

September 2005



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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I am proud of the way our Monday night RACES nets are run. Our members are excellent net control operators. However, the problem of "quick speaking" occasionally occurs, especially during roll call. Some net control operators, including some officers and long-time members, forget about the almost one-second transmit delay on our repeater. Some members refer to this problem as "quick keying," but it is NOT "quick keying." It is "quick speaking."

The transmit delay is caused by a short detection time in the repeater's subaudible tone decoder ("PL" decoder, as trademarked by Motorola), followed by the activation time of the transmitter. This delay could be compounded by the operator's own transmitter, if its PL encoder and/or its fundamental oscillator or synthesizer has a slow activation time.

The operational problem occurs when you speak IMMEDIATELY after keying your microphone's PTT switch, resulting in loss of the first one or two syllables. To avoid this problem, force yourself to wait a second after keying your transmitter, before you speak.

If "quick speaking" occurs, some cities will not know if they are called during the roll call. Often all they will hear is

the last syllable of their city's name, such as "...ter" in Westminster. When you stand by for late check-ins, if you hear stations calling that you had already acknowledged," they probably did not hear your "Roger" during the roll call, which was lost during the "quick speaking" delay. Sometimes a "...ger" or "...er" will get through, and other times no acknowledgement is heard at all.

Public-safety personnel who operate on a trunked system are conditioned to wait a moment after keying their PTT, before speaking. The transmit delay in a trunked radio system is even more pronounced than on our 2-meter repeater. If trunked-system operators can wait a moment, so can we! Don't be guilty of "quick speaking."

Our next meeting is on Monday, September 12, 2005 (rather than the first Monday, which is Labor Day), at 7:30 PM, at 840 N. Eckhoff Street in Orange. Our guest speaker will be Donna Boston, Assistant Manager, Orange County Sheriff's Department, Emergency Management Bureau, who will give us a NIMS briefing. Developed by the Secretary of Homeland Security at the request of the President, the National Incident Management System (NIMS) integrates effective practices in emergency preparedness and response into a comprehen-

The Next
OCRACES
Meeting is

September 12
1930 Hours
840 N. Eckhoff St.
Orange, CA

*Guest speaker
Donna Boston
will provide NIMS
Training*



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

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Captain's Corner

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sive national framework for incident management. The NIMS will enable responders at all levels to work together more effectively to manage domestic incidents, no matter what the cause, size, or complexity. Donna's briefing will cover the direction Orange County is taking with the NIMS and will explain how it integrates into our current California Standardized Emergency Management System. The Federal Emergency Management Agency Independent Study Course 700 (NIMS) will be highlighted.

On the Saturday prior to our meeting, we will exhibit our emergency communications response vehicle at the ARRL Southwestern Division Convention in Riverside. The convention runs Friday through Sunday, September 9-11, 2005, but we will exhibit only on September 10th. We plan to park our vehicle outside the Riverside Convention Center, before 8:00 AM. Look for my E-mails with additional details. Information about the convention is posted at <http://www.arrlswdconv.org>. Let me know if you plan to participate, and your desired shift(s) between 8:30 AM and 5:00 PM. You may wear either your Class A or Class B uniform. This is an excellent opportunity to tell other hams about our activities, and to recruit new members.

RACES Support Requested for Elections

It is election season again in Orange County with at least two elections fast approaching and a third election very likely before the year is out. There will be a 48th Congressional District Election on October 4, 2005 affecting only South Orange County. There will also be a Statewide Special Election on November 8, 2005. Depending on the outcome of the October 4 election, there could also be a run-off election on December 6, 2005.

As in past elections, OCSD/Communications will be managing the transportation of ballots from Collection Centers throughout the County to the Vote Tally Cen-



RACES operations in the Command Post at the VTC for the November 2004 General Election

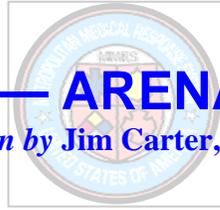
ter (VTC) in Santa Ana. RACES support is again requested to provide communications support between Collection Centers and the VTC.

The responsibilities of the communicator will be to transmit information to the Vote Tally Center regarding the activities (basically the movement of the vans) at the Collection Center as well as request information from the VTC as necessary.

If you haven't received the official email request for support yet, expect to see it in the very near future.

OCRACES Member Ray Grimes in Print

OCRACES member Ray Grimes, N8RG, has written an article for CQ VHF Magazine. The classic Black Widow VHF AM Transceiver is the topic of the article that was published in the Summer 2005 issue. The once popular Black Widow AM transceivers have all but disappeared from memory and from any sources of used equipment. Ray describes how he found and restored a 2-meter version of this radio, complete with many photos. Check it out on page 10 of the Summer 2005 edition of CQ VHF magazine.



ATV EXERCISE— ARENA RESPONSE 2005

Written by Jim Carter, WB6HAG

The Arena Response exercise conducted on July 28, 2005, at the Anaheim Convention Center focused on the City of Anaheim's Metropolitan Medical Response System's response to a chemical terrorist attack.

OCRACES members Jack Barth (AB6VC), Scott Byington (KC6MMF), Jim Carter (WB6HAG), Carol Matthews (KF6ERZ), Harvey Packard (KM6BV), Joe Selikov (KB6EID), and Steve Sobodos (KN6UX) reported to the Anaheim Convention Center at 0630 on the morning of July 28, 2005, to support this event. Their mission was to provide ATV video from the disaster area to the on scene Unified Incident Command Post.

The exercise scenario:

At approximately 0830 am, a loud commotion occurs on the floor of the arena area of the Convention Center. For unknown reasons, visitors begin to scream and yell for help. Chairs are hurled about and visitors run frantically from the arena floor out to the lobby. Visitors close to the commotion immediately collapse to the floor and begin to shake uncontrollably. Soon after the commotion, visitors experience difficulty breathing, salivation, tearing, uncontrolled twitching, and seizures. Several visitors in the center area of the floor succumb and die immediately. Others run from the arena and quickly collapse in the arena concourse and near the exit doors. Our mission was to provide a live video window from three event locations to the Incident Command Post.

Jack Barth sent video from inside the Anaheim Convention Arena. Jim Carter & Carol Matthews provided video from behind the arena & inside the Hilton Hotel. Harvey Packard and Scott Byington provided video from the second floor of the Convention Center balcony outside the front of the arena. All video pictures were transmitted to our RACES van that was operated by Steve Sobodos who was our ATV Director and Joe Selikov who was the Command Post Operator. Our van provided video to the Incident Command Post located over 100 feet away.

When the Anaheim Fire Battalion Chief arrived, OCRACES command post operators placed our monitor next to his vehicle. Normally, this task is easily accomplished by parking the RACES van next to their vehicle. However, our operators found the Incident Command Post was not within 100



Anaheim Convention Center Main Entrance



Jim Carter and Carol Matthews Capture & Send Video



Emergency First Responders On Scene

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ATV EXERCISE - ARENA RESPONSE 2005

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Joe Selikov Communicates with Video Teams



Steve Sobodos Directs ATV Operations



HDSCS's Roman Kamienski, KG6QMZ & Tom Gaccione, WB2LRH

feet of our video coax feed. The Battalion Chief selected a location for his Command Post that was further away than anticipated! This was resolved by adding a coax coupler and a video amplifier. Finally, we had video for Anaheim Fire! This points out the need to remain mobile and not pre-stage, as we never know where the Battalion Chief will setup his/her operations.

All received video picture quality was P4 to P5 with the exception of the Hilton Hotel. We just could not get any pictures or voice communications to our van from inside the hotel. This was a surprise to many! The solution would be to use a 2.4 GHz to 426.25 MHz mini-repeater.

Our van operated flawlessly for about 2 hours until the generator shutdown. It did restart but this problem will require some investigation as to the reasons why. The air condition was a great support to those working inside.

The video pictures received at our OCRACES van from the three ATV cameras were recorded. Steve Sobodos is making a condensed videotape for the fire department and other agencies who asked for them. Overall, this was a very successful exercise for OCRACES members since they provided a video window to the Anaheim Fire Department. Many favorable comments about our operations were received from various agencies participating.

I can't forget to mention Robert Stoffel and Marten Miller who supported us during this event. I'm very appreciative for their outstanding support over the years.

This is my last newsletter article.

I must say goodbye to this wonderful organization due to my full-time job workload, preparing a house to sell, and planning to add 1500 square feet onto another home. My time is just too thin to support this outstanding organization. This was not an easy decision as I've truly enjoyed working with each of you, and your support was extremely appreciated.

Although I'm leaving, it doesn't mean you can't call me for technical questions regarding ATV or SSTV, the location of something, or just to say hello. I'm still here to assist you anyway I can! You are my friends and you always will be. Thank you for your support and please give the same support to my replacement.



73's - Jim WB6HAG

Watching The Web – By Ken Bourne, W6HK

Each month, we feature a Web Site of interest to RACES personnel, as located by Ken Bourne, W6HK, Chief Radio Officer, County of Orange RACES. Featured this Month: New world record for unamplified wireless networking on 2.4 GHz

Four college students, who are radio amateurs, traveled from Cincinnati, Ohio, to Mt. Potosi near Las Vegas to compete in the 3rd Annual Defcon WiFi Shootout Contest. Part of the team then drove a trailer loaded with equipment to Utah Hill, near Beaver Dam in the state of Utah. On July 30, 2005, the team, which calls itself “iFiber Redwire,” using homebrew antennas, surplus 12-foot satellite dishes, home-welded support structures, scaffolds, ropes, Xetron RF relays, RF Linx pigtailed, LMR-400 coax, and Avaratec 3200 laptop computers, wirelessly connected on 2.4 GHz for three hours at 11 Mb/s

over a distance of 124.9 miles, a new world record for an unamplified wireless networking connection. An RF Linx amplifier was tried later in Utah, bumping the -37 dBm signal to -18 dBm.

The setup included Z-Com XI-325HP+ 300-mW PCMCIA 802.11b wireless cards (with dual antenna ports), one on each end, running on Ubuntu Hoary (Mt. Potosi) and Debian Sarge (Utah Hill) OSES. Ping times averaged 10 milliseconds, with variances ranging from 0.01 ms to 400 ms.

Details and photographs are on the team’s Web site at <http://www.wifiworldrecord.com>. The information on this site should be of interest to OCRACES members who are experimenting with HSMM (high-speed multimedia) systems.



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

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RACES News from Around the County

HDSCS

On Saturday, September 10, 2005, HDSCS Emergency Coordinator April Moel will be one of the presenters at the ARRL Southwestern Division Conference in Riverside, CA. April's presentation is entitled, "BEFORE All Else Fails" and will focus on the important role amateur radio can play in the support of hospitals. April will highlight HDSCS's experience and lessons learned over the past 25 years of providing back-up communications for 34 different hospitals.

City/County RACES Exercise

The annual City/County RACES exercise is Saturday, October 1, 2005, from 0900 until 1100 hours. County of Orange RACES, most all City RACES organizations, and the Hospital Disaster Support Communications System (HDSCS) will participate. This annual exercise provides an opportunity to exchange messages between the various City and County EOC's using the RACES radio equipment located inside your EOC.

The focus of this exercise will be communicating by voice, primarily between your EOC and all surrounding city EOC's and secondarily, the County EOC. Those organizations that wish to test PSK31, ATV and/or SSTV may also do so.



The scenario will be a loss of public safety communications systems. The Countywide RACES Message Form should be utilized by all participants in this drill, and will help to ensure common radio traffic passing techniques. The form can be down loaded from the County of Orange RACES web page, www.ocraces.org.

"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

Please share the City/County Exercise information with appropriate staff and let OCRACES know of any comments or suggestions by September 15, 2005. Also, please let us know if your organization will be participating in the exercise and in what modes you will participate (Voice / A T V / S S T V / PSK31). You can let us know by sending your response to ocraces@ocgov.com. We look forward to your participation, and thank you in advance for your commitment to emergency communications!

September 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5 <i>No Net</i>	6	7	8	9	10 <i>ARRL Con- vention in Riverside</i>
11	12 <i>Monthly Meeting & Weekly Net</i>	13	14	15	16	17
18	19 <i>Weekly Net</i>	20	21	22	23	24
25	26 <i>Weekly Net</i>	27	28	29	30	

Upcoming Events:

- **September 9-11:** ARRL Convention, Riverside
- **September 12:** OCRACES monthly meeting, 840 N. Eckhoff Street, Orange, 1930 Hours
- **October 1:** Annual City/County RACES Exercise, 0900-1100
- **October 3:** OCRACES monthly meeting
- **October 4:** 48th Congressional District Election

ARRL SOUTHWESTERN DIVISION CONVENTION SEPTEMBER 9-11 - RIVERSIDE, CA

The Inland Empire Council of Amateur Radio Operators (IECARO) is hosting the ARRL Southwestern Division Convention which will be held September 9—11 in Riverside, CA. The convention will offer programs covering such topics as: ATV, T-Hunting, Tropo Ducting, APRS, Renewable Energy Sources, Public Service, Emergency Communications, new and current technology in equipment and operation modes and much more. The featured banquet speaker will be award winning author and columnist Ward Silver, N0AX. There will also be great prizes from vendors such as: Kenwood, Yaesu, Icom, and many others.

The OCRACES emergency communications response vehicle will also be on display at the convention. The address for the convention is 3443 Orange Street, Riverside, CA, but the actual entrance to the parking lot is on 5th Street between Orange and Market. All the information concerning the program schedules, presenters and exhibitors can be found on the event website at www.arrlswdconv.org.

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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 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



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