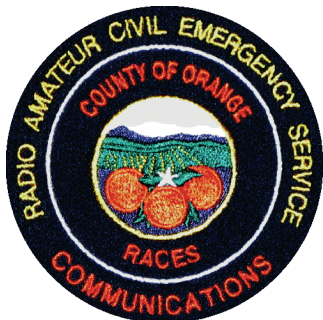


December 2006



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

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Captain's Corner

by Ken Bourne, W6HK, Chief Radio Officer

What a great year! County of Orange RACES was involved in 35 events (including monthly meetings) during 2006, including the Sierra Fire in February, Baker to Vegas in April, elections in April, June, and November, radio-coverage testing of potential command-post locations in July, OCSD operations in Silverado Canyon in September, City/County RACES Exercise in October, and the Orange County Fire Authority Open House in October. The devotion of OCRACES members to serving the Orange County Sheriff's Department and the public is deeply appreciated. Those members who were particularly active during the year will be recognized at the annual OCRACES holiday meeting on Monday, December 4, 2006. Members and their families will gather at 1830 hours at Marie Callender's, 307 E. Katella Ave., in Orange, for a delicious meal and lively conversations.

year for our EOC RACES Room and emergency communications response vehicle. We will enjoy installing the equipment and improving our communications capabilities. Additional work needs to be done on our RACES vehicle and in our RACES Room.



We also plan to improve our training programs and documentation during 2007. We intend to certify each member as he or she becomes proficient in various procedures and operation of RACES equipment. Help will be provided in learning new techniques and reviewing established operations, including VHF and UHF repeaters, APRS, ATV, SSTV, Winlink, HSMM, public-safety console, HF SSB, PSK31 and other digital modes, backup power systems, antenna installations, satellite terminals, etc.

We wish all County of Orange and City RACES members, as well as HDSCS, Red Cross, and SKYWARN members and their families, a very merry holiday season, and all the best for a happy and healthy new year.

What's in store for 2007? We expect it to be a fascinating year, with many events and projects to keep us enthused. We expect to receive some new equipment next



The Next
OCRACES
Meeting is

December 4, 2006
1830 Hours
Marie Callender's
307 E. Katella Ave.,
Orange, CA

This is our annual
OCRACES
holiday meeting



Orange County Sheriff's Department
Michael S. Carona, Sheriff-Coroner

OCRACES Exhibits at OCFA Open House

County of Orange RACES exhibited its emergency communications response vehicle at the Orange County Fire Authority Open House on Saturday, October 14, 2006. OCRACES members explained the vehicle's communications capabilities on law and fire trunked radio systems, other public-safety frequencies, and amateur radio frequencies, including HF, VHF, and UHF, on ATV, SSTV, APRS, Winlink, and other modes.

OCRACES members at the exhibit included Ken Bourne, W6HK, Scott Byington, KC6MMF, Harvey Packard, KM6BV, Walter Kroy, KC6HAM, and John Roberts, W6JOR.



Left to right: Radio Officer Scott Byington, KC6MMF; Radio Officer Harvey Packard, KM6BV; John Roberts, W6JOR; Walter Kroy, KC6HAM; and Chief Radio Officer Ken Bourne, W6HK

Tips on Preparing for Wet Winter Weather

News Bulletin: November 21, 2006

California Governor's Office of Emergency Services

The National Weather Service (NWS) is forecasting above-average rainfall throughout California this winter due to moderate El Niño weather conditions. Storms fueled by this El Niño are expected to have the greatest impact during January, February, and March 2007. Although increased precipitation is expected, the NWS does not forecast particularly strong, unruly storms as seen in recent winters.

OES is offering tips to help Californians prepare for the wet winter months ahead. Before the storm, OES recommends storing important documents in a safe-deposit box, assessing insurance coverage needs, and preparing emergency kits with essential supplies such as first-aid kit, food, manual can opener, battery-operated radio, flashlights, batteries, and drinking water. Also, keep your car fueled and know safe routes to higher ground.

During the storm, OES recommends avoiding flood-prone areas, crossing flowing streams or driving over flooded roads. Travel should be avoided; however, if travel is necessary, dress warmly and inform others of your route. Stay tuned to local TV and radio stations for news updates and instructions. If you are advised to leave your home, move to a safe area before access is cut off by flood waters.

After the storm, throw out all food (canned and otherwise) that has been in contact with flood waters, follow instructions about safety of drinking water (it may need to be boiled or purified before drinking), avoid disaster areas, downed power lines, and broken gas lines, and report them immediately. Do not turn gas back on yourself; rely on utility crews. Use flashlights, not lanterns or candles, to examine building; there may be gas leaks. Stay tuned to TV and radio for instructions from local authorities.



OCRACES Holiday Meeting: December 4th

The next County of Orange RACES meeting is our annual Holiday Meeting on Monday, December 4, 2006, at 1830 hours (note that is 6:30 PM, one hour earlier than our regular meeting), at Marie Calender's 307 E. Katella Avenue, in Orange. This dinner meeting is for all OCRACES members and their families. Awards will be given to members who participated in the most events, meetings, and nets, and to the Officer of the Year and the Member of the Year, as selected by member votes. This is a great opportunity to enhance relationships between members and their families, and to celebrate the fine year that OCRACES has had in serving the Orange County Sheriff's Department.

City and County RACES Units Support Election

OCSD/Communications coordinated ballot transportation for the General Election on Tuesday, November 7, 2006. County and City RACES units provided support at 22 out of 23 Collection Centers in Orange County.

Operators recorded the precinct numbers of the boxes being loaded into the vans, and transmitted those precinct numbers to Net Control when the vans departed enroute to the Vote Tally Center (VTC). OCSD/Communications managed the transportation of the ballots, supplies, and paper verification to the VTC in Santa Ana. Two RACES repeaters and two net-control operators were used for this election, due to the high amount of radio traffic.

OCRACES members working at the Collection Centers included Walter Kroy, KC6HAM (Garden Grove), Nancee Graff, N6ZRB (Laguna Woods), Tom Stroud, N6FDZ (Tustin), Ken Bourne, W6HK (Santa Ana), and Jim Carter, WB6HAG (Santa Ana, as an OCSD Reserve Deputy with one of the vans). City RACES members at the Collection Centers included Mike Oviatt, KE6IWM (Costa Mesa), Glen Langer, W6GTL (Fountain Valley), Gene Thorpe, KB6CMO (Fullerton), Steve Albert, KE6OCE (Huntington Beach), Steve and Ruth Sanchez, KI6CVS and KI6CVR (Irvine), John Kountz, KE6GFF, and Lynn Taylor, WB6UUT (Laguna Beach and Aliso Viejo), Ken Mirabella, KM6YH (La Habra), Tom Rothwell, K6ZT (Los Alamitos), Steve Carmichael, KI6DDE, and Bruce Creager, KC6DLA (Orange), Gary Bakirci, KI6DB (Santa Margarita), John McCauley, KD6PGC (Placentia), Frank Columbus, WA2KWR (Saddleback), Dick Ingwerson, N6PFY (Westminster), and Al Way, KC6LNP (Laguna Niguel). Communicators were also supplied by Anaheim RACES (Anaheim Library and Canyon Hills) and Buena Park RACES (Buena Park). OCRACES communicators working at the VTC for net control and traffic control included Harvey Packard, KM6BV, Tom Tracey, KC6FIC, Joe Selikov, KB6EID, Tony Sanchez, AB6QT, Jack Barth, AB6VC, and Ernest Fierheller, KG6LXT.



Behind Van 5A at the Santa Ana Collection Center are (left to right) Kerri Fogh (from OCSD, who served as the driver), OCSD Reserve Sgt (and OCRACES member) Jim Carter, WB6HAG, and Chief Radio Officer Ken Bourne, W6HK

Yellow Lights on Electric Avenue

by Capt. Chris R. Storey, KA6WNK

U.S. Air Force Auxiliary, Civil Air Patrol, Fullerton Composite Squadron 56

Many of us in Civil Air Patrol have “first-responder” in our blaze-orange blood. We’re the folks who look for a missing aircraft all day— then stop to help at an auto accident scene on the way home.

Beyond the obvious dangers of oncoming traffic, fire, broken glass, jagged edges of torn metal, and exposure to leaking fuel—not to mention blood-borne pathogens from injured passengers—new hazards lurk around the bend with Hybrid Electric Vehicles (HEVs), increasingly prevalent on California roads.

Hybrids combine an internal combustion engine with an electric motor, but they’re primarily powered by the gas engine and convert energy normally wasted during braking or coasting into electricity. A high-voltage battery pack stores that energy until needed by the electric motor.

One unique safety hazard posed by post-accident HEVs is the difficulty of determining if the vehicle is still running. Their quiet-as-a-golf-cart operation is likely to be the cause of accidents, as well, especially involving pedestrians who rely upon hearing cars more than they realize. On some models, the electric motor automatically shuts off the gasoline engine while stopped or at low speeds. Drivers sometimes inadvertently leave their vehicles in DRIVE after a collision. This becomes a hazard because hybrids have silent electric motors that may still be running. When drivers remove their foot from the brake pedal (when they exit the vehicle or are helped out by first responders), the vehicle may lurch forward, striking you or other bystanders.

Automakers are proud of their hybrids and identify them through distinctive markings or badges. If you stop at the scene of an auto accident, look for them. Approach hybrids, or any vehicle for that matter, from the side if possible. When responding to traffic collisions, police officers and firefighters try to put the vehicle in PARK, turn off the ignition, and remove the key. As a signal to others that the vehicle is shut off, they place the keys on the dashboard. Take this advice if you are involved in an auto accident in any vehicle. If you do not feel comfortable reaching into someone’s vehicle after a collision, ask the driver or passenger if they are able to do it. It is for their safety too.

The potentially lethal voltage stored in the batteries of hybrids presents another safety hazard—up to 500 volts in the Toyota Prius. Safety experts say 60 volts, and even lower in some cases, can be lethal. As a Good Samaritan at the scene of an automobile collision, you will not be cutting open doors, roofs, or side pillars—that’s for the fire department. Although your risk of contacting high-voltage wiring is less than professional rescuers, exercise extra caution. “For electricity to be transferred from the battery to the motor, the car has to be accelerating or decelerating,” explains Sage Marie, Honda spokesman. “Unless the car is moving, there is no high-voltage current moving through the wires. Even so, there’s no reason any rescue worker should be anywhere near the wires, and where the wires are located, they won’t be.”

Automakers have gone to great lengths to reduce dangers from the high-voltage components in their hybrids. They’ve color-coded the high-voltage wiring and components in our SAR—standard attention-grabbing blaze orange. These wires are routed along the midline of the vehicle frame wherever possible for increased protection. Automatic interlocks disconnect the high-voltage circuits if the air bags deploy. The high-voltage batteries are not grounded to the frame of the vehicle, so there is little danger of being electrocuted by merely touching a wrecked hybrid. Even with these safety features, be careful where you stick your hands because the normally well-protected high-voltage components could be exposed after a particularly severe collision. First responders across the country are being trained to locate the emergency high-voltage disconnects on the current production model HEVs, but that’s above our pay-grade in CAP.

You’re probably asking, “What about spilled gasoline and high-voltage sparks? Won’t these cars explode into flames?” Good question, Good Samaritan! Hybrids are actually very safe. Collisions severe enough to rupture the fuel tank most likely have activated the safety features designed to disconnect the high voltage at the source. Fire is always a possibility at any automobile collision. The best advice: Keep your eyes open and prepare to move out of harm’s way.

Hybrids are not everywhere yet, but they’re not exactly novelties, either. In 2005 alone, Torrance -based Toyota sold 107,897 Prius models and Honda put more than 26,000 Civic Hybrids and Insights on the road—and the eco-conscious Golden State dominates HEV sales, according to Car Concepts, Thousand Oaks. By the end of the year, Toyota will likely have sold 30,000 units of the new hybrid Camry—the most popular vehicle in America. By 2008, nine automakers will produce 15 models of hybrids, including two full-size trucks, four sport utility vehicles, and three new hybrid versions of current model passenger cars. There will be accidents. Don’t be afraid to help if you are in a position to do so

Capt. Storey is the Emergency Services Officer of the Fullerton Composite Squadron 56, and is active in CAP ES. A certified SARTECH II with the National Association of Search and Rescue (NASAR), he is a California state-licensed Emergency Medical Technician.

Reprinted, with permission, from the Spring 2006 issue of *Eagle Call*.

Watching The Web

*Web Sites of Interest to RACES Personnel
by Ken Bourne, W6HK, Chief Radio Officer*

Digital DC Ammeter, Amp Hour, Battery Fuel Gauges, and Other Meters

<http://www.rc-electronics-usa.com/>



RC Electronics, Inc., has an interesting Web site, offering digital DC ammeters, amp-hour meters, watt-hour meters, and related electrical test equipment. Their product research is driven by electric technologies including batteries, battery chargers, AC inverters, motorized bicycles and wheelchair motors, and solar-power and wind-power generators.

RC Electronics' "DOC Wattson" DC amp-hour meter provides a precision and rugged tool for measuring power, charge, energy, current, and voltage in a wide range of battery, electric-vehicle, and alternative energy applications.

The Web site includes an online amp-hour meter simulator, which shows how RC Electronics' "Watt's Up" power analyzer works. The meter measures amps, amp hours, watt hours, volts, and other electrical parameters



not usually found in digital multimeters. With the online simulator, you can set electrical values for experimental sources and loads and see how changes like source voltage, "throttle" settings, and the resistances of your battery, motor and controls, and wiring affect your electrical system. Thanks to Ken Mirabella, KM6YH, owner of Powerwerx, for mentioning this

Web site, and especially this fascinating page with the amp-hour meter simulator. Incidentally, Powerwerx sells the "Watt's Up" power analyzer. Go to <http://www.powerwerx.com> and click on the "Watt's Up Meter" in the right column.

Another interesting page on the RC Electronics Web site is "Electronics 101," at <http://www.rc-electronics-usa.com/battery-electronics-101.html>. Questions and answers on the following topics are presented for better understanding and utilization of test equipment:

- ◆ What's the difference between an Ah and a Wh?
- ◆ Will a larger battery make my vehicle faster?
- ◆ How do wiring and connectors affect performance?
- ◆ Why must I use connectors designed for high current?
- ◆ What's the difference between continuous and intermittent current measurement specifications?

RC Electronics also sells 50 mV and 100 mV current shunt resistors for a wide range of applications. These low-resistance precision resistors are used to measure AC or DC electrical currents by the voltage drop those currents create across the resistance. Sometimes called ammeter shunts, they are a type of current sensor.

RACES News from Around the County

Newport Beach

At the November 8, 2006, Newport Beach RACES meeting, Radio Officer Ed Karagozian, K6JGN, announced that, due to health reasons, he will step down as Radio Officer effective with the June 2007 meeting. Any Newport Beach RACES member who would like to discuss becoming the new Radio Officer is invited to call Ed. He hopes to continue to contribute as Assistant Radio Officer.

Ed has served for many years as the Newport Beach RACES Radio Officer, and has contributed much to the city's RACES program. We congratulate Ed on a job well done, and wish him the very best.

Newport Beach RACES will not meet in December. Their next regular meeting will be held on Wednesday evening, January 10, 2007.

County of Orange RACES

Chuck Dolan, KG6UJC, and Ken Bourne, W6HK, were at the EOC RACES room on Wednesday, November 15, 2006, and Harvey Packard, KM6BV, was there on Thursday, November 16, for the statewide EMSA Drill. Chuck and Ken also checked into the California Emergency Services Net on Wednesday at 1000 hours on 40 meters.



Chuck Dolan, KG6UJC, monitors CESN net on 40 meters in EOC RACES Room

"RACES News" provides an opportunity to share information from all City & County RACES organizations in Orange County.

Please send your news to:

w6hk@ocraces.org

SKYWARN Recognition Day: December 2

The 2006 SKYWARN Recognition Day is Saturday, December 2, from 0000 to 2400 UTC. The event, which was developed in 1999 by the National Weather Service and the ARRL, celebrates the contributions that volunteer SKYWARN radio operators make to the NWS. During the day, SKYWARN operators visit NWS offices and contact other radio operators across the world. Information regarding SRD is updated at <http://hamradio.noaa.gov>.

It is estimated that around 100 NWS stations will participate this year, transmitting on different frequencies and modes, depending on the individual capabilities at each site. Most stations will operate on 80, 40, 20, 15, 10, 6, and 2 meters and 70 centimeters, using phone operations. However, some sites will utilize other modes including PSK31, RTTY, packet, and CW. The use of repeaters to make contacts is allowed. VoIP modes like IRLP and EchoLink are also encouraged. The exchange should include call sign, signal report, location, and a one or two word description of the local weather, such as sunny, partly cloudy, or windy.

QSL certificates will be sent from the NWS office in Goodland, KS. Requests may be sent via WX0GLD, or to scott.mentzer@noaa.gov, or to SKYWARN Recognition Day, 920 Armory Road, Goodland, KS 67735, with a self-addressed stamped envelope.



December 2006

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2 SKYWARN Recognition Day
3	4 Holiday Meeting & Weekly Net	5	6	7	8	9
10	11 Weekly Net	12	13	14	15	16
17	18 Weekly Net	19	20	21	22	23
24	25 Christmas No Net	26	27	28	29	30
31						

Upcoming Events:

- Dec 2: SKYWARN Recognition Day
- Dec 4: OCRACES holiday meeting
- Dec 25: Merry Christmas
- Jan 1: Happy New Year
- Jan 8: OCRACES monthly meeting



www.ocraces.org

County of Orange RACES Frequencies:

- 6m: 52.62 MHz output, 52.12 MHz input, 103.5 PL
- 2m: 146.895 MHz output, 146.295 MHz input, 136.5 PL *
- 23cm: 1282.025 MHz output, 1270.025 MHz input, 88.5 PL
- 1.25m: 223.76 MHz output, 222.16 MHz input, 110.9 PL
- 70 cm: 449.180 MHz output, 444.180 MHz input, 107.2 PL

* Primary Net - Mondays, 1900 Hours

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(714) 704-7917

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

Radio Officers
Scott Byington, KC6MMF
Harvey Packard, KM6BV
Joe Selikov, KB6EID
Ralph Sbragia, W6CSP

Assistant Radio Officers
Jack Barth, AB6VC
Tony Sanchez, AE6QT
Ernest Fierheller, KG6LXT

County of Orange RACES

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Orange, CA 92868-1021

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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.

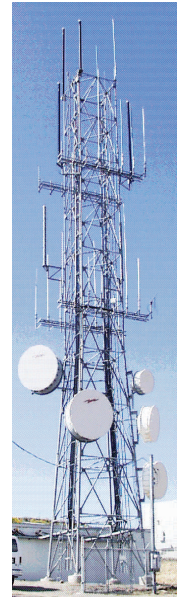
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It's Where It's @!

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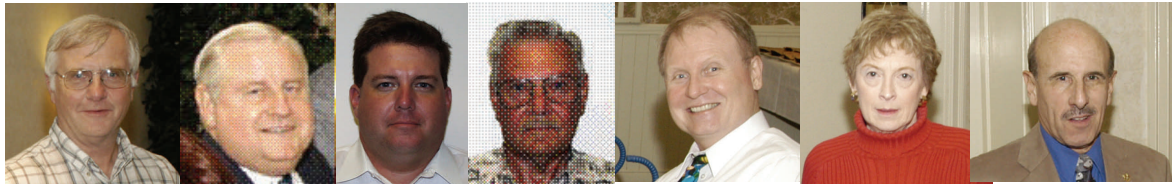


**“W6KRW ...
Serving
Orange County”**

Meet your County of Orange RACES Members!



Ken Bourne W6HK Scott Byington KC6MMF Harvey Packard KM6BV Joe Selikov KB6EID Ralph Sbragia W6CSP Marten Miller KF6ZLQ Robert Stoffel KD6DAQ



Jack Barth AB6VC Jim Carter WB6HAG Bill Borg KG6PEX Chuck Dolan KG6UJC Ernest Fierheller KG6LXT Nancee Graff N6ZRB Ray Grimes N8RG



Walter Kroy KC6HAM Martin LaRocque N6NTH John Roberts W6JOR Tony Sanchez AE6QT Steve Sobodos KN6UX Tom Stroud N6FDZ Tom Tracey KC6FIC