February 2013



Inside this issue:

Captain's Corner	1
EOC Training	2
OCRACES Meeting	3
D-STAR	3
Baker to Vegas	4
Front End Saver	4
Watching the Web	5
Citizens Broadband	5
RACES/MOU News	6
Events Calendar	7

The Next OCRACES Meeting Is

February 4, 2013 1930 Hours

840 N. Eckhoff Street, Suite 104, Orange

"Introduction to SEMS, NIMS, EOC Orientation" Two-Hour Course



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

Disabling Java

The U.S. Department of Homeland Security posted on their United States Computer Emergency Readiness Team (USCERT) Web site a warning that Web browsers using Oracle's Java 7 plug-in are at high risk. All versions of Java 7 through Update 10 are affected. Update 11, recently released, does not cure the problem completely. Therefore, at Homeland Security's recommendation, I have disabled Java on all of my computers, and also on all seven computers in the EOC RACES Room.

According to Homeland Security, "A vulnerability in the Java Security Manager allows a Java applet to grant itself permission to execute arbitrary code. An attacker could use social engineering techniques to entice a user to visit a link to a Web site hosting a malicious Java applet. An attacker could also compromise a legitimate Web site and upload a malicious Java applet (a 'drive-by download' attack)."

Most computer users don't even know what Java is or that it's even installed on their computers. Unless you are running Version 7 Update 11, you are probably running an outdated and more vulnerable version. Even Update 11 is vulnerable, according to Homeland Security. Developed in 1995, Java initially allowed programmers to write one program for use on Windows, Apple OS X, and other operating systems. Browsers use Java for interactive Web content, such as games. Some computer programs such as LibreOffice, Adobe Creative Suite, and some of the OpenOffice suite,

especially the database, require Java.

According to Homeland Security, it's important that you disable Java now, to avoid having your computer infected. It's very complicated to disable Java if you have a version older than Version 7 Update 10 or 11. Fortunately, this latest version has a "button" for that purpose. The following instructions are for a computer running Windows. Check your version by going to http://java.com/en. Left-click "Do I have Java?" Then left-click "Verify Java version." If it tells you that you have Java but a new version is available, download and install the new version. Then activate the Java control panel by clicking on the "Java" icon in your computer's Control Panel. If the Java icon or listing is not in your Control Panel, do a search for "Javacpl.exe" or look for that file by going to Program Files (x86)>Java>jre7>bin or, on 32-bit computers, to Program Files>Java>jre7>bin, and scroll down to "javacpl.exe." Doubleclick on that file to bring up the Java control panel. Click on "See the Security tab." Uncheck the box that says "Enable Java content in the browser." Click "Apply," then click "OK." Then restart your browser.

It's then a good idea to go to your computer's Control Panel and click the "Add or Remove Programs" icon or listing. Uninstall any Java versions older than Version 7 Update 11.

If you need Java for a trusted Web site or program that requires it, you can enable it briefly using Java's security control panel, but then disable it again after you are finished using it.

OCSD/EM Offers EOC Training Courses

Training opportunities are available to acquaint RACES members with the EOC and the California State mandated Standardized Emergency Management System (SEMS), as well as their role during emergencies and exercises. All OCRACES members are required to take the "Introduction to SEMS, NIMS, EOC Orientation" course in order to be qualified for deployment to the EOC during an activation. This course is mandatory for all County EOC response personnel and is a prerequisite for all additional EOC training sessions. This introductory course is intended to give participants a basic overview of SEMS, National Incident Management System (NIMS), and an orientation to the basic functions of the County EOC. This course was offered on January 29, 2013, at the Orange County EOC, and will also be offered at the next OCRACES meeting on February 4, 2013, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. It will be offered again at the Orange County EOC on Tuesday, March 5, 2013, from 10:00 AM to 12:00 PM. OCSD Emergency Communications Manager Delia Kraft, KF6UYW, will take care of registrations.

After taking the mandatory "Introduction to SEMS, NIMS, EOC Orientation" course as a prerequisite, you are eligible to take any of the following courses (which are not mandatory).

"EOC Management Section Training" is offered on Wednesday, March 13, 2013, from 10:00 AM to 12:00 PM. The target audience includes Policy Group, Public Information Managers, Legal Advisors, Health Officer, Director of Emergency Services/Operational Area Coordinator, Radiological Protection Officer, Emergency Operations Center Liaison, Logistics, Finance/Administration, Operations, and Planning/Intelligence Section Chiefs, Recovery Coordinator. This course provides an overview of the Management Section, including the specific roles and responsibilities of the Policy/Command Group. Instruction will include decision making responsibilities such as how we proclaim a local emergency and how resources are requested and mobilized to support emergency response activities.

"Basic EOC Responder Section Training" is offered on Wednesday, February 6, 2013, and on Tuesday April 9th, and on Thursday, May 9th, from 10:00 AM to 12:00 PM. This combined section training course is designed for anyone assigned a position in the EOC. It provides you with an enhanced understanding of the dynamics of EOC operations. It covers Operations, Logistics, Finance/Administration, and Planning/Intelligence. This training will give participants an overview of each section in the EOC, including the roles and responsibilities of the branches within each section. Participants will learn how the sections work together to effectively manage emergency events.

"Advanced EOC Responder Section Training" is offered on Thursday, February 21, 2013, from 1:30 PM to 3:30 PM, and on Wednesday, April 17, 2013, from 10:00 AM to 12:00 PM. This advanced combined section training course is designed for a target audience and is available to OCSD personnel assigned to primary and alternate positions in the EOC. OCSD personnel will have the opportunity to work in their assigned position for an interactive tabletop exercise.

"Operations Section/Care and Shelter Branch" is offered on Wednesday, February 13, 2013, from 10:00 AM to 12:00 PM. The target audience is all personnel who may respond to the Care and Shelter Branch of the Operations Section within the EOC. This course is designed for those who may support a care and shelter branch position within the EOC during an exercise or activation. Training will include an overview of the Operations Section and of the Care and Shelter Branch, protocols, position checklists, and hands-on practice.

"Documentation and WebEOC" is offered on Thursday, April 25, 2013, from 1:30 PM to 3:30 PM. The target audience is Situation Analysis staff, Documentation Unit Leaders, and Documentation staff. This course will focus on the documentation support function within the EOC. Staff members assigned to this role are responsible for gathering and documenting important information for their assigned section or branch within the EOC. The course will include training on the use of WebEOC.

"Plotter, Messenger, and Hotline" is offered on Thursday, March 28, 2013, from 1:30 PM to 4:00 PM. The target audience is Plotter, Messenger, and Hotline Supervisors and staff. Training will include the proper display of important information on the status boards, how the messaging system works in the EOC, and how to operate the hotline. Hands-on training will be in the form of an exercise to practice gathering and plotting important information. Participants will practice on the hotline and will learn how to appropriately answer calls, identify and manage trends and rumors, and use information from callers to report information to the Public Information Manager.

"Situation Analysis Support Staff (SASS)" is offered on Wednesday, May 15, 2013, from 1:30 PM to 3:30 PM. The target audience is Situation Analysis Unit Leaders and staff, Documentation Unit Leaders and staff, and Plotter Group Supervisor. This course will focus on the Situation Analysis support function within the EOC. Staff members assigned to this role are responsible for gathering and documenting important information about how the emergency is impacting County agencies, special districts, school districts, cities, and all other affected organizations. The course will include hands-on training on EOC forms and information flow.

Next OCRACES Meeting: February 4th

The next County of Orange RACES meeting will be on Monday, February 4, 2013, at 7:30 PM, at OCSD Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting, Bryan Hovde, KD7CRA, OCSD Senior Emergency Management Program Coordinator, will teach the "Introduction to SEMS, NIMS, EOC Orientation" course. This course is mandatory for all County EOC response personnel including all OCRACES members, and is a prerequisite for all additional EOC training sessions. This introductory course is intended to give participants a basic overview of the Standardized Emergency Management System and the National Incident Management System, and an orientation to the basic functions of the County Emergency Operations Center.

When the EOC is activated, OCRACES members must have taken this course before responding to the EOC. Seating is limited. In addition to the OCRACES members who are required to attend, up to 15 City RACES members can be accommodated.

D-STAR Featured at January Meeting

Thanks to Cypress RACES Chief Technology Officer Ed Kane, W6ONT, assisted by Loree Erpelding, KJ6DRP, for an interesting presentation on D-STAR low-speed data at the January 7th OCRACES meeting. Ed mentioned that the Cypress RACES radio room was equipped with three Icom IC-2820 D-STAR radios (two fixed work stations and one "go-box" Pelican case), a standalone D-STAR repeater, and Winlink. Two-thirds of the City's RACES members are D-STAR equipped, with hand-held radios and IC-2820s. Cypress RACES was motivated to establish a D-STAR low-speed data project, assuming the Internet might become inoperable. The intent was to transmit chat, e-mail, and forms/files as e-mail attachments, using Outlook. Equipment included an Icom IC-2810 and IC-92AD handhelds, plus laptop and desktop PCs.



Cypress RACES Chief Technology Officer Ed Kane, W6ONT, demonstrates D-STAR at OCRACES meeting.

Three programs were evaluated—d*Chat (http://nj6n.com/dstar/dstar_chat.html), D-RATS (http://www.d-rats.com), and DStarChatUSB (http://

wb9coy.com). Written by Brian Roode, NJ6N, d*Chat is text-based keyboard communications among multiple stations simultaneously. Radio, PC, and program configuration is required. It works on simplex, through a repeater, or through a gateway network. It works with all current Icom D-STAR radios. It can send periodic QST messages at specified intervals. It filters GPS data from the message stream.

Written by Dan Smith, KK7DS, D-RATS is simultaneous multiple-station text-based keyboard communications. Radio, PC, and program configuration is required. It provides file transfers of arbitrary binary or text content. Computer compatibility includes Linux/UNIX, Windows, and Mac OSX. Canned messages and forms can be transmitted. Form-to-e-mail gateway support provides e-mail access to distant stations. A Winlink 2000 gateway is provided. GPS data provides position tracking, distance/direction calculation, static beacon support, and integrated map viewer with offline caching, It is compatible with Depiction. D-RATS evaluation showed successful simplex mode transmissions of keyboard-to-keyboard chat text and modified ICS-213 forms (fillable PDF format). "Show-stopping" issues were encountered, with messages received by only two of three participants, inability to send files through a repeater, and myriad features also responsible for missed messages.

Written by Gene Swiech, WB9COY, DStarChatUSB features keyboard-to-keyboard chat, compatible with NJ6N's d*Chat package. Radio, PC, and program configuration is required. It handles a "canned ICS-213 form. It provides GPS. You can use your favorite e-mail client for SMTP mail services (Internet access is not required). It was tested with Microsoft Outlook and Live Mail. E-mail was sent over the air directly from one e-mail client to another. For USB connections, WB9COY.COM cables are required for the ID-880H and IC-80AD transceivers. They need to be burned in to enable for plug-and-play. The FTDI chip set is required for cables used with the IC-2820H, IC-92AD, and ID-31A radios. A USB-to-serial adaptor is available from Digi-Key and from RT Systems. The Cypress RACES team is currently using and evaluating DStarChatUSB for successful simplex-mode transmissions, including keyboard-to-keyboard chat text, simple e-mail messages, and modified ICS-213 forms as e-mail attachments. They have discovered that the radio's power-save function must be disabled, and USB mail services must be enabled. Simplex interference has been an issue.

Communicators Needed for Baker to Vegas

The OCSD Race Committee has requested OCRACES to provide communications and GPS tracking for "Team 24" and "Team 165" during the Baker to Las Vegas Challenge Cup Relay on April 13-14, 2013. A communicator is needed from Leg 1 through Leg 10 in each team's follow vehicle. A catcher/communicator is also needed for each team to communicate with a hand-held radio from the "gate" exchange point to the follow vehicle during Leg 1 through Leg 10. The first 10 legs of the race are the most dangerous due to the desert heat. If a runner goes down, it usually occurs in these first 10 legs. Volunteer communicators in the follow vehicles and catcher/communicators typically work a shift of five legs each. Communicators are also needed in the OCRACES command post in Pahrump. The OCSD Race Committee offers to pay for the three nights of hotel rooms if OCRACES commits to adequate communications manpower. One hotel room is needed on Friday for setup. On Saturday, two rooms will be needed. The communications plan must be submitted by March 1st.

Front End Saver Protects Receiver

Several County and City RACES members are using or planning to use a transceiver (such as the Elecraft K3) with built-in second receiver for diversity operation. Diversity reception requires a second receiver and antenna, often with opposite polarity, to pick up an ionospherically refracted signal that might be at or near a peak on that antenna, while at a fade on the primary antenna, and vice versa. If the second antenna is near the primary antenna (used for transmitting and receiving), the front end of the second receiver could be destroyed when the transceiver's transmitter is activated, due to the overly strong signal on the same frequency. Fortu-



Front End Saver rear panel.

nately, the Elecraft K3 transceiver has relay protection on the receive antenna input, but other receivers might not have such protection. (By the way, the Elecraft K3 in the Loma Ridge EOC RACES Room is not equipped with a second receiver.) A product now available from Radioware (http://www.radio-ware.com), called the Front End Saver, designed by Gary Nichols, KD9SV, eliminates the possibility of blowing out your second receiver's front end while using an auxiliary receive antenna. The circuit disconnects the receive antenna and grounds the receiver input when transmitting, thus keeping RF out of your radio. It will work with all amplifiers, especially older tube designs. (However, this keying circuit will not work with amplifiers that have negative voltage keying circuits such as the Heathkit SB-200 or Yaesu FL2100-B or Collins 30L-1.) A heavy-duty relay has been added to protect the internal low-voltage relay. The Front End Saver circuit has been updated, using a new "bullet-proof" solid-state relay design, providing extremely fast action for a greater level of protection for sensitive receiver front ends. Although the Elecraft K3 provides carrier-operated relay (COR) protection on the receive antenna input, it is reported that the COR chatters annoyingly when sending CW while using an amplifier such as the Elecraft KPA500, if the primary and auxiliary antennas are in close proximity. The Front End Saver, with its solid-state relay, would eliminate that problem.

More on Yaesu FT-60 Battery Pack

Tom Woodard, KI6GOA, Planning & Information Specialist, Emergency Services Department, American Red Cross, Serving Orange, Riverside, and San Bernardino Counties, referring to the article on Yaesu FT-60 battery packs on page 4 of the January 2013 issue of *NetControl*, advises that Vertex-Standard still sells the NiCad and NiMH commercial equivalent battery packs for the older VX-160, VX-180, and VX-210 radios. Tom says those batteries are identical and interchangeable with the FT-60, but did not come with the exposed portion for the battery cell to charge in the FT-60 radio. Tom learned about a very simple modification of these batteries. Simply scrape off the thin plastic coating on the corner portion of the last cell that would be normally exposed and the problem is solved. Tom has used this mod for a few years, with no issues.

Also, the drop-in chargers for the VX-160, VX-180, and VX-210 radios will also charge the FT-60 packs, as they are identical in design. Vertex still sells them and they are also available on eBay very inexpensively, according to Tom.

Watching the Web

Web Sites of Interest to RACES Personnel

Find RF & Microwave Components, Equipment, and Services on Everything RF http://www.everythingrf.com

50,000+ RF & Microwave Components from 125+ Companies Listed

DOWNLOAD DATASHEETS GET INSTANT QUOTES

EVErythingRF

www.everythingrf.com

This Web site lists 94,797 products from 210 companies in 78 categories, and provides useful calculators, including:

- ♦ Attenuation to impedance
- ♦ Cascaded noise figure to gain
- Microstrip impedance
- Watts to dBm and dBm to watt
- Coax impedance, cutoff frequency, capacitance per length, and inductance per length given the outer diameter, inner diameter, and permittivity
- Reflection coefficient, return loss, and mismatch loss, given the VSWR
- Inductance, given the capacitance and resonant frequency
- Inductive reactance and admittance, given frequency and inductance
- Skin depth, given conductor material, frequency, resistivity, and relative permeability
- TEM (transverse-electromagnetic) wavelength (for stripline, waveguide, coax, and free space), given frequency and dielectric constant

You can search for components such as adapters, amplifiers, antennas, attenuators, baluns, bias tees, cable assemblies, cables, capacitors, circulators, connectors, couplers, crystal oscillators, DC blocks, diodes, diplexers, filters (including band-pass, band-reject, high-pass, and low-pass), frequency doublers, frequency synthesizers, front-end modules, gain equalizers, hybrids, inductors, integrated microwave assemblies, isolators, limiters, mixers, modulators, multiplexers, multipliers, oscillators, phase-locked loops, phase shifters, power dividers, resistors, RF detectors, RF modules, switch filter bank, switches, terminations, transceivers, transistors, voltage-controlled oscillators, and waveguides.

You can also search for test and measurement equipment, including anechoic chambers and materials, antenna analyzers, calibration services and standards, matrix switches, network analyzers, noise measurement equipment, noise meters, noise sources, power meters, power sensors, power supplies, PXI, signal generators, spectrum analyzers, and tuners.

Software searches reveal computer aided design, RF circuit and system design, and EMI simulation and design.

A "Custom Assembly Builder" lets you get quotes on a custom cable assembly from multiple manufacturers.

"The RF Feed" keeps you up-to-date with new product releases, news, and white papers.

FCC Poses 3.5 GHz Citizens Broadband Service

The Federal Communications Commission is proposing to create a new "Citizens Broadband Service" under Part 95 of its rules (GN Docket No. 12-354; FCC 12-148) for shared small cell use in the 3550-3650 MHz band (just above the 3300-3500 MHz ham band). The Commission seeks comment on other techniques that could be used to manage access within the 3.5 GHz band as well as protections for incumbent Department of Defense (DoD) and Fixed Satellite Service (FSS) users. The Commission also seeks comment on how the unique characteristics of small cells may help reduce the need for geographic protections and enable shared access of the 3.5 GHz band across the widest possible geographic footprint. In addition, the Commission offers a supplemental proposal to integrate the 3650-3700 MHz band within the proposed service, thereby encompassing a total of 150 MHz of contiguous spectrum. This approach would leverage the benefits of small cell technology to enable widespread broadband access to the 3.5 GHz band while minimizing the possibility of harmful interference to incumbent DoD and FSS users.

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

Fullerton RACES

Fullerton RACES Radio Officer Gene Thorpe, KB6CMO, requests help for the Fullerton Junior Tennis Tournament on Saturday, February 3, 2013. He needs 45+ amateur radio operators for this event at 20 sites throughout Orange County. Send your information to kb6cmo@arrl.net or call 714-680-4258.

Laguna Woods RACES

Congratulations to the new Laguna Woods Amateur Radio Club officers and board of directors for 2013, voted in at the December meeting: President Art Welch, K6TX; Vice President Lee Krank, K6QAX; Treasurer Ernie Senser, W6ETS; Secretary Jim Riedel, K6EEE; Communications Director Don Schwab, K6IAA; Technical Director Joe Burkhardt, KBØIG; and Program Director Lloyd Gomez, W9LEG.

Los Alamitos/Seal Beach RACES

The next scheduled event for Los Alamitos/Seal Beach RACES is "The Race on the Base," at the Joint Forces Training Base in Los Alamitos, on Saturday, February 23, 2013, from 6:00 AM until 1:00 PM.

Orange County SKYWARN

Orange County SKYWARN Coordinator Mike McLaughlin, KJ6EQ, mentions the following changes for 2013: "First, we are starting up the weekly SKYWARN net, beginning Tuesday, January 8th, at 1900. It will be on the WARA repeater, 145.500 MHz (-), 103.5 Hz PL. We are also starting something new, so all of the SKYWARN spotters can listen in. You can go to the http://www.ocskywarn.org Web site and, in the middle of the main page, in black letters, is 'OCSKYWARN net link.' When you click on that, an icon will pop up and just click on the double bars in the center and you can listen (only) to the net. Right now you may hear what we call white background noise, or hiss, but you should be able to hear everything being said okay. We

are trying to fix the white noise issue. It's a beginning. If you have any input, let me know. Just a note: the audio link is always 'listening' to the repeater, so you can listen any time you wish. For those who are hams and you listen on your radio and the Internet link at the same time, there is a delay which can vary as much as 30 seconds."

Santa Ana Response Team (SART)

SART announces that the Gordon West Radio School will hold license classes on February 23-24 (Technician), March 9-10 (General), and March 22-24 (Extra) at the Santa Ana Training Facility in Centennial Park, 3000 W. Edinger Ave. See http://www.gordonwestradioschool.com/main/page_ham_classes.html for details.

County of Orange RACES

Assistant Radio Officer Chuck Dolan, KG6UJC, recently constructed a beautiful console to hold some of the radios in the office of OCSD Emergency Communications Manager Delia Kraft, KF6UYW (see picture below). Thanks, Chuck, for yet another project well done.



February 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4 OCRACES Meeting & Weekly ACS Net	5	6 Basic EOC Responder Section Train- ing	7	8	9
10	11 Weekly ACS Net	12	13 Care & Shelter Branch Sec- tion Training	14	15	16
17	18 Weekly ACS Net	19	20	21 Advanced EOC Re- sponder Sec- tion Training	22	23
24	25 Weekly ACS Net & SWACS Freq Test	26	27	28		

Upcoming Events:

- Feb 4: OCRACES Meeting, 1930, 840 N. Eckhoff Street, Suite 104, Orange; "Introduction to SEMS, NIMS, EOC Orientation" Course
- Feb 6: Basic EOC Responder Section Training, 1000-1200, OC EOC
- Feb 13: Care & Shelter Branch Section Training, 1000-1200, OC EOC
- Feb 21: Advanced EOC Responder Section Training, 1330-1530, OC EOC
- Feb 26: Southwest ACS Frequency/Radio Test, 2015
- Mar 5: "Introduction to SEMS, NIMS, EOC Orientation" Course, 1000-1200, OC EOC
- Apr 13-14: Baker to Las Vegas Challenge Cup Relay
- May 4: City/County RACES & MOU Drill, 0900-1100
- May 11: American Red Cross/ Orange County Mayday



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

10 m: 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL (off the air) 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: Off the air until reprogrammed to new coordinated frequencies

*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 <u>Chief Radio Officer (Captain)</u> Ken Bourne, W6HK 714-997-0073

Assistant Radio Officers (Sergeants)

Jack Barth, AB6VC Chuck Dolan, KG6UJC Jim Carter, WB6HAG Ernest Fierheller, KG6LXT

County of Orange RACES

OCSD/Communications & Technology 840 N. Eckhoff St., Suite 104, Orange, CA 92868-1021 Telephone: 714-704-7979 • 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 – 714-704-7979 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



Harvey Packard KM6BV



Ralph Sbragia W6CSP



Delia Kraft KF6UYW



Marten Miller KF6ZLQ



Robert Stoffel KD6DAQ



Jack Barth AB6VC



Jim Carter WB6HAG



Chuck Dolan KG6UJC



Ernest Fierheller KG6LXT



John Bedford KF6PRN



Randy Benicky N6PRL



Bill Borg



Jim Dorris KC6RFC



Nancee Graff N6ZRB



Ray Grimes



Walter Kroy KC6HAM



Martin La Rocque N6NTH



que Brian Lettieri KI6VPF



Marty Oh KJ6RWE



Kenan Reilly KR6J



Tom Riley



John Roberts W6JOR



Joe Selikov KB6EID



Tom Tracey KC6FIC



Brian Turner KI6WZS