

October 2017



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Inside this issue:

Captain's Corner	1
City/County Drill	2
OCRACES Meeting	3
City/County Meeting	3
Free Depiction	3
630 and 2200 Meters	3
Cooperative T-Hunt	4
OCSD BBQs	4
Caribbean Situation	5
RACES/MOU News	6
Events Calendar	7
OCRACES Members	8

Captain's Corner

by RACES Captain Ken Bourne, W6HK, Chief Radio Officer

Recent Major Disasters

Major disasters have recently confronted Houston, Texas, Florida, the Caribbean, and Mexico, in the form of hurricanes and flooding and earthquakes. On page 5 of this issue, we cover some of the efforts of amateur radio in Dominica and Puerto Rico. Complete communications infrastructure failure is the case, and that problem is expected to last for an extended period. Without power and communications in much of Puerto Rico, millions of people, including first responders, have been cut off from the world. Governor Ricardo Rosselló said cell service is critically limited. "Essentially only the metropolitan area has infrastructures," he said on September 25th, adding that their priority is to get antennas into areas that are still not communicating.

As we read about the efforts of radio amateurs into the devastated areas, we need to think how ACS/RACES would be relied upon during a major disaster in Southern California, such as a powerful earthquake that could cripple police and fire communications and cellphone service.

It is important that we have as many communications tools as possible in our "tool bag." As RACES members, our primary form of communications is amateur radio, but as ACS (Auxiliary Communications Service) personnel, we need to be proficient in all communications techniques. RACES units in Orange County are actually, according to Cal OES guidelines, ACS units, with training and expertise in not only amateur radio communications but also all other forms of communications,

including telephone, microwave, data, video, satellite (such as OASIS), Internet, networking, etc.

Engineers increasingly "harden" cellphone towers and the Internet, so it is advisable that we train to use related forms of communications that might continue to be operational, at least partially, even if an 8-point earthquake were to hit nearby. Amateur radio will always be our prime mode of communications in RACES, but let's not ignore cellphone and Internet based communications if they continue to be operational, such as the Zello smartphone app and DMR, D-STAR, or Fusion that partly utilize Internet linking of sites.

Thanks to Laguna Beach RACES Member Arlene Schwartz, KE6GFI, for alerting us to the heavy usage of Zello by first-responders to the Hurricane Harvey disaster in Houston, Texas. If cellphones remain operational after a large-scale disaster in Orange County, we can coordinate our activities not only via our RACES repeaters but also via Zello, which is faster than texting. Zello provides quick push-to-talk communications, either user-to-user or over a group channel (like a party line). OCRACES has set up its own channel and some City RACES units have reported that they are doing the same. We have also set up the OC EmComm channel for all City and County RACES and MOU members to congregate on during a disaster. We will be using this channel for check-ins during the October 7th drill. Contact me if you don't have the password to OC EmComm. Quick-start guides and other information may be

Continued on page 2

**The Next
OCRACES
Meeting Is**

**October 2, 2017
1930 Hours**

**840 N. Eckhoff St.,
Suite 104, in Orange**

**Guest Speaker:
Jerry Wanger, KK6LFS
Connect Systems Inc.**



Captain's Corner *Continued from page 1*

found on the <https://zello.com/> Web site. Again, amateur radio is our primary communications tool as RACES/ACS members, but let's not ignore other efficient means of communications such as Zello. Furthermore, you probably always have your cellphone with you, even if you forget to clip your HT onto your belt.

RACES/ACS members need to increase their proficiency not only in communications techniques but also in all areas of auxiliary communications, including Incident Command System (ICS) procedures. OCRACES members are required to be certified in ICS-100, ICS-200, and ICS-700.

You never know what might be required of you during a major disaster. Some deployments require special qualifications, which not all RACES members have. For example, the American Red Cross (ARC) has asked the ARRL for assistance with relief efforts in Puerto Rico, requiring some tough capabilities. ARC needs up to 50 radio amateurs who can help record, enter, and submit disaster-survivor information into the ARC Safe and Well system. There are some very special requirements needed for this deployment. Due to the nature of this deployment, responders will need to process in as ARC volunteers. This includes passing a background check. The ARC has indicated that it will cover all expenses for transportation, lodging, and feeding while on deployment. ARC will also provide liability coverage for volun-

teers. The only out-of-pocket expense to the volunteer would be personal items purchased during deployment.

ARRL and ARC will require training for volunteers being deployed. ARC will provide general deployment training and advanced training in working in austere environments. ARRL will provide to ARC training on amateur radio equipment and modes to be used, reporting guidelines, and operating guidelines. Deployment will be up to 3 weeks.

Qualifications:

- General class or higher amateur radio license
- Strong technical skills
- Ability to work under difficult conditions
- Ability to deploy up to 3 weeks
- Ability to work as part of a team

Helpful Skills

- Spanish language skills
- Previous experience in disaster response
- Previous or current work as a Red Cross volunteer
- Previous experience with shelter operations

If you feel you meet these qualifications and would like to be considered for this deployment, please contact ARRL Emergency Preparedness Manager Mike Corey, KI1U, at 860-594-0222, who will make the introduction of qualified volunteers to ARC.

City/County RACES & MOU Drill: October 7th

The next City/County RACES & MOU ACS Exercise will be on Saturday, October 7, 2017, from 9:00 AM until 11:00 AM. The scenario for this exercise will be high heat and a power outage. Severe medical situations would be one of the factors in this scenario, considering the fatalities that occurred in the Florida nursing home in the wake of Hurricane Irma. The role of RACES and MOUs would be to observe and report, and to provide backup communications to our agencies.

For the exercise, each City shall construct at least nine messages, then transmit to designated other Cities while exchanging message traffic with OCRACES and the Hospital Disaster Support Communications System (HDSCS). Messages shall be on the approved modified ICS 213 form, which may be downloaded from the "Forms" page on the OCRACES Web site at <http://www.ocraces.org/forms.html>. Click on "ICS 213 Compliant Amateur Radio Message Form."

The primary modes to be used in this exercise are "General" (messages on County and City primary frequencies), "Simplex," "HF" (on 7250 kHz lower sideband), and "Winlink." The countywide Winlink system will be exercised, with some messages to include an attachment, such as an ICS 213 form. Other messages will be sent by e-mail. We will also test DMR on the "Local 1" talk group (TG 3181, time slot 1) of the KA6P DMR repeater on Santiago Peak, on 449.0375 MHz, CC1. Check-ins (no messages) will be taken on Zello, which is a smartphone walkie-talkie push-to-talk app. County and City RACES and MOU members are encouraged to install Zello and the OC EmComm channel on their smartphones in time for this exercise.

The OCRACES, City RACES, and MOU frequencies listed in the 2017 "Yellow Book" shall be used for this exercise unless changed by OCRACES or by a City or MOU Coordinator. (146.595 MHz is now the OCRACES primary 2-meter simplex frequency. 147.480 MHz and 146.520 MHz have been deleted as simplex frequencies.

Anyone needing a copy of the exercise plan or the password for the OC EmComm Zello channel should e-mail kbourne.ocsd@earthlink.net.

Next OCRACES Meeting: October 2, 2017

Connect Systems President Jerry Wanger, KK6LFS, will be the guest speaker at the next OCRACES meeting on Monday, October 2, 2017, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. He will talk about his company's many exciting products, including the CS800D dual-band DMR and analog FM mobile radio, the CS580 handheld DMR/analog radio that will soon have new firmware that eliminates the need to make codeplugs, the CS750 and CS760 handheld DMR/analog radios, the AT-D868UV dual-band handheld DMR/analog radio, the CS108G+ 20-watt compact HF radio, and the XPA125 125-watt linear power amplifier. He will also discuss what's in the pipeline, such as the CS7000 multimode handheld radio, the CS8000 multimode mobile radio, and an SDR portable HF transceiver.

City/County RACES & MOU Meeting: Oct. 16th

The next City/County RACES & MOU meeting will be on Monday, October 16, 2017 (third Monday in October), at 7:30 PM, at OCS D Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, in Orange. Because of this meeting schedule, the next cooperative T-hunt will be on October 9th, rather than the usual third Monday. October 9th is also Columbus Day (a County holiday). At the October 16th City/County meeting, we will review the October 7th City/County RACES & MOU ACS Exercise. Brief reports on current activities will also be given by representatives from each RACES and MOU unit.

New Depiction Build Removes Licensing

As reported in the September 2017 issue of *NetControl*, Depiction Inc., which produced the Depiction mapping, simulation, and collaboration software that was installed several years ago on all computers distributed to County and City RACES units for Winlink operations, has closed their Web store and will be shutting down their business soon. Because Depiction is in danger of losing their Internet connection, President Richard Smith has uploaded the latest version of Depiction12629Setup.exe to the drop box folder. You can find this file on <http://www.depiction.com/finalbuild>. This version eliminates the licensing requirement for their software. Smith says it is possible that users might encounter errors. He is hoping that it will only affect certain Quickstart data sources. There is an outside chance that it might impact initial geocoding of a location when you start a new depiction. If you get that error, you can always start a new depiction by entering the lat/long, which doesn't require access to Depiction servers.

A blog at <http://depictionmtm.blogspot.com> provides the latest news on the free version and other news of interest.

FCC Opens 630- and 2200-Meter Bands

The FCC has announced that the Office of Management and Budget has approved, for 3 years, the information-collection requirement of the Commission's March 29 Report and Order (R&O) that spelled out Amateur Radio Service rules for the two new bands—630 meters and 2200 meters. Before using either band, stations must notify the Utilities Technology Council (UTC), that they plan to do so, and, if UTC does not respond within 30 days, they may commence operation. Last March 27, the FCC adopted the 2012 World Radiocommunication Conference (WRC-12) implementation Report and Order (ET Docket 15-99), amending its amateur radio rules to—in the FCC's words—“provide for frequency-sharing requirements in the 135.7-137.8 kHz (2200-meter) and 472-479 kHz (630-meter) bands.” Maximum permitted equivalent isotropically radiated power (EIRP) on 472-479 kHz is 5 watts. On 135.7-137.8 kHz, the maximum permitted EIRP is 1 watt.

Section 97.313(g)(2) of those rules requires that, prior to starting operation in either band, radio amateurs must notify UTC that they intend to operate, by submitting their call signs, intended band(s) of operation, and the coordinates of their antenna's fixed location. The new rules do not permit any mobile operation.

“Amateur stations will be permitted to commence operations after a 30-day period, unless UTC notifies the station that its fixed location is located within 1 kilometer of Power Line Carrier (PLC) systems operating on the same or overlapping frequencies,” the FCC said. PLC systems are unlicensed. “This notification process will ensure that amateur stations seeking to operate [on 630 or 2200 meters] are located beyond a minimum separation distance from PLC transmission lines, which will help ensure the compatibility and coexistence of amateur and PLC operations, and promote shared use of the bands.” The FCC announced that it is making effective immediately the Part 97 rule amendments, § 97.3, 97.15(c), 97.301(b) through (d), 97.303(g), 97.305(c), and 97.313(k) and (l), which do not require OMB approval.

KC6TWS Hides in North Tustin

Peter Gonzalez, KC6TWS, was the fox on Monday, September 18, 2017, on the monthly cooperative T-hunt. He turned on the fox box immediately following the 2-meter OCRACES ACS net, hiding near Tustin Ranch Road and Portola Parkway in Citrus Ranch Park, in a northern part of Tustin.

First to find the fox was Ron Allerdice, WA6CYY, who started fairly close to the fox's den. Ken Bourne, W6HK, and Jack Barth, AB6VC, started near Newport Avenue and First Street in Tustin and had a good east bearing toward the fox. However, as they drove east on Bryant, the range of hills to the west of the fox caused some signal blockage and reflections, but their direction-finding equipment "behaved" when they approached Portola Parkway.



At the fox's den are (left to right) Jack Barth, AB6VC, Ron Allerdice, WA6CYY, Ken Bourne, W6HK, and Peter Gonzalez, KC6TWS (the fox).

The next cooperative T-hunt will be held on Monday, October 9, 2017, immediately following the OCRACES 2-meter net (approximately 7:20 PM). This on the second Monday in October, rather than the usual third Monday, due to scheduling the next City/County RACES & MOU meeting on October 16th. The fox will hide on paved, publicly accessible property in a city or sector of Orange County to be announced a few days before the hunt. No fees will be required to drive directly to the fox. He will transmit on the input (146.295 MHz) of the 146.895 MHz repeater. Hunters will compare bearings via the 448.320 MHz repeater (while the 449.100 MHz repeater is down), and are encouraged to beacon their positions via APRS throughout the hunt. We are looking for a volunteer to be the fox.

The cooperative T-hunts are usually held on the third Monday of each month (second Monday in October). The hunts provide excellent practice in working together to find sources of interference quickly. The hunts are not official RACES events, so DSW (Disaster Service Worker) coverage does not apply. Please drive carefully!

Fox-hunt loops and beams are available from Arrow Antenna and HRO, including the Arrow Model FHL-VHF fox-hunt loop (covers 1 MHz to 600 MHz) and the Arrow Model 146-3 three-element portable hand-held yagi. The Arrow OFHA 4-MHz offset attenuator can be useful when close to the fox, to prevent receiver overload. An all-mode transceiver is quite useful, allowing hunters to switch to the SSB or CW mode for detecting extremely weak signals, or to switch in a built-in attenuator, reduce RF gain, or tune slightly off frequency when dealing with extremely strong signals. Some hunters use the DF2020T radio direction finder kit, which is a Doppler system available from Global TSCM Group, Inc. (<http://www.kn2c.us>). A very similar system is the MFJ-5005 Doppler direction finder. Other useful tools are the Fox-hunt app for iPhones and the Triangulate app for Android phones. For some excellent information on T-hunting, see <http://www.homingin.com>.

OCSD Family and Reserve BBQs: October 22

The Reserve Bureau BBQ will be merged into the OCSD Family BBQ, which was previously announced for October 1st. The revised date for the merged BBQ is October 22, 2017. Reserve Deputies, PSRs, Explorers, and Chaplains and their families will be free. Other OCSD personnel, such as sworn and professional staff (full or part-time and retirees), OCRACES members (who are not Reserves), and OC Sheriff's Advisory Council and immediate families will be charged \$10 per person, including children (immediate family only). The event will be held from 11:00 AM to 4:00 PM at Lakeview Park, 5305 Santiago Canyon Road, Silverado. Reservations by non-Reserves must be made by October 6th to Marilyn MacDougall at 714-647-4135 or mmacdougall@ocsd.org. Make your check payable to "OC Sheriff Advisory Council" and mail to PO Box 241, Santa Ana, CA 92702. Reserve Deputies, PSRs, Explorers, and Chaplains are to register (noting number of guests) on the Event Calendar on the Reserve Tracker Web site by October 6th. Free parking is available. Food and drinks are provided (no alcohol allowed). Fun activities will be provided for all ages.

Hams Focus on Caribbean Situation

The Caribbean Emergency and Weather Net (CEWN) has been requesting that radio amateurs not involved in the ongoing post-hurricane relief and recovery efforts via amateur radio to avoid operating on or near the net's frequencies—7.188 and 3.815 MHz. The net has been handling critical traffic, primarily for Dominica and needed interference-free channels.

“We've been doing what we can here at W1AW,” Station Manager Joe Carcia, NJ1Q, said. “In addition, a number of other hams have been trying to keep the frequencies clear for the Salvation Army Team Emergency Radio Network (SATERN) and CEWN.

The situation on Dominica is said to be dire, with massive power and telecommunications outages and conditions that the Prime Minister, Roosevelt Skerritt, was calling “worse than in a war zone.” A transmission from Wayne Abraham, J73WA, in Portsmouth, Dominica—one of the stations still active from Dominica—indicated that he was running low on fuel for his generator.

The US military's Southern Command Joint Task Force-Leeward Islands (JTF-LI) was relocating its base of operations from Puerto Rico—which also was hard hit by Hurricane Maria—to three Caribbean locations. The main command and control element was being deployed to Martinique, while bases for its fixed-wing aircraft were being shifted to Barbados, and rotary-wing aircraft to Guadeloupe.

“The relocation was necessary due to the impact of Hurricane Maria on Puerto Rico and the need to have supporting US forces closer to St. Martin and Dominica,” the JTF-LI said in an announcement. The move includes some 300 military personnel, eight helicopters, and four C-130 Hercules aircraft.

On September 22nd, US Southern Command expanded the JTF-LI support mission to include the government of Dominica, including the addition of the US Navy amphibious ship USS Wasp to JTF-LI.

The US military was providing C-130 evacuation flights from Douglas-Charles (Melville Hall) Airport on Dominica during daylight hours on September 23rd and was providing limited helicopter transportation for US citizens who are injured or otherwise unable to traverse the island, from Portsmouth to Douglas-Charles Airport.

US military forces continue to produce water in St. Martin. As of September 23rd, US military forces have evacuated 2,073 American citizens from St. Martin and Anguilla.

Meanwhile, Ben Kuo, AI6YR, who is keeping a close ear on amateur radio emergency nets in the region, told ARRL that the Puerto Rico Federal Affairs Administration (PRFAA) contacted him for help in setting up a communications network using ham radio, because the island's phone lines are down (two subsea cables destroyed), and there is no Internet and no communications across the island. “They are working with a number of NGOs, who are hoping to airlift solar panels, radios, antennas, repeaters, and whatever is necessary to active radio amateurs in Puerto Rico, so that an island-wide communications network can be put in to replace the destroyed fire, police, and phone communications network,” Kuo said. “I would not believe it if it were not happening,” Kuo added, but the government of Puerto Rico reached out to me due to my YouTube stream of all the [Amateur Radio] traffic back and forth.” Kuo sent a message on 40 meters to Oscar Resto, KP4RF, the ARRL Section Manager in Puerto Rico, to provide a list of needed supplies back to PRFAA (via KB3SBR). Puerto Rico radio amateurs began running an emergency net on 7175 kHz. KP4RF has been organizing efforts.

Amateur Radio may still be the only reliable communications link with the Commonwealth. “It was reported that amateur radio seemed to be the only communications that were operational and that was somewhat limited, as many 2 meter repeater systems were still not operational,” SATERN National Liaison Bill Feist, WB8BZH, said in a SATERN update on September 23rd. “There is no operational public water system, and many local roads are impassable although some major roads have been cleared.”

Scientists and amateur radio operators have confirmed that Puerto Rico's Arecibo Observatory came through Hurricane Maria largely intact but with some significant damage. “The major structures, including the 300-meter telescope, are intact, though suffered some damage when the atmospheric radar line feed broke off, and falling debris from it punctured the dish in several places,” Universities Space Research Association (USRA) reported on its website. “Also, a separate 12-meter dish used as a phase reference for Very Long Baseline Interferometry was lost.” Observatory officials are still assessing the damage, but Jim Breakall, WA3FET, of Penn State, told ARRL that the 96-foot line feed antenna at 430 MHz is “historically the key piece to the observatory.” It's also the antenna that he and others have used for amateur radio moonbounce activities from Arecibo. The Observatory is home to KP4AO. “To hear that this 10,000-pound key piece to the Observatory fell and hit the 1,000-meter dish is just a huge shock,” Breakall said. “This antenna was connected to the 2.5 million watt 430-MHz radar transmitter that was a key to ionospheric experiments.

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 in Orange County.

Please send your news to NetControl Editor Ken Bourne, W6HK, at: w6hk@ocraces.org

Irvine RACES (IDEC)

The next IDEC VickiBrek will be on Saturday, October 14, at 0800 hours. This is a no-host breakfast meeting held at Knowlwoods, Sand Canyon at Burt. Visitors are welcome.

Laguna Beach RACES

The Laguna Beach Emergency Communications Team (LBECT) plans to participate in a Great Shakeout Exercise on Thursday morning, October 19, 2017. Using the Shakeout phrase, "Drop, cover, hold on," in conjunction with the call sign of the Laguna Beach RACES Chief Radio Officer John Kountz, WO1S, LBECT invites as many other City RACES units as are active to respond over a half-hour period. Responses will be logged, including time, call sign, and City, and will be available to prepare a list of potential direct contacts should an emergency occur. The LBECT mobile solar-powered radio station will establish contact with as many emergency stations within a 50-mile radius as possible. Once made, members of LBECT will be encouraged to make contact with the responding station from their homes to affirm their ability to reach outside Laguna Beach. In addition, contacts so completed will be logged and compiled into a reference document and provided to the responding stations and LBECT members for use in the event of an actual earthquake. Two frequencies will be used: 145.510 MHz and 446.000 MHz, both FM simplex. This exercise will begin at 10:00 AM and end at 10:30 AM. CERT communicators are also welcome; provision of GMRS/FRS frequencies and subchannels is requested.

Laguna Woods RACES

The next Laguna Woods Amateur Radio Club meeting will be on Thursday, October 5, 2017, at 10:30 AM until noon, in Clubhouse I, Dining Room 3. Club meetings are on the first Thursday morning each month, January through June and September through December. Licensed amateur radio operators living in the Village are welcome to join the club at any time of the year.

Members and Laguna Woods Village residents and their guests only may attend the meetings.

Seal Beach/Los Alamitos RACES

Los Alamitos Police Captain Chris Karer has taken over Operations. Los Alamitos Police Corporal Stacy Smith, Administrative Services, is the City's RACES Program Coordinator.

The next regular meeting of Seal Beach/Los Alamitos RACES is on Wednesday, November 8, 2017, at 1900 hours.

Mission Viejo RACES

Bob McCord, K6IWA, is now the Mission Viejo RACES Training Officer, according to Chief Radio Officer Charley Speelman, WA6RUZ.

Placentia RACES

Placentia RACES Radio Officer Mark Garrett, KG6CAV, reports that Placentia will be hosting their Heritage Day Parade on October 14, 2017, from 7:00 AM to about 1:00 PM. They plan to use the APCOR mobile repeater for coordination during the hours of 6:00 AM to 4:00 PM.

Hospital Disaster Support Communications System (HDSCS)

HDSCS will hold an examination session for all classes of amateur radio license on Sunday, October 8, 2017, at Care Ambulance headquarters, 1517 West Braden Court, in Orange. The examination session will take place in the Marv E. Schilling Training Center. The entrance is on the south side of the building through double glass doors. The testing session is open to HDSCS members and non-members alike and starts at 2:00 PM. If you wish to take a test, please register in advance by contacting Ken Simpson, W6KOS, by phone (714-651-6535) or e-mail (w6kos@arrl.net). Ken will need your phone number, e-mail address, and level(s) of license that you will test for. He will reply via e-mail with testing details and what to bring. Amateur radio talk-in will be on K6QEH/R, 146.970 MHz, PL136.5.

October 2017

Upcoming Events:

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 Weekly 2 m ACS Net & OCRACES Meeting	3	4	5	6	7 City/County RACES & MOU ACS Exercise
8	9 Weekly 2 m ACS Net & Cooperative T-Hunt	10	11	12	13	14 Cal OES Southern Region ACS Meeting
15	16 Weekly 2 m ACS Net & City/County/MOU Meeting	17	18	19 Great Shakeout	20 Orange County Amateur Radio Club Auction	21 Weekly 40 m ACS Net
22 OCSD Family BBQ & Reserve Bureau BBQ	23 ACS Nets on Five Bands & Cal OES Nets	24	25	26	27	28 Weekly 40 m ACS Net
29	30 Weekly 2 m ACS Net	31				

- **October 2:** OCRACES Meeting, 840 N. Eckhoff Street, Suite 104, Orange, 1930 hours
- **October 7:** City/County RACES & MOU ACS Exercise, 0900-1100 hours
- **October 9:** Cooperative T-Hunt on input of 2-meter repeater, 1920 hours
- **October 14:** Cal OES Southern Region EmComm Leadership Meeting, 840 N. Eckhoff Street, Suite 104, Orange, 0930-1200 hours
- **October 16:** City/County RACES & MOU Meeting, 840 N. Eckhoff Street, Suite 104, Orange, 1930 hours
- **October 19:** Great Shakeout
- **October 20:** Orange County Amateur Radio Club Auction, American Red Cross (George M. Chitty Building), 600 Parkcenter Drive, Santa Ana; 1900 hours
- **October 22:** OCSD Family BBQ and Reserve Bureau BBQ, Lakeview Park, 5305 Santiago Canyon Road, Silverado, 1100-1600 hours
- **October 23:** ACS Nets on five bands and Cal OES Nets from OC EOC



www.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

- 40 m: 7250 kHz SSB (City/County/MOU Net—Saturdays, 1000 hours)
 - 10 m: 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL
 - 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
 - 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 (out of service)
 - 70 cm: 449.180 MHz output, 444.180 MHz input, 107.2 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

RACES Program Coordinator (Emergency Comm's Manager)
Lee Kaser, KK6VIV
714-704-8080

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

Radio Officer (Lieutenant)
Scott Byington, KC6MMF

Assistant Radio Officers (Sergeants)
Jack Barth, AB6VC
Ernest Fierheller, KG6LXT
Bob McFadden, KK6CUS
Tom Tracey, KC6FIC

County of Orange RACES

OCSD/Communications & Technology
840 N. Eckhoff St., Suite 104, Orange, CA 92868-1021
Telephone: 714-704-8080 • Fax: 714-704-7902
E-mail: ocraces@comm.ocgov.com

County of Orange RACES

OCSD/Communications & Technology
840 N. Eckhoff St., Suite 104,
Orange, CA 92868-1021

Telephone – 714-704-8080
Fax – 714-704-7902
E-mail – ocraces@comm.ocgov.com

Visit Our Web Site
<http://www.ocraces.org>
It's Where It's @!

Questions or Comments?
Contact *NetControl* Editor Ken Bourne, W6HK
w6hk@ocraces.org



**"W6ACS ...
Serving
Orange County"**

Meet Your County of Orange RACES Members!



Ken Bourne
W6HK



Scott Byington
KC6MMF



Jack Barth
AB6VC



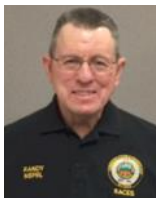
Ernest Fierheller
KG6LXT



Bob McFadden
KK6CUS



Tom Tracey
KC6FIC



Randy Benicky
N6PRL



Roger Berchtold
WB6HMW



David Corsiglia
WA6TWF



Ray Grimes
N8RG



Walter Kroy
KC6HAM



Martin La Rocque
N6NTH



Matt Luczko
KM6CAO



Fran Needham
KJ6UJS



Harvey Packard
KM6BV



Tom Riley
K6TPR



Brad Russo
KB6GPM



Tony Scalpi
N2VAJ



Joe Selikov
KB6EID



Robert Stoffel
KD6DAQ



Ken Tucker
WF6F



Tom Wright
KJ6SPE



Lee Kaser
KK6VIV