provider first before seeking medical care so that appropriate precautions can be taken.

Stay away from work, school, or other people if you become sick with respiratory symptoms like fever and cough.

OC Health Officer Issues Face Mask Directive

The County Health Officer issued a new Health Officer's Order, effective May 23, 2020, and strong recommendations to help slow the spread of COVID-19 in Orange County. Included in the order are the following items regarding face coverings:

Cloth Face-Covering: All Orange County residents and visitors shall wear a cloth face-covering when (i) in a public place; (ii) visiting a retail, commercial, or other place of business; or (iii) at work, and when the resident or visitor is not able to maintain at least 6 feet of physical distance from another person who is not a family/household member or lives in the same living unit.

A cloth face-covering is a material that covers the nose and mouth; it can be secured to the head with ties or straps or simply wrapped around the lower face; it can be made of a variety of materials, such as cotton, silk, or linen; and a face covering may be factory-made or sewn by hand, or can be improvised from household items such as scarfs, T-shirts, sweatshirts, or towels.

The cloth face-covering Order SHALL NOT APPLY to children under the age of 2; anyone who has trouble breathing, or is unconscious, incapacitated, or otherwise unable to remove the cloth face-covering without assistance; persons with a medical or mental health condition, or development disability that prevents wearing a cloth face-covering.

Countywide Portable Drill Held on May 2nd

A City/County RACES & MOU Portable Drill was held on Saturday, May 2, 2020. Most participants operated portable stations from their own property (such as their backyard), using battery power and portable antennas. OCRACES Chief Radio Officer Ken Bourne, W6HK, was net control, operating from his home station in Orange. The drill simulated that the OCRACES repeaters were down, and had two segments. From 0900 to 1000 hours, it was held on 146.595 MHz, the OCRACES simplex frequency. From 1000 to 1100 hours, it was held on 5371.5 kHz USB ("channel 4" dial frequency), the same frequency used every Saturday morning for the OCRACES ACS net that covers the 11 counties in the Cal OES Southern Region plus northern Arizona and southern Nevada.

During the first segment of the drill (0900 to 1000 hours), Ken checked in stations on 146.595 MHz, either direct or through relay stations. His chimneymounted antenna was a vertical Hustler G7-144 with stacked 5/8-wave radiators, producing a 7-dBd gain.

Ken began the drill on 2 meters simplex at 0900 by calling for check-ins from cities in alphabetical order, then from MOUs, and finally from OCRACES members. Relay stations were assigned, to enable handheld and other low-power stations to check in. Relay stations included Ron Ulshafer, W6RWU (Brea RACES), who covered north county, Gordon West, WB6NOA (MESAC), who covered central county, and Dave Gorin, KB6BXD (Laguna Niguel ACS and OCHEART), who covered south county. Other relay stations checked in stations from their own city RACES units. Some of the following participating stations were unable to hear



The antennas at the portable station of OCRACES Member Tony Scalpi, N2VAJ, included a 2-meter vertical (left) and a Hamstick dipole.

net control or a relay station, but reported that they tried. Most of the following were successful in communicating. Participating OCRACES stations on 2 meters included KK6CUS, KD6DAQ, N6ELD, W6HK, N6PRL, N8RG, KJ6UJS, N2VAJ, and AB6VC. Brea RACES stations included KK6GKU, W6RWU, and K6UDW. Costa Mesa RACES (MESAC) stations included KK6GLQ, WB6HRO, WB6NOA, KM6ROU, KM6UJD, KM6ULS, KK6WYD, and KE6YZT. Cypress RACES included W6ONT. Fountain Valley RACES included WA6FV and N6NQN. Huntington Beach RACES included KE6BNS, K6HMS, and KB6JOE. Irvine RACES (IDEC) stations included KE6GYD, KE6KYC, KE6KYH, K6PB, KM6PFE(?), W6QN, and N6YH. Laguna Niguel ACS stations included KB6BXD, WB6CKG, KK6LZB, KI6SHD, KK6URR, and WB6VEM. Laguna Woods ACS stations included K6EEE, K6PIO, and NH7WG. Los Alamitos RACES included KM6RSY. Mission Viejo RACES stations included AD6AT, W6EDT, K6FTL, N6JCN, K6PTL, WA6RUZ, N6SNX, and K6WHC. Newport Beach RACES stations included KB6FW, K6HIV, and KM6JON. Orange RACES (COAR) included KG6MIG, W6RI, and KØVNJ. Placentia RACES included KN6AVU. Westminster RACES included



The solar-powered portable station of MESAC member Gordon West, WB6NOA, in Costa Mesa, included a portable box (left photo) with an Icom IC-706 MKIIG and, below that, a Standard/Yaesu Part 80 and Part 90 FCC certified SSB transceiver that he uses regularly for Coast Guard Auxiliary work on NTIA channels. In the next photos (left to right) are Gordon's antenna for 2 meters simplex, an HF loop antenna, and a vertical Outbacker antenna with Vice Grips clamping it onto his backyard canopy metal frame.

Portable Drill Continued from page 4

N6HVC. American Red Cross stations included K6HMS and KB6JOE. OCHEART stations included KB6BXD, WE4BY, WB6CKG, W6EDT, K6FTL, KR6ISS, KK6URR, WB6VEM, and K6WHC.

Beginning at 1000 hours, Ken incorporated the Portable Drill into the normal Saturday morning 60-meter OCRACES ACS net on 5371.5 kHz USB ("channel 4" dial frequency). Portable stations typically used Hamstick dipoles and end-fed wires, and ran on battery power. Ken operated net control from his home station, using a 102-foot G5RV antenna up about 35 feet. At the conclusion of the net, Ken moved his operation to a 20-watt portable station in his backyard, using a Hamstick dipole up 9½ feet on a tripod mast. Participating OCRACES stations on 60 meters included KK6CUS, N6ELD, N6PRL, N8RG, and N2VAJ. Brea RACES included W6RWU. Costa Mesa RACES (MESAC) included WB6NOA, who used a loop on 60 meters and initially transmitted a distorted signal due to proximity to his backyard setup. Gordon then switched to his 60-meter Outbacker vertical, counterpoised on his backyard canopy metal frame. He could then hear better and there was no transmit distortion. Cypress RACES included W60NT. Irvine RACES (IDEC) included K6PB. Laguna Woods RACES included NH7WG. Mission Viejo RACES included W6EDT. Newport Beach RACES stations included NI6E, KB6FW, K6GSX, K6GVG, and K6TXA. Orange RACES (COAR) stations included KG6MIG and KØVNJ. Cal OES CRU included W6GMU. OCHEART stations included WE4BY and KR6ISS. Out-of-county RACES participants included W6CAW (Cal OES CRU in Campo, San Diego County), N6WIX (Ventura County ACS), and KE7KHE (Nye County EmComm in Pahrump, Nevada). Non-RACES stations also called in, including WD6AJR (Orange), W6LC (Oroville, Butte County), WA6NFE (near Escondido, San Diego County), and K6RBS (Mission Viejo).

Field Day Will Not Be Official RACES Activity

As we go to press, OCRACES is still in lockdown due to the COVID-19 pandemic. All outside group activities away from home property are canceled until further notice. Even if that lockdown should be lifted before Field Day, scheduled for June 27-28, 2020, it would not leave us time to prepare for Field Day. No site has been arranged for an OCRACES Field Day. Ever since the OCRACES van was decommissioned, we have not operated our own Field Day, but our members have participated mostly with the Orange County Amateur Radio Club (OCARC). At this point, OCARC's Field Day plans are still up in the air. If they do go ahead with Field Day, Friday, June 26th, will be the day of setup. In that case, we do not promote participation as an official RACES activity, out of concern for OCRACES members' safety.

Cleaning and Disinfecting Radios

In the May 2020 issue of *NetControl*, we ran an article about cleaning and disinfecting during the COVID-19 pandemic. In this article, we will focus on cleaning and disinfecting radios, body-worn cameras, and accessories, based on guidelines in the "Motorola Solutions Technical Notification Document Number MTN-0038-20-GL." The risk of spreading infection is lowered by removing germs, dirt, and impurities from surfaces, per global health authorities. Using chemical disinfectants may kill germs that remain on surfaces after cleaning, which further lowers the risk of spreading infection.

For general cleaning, Motorola Solutions advises applying 0.5% detergent-water solution with a cloth. Then use a stiff, non-metallic, short-bristled brush to work all loose dirt away from the device. Use a soft, absorbent, lintless cloth or tissue to remove the solution and dry the device. Make sure that no solution remains entrapped near any connectors, cracks, or crevices.

Devices may be disinfected by wiping them down with over-the-counter isopropyl alcohol (rubbing alcohol) with at least 70% alcohol concentration. When cleaning with isopropyl alcohol, the alcohol should never be applied directly to the device. It should be applied to a cloth, which is then used to wipe down the device. The effects of certain chemicals and their vapors can have a detrimental effect on plastics and the metal platings.

Do not use bleach, solvents, or cleaning sprays to cleanse or disinfect your device.

Motorola Solutions is unable to, and did not, determine whether any particular cleaning product is effective in removing specific foreign substances (including viruses) from the device, nor whether any disinfectant will remove all germs or viruses. However, Motorola Solutions approved for use the above cleaners, disinfectants, and processes, related to their less degrading effect on the physical device. The chemical manufacturers' documentation should be consulted for specifics on cleaning efficacy.

RACES/MOU News from Around the County

"RACES/MOU News" provides an opportunity to share information from all City & County RACES/ACS units and MOU organizations and supportive amateur radio clubs in Orange County.

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

kbourne.ocsd@ earthlink.net

Anaheim RACES

Anaheim RACES Chief Radio Officer Ducky Breton, KW6ACK, reports that the city's RACES Coordinator is Sagar Patel, Emergency Manager/Senior Administrative Analyst, Anaheim Fire & Rescue, Emergency Management & Preparedness.

County of Orange RACES (OCRACES)

The 449.100 MHz private repeater on Santiago Peak has been replaced. Also replaced are the antenna and duplexer, which were struck by lightning a while ago. Since the lightning strike, most OCRACES UHF activities had been shifted to the 448.320 MHz private repeater, which is also designated for use by radio amateurs within the California Public-Safety Radio Association (CPRA). Most OCRACES UHF drill activities will now shift back to the 449.100 MHz repeater. Members are encouraged to use all four UHF repeaters, especially to stay in touch with each other while sequestered during the COVID-19 pandemic.

Orange County Sheriff's Department Technology Division

Congratulations to OCSD Senior Telecommunications Engineer Nick Condaras, KD3OY, who received international recognition for his work leading the team responsible for ensuring Orange County's emergency services responders can effectively communicate.

Nick. who is assigned to the Technical Services Unit of OCSD's Technology Division, was named Radio Frequency Technologist of the Year by the International Association of Public Nick Condaras, KD3QY. Safety Communi-



cations Officials (APCO). His award was recognized in the May 15, 2020, edition of the Sheriff's *The Bulletin*.

Nick was quoted in The Bulletin as saying, "I am extremely honored and humbled, but this award should be going to my team. They put in the hard work and long hours that make this award possible."

Known for his collaborative approach to the job, expertise in the field, and humility in the performance of his duties, Technology Division Director Dave Fontneau said Condaras stands out in the profession.

"Nick leads from the front and he is an advocate for his team," Fontneau said. "He trusts in his people and relies on the leadership within his team to support his vision. Nick is a wealth of knowledge of radio communications, holds the utmost passion for it, and loves to share it and evoke it in others."

Condaras grew up tinkering with electronics and a fascination for emerging technology, so a career in engineering proved a natural choice.

"I'm drawn to innovation and learning new technology," he said. "I am very blessed to serve in this profession."

Condaras joined the Sheriff's Department 26 years ago, working his way up the ranks of the Technology team. He currently oversees a team of 29 people and is involved in all aspects of the communications operation including budgeting, training, recruiting, testing new technology, and managing contracts, among other duties.

The details of the contributions he makes to the department are complex and nuanced, but in the simplest of terms: Condaras' team is the county's communications lifeline for all emergency personnel-law enforcement, firefighters, lifeguards, and medical professionals.

His team is responsible for more than 18,000 radios in service, all dispatch center equipment, installation, maintenance, and radio repairs for the entire county. In addition, the team is responsible for managing the Patrol Video System (PVS) in all law enforcement patrol vehicles, capturing critical moments in a peace officer's shift that may need to be reviewed later.

Their work helps all first responders effectively and efficiently respond to any emergency, communicate during incidents, and quickly send help to those who need it most.

June 2020 Mon Wed Sun Tue Thu Sat Fri 2 3 1 Weekly 2 4 5 6 Weekly 60 m ACS Net & m ACS Net **OCRACES** Zoom Mtg 7 8 Weekly 2 9 10 11 12 13 Weekly m ACS Net 60 m ACS Net 20 Weekly 14 15 Weekly 2 16 17 18 19 Orange County Amam ACS Net 60 m ACS teur Radio Net **Club Meeting** 21 23 25 26 22 ACS Net 24 27 Weekly on Three 60 m ACS Bands Net & Field Day 28 Field Day 29 Weekly 2 30 m ACS Net

Upcoming Events:

- June 1: OCRACES Meeting on Zoom, 1930 hours
- June 8: City/County RACES & MOU Meeting (CANCELED)
- June 19: Orange County Amateur Radio Club (OCARC) Meeting, 1900 hours, American Red Cross (George M. Chitty Building), 600 Parkcenter Drive, Santa Ana, or (more likely) on Zoom
- June 27-28: Field Day (cancellation possible)





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) 40 m: 7250 kHz LSB

10 m: 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL (out of service) 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 (out of service) 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) 23 cm: 1287.650 MHz, 1287.675 MHz, 1287.700 MHz, 1287.725 MHz, 1287.750 MHz, and 1287.775 MHz outputs, -12 MHz inputs, 88.5 Hz PL

*Primary Net-Mondays, 1900 hours

OCSD Emerg. Comm's Coordinator Pete Jimenez, KI6UTE, 714-704-8080 Radio Officer (Lieutenant) Scott Byington, KC6MMF

Ernest Fierheller, KG6LXT

Bob McFadden, KK6CUS

Tom Tracey, KC6FIC

Assistant Radio Officers (Sergeants) Jack Barth, AB6VC

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County of Orange RACES

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"W6ACS Serving **Orange County**"

Meet Your County of Orange RACES Members!









Jack Barth AB6VC





Tom Tracey KC6FIC



Randy Benicky N6PRL

Ray Grimes N8RG

KC6MMF

Lee Kaser KK6VIV

Walter Kroy KC6HAM

Martin La Rocque N6NTH



Fran Needham KJ6UJS







Joe Selikov KB6EID

Robert Stoffel KD6DAQ

Ken Tucker WF6F



N6ELD









Erik Schull **KE6BVI**