

April, 2006



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

## Captain's Corner

by Ken Bourne, W6HK, Chief Radio Officer

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On March 17, 2006, the Federal Communications Commission established a "Public Safety and Homeland Security Bureau" (PS&HSB). As RACES members and radio amateurs, we need to know how this new Bureau will impact our operations, and if it will take over the administration of the Amateur Radio Service, currently the responsibility of the Commission's Wireless Telecommunications Bureau. The PS&HSB is designed to provide a more efficient, effective, and responsive organizational structure to address public safety, homeland security, national security, emergency management and preparedness, disaster management, and other related issues.

The PS&HSB will handle the following issues and functions that have been dispersed among seven different bureaus and offices:

- ◆ Public safety communications
- ◆ 911/Enhanced 911 (E911) requirements
- ◆ Public Safety Answering Points (PSAPs)
- ◆ Interoperability and operability of public safety communications
- ◆ Communications Assistance for Law Enforcement Act (CALEA)
- ◆ Priority emergency communications (TSP/WSP programs)
- ◆ Alert and warning of U.S. citizens (EAS, etc)
- ◆ Continuity of government operations (COG) and Continuity of Operations (COOP) planning
- ◆ Public safety outreach (e.g., PSAPs, first responder organizations)

- ◆ Disaster management coordination
- ◆ Disaster management outreach
- ◆ 24/7 Communications Center
- ◆ Communications infrastructure protection
- ◆ Network reliability and resiliency
- ◆ Network security
- ◆ Advisory Committees and panels focused on public safety and security issues
- ◆ Studies and reports of public safety, homeland security, and disaster management issues

The PS&HSB will be organized into three divisions: Policy Division, Public Communications Outreach & Operations Division, and the Communications Systems Analysis Division. In addition, the Bureau will have a Front Office consisting of the Bureau's senior leadership and management staff.

**Policy Division** – The Policy Division will draft, develop, and administer rules, regulations, and policies, including those pertaining to the 911/Enhanced 911 (E911), Public Safety Answering Points (PSAPs), operability and interoperability for public safety communications, communications infrastructure protection, network security and reliability. In addition, the Policy Division will handle the licensing of spectrum for public-safety entities (e.g., police and fire departments) and related issues.

**Public Communications Outreach & Operations Division** – The Public Communications Outreach & Operations Division (PCOOD) will be the lead division responsible for coordinating the Commission's emergency response procedures and operations. The division will coordinate the Commission's public safety, homeland security, na-

**The Next  
OCRACES  
Meeting is**

**April 3, 2006**

**1930 Hours**

**840 N. Eckhoff St.,  
Orange, CA**

**Our guest speaker  
will be Chris Story,  
KA6WNK, who will  
present a "Hot  
Weather" class.**



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

## Captain's Corner *Continued from page 1*

tional security, disaster management, and related functions on a day-to-day basis and during incidents or other emergencies. The division will coordinate and communicate with public-safety organizations and state and local governmental agencies. The division will also be the lead point of contact for all inter-governmental coordination activities with other Federal departments and agencies. The division will operate the Commission's Communications Center (COMM-CTR) and High Frequency Direction Finding Capability (HFDFC) facilities.

**Communications Systems Analysis Division** – The Communications Systems Analysis Division (CSAD) will administer the Commission's information collection requirements (e.g., network outage reports) and perform analyses and studies concerning public safety, homeland security, national security, disaster management, and related issues.

The ARRL says it appears that the Amateur Radio Service—now within the FCC's Wireless Telecommunications Bureau's Public Safety and Critical Infrastructure Division, headed by Michael J. Wilhelm, WS6BR—will remain within the WTB, according to Anthony Dale, Acting Director of the FCC's Office of Managing Director (OMD).

*"The Critical Infrastructure piece--that's things like taxi cabs, Amateur Radio, chemical plants, all that type of thing--those are not public safety-specific functions," Dale said in response to a reporter's question following the FCC open meeting. "The plan is to keep those in the Wireless Bureau."*

As we contemplate the effect this new Bureau will have on the Amateur Radio Service, we are preparing for a number of activities in April, such as Baker to Vegas (April 1<sup>st</sup>), the next OCRACES meeting (April 3<sup>rd</sup>), our next election duties (April 11th) and Rebuilding Together Orange County (April 29th).

Our next OCRACES meeting on April 3<sup>rd</sup> will start at 7:30 PM, at 840 N. Eckhoff St., Suite 104, in Orange. Our guest speaker, Chris Storey, KA6WNK, will present a "Hot Weather Class," useful for search and rescue (SAR) workers and RACES personnel deployed to incidents during hot summer conditions.

The material Chris presents is useful not only for members of the SAR community (and the public they serve), but for all RACES members and their families for when they are out enjoying the summer on their own. One of his handouts, designed for families of RACES members, tells how to stay safe this summer.

### Here is an outline of Chris' class:

- ◆ **A brief review of basic human physiology related to hot weather**
- ◆ **Hot weather terminology**
- ◆ **The three stages of heat related medical emergencies**
- ◆ **Recognition and treatment of heat related emergencies**
- ◆ **Hydration for the search & rescue worker (before, during, and after the mission)**
- ◆ **Hydration for the search & rescue aircrew member**
- ◆ **A brief Q&A session**

## Watching The Web

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

Batteries are common components in emergency communications systems. It is important to have as much knowledge as possible in using and caring for various types of batteries, including the batteries used in our radio-equipped vehicles. Practically everything you would want to know about car and deep-cycle batteries may be found on the Web site at <http://www.batteryfaq.org>, which was just updated on February 26, 2006. This "Car and Deep Cycle Battery FAQ" provides answers to frequently asked questions (FAQs), tips, manufacturers' information, references, and hyperlinks. This Web site is about car, motorcycle, power sports, truck, boat, marine, recreational vehicle, solar, and other starting and deep-cycle applications.

This FAQ contains answers and information about lead-acid batteries used to start car, motorcycle, truck, boat, recreational vehicle (RV), power sports, motor home, tractor, and other engines. It also answers questions about golf cart, EV, traction, motive, solar, standby, stationary, UPS, network, industrial, and other lead-acid batteries used in deep-cycle applications. It covers charging (and chargers), testing, buying replacement batteries, installing, myths, overnight draining, removing sulfation, storing, jump starting, and other topics about car (starting) and deep-cycle batteries.



# Baker-to-Vegas 2006

by Ralph Sbragia, W6CSP

The annual Baker to Vegas Challenge Cup Relay race will be held this weekend. This should prove to be an interesting and challenging event since we were not able to secure the necessary funds for room reservations in Pahrump to set up our Command Post. This will be the first B2V race in which the OCRACES CP is established back here in Orange County. A satellite link will be established for internet connectivity at the OCRACES Radio Room in the Orange County EOC and APRS tracking will be conducted from this location. An attempt will be made to establish radio communications from Loma to the Turquoise Peak and/or Mt. Potosi repeaters but there is little hope that this will happen. The OCRACES CP can be reached by phone at **(714) 628-7038 or 7040**. The B2V Communications Handbook has been completed and is available by email as a pdf document. Excerpts from the handbook have been inserted into the Net Control and comprise the rest of this article.

## OCRACES COMMUNICATIONS SYSTEM

### OVERVIEW

Orange County RACES has coordinated the use of several radio channels in the Amateur Radio bands to support running teams participating in the Baker to Vegas Challenge Cup Relay. **The system has been designed to support the operations of multiple teams using a limited number of frequencies. For this reason, it is important that all transmissions be kept short, concise and professional at all times.**

The primary goal is to provide a communications network along the 138 miles of highway and 120 miles of race course between the cities of Baker, Shoshone, Pahrump and Las Vegas. All communication sites, follow vehicles and shuttle vehicles will monitor the backbone repeater frequency for emergency or priority traffic.

The OCRACES communication Command Post (CP) will be monitoring these broadcasts with Automatic Position Reporting System (APRS Vehicle Tracking) via global positioning satellite software. This will enable the Com-

mand Post to constantly track the vehicles following the runners. As many as 80 GPS equipped vehicles may be using the APRS Vehicle Tracking System this year.

## THE OCRACES COMMUNICATIONS SYSTEM

The OCRACES Communications System consists of four modes including **SIMPLEX OPERATION:** 2-meter Vehicle-to-Vehicle communications; **UHF REPEATER:** UHF repeater sites at Turquoise Peak and Mt. Potosi; **VHF REPEATER:** The VHF 2-meter repeater site is in Las Vegas; and **APRS VEHICLE TRACKING:** High level digi sites at Turquoise Peak and Mt. Potosi with a Las Vegas Internet interface.

## METHOD OF OPERATION

All vehicle radios should be dual-band mobile to allow the following operations:

### UHF REPEATER:

Channel 1 = BLUE ZONE 446.900 (-) 123.0 PL;

Channel 2 = ORANGE ZONE 449.950 (-) 136.5 PL

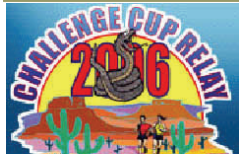
### TEAMS, TEAM # AND START TIME:

Agency	Team #	Start Time:	Agency	Team #	Start Time:	
Anaheim PD	011	1630	Anaheim PD - 800	193	1300	
*Arizona A.G.	141	1400	ATF Los Angeles	054	1300	
Baldwin Park PD	176	1300	*Ca DOI Fraud	206	1130	
*CHP - Gold	162	1300	Colton PD	122	1400	
Corona PD	095	1545	Costa Mesa	074	1730	
Eastern Sierra Lawmen	191	1130	El Cajon PD	062	1300	
El Monte PD	153	1730	Escondido PD	177	1130	
Fontana PD	114	1400	Fremont PD	024	1630	
Glendora PD	218	1300	Huntington Bch PD	028	1630	
Irvine PD	115	1545	LAPD Mission	173	1730	
LASD Malibu	126	1400	LASD Narco	151	1300	
LASD Norwalk	032	1630	LASD Temple	068	1300	
LASD Transit Serv. Bur.	077	1400	LASD West Hwd	212	1130	
Long Beach PD #1	013	1630	Long Beach PD #2	085	1545	
*OCDA BOI	056	1730	*OCSD Open	006	1630	
*OCSD Inv	117	1300	*OCSD Women	049	1300	
Orange PD	057	1545	San Bernardino PD	107	1545	
San Bernardino SD	037	1545	San Bernardino SD-Inv	215	1130	
San Bernardino SD-MX	214	1545	San Diego DA	086	1730	
San Diego SD	174	1130	Law Dawgs (SG/Irw/CC)	201	1130	
San Marino et al	167	1130	South Gate PD	164	1300	
Tulare SD	516	1130	US Secret Service	025	1630	
Ventura Co. SD	200	1130	Women of LASD	061	1730	
<b>Start Time:</b>	1130	1300	1400	1545	1630	1730
<b># of Teams</b>	10	11	5	7	7	6

*Teams marked with an asterisk in the table below are utilizing OCRACES equipment and or support. Others listed may contact the CP for position information.*

*Continued on page 4*





# Baker-to-Vegas 2006

by Ralph Sbragia, W6CSP

## VHF SIMPLEX:

Channel 1 = Agency assigned frequency(s) & coordinated through the race committee

Channel 2 = Las Vegas Repeater - 145.160 (s) 136.5 PL

## UHF REPEATER OPERATIONAL ZONES

The UHF repeater system consists of two zones. The high-level repeater sites provide almost complete racecourse coverage. Common sense and good judgment will determine zone selection along the racecourse. Refer to map on back of communications manual.

**BLUE ZONE – 446.900 (-) PL. 123.0** - The repeater site in Blue Zone is located at Turquoise Peak and will cover from the city of Baker to approximately Stage 9. The indicated switching point, as shown on the Communications Plan map (back cover), for Blue Zone and Orange Zone is approximate only. Common sense and good judgment will determine zone selection between Stage positions 9 and 10.

**ORANGE ZONE – 449.950 (-) PL. 136.5** - The repeater site in Orange Zone is located on Mt. Potosi and will cover from approximately Stage 9 to the finish line.

## LAS VEGAS LOCAL ZONE – 145.160 (-) PL. 136.5 -

This repeater is located in the city of Las Vegas and will be used primarily for local administrative traffic. The OCRACES Equipment Recovery Team will monitor the Las Vegas 2-meter repeater.

## SIMPLEX OPERATIONS

Simplex radio operations will be the PRIMARY mode of communications for all mobile vehicles. Each agency (other than GPS only) will be assigned a simplex radio frequency for their agency use. This will allow communications to be conducted between the agency Follow and supporting vehicles without (hopefully) outside interference.

The simplex mode of communications should also be used to communicate to the staging locations whenever possible. Using the simplex communications mode will allow the repeater system to remain free of car-to-car radio traffic. This will allow the handling of emergency communications or passing of radio traffic to and from Las Vegas, and to the staging locations without delay.

## 2-METER SIMPLEX FREQUENCY ASSIGNMENTS

YELLOW-1A - OCSD(18) Team 007: 145.770 (PL 203.5 Hz) (primary)

YELLOW-1B - OCSD(18) Team 007: 145.785 (PL 233.6 Hz) (secondary)

YELLOW-2 - OCSD(18) Team 160: 147.050

YELLOW-3 - OCSD(18) Team 221: 147.100

All simplex operations should function with a 136.5 PL unless otherwise indicated above. The simplex frequencies may have to be changed on race day due to interference. The department Communications Team Leader should coordinate frequency changes.

## ORANGE COUNTY COMMAND POST TACTICAL CALL

The tactical call for the Orange County Command Post is “**ORANGE COUNTY CP**”. This is the headquarters for OCRACES. The Command Post will be located back in Orange County at the EOC.

## TELEPHONE NUMBERS:

714-628-7038 or 714-628-7040

The Orange County Command Post will be a primary location for tracked teams to obtain APRS Tracker/Follow Vehicle location information. This information may be obtained by phoning the Command Post at the numbers listed above.

## LIVE INTERNET RACE COURSE COVERAGE

OCRACES supports a Vehicle Tracking System that will utilize Automatic Position Reporting System (APRS) equipment in the Follow Vehicles on the racecourse. The Tracker data will be transmitted from these vehicles to high-level digi sites and then into Las Vegas where it will be connected to the Internet. Live racecourse coverage may be viewed at:

<http://www.b2vtracking.com>

## APRS INSTALLATION LOCATION

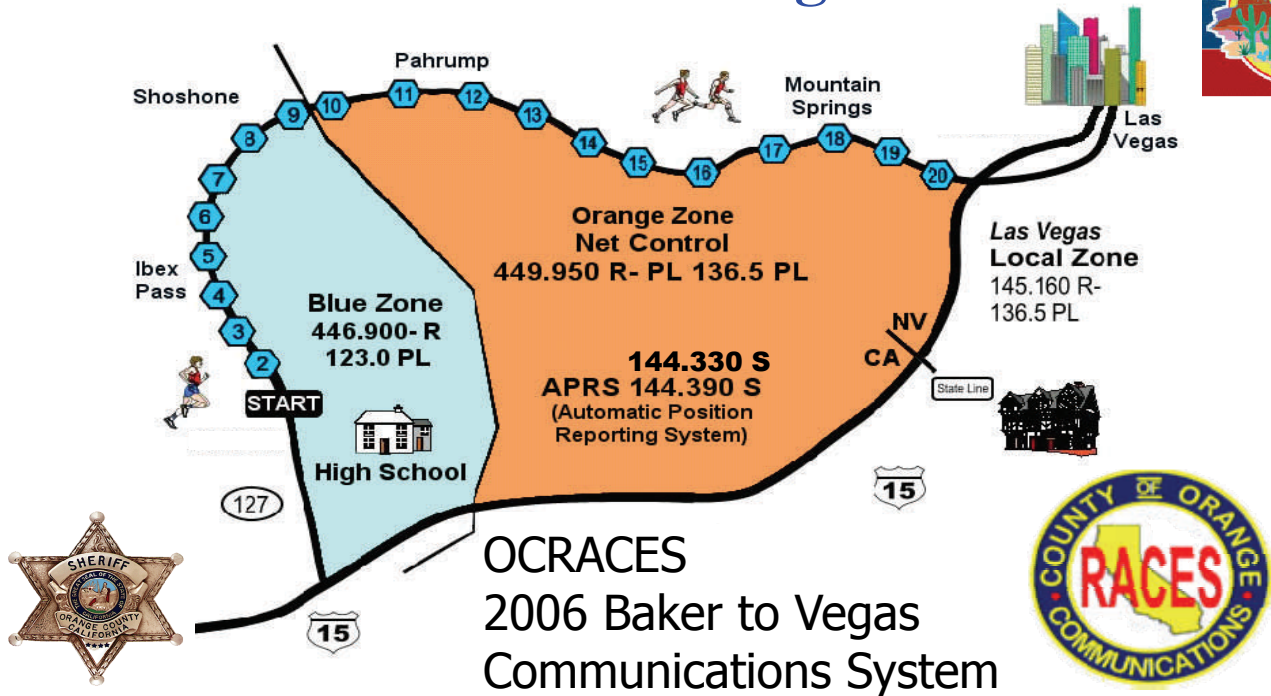
The OCRACES APRS Tracker Box installation team will be at Baker High School Saturday to begin installations at noon. The installation area is just north of the main High School building area and in a large dirt area on the east side of the highway. Look for a red Ford Explorer. Ralph G. Sbragia W6CSP is the Installation Coordinator.

## APRS EQUIPMENT REMOVAL LOCATION

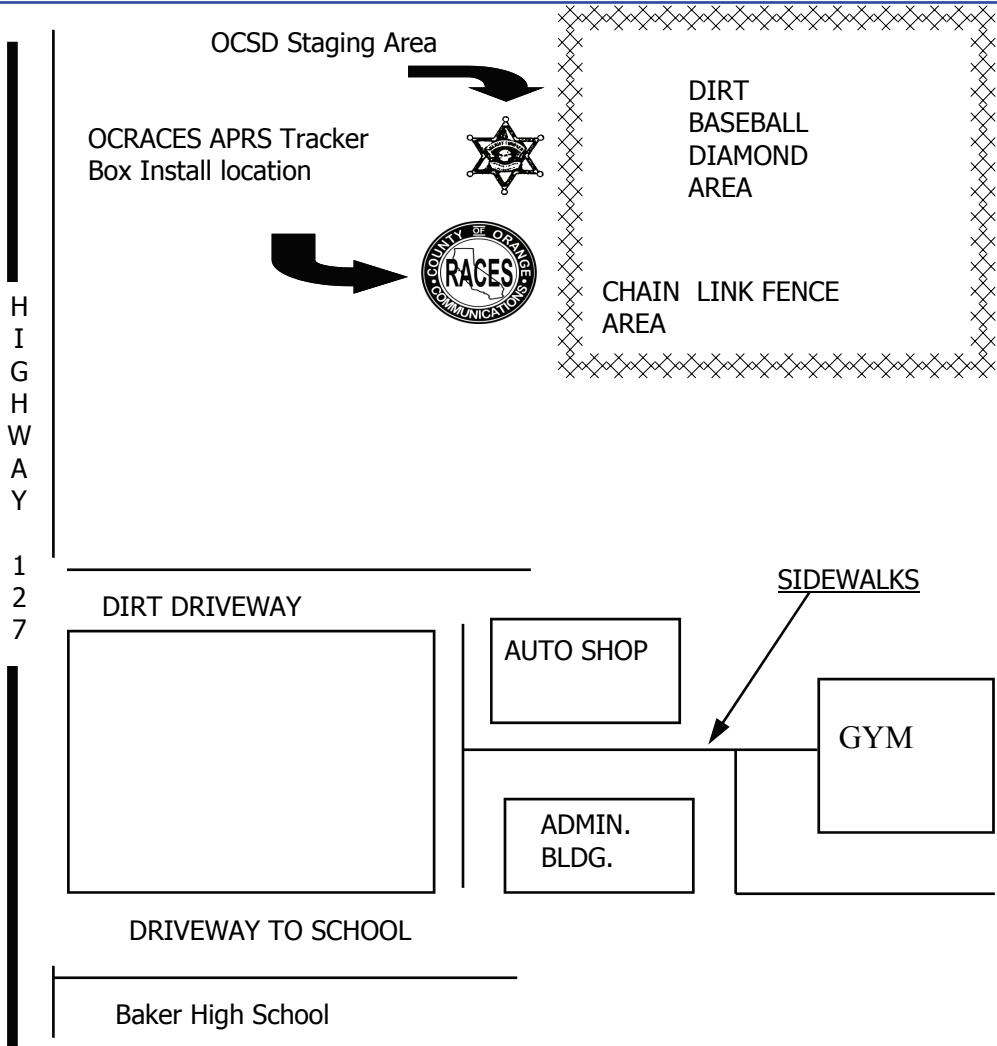
The OCRACES equipment removal team will be in the Finish Line parking lot as your team finishes the race. **Remind your Follow Vehicle Driver to Check in BEFORE leaving or Securing the Van.** We will remove the tracker box, antennas and wiring and lock your vehicle while you attend to the finish of the race. Ralph G. Sbragia, W6CSP is the coordinator.

Continued on page 5

# Baker-to-Vegas 2006



## OCRACES 2006 Baker to Vegas Communications System



## *RACES News from Around the County*

### FOUNTAIN VALLEY

The Fountain Valley RACES group participated in the annual Every Fifteen Minutes program this March 15th and 16th. The event was held in the street in front of Fountain Valley High School this year and was Attended by the entire high school student body. The 10:00 AM scene replicated a two car crash complete with realistically draped bodies, Fountain Valley Police, Fire Department, Paramedics, Ambulance, and the Orange County Coroner to pronounce the on scene fatality. The realistic make up was created by the Knots Berry Farm artist and the entire event was tape recorded so that it could be cut and mixed by the Fountain Valley High School Film Arts Students for the assembly the following day. Our group assisted with set up and assured the wireless mikes on key players performed as needed.

### REBUILDING TOGETHER

As we have done in past years, County of Orange RACES will once again provide logistics communications support for the annual Rebuilding Together event, formerly known as Christmas in April. The national rebuilding day is Saturday, April 29, 2006. As we have done in the past, OCRACES will be seeking assistance from any interested City RACES organization or HDSCS member. The event is too large for us alone, and we are seeking communicators for this day-long activity. RACES volunteers must have a 2-Meter/440 handheld radio, and have the ability to drive their personal vehicle between several locations throughout the day.

Although the list of job sites has not been finalized yet, we have been told there will be sites in Laguna Hills, Huntington Beach, Placentia, Westminster, Santa Ana, Anaheim and Costa Mesa. There will likely be more cities added to this list over the next couple weeks. They expect the total number of sites to be around 20 so it would be great if we could provide 20 communicators. I will keep you posted as the list is developed and finalized.

If you are interested, please have your City Coordinator or Radio Officer contact us at [OCRACES@ocgov.com](mailto:OCRACES@ocgov.com) and we will provide you with all the details.

### ORANGE

The City of Orange Amateur Radio group (COAR) recently assisted the Orange Police Department running team in their quest for a mug in the Baker to Vegas Challenge Cup race. With assistance from hams from Cypress, Norwalk, Orange County Amateur Radio Club, and Las Vegas, Nevada, communications will be covered from the beginning to the end of the race. Additionally, the City of Orange Police recently began patrolling an area extending almost to Irvine Lake. To that end, COAR has placed a new antenna array on the roof of the East Sub Station to help with communications today and in the future. Add lastly COAR is looking for civic minded hams to become part of a very satisfying experience volunteering for the city.

**"RACES News" provides an opportunity to share information from all City & County RACES organizations in Orange County. Please send your news to: [OCRACES@ocgov.com](mailto:OCRACES@ocgov.com)**

# April 2006

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Baker to Vegas
2 Baker to Vegas	3 Monthly Meeting & Weekly Net	4	5	6	7	8 Monthly Breakfast Meeting
9	10 Weekly Net	11 35th State Senate District Election	12	13	14	15
16	17 Weekly Net	18	19	20	21	22
23	24 Weekly Net	25	26	27	28	29 Rebuilding Together OC
30						

## Upcoming Events:

- **April 1-2:** Baker-to-Vegas
- **April 3:** OCRACES monthly meeting at 840 N. Eckhoff
- **April 11:** 35th State Senate District Election
- **April 29:** Rebuilding Together Orange County
- **May 4:** Operational Area Exercise



[www.ocraces.org](http://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:

- 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

### Program Coordinator

Marten Miller, KF6ZLQ  
(714) 704-7917

### Radio Officers

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Harvey Packard, KM6BV  
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Ralph Sbragia, W6CSP

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It's Where It's @!

Questions or Comments?  
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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   Bill Borg KG6PEX   Chuck Dolan KG6UJC   Ernest Fierheller KG6LXT   Nancee Graff N6ZRB   Ray Grimes N8RG   Bryan Hovde KD7CRA   Walter Kroy KC6HAM



Martin LaRocque N6NTH   Carol Matthews KF6ERZ   John Roberts W6JOR   Tony Sanchez AE6QT   Steve Sobodos KN6UX   Tom Stroud N6FDZ   Tom Tracey KC6FIC