November 2014



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The Next OCRACES Meeting Is

November 3, 2014 1930 Hours

840 N. Eckhoff Street, Suite 104, Orange

Training for General Election Ballot Communications



Orange County Sheriff's Department Communications & 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

Operating Procedures

Pardon me while I get picky. I'll first mention some procedures specific to our OCRACES nets, and then I'll talk about general operating practice on the ham bands (and avoiding CB lingo).

Probably the most common problem on our nets is the "quick speak" situation. Our 2-meter simulcast repeater system takes several milliseconds to "come up to speed" after access. When running a net and acknowledging a check-in, or when checking in, key your microphone PTT and wait about a second before speaking. Otherwise, your first one or two syllables might not be repeated, and the checking-in station will not hear a "Roger," or the called station will not hear its City name (especially if it's short, such as "Brea" or "Orange") or member call sign.

During applicant and visitor check-ins, acknowledge by call sign (or at least by the suffix), so that the checking-in station knows you were acknowledging him (or her) rather than a stronger station that overrode him. This is important, yet is one of the most common errors in running a net. Don't just say "Roger" to a visitor.

One of the purposes of running a weekly net is to check equipment. If a station checking in has broken or distorted audio, hum or other noise, or a weak signal, indicate the problem when acknowledging the station.

Always keep a copy of the latest net roll call and preamble handy (such as in your car). It's embarrassing enough if you forget you have net duty until I call you at net time, and then you find you don't have the roll call and preamble, or if your roll call is outdated and does not include new members. Put reminders of net duty on your smartphone or pocket calendar, and find a substitute (or notify me at least 24 hours earlier) if you cannot run the net. Fulfilling your net and activation commitments is an important responsibility.

Here are some suggestions for following amateur radio traditions and to avoid being labeled as a lid (old ham term for poor operator) or as a refugee from CB.

Never say, "I got a copy on you." That's CB lingo. Rather, just say, "I copy you," or "I copy you solid," or "You are Q5" (highest signal quality).

Don't say "QSL" on phone. It's not CB lingo, but it is a CW term for "confirm." Rather, say "Roger."

When asking for a reply, don't say, "C'mon back." That's CB lingo. Say something like, "Go ahead," or "Over," or give your call sign, or just stand by..

When giving your name, don't say, "My personal is...." That's CB lingo, for saying his real name when the CBer was otherwise using a silly "handle" identifier. Simply say, "My name is"

When referring to a ham band, say "meters" instead of "meter," unless it's an adjective. For example, "I'll meet you on 2 meters," or "I am using a 2-meter transceiver."

When signing off, say "73," which means "Best regards." "73s" is redundant, and "Best 73s" is *really* redundant!.

RACES and **MOU** Units Participate in Drill

We had good participation in the City/County RACES & MOU drill on Saturday, October 4, 2014, hosted by the OCSD Communications & Technology Division. The drill scenario was a coordinated terrorist attack on the electrical power grids, causing major power outages throughout 70 percent of Orange County and surrounding counties. High temperatures were forecasted for multiple days, and the County 800-MHz system was only at 80 percent capability due to backup generator failures at several sites, causing pockets of poor communications throughout the County.

The drill was organized into different exercise options, including general messages, simplex contacts, Winlink operations, and HF NVIS communications. A total of 17 City and MOU organizations participated while 11 OCRACES members and applicant staffed the County EOC RACES Room on Loma Ridge to handle message traffic using the ICS 309 communications log and the ICS 213 message form. Participating OCRA-



OCRACES members and applicant and HTSRU member operate at Orange County EOC RACES Room during City/County RACES & MOU Drill on October 4, 2014.

CES members included Assistant Radio Officer Jack Barth, AB6VC, John Bedford, KF6PRN, Randy Benicky, N6PRL, Chief Radio Officer Ken Bourne, W6HK, Assistant Radio Officer Ernest Fierheller, KG6LXT, Assistant Radio Officer Bob McFadden, KK6CUS, Sue Mickelson, KJ6LCJ, Fran Needham, KJ6UJS, Tom Riley, K6TPR, and Assistant Radio Officer (Training) Tom Tracey, KC6FIC. Also operating was OCRACES Applicant Ryan Wakefield, KD6CIO. OCSD Emergency Communications Manager Delia Kraft, KF6UYW, composed replies to the messages received at the EOC



Sgt. Bob McFadden, KK6CUS (left) operates Winlink station while Sgt. Jack Barth, AB6VC, observes.



Randy Benicky, N6PRL, contacts City RACES units on 40 meters with Elecraft K3 transceiver.

during the drill. Participating City RACES units included Brea, Costa Mesa, Cypress, Fountain Valley, Fullerton, Irvine, Laguna Beach, Laguna Woods, Los Alamitos, Mission Viejo, Newport Beach, Orange, Seal Beach, and Westminster. All three MOUs participated, including American Red Cross, Hospital Disaster Support Communications System (HDSCS), and Orange County SKY-WARN. HDSCS Member Jon Schaffer, W6UFS, operated from Position 2 in the OC EOC RACES Room.

Compared to previous drills, traffic was relatively light, especially from the OC EOC, although HDSCS reported a heavy load of traffic. The EOC RACES Room was quieter, due to using dual headsets at each position. Forms were used successfully, including the ICS 211 check-in form, the ICS 309 communications log, the ICS 213 message form, and, at the end of the drill, the incident debrief form. Members used the Yellow Book for looking up City and MOU frequencies, although some of that information is obsolete and all radios (except Position 5) had been programmed with up-to-date frequencies that can be displayed on the position computer screens.

The HF component of the drill revealed some interesting characteristics of 40 meters. Vertical antennas, such as the Hy-Gain DX-88 at Loma Ridge, do not exhibit NVIS (Near Vertical Incidence Skywave) characteristics. OCRACES could not communicate with Newport Beach RACES, which was using a 30-foot-long horizontal wire about 8 feet off the roof, partially shielded to the north and south by the roof, and exhibiting true NVIS characteristics—radiating straight up. NBRACES could only communicate with Seal Beach RACES and nearby Costa Mesa RACES. OCRACES and SBRACES could not hear each other. The OCRACES 40-meter station communicated with RACES units in Costa Mesa, Fountain Valley, Fullerton, Irvine, Laguna Beach, Laguna Woods, Mission Viejo, Orange, and Westminster. Costa Mesa and Orange contacted all the other participating Cities on 40 meters, and Laguna Beach also contacted other Cities.

General Election Ballot Comms: November 4th

City and County RACES and MOU units will provide communications for ballot transportation from the Collection Centers to the Vote Tally Center (VTC) on Tuesday, November 4, 2014, at the close of the General Election. Training for this activity will occur at the November 3rd OCRACES meeting at 7:30 PM at 840 N. Eckhoff Street, Suite 104, in Orange. A communicator is needed at each of the 33 Collection Centers in Orange County.

A component added to the plan a few elections ago is to record the precinct numbers of the boxes being loaded into the vans, and transmit those precinct numbers to Net Control when the van departs from the Collection Center enroute to the VTC. This allows the Registrar of Voters (ROV) staff to update their Web site with this information in real time. The precinct number data that RACES personnel provide to Net Control will be entered into the ROV Web site by ROV staff for public interest.

The election will be conducted using electronic ballots with the addition of paper verification, so multiple boxes will be transported from each precinct. OCSD Communications & Technology Division will be managing the transportation of the ballots, supplies, and paper verification equipment to the VTC in Santa Ana. RACES communicators will provide a communications link between Collection Centers and the VTC. Three repeaters will be used for this election, divided up between groups of Collection of Centers. A Net Control will be assigned to each repeater.

The known Collection Centers that will be utilized for this election (more may be added) are in the following locations: Anaheim PD (parking lot), Canyon Hills, Buena Park, Costa Mesa, Santa Ana, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Beach, Laguna Woods, La Habra, Los Alamitos, Orange, Rancho Santa Margarita, Placentia, San Clemente, Saddleback, Tustin, Westminster, Laguna Niguel, Aliso Viejo, San Juan Capistrano—South Coast Christian Assembly, Anaheim—West Anaheim Youth Center, Corona Del Mar—Episcopal Church, Orange—Handy School, Huntington Beach—Faith Church, Huntington Beach—Boeing, Irvine—University High School, Mission Viejo City Hall, Placentia—Sierra Vista Elementary School, and Santa Ana—Saddleback High School. Four OCRACES communicators are needed at the VTC—three for Net Control and another as a relief operator.

Collection Center activity begins at 8:00 PM and most are closed around 11:00 PM. VTC activity begins at 7:30 PM with setup, and ends around midnight. Communicators should arrive in uniform at the Collection Center location no later than 8:00 PM on election night.

The responsibilities of the communicator will be to transmit information to Net Control regarding activities at the Collection Center, including the movement of the vans and the precinct numbers loaded into the vans. A Ballot Transportation Manual with all the necessary information will be available at the November 3rd OCRACES meeting. If not picked up at the meeting, the manual will be sent via the van to the Collection Center. Available communicators not yet registered should e-mail Emergency Communications Manager Delia Kraft, KF6UYW, at delia.kraft@comm.ocgov.com.

MARRITE: November 18th

OCRACES will participate with its emergency communications response vehicle in the Multi-Agency Regional Radio Interoperability Training Exercise (MARRITE) on Tuesday, November 18, 2014. City agencies are also invited to participate with their communications command post vehicles and their RACES units. The primary purpose of MARRITE is to conduct radio tests from communications command post vehicles within an Operational Area, and with adjoining participating Operational Areas. We would like to see participation from all Orange County agencies this year. MARRITE allows participants to learn about the various interoperable systems and to confirm that their radios are programmed correctly. It also provides a "one stop shop" for viewing of these assets by any public-safety agency on the day of the event.

MARRITE is planned by the California Statewide Interoperability Executive Committee (CalSIEC) Southern Planning Area (SPA). It was previously known as "Radio Rodeo." Radio testing will be conducted between 0900 and 1100 on November 18th. All vehicles will be available for viewing between 1100 and 1200. Several counties in Southern California are participating. The Orange County location is the Orange County Public Works facility at 2120 W. Collins Avenue in Orange. Access to the facility is through the gate at the end of Collins Avenue, just west of Eckhoff Street and just north of the OCSD Communications & Technology Division facility.

Any City agency that would like to have its communications command post vehicle or RACES/ACS vehicle participate should contact OCSD Communications & Technology Division Program Support Manager Denis Marin, K6OLU, at Denis.Marin@comm.ocgov.com or 714-704-8540. Denis is the Orange County site Incident Commander.

Next OCRACES Meeting: November 3rd

The next County of Orange RACES meeting is on Monday, November 3, 2014, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting, we will receive training on providing communications for ballot transportation from the Collection Centers to the Vote Tally Center during the next evening, at the close of the General Election. Also at this meeting, Ken Tucker, WF6F, will give a presentation on his Arduino Doppler RDF (radio direction finder), which he wrote about in the September 2014 issue of *NetControl* (page 5).

OCRACES Participates at Boeing Expo

OCRACES participated in the Boeing Fire Prevention and Safety Expo in Huntington Beach on Wednesday, October 8, 2014, by giving tours of our emergency communications response vehicle. Employees at Boeing HB, many of whom are radio amateurs, enjoyed seeing the communications equipment in our van and asked many questions about the RACES program. One of the visitors to our van was Dan Violette, KI6X, who is the President of the amateur radio "club" at Boeing HB, which has an HF trailer and tower next to the facility's EOC, VHF/UHF equipment inside the EOC, and a team prepared to deploy around the campus with handhelds. Dan is also a member of City of Orange RACES (COAR). OCRACES members at the Boeing event included Chief Radio Officer Ken Bourne, W6HK, Walter Kroy, KC6HAM, Sue Mickelson, KJ6LCJ, and Tom Riley, K6TPR (who drove our van to the event). Also exhibiting at the event were Huntington Beach RACES, HB CERT, HB Fire and Police Departments (including HB Mounted Police), Boeing HB Security and Fire, and Boeing "Bomb" dog. There were also EHS displays, vendors, and safety tips.



OCRACES participants at Boeing Fire Prevention and Safety Expo included (left to right) Sue Mickelson, KJ6LCJ, Walter Kroy, KC6HAM, Tom Riley, K6TPR, and RACES Capt. Ken Bourne, W6HK.

OCRACES Exhibits Van at Reserve BBQ

OCRACES exhibited its emergency communications response vehicle at the OCSD Reserve Bureau BBQ on Sunday, October 19, 2014, at Irvine Lake. Other displays included the Forced Option trailer, Samantha 1 Command Vehicle, SWAT, helicopter, Bomb Squad, Humvee, Harbor Patrol boat, Sheriff's Museum 1962 Chrysler Newport, and other vehicles. The Sheriff's Department's newly acquired Huey Helicopter (Duke 6), which will be used for Search & Rescue and SWAT callouts, landed at the event. Many OCSD reserves (sworn and nonsworn) and their families toured the OCRACES van and became familiar with how we support the Department with our emergency communications capabilities.

Showing the OCRACES van at the Reserve Bureau BBQ were (left to right) Ray Grimes, N8RG, Tom Riley, K6TPR, RACES Sgt. Bob McFadden, KK6CUS, RACES Capt. Ken Bourne, W6HK, Fran Needham, KJ6UJS, and Randy Benicky, N6PRL.



K6TPR Hides in Tustin

Six teams participated in the cooperative Thunt on Monday, October 13, 2014. OCRACES Member Tom Riley, K6TPR, was the fox. He hid in a parking lot west of a tall building just south of 17th Street and east of Prospect Avenue in Tustin. Everyone had good initial bearings, but the tall building reflected the fox's signal into the Von's parking lot on the west side of Prospect Avenue, causing faulty local bearings. The first team to find the fox was the "MESAC" team, consisting of MESAC members Patrick Williams, KJ6PFW, Tom Pastore, N6HAM (driving Patrick's vehicle),





Richard Saunders, K6RBS/GØERY (left photo) and Roger Kepner, W6SQQ, used their homebrew "tape-measure" yagis to find the fox.

Terri Fuqua, KJ6QOC, Pier Tegel, KK6MGS, Patti Shannon, KJ6CPI, and Huntington Beach RACES Member Bill Rose, KA6HMS. Next was Richard Saunders, K6RBS/GØERY, Mission Viejo, followed by Ron Allerdice, WA6CYY, Costa Mesa, followed by OCRACES Member Ken Tucker, WF6F, using his newly developed Arduino Doppler radio direction finder (RDF), which he will demonstrate at the next OCRACES meeting on November 3rd. Next was OCRACES Assistant Radio Officer Bob McFadden, KK6CUS. Meanwhile, OCRACES Chief Radio Officer Ken Bourne, W6HK, and Roger Kepner, W6SQQ, were probing bushes and structures on the other side of Prospect Avenue, convinced that the fox box was hidden over there because of the very strong signal. Finally, they realized that the fox was across the street, and joined the rest of the hunters and the fox to tell "war stories." It was a lot of fun, and all hunters and the fox hope that even more hunters will participate on the next cooperative T-hunt, which will be held on Monday, November 10, 2014, immediately following the OCRACES net on the 146.895 MHz repeater. The fox will begin transmitting at approximately 7:20 PM on 146.295 MHz. Hunters will compare bearings on the 449.100 MHz repeater, and are encouraged to beacon their positions via APRS throughout the hunt. The fox will hide within a City or sector of Orange County, to be announced a few days prior to the hunt. We are always looking for volunteers to be the fox.

The cooperative T-hunts provide excellent practice in working together to locate the source of interference. Eventually, we will conduct some hunts on 70 centimeters (probably on the input of the 449.100 MHz repeater), and compare bearings on the 146.895 MHz repeater. 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. Doppler systems will work on 2 meters and 440 MHz, depending on the length of the antenna elements.



Gathering at the fox's den were (left to right) the MESAC YLs Pier Tegel, KK6MGS, Patti Shannon, KJ6CPI, and Terri Fuqua, KJ6QOC, Ken Bourne, W6HK (OCRACES), Tom Pastore, N6HAM (MESAC), Ken Tucker, WF6F (OCRACES), Tom Riley, K6TPR (OCRACES—the fox), and Bill Rose, KA6HMS (HBRACES).

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

Laguna Beach RACES

At the 2014 ARRL Southwester Division Convention in San Diego, Laguna Beach Emergency Communications Team (LBECT) Chief Radio Officer John Kountz, WO1S, gave a presentation on all aspects of building a station on 70 cm, entitled, "70 cm the Hard Way." It covered radios, cable types, antenna types, preamplifiers, amplifiers, batteries, and solar panels.

Mission Viejo RACES

Thanks to Don Hill, KE6BXT, and Joe Ayers, AE6XE, from Mission Viejo RAC-ES, for a fascinating presentation on Broadband-Hamnet at the October 6, 2014, OC-RACES meeting. Broadband-Hamnet is a high-speed self-discovering, self-configuring, fault-tolerant, computer network using modified wireless routers.



Don Hill, KE6BXT (left), and Joe Ayers, AE6XE, at October 6th OCRACES meeting.

Orange RACES (COAR)

City of Orange RACES Coordinator Carmen Cardenas reported that Vern De-Mars, KG6OXD, is now the City's RACES Chief Radio Officer. Robbie Robinson, KB6CJZ, remains as the Assistant RO.

The COAR Web site is now back up. The URL is http://www.cityoforange.org/depts/police/with_opd/volunteers.asp. Click on "COAR" for additional material.

Hospital Disaster Support Communications System (HDSCS)

At approximately 6:30 AM on September 8, 2014, HDSCS Coordinator April Moell, WA6OPS, received a call via cell

phone from Placentia-Linda hospital, where the telephone system had just gone down. The hospital was following established procedures by notifying HDSCS per its call-up list. April immediately established a network on the HDSCS main repeater and called members who lived nearest the hospital for rapid response to provide backup communications. As members set out for the hospital, the hospital's phones were brought back online, but Assistant Coordinator Joe Moell, KØOV, continued to the hospital and remained for a half-hour to be on-site in case the problem recurred.

At 6:45 PM on October 7, 2014, **HDSCS** Coordinator April Moell. WA6OPS, received a telephone call from the Disaster Coordinator of Western Medical Center in Santa Ana. There were no communications problems there, but he had just learned via ReddiNet (a commercial UHF digital inter-hospital communications system sold to hospitals by Healthcare Association of Southern California and maintained by OCSD Communications & Technology Division) that all telephones were down at Coastal Communities Hospital nearby in Santa Ana. April immediately established an on-air net and alerted four HDSCS members in the vicinity of Coastal Communities Hospital to make a rapid response there. The first arrived at 7:30 PM and the others arrived very shortly thereafter. By then, the hospital's technician had replaced a power supply, and phones were coming back up. By request of the Coastal Disaster Coordinator, the HDSCS operators deployed to the Hospital Command Center, Cardiac Care, Emergency Department, and PBX/Security. They maintained an internal net until 9 PM to insure that the system was stable. Four additional members were standing by for relief in case the activation had lasted late into the night. Responding to the hospital were Assistant Coordinator Ken Simpson, W6KOS, Dave Popko, AF6TN, Justin Ennen, AI6CI, and Assistant Coordinator Tom Gaccione, WB2LRH. Net Controls and supporting base stations were Allen Bullock, KD6LCL, April Moell, WA6OPS, and Dave West, KI6EPI.

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November 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3 Weekly ACS Net & OCRA- CES Meeting	4 General Election Ballot Transportation	5	6	7	8 EOC RACES Room Training
9	10 Weekly ACS Net & Coopera- tive T-Hunt	11	12	13	14	15
16	17 Weekly ACS Net	18 MARRITE	19	20	21	22
23	24 Weekly ACS Nets & SWACS Frequency/ Radio Test	25	26	27 Thanksgiv- ing	28	29
30						

Upcoming Events:

- November 3: OCRACES meeting, 840 N. Eckhoff Street, Suite 104, Orange
- November 4: Communications for General Election ballot transportation, 2000
- November 8: EOC RACES Room Training, 1000-1200
- November 10: Cooperative T-Hunt, 1920
- November 18: Multi-Agency Regional Radio Interoperability Training Exercise (MARRITE)
- November 24: 2-m/70-cm/6-m/1½-m ACS nets and SWACS frequency/radio test
- November 27: Happy Thanksgiving!
- December 1: OCRACES Holiday Dinner, 1830



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

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: 147.480 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: 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) 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 Manager Delia Kraft, KF6UYW 714-704-7979

Radio Officers (Lieutenants) Scott Byington, KC6MMF Harvey Packard, KM6BV Ralph Sbragia, W6CSP Chief Radio Officer (Captain) Ken Bourne, W6HK 714-997-0073

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

County of Orange RACES

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Questions or Comments?
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"W6ACS ... Serving Orange County"

Meet your County of Orange RACES Members!



Ken Bourne W6HK



Scott Byington KC6MMF



Harvey Packard KM6BV



Ralph Sbragia W6CSP



Delia Kraft KF6UYW



Marten Miller KF6ZLQ



Robert Stoffel KD6DAQ



Jack Barth AB6VC



Jim Dorris KC6RFC



Ernest Fierheller KG6LXT



Bob McFadden KK6CUS



Tom Tracey KC6FIC



John Bedford KF6PRN



Randy Benicky



Bill Borg KG6PEX



Nancee Graff N6ZRB



Ray Grimes N8RG



Walter Kroy KC6HAM



Martin La Rocque N6NTH



Sue Mickelson KJ6LCJ



Fran Needham KJ6UJS



Kenan Reilly KR6J



Tom Riley K6TPR



John Roberts W6JOR



Joe Selikov KB6EID



Ken Tucker WF6F



Brian Turner KI6WZS



Tom Wright KJ6SPE



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