

August 2009



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

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## Captain's Corner

*by RACES Capt. Ken Bourne, W6HK, Chief Radio Officer*

### Cell Phones to Replace ATV?

I recently e-mailed all OCRACES members regarding how we need to support (monetarily) our newly repaired UHF autopatch. I acknowledged that cell phones have virtually obsoleted amateur radio autopatches, but we need to remember that cell sites can and will fail during major disasters. Furthermore, there are some areas within Orange County, such as in canyons and mountain roads (including Ortega Highway) and even at Loma Ridge where cell-phone coverage is not available. A UHF HT with a DTMF pad can be used in some of those areas to access our autopatch to make a local telephone call. As RACES members, we need to include every possible means of communications in our "bag of tricks," to provide coverage under all possible conditions.

For the same reasons that we don't agree cell phones have replaced our HTs and our autopatch, we will not agree that new mobile video technology will replace our amateur television (ATV) systems. But what is this new technology? Actually, mobile video is already available in various forms, such as unicast, multicast, network provider-generated, and user-generated. It is still to be determined whether long-form content or high-definition video will be delivered, and what quality will be demanded by subscribers. Either way, ex-

isting 2G and 3G networks don't have adequate bandwidth for this demand.

The real answer is 4G, although, given the wider bandwidth, users most likely will come up with new applications to fill up the resources. 4G will offer an end-to-end IP network and enhanced capabilities in the EPC (Evolved Packet Core) for high-quality service.

LTE (Long Term Evolution) EPC's advantage is the IP bearer, a software protocol circuit that provides a virtual connection. Any device in LTE is an IP device, which establishes a connection back through the network as a dedicated bearer with best-effort class of service. Every application can have up to nine classes of services defined in a dedicated bearer to provide different levels of priority and QoS (quality of service).

LTE provides much more capacity on the interface plus different types of QoS to manage it end-to-end, allowing a mix of voice, high bandwidth, and video services, not available in the current networks.

### Increase in Accidents?

The use of cell phones (even hands-free) while driving has greatly increased the number of traffic accidents. Texting while driving, which is hard for me to imagine but is so common, has increased traffic accidents (and train accidents!) even more. It's scary to think what mobile video will do, but we need

The Next  
OCRACES  
Meeting is

August 3, 2009

1930 Hours

840 N. Eckhoff St.,  
Suite 104, Orange

Featured Speaker:

Rich Toro, OCFA  
B/K Radio Programming



Orange County Sheriff's Department  
Communications & Technology Division

*Continued on page 2*

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

to accept the fact that it is coming, and it will be of high quality. Once it is well-established, we must be prepared to defend the benefits of ATV versus mobile video. During a major disaster, cell phones and mobile video will be "swamped," or knocked out completely, or not available in remote areas. Because of the high quality that mobile video will offer, we need to improve the image quality of our ATV systems, and make our portable systems much more compact, lightweight, and reliable (such as reducing the number of interconnecting cables or making the interconnections more robust).

Is digital ATV the answer? Except for a group in Ohio, not much experimenting is being done by

American radio amateurs with D-ATV. ATV hams balk at replacing their existing analog infrastructure. Multipath problems tear up a D-ATV image, and images could be completely lost during a fade as the camera and transmitter are moved during a field deployment. Digital broadcast TV is not a problem, because the transmitter does not move. Nevertheless, we need to consider experimenting with this mode, which has many benefits in recording, computerized image manipulation, equipment reliability, compactness, light weight, etc. Somehow, we need to enhance our ATV systems to equal the quality of the emerging commercial mobile video systems, especially with emergency communications in mind.

## Field Day Operations Report

*by RACES Lt. Ralph Sbragia, Radio Officer*

Last month Ken did an excellent job of recapping our Field Day participation and the particulars of the event. This month, I would like to go over the results of our Lessons Learned efforts as well as the communications logs.

I received several very favorable comments regarding Field Day 2009 from the membership when I requested evaluations of our activities. One comment received not only pointed out an area where we could have done better, but an analysis of the root cause(s) of this situation resulted in a Lessons Learned that can be applied to any of our events or activities. The issue reported was our lack of focus on members of the public who walked into the operating area and were exposed to the various potential hazards there (guy-line stakes, electrical cords, antenna cables, etc.) without any notice by our staff. This situation was caused by (1) a decision by Command Staff to not erect a caution tape barrier around the area and (2) our failure to recognize that a consequence of that decision was a need to refocus the attention of members on the safety of the public using the park around us.

The generic lesson we can learn from this is the need to be mindful of unintended consequences whenever we modify a communications or event plan in the field. Plan modifications are a necessary and expected occurrence during any activity as we react to changes that naturally occur. But beyond being prepared to modify the plan, we also need to be prepared to brainstorm or analyze each of the potential consequences of the change and how these consequences will need to be addressed. Based on this analysis, feedback can be given with regard to the original change, and modifications to that change may be required to address the consequence(s). In this way, we are providing a system for constant improvement in the decisions we make during an event or activity.

### Communications Summary

We made 177 contacts on three bands according to the computerized log. We also made contacts on 80 meters via the Get On The Air station, but these contacts were only logged informally. By band we made 55 contacts on 40 meters, 109 on 20 meters, and 13 on 15 meters. 166 contacts were made to continental U.S. stations and nine were made with VE stations. We also had one Pacific Island and one Japan (JA) contact.

We did not quite make our goal of having both stations operational the entire 24-hour period. As always, the overnight period was our weak point. As we prepare for next year's exercise, we will need to work on finding more members who can assist during the wee hours of the event day.

Overall we had a positive and successful Field Day event and have learned a variety of things to help us in future activations. Again I thank all who participated and who made this year's exercise a success.

## **Next OCRACES Meeting: August 3rd**

The next OCRACES meeting is on Monday, August 3, 2009, at 7:30 PM, at OCSD/Communications, 840 N. Eckhoff Street, Suite 104, in Orange. Rich Toro, Orange County Fire Authority Information Technology and Communications Supervisor, will provide training on cloning Bendix/King radios, for when we are deployed to the OCFA field command post during fire storms. This is required training, and all OCRACES members are requested to attend. If time permits, we will try to do a quick review of the Severe Fire Weather Patrol Guide.

## **OCRACES at OC Fair: August 7th**

OCRACES is occupying the ham radio booth at the Orange County Fair on Friday evening, August 7, 2009. Booth duty is in two shifts, from 4:00 PM to 8:00 PM, and from 8:00 PM to 11:00 PM. This is an excellent opportunity to recruit ham visitors into RACES, to explain the role of amateur radio emergency communications to other visitors, and to introduce the excitement of amateur radio to the many kids who visit the ham radio booth, which is in a new area of the Fair this year. OCRACES members are urged to sign up for booth duty at this enjoyable event.

Gordon West, WB6NOA, reports that the booth has already earned a blue ribbon, due to the enthusiasm of booth volunteers observed over several days. Unfortunately, some noise is occurring on HF, caused by bumper cars 150 feet away, with a wiper on the top of the screen arcing 440 Vac. In addition to HF, the booth includes ATV and a 2-meter/440-MHz transceiver. A video of Walter Cronkite, KB2GSD (SK), is playing in the booth, and shows how amateur radio provides emergency communications.

## **OCRACES to Participate in SONGS Exercises**

County of Orange RACES will participate in the SONGS (San Onofre Nuclear Generating Station) exercises at the Loma Ridge EOC on August 19, 2009 (Dress Rehearsal Plume Exercise), and on September 23, 2009 (FEMA Graded Exercise). Radio Officer Harvey Packard, KM6BV, Chief Radio Officer Ken Bourne, W6HK, OCSD/Communications Director Robert Stoffel, KD6DAQ, Assistant Director Ray Grimes, N8RG, Assistant Director Kirk Wilkerson, Emergency Communications Manager Marten Miller, KF6ZLQ, Program Support Manager Denis Marin, K6OLU, and Communications Training Officer Pat Campobasso, KF6PND, took several classes in June in preparation for these exercises, to be able to fill the position of Alert & Warning/Communications Coordinator. The classes included SONGS Overview, Exercise Review, Management Section, and Logistics Section.

As mentioned in the Logistics Section class, the Communications/Alert & Warning Unit Leader provides personnel and equipment to ensure continuous communication for the EOC, Operational Area EOCs, and field responders. Specific to SONGS are EAS messages, sirens, and Control One Coordination.

One OCRACES member will be scheduled to participate during the FEMA Graded Exercise on September 23rd, and that will be Lt. Harvey Packard, KM6BV.

## **HB RACES to Meet at OC EOC August 10th**

OCRACES members are asked to assist in hosting a Huntington Beach RACES meeting at the Orange County EOC (Loma Ridge) on Monday, August 10, 2009, at 7:00 PM. Tom Tracey, KC6FIC, will give a presentation on OCRACES, and OCSD Emergency Communications Manager Marten Miller, KF6ZLQ, will give an overview of the various operations based at Loma Ridge. We will also provide a tour of the EOC and especially the RACES Room. Huntington Beach RACES is an active and highly capable RACES unit, and we are proud to have its members visit our EOC.

# Is Amateur Radio Viable for Communications?

*by Richard Lewis, KI6VAF, Anaheim RACES*

While on the road, returning from our cross-country trip, I was asked about my car license plate being a ham plate. The person asking said he used to be a ham but gave it up, saying that there was no longer a need for it since we now have cell phones. I said, "Let me tell you a little story."

We were traveling in Wyoming, going from Casper to the Jackson Hole area. Almost exactly half way between the cities of Lander and Dubois one of the wheel bearings went bad on the trailer. The cell phone was useless as there are no towers out there. The only thing that worked was the ham radio. I put out a call on the 2-meter national simplex calling frequency (146.520 MHz) and after two or three tries got a response from KC7ZVV, who just happened to be monitoring the radio at that time.

I asked him to call AAA for me, giving him the necessary information. After thanking him, we proceeded to wait for the Auto Club to arrive. Just before the arrival of the Auto Club, the county sheriff showed up and tried to verify the AAA call. He was told it had come through from a ham radio operator and that the call was in the system. Just about that time, a truck from Lander, Wyoming, showed up and the deputy left. This tow operator didn't have the proper equipment to assist us, so he said he would call back to AAA when he got to an area where the phone would work.

After a couple more hours, I got back on the radio to check and was told by KC7ZVV that he had never received a call-back confirmation from AAA. While talking, another radio operator, KB7FGN, came on the air and said if it was a wheel bearing he had tools and could possibly come out and get us going. Not wanting to stay out there forever, I said that would be nice.

He came out and we were able to get the old bearing off and get a part number. He then went back into town and got the bearings, along with a friend of his, KE7KBE. Together, the three of us were able to get the new bearing on without causing too much damage to the axle and get us back on the road. We limped into Dubois at about 35 MPH, not wanting to take a chance on further damage. They followed us the 34 miles to a campground and then left. The only money they would accept was the cost of the bearing.

I estimate that KB7FGN probably put between 150 and 200 miles on his truck coming out, chasing the bearing, then following us to a safe location. To me, this is the true spirit of helping our fellow citizens. The work, while not done perfectly, was good enough to get us off a lonely, two-lane highway in the middle of nowhere. I pray that we all can be ready to help someone in a time of need.

Now, is amateur radio still a viable method of communications? I say, without a doubt, a very strong yes. I only got the license this year to help others in time of need, not realizing that it would end up helping my family and me. Now, that radio is going wherever I go.

## ARRL SW Division Convention: August 15th

The Santa Barbara Amateur Radio Club is presenting the 2009 ARRL Southwest Division Convention & Hamfest on Saturday, August 15, 2009, at the Earl Warren Showgrounds in Santa Barbara. The focus is on emergency preparedness. Exhibits open at 0800 and speakers begin at 0900. A live band will close the show at 1700.

The convention includes 8,000 square feet of indoor exhibits featuring major communications suppliers. Outside is a static display of emergency communications and response vehicles. Also included are speakers and panel discussions, such as "Lessons Learned from the Great Southern California Shakeout" by Dr. Kate Hutton, KD6HTN, Caltech Seismology Department, with CalEMA Southern Region ACS Officer Arnie Lewin, W7BIA.

Elmering and Special Interest Group Genius Centers will answer questions from new hams and share expertise on favorite topics such as troubleshooting, ATV, DX, QRP, etc. An alternative-power demonstration will include the latest solar, wind, and other "off-the-grid" technologies. The convention is adjacent to the Santa Barbara Home Show with free entry privileges. An update on antenna regulations will be included in the ARRL Forum.

The grand raffle prize is a new Elecraft K3 transceiver. For more information, go to <http://www.sbarc.org> and follow the links.

# Watching The Web

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

Earthquake Management

<http://www.earthquake-management.com/>



Thanks to City of Orange Police Department Volunteer Coordinator Debbie Klein for forwarding this link from Kerrstyn Naretta of City of Anaheim. The Earthquake Management Web site includes new products such as a book on *First Aid Essentials*, “The Little Giant” automobile jump starter, 25-person and 50-person first-aid cabinets, a 45-piece first-aid kit in an attachable pouch, a water gel burn kit, a FRIO insulin cooling case, a Mayday 400 Calorie “Mini Meal” food ration, wireless motion alarms (one with an auto dialer), a metal detector, special-needs child finder decals, a stun gun, pepper spray, triage tape, closet and wall safes, disposable travel toilet and toilet-seat covers, belt pack, snow shovel, water filter for home water heater, SAS survival guide, and a pocket-size air horn.

In addition to the new products, many other products are listed in the following categories: automotive; CERT; communication; emergency evaluation & fire; first-aid kits; first-aid and trauma supplies; mayday food; kits; educational; lighting and heating; personal safety and security; sanitary supplies; shelter and sleeping; storage items; search and rescue supplies; tools/generators; water and accessories; triage kits and ICS supplies; and pet survival. Also listed are helpful seminars.

Products on the Web site’s Communication Page include: disposable camera; dynamo powered flashlight; hand-held stop/slow sign; AM/FM transistor radio with speaker; AM/FM radio with battery and light; emergency AM/FM/weather-band radio with dynamo charging system; Mighty Mega Mite megaphone with siren; 3-watt, 10-watt, 16-watt, and 25-watt bullhorns; LifeLine emergency kit with phone; AM/FM solar dynamo radios with flashlight; Kaito solar AM/FM shortwave radio; and metal and plastic whistles with lanyard,

## H1N1 (Swine Flu) Virus Spreads in OC

A few months ago we stressed the importance of being prepared to provide backup emergency communications, in the event of widespread OCS/Communications and Control One absences due to an H1N1 (swine flu) pandemic reaching Orange County. This could happen in the coming winter flu season, although vaccinations are reportedly scheduled to be available by mid-October. Meanwhile, even in this “off season,” the virus is spreading.

As of July 28, 2009, the County of Orange Health Care Agency reports that the cumulative total of hospitalized cases of pandemic H1N1 influenza in Orange County is 132, plus 12 associated fatalities.

The *Orange County Register* reported on July 24th that the Men’s Central Jail was on lockdown after five inmates were diagnosed with swine flu.

OC HCA advises that the following steps be taken to protect yourself and others from getting sick:

- ◆ Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- ◆ Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hand cleaners are also effective.
- ◆ Try to avoid close contact with sick people.
- ◆ If you get sick with influenza, the Centers for Disease Control and Prevention (CDC) recommends that you stay home from work or school and limit contact with others to keep from infecting.

# RACES/ACS News from Around the County

**"RACES/ACS 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:**

**w6hk@ocraces.org**

**Anaheim RACES Field Day**  
**by Debbie Heilman, KI6CUN**  
**Anaheim Fire Department**  
**Office of Disaster Preparedness**

Nestled in the hills of Anaheim, Toyon Park was again the Anaheim RACES Field Day Exercise site held on June 27 and 28, 2009. After a slight mishap in the morning with our old faithful Yagi antenna, Anaheim RACES volunteers quickly rallied and used their personal equipment to set up a 20-meter and 40-meter antenna. Three stations were up and operational by 2 PM. Our RACES volunteers worked the radios all day and into the night, some camping over at the park. Others came straight from work at 11:30 PM to cover the night shift. Although getting a late start in the exercise, we were able to make some 300+ contacts by 10:30 AM Sunday morning. Some may consider the exercise a contest, many come out just to enjoy the activities and camaraderie of their fellow amateur radio operators. Being able to speak to another amateur radio operator in Japan or the Netherlands during Field Day or at any time via ham radio can be quite exciting.



Anaheim RACES and CERT volunteers and Fire reserves assemble the Yagi antenna

RACES volunteers took advantage of the exercise and teamed up with Anaheim CERT. CERT volunteers were issued FRS radios to communicate with each other throughout the event, which introduced

some first-timers to the world of radio communications. It was a great team effort between the volunteer groups. Special mention to Fire Corps, Volunteers in Police Service (VIPS), the Anaheim Public Utilities Department, and the Girl Scouts and Boy Scouts for joining us at Field Day.

Special note: Due to the demise of our old and faithful Yagi antenna, Anaheim RACES will be purchasing a 40-foot or 50-foot mast for future Field Day and other activities.

**Laguna Beach**

The Laguna Beach Emergency Communications Team (LBECT) participated in the Pacific Coast Triathlon on Sunday, July 26, 2009. Because swim was canceled (due to the extraordinary surf caused by the storm off Tahiti), there were significant pauses in the event's pace. Nevertheless, the only "casualty" was a wounded ego from one flat tire in an event that usually features several flats and assorted broken chains. LBECT members supporting the event were Bruce Orsborn, WD6FHL, Jim Wolcott, AF6OZ, Alex Wolcott, KI6OFK, Arlene Schwartz, KE6GFI, and Chief Radio Officer John Kountz, KE6GFF.

**Seal Beach/Los Alamitos**

Seal Beach/Los Alamitos RACES will use a newly designed "simpler" ICS-213 form. It is a three-part form in white, gold-enrod, and pink.

Attractive new RACES shirts have been distributed to all active members.

SB/LA RACES made 140 Field Day contacts, more than the 132 contacts that were made last year. They also earned more bonus points for copying the Field Day message, for passing message traffic (using the ICS-213 form), for using emergency power, and for Field Day visits by invited local Emergency Management officials.

# August 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3 <i>OCRACES Meeting &amp; Weekly ACS Net</i>	4	5	6	7	8 <i>RACES Breakfast</i>
9	10 <i>Weekly ACS Net &amp; HB RACES at OC EOC</i>	11	12	13	14	15 <i>ARRL SW Division Convention &amp; Hamfest</i>
16	17 <i>Weekly ACS Net</i>	18	19 <i>SONGS Dress Rehearsal Plume Exercise</i>	20	21	22
23	24 <i>Weekly ACS Net &amp; SWACS Frequency Test</i>	25	26	27	28	29
30	31 <i>Weekly ACS Net</i>					

## Upcoming Events:

- **Aug 3:** OCRACES Meeting, 1930, 840 N. Eckhoff St., Suite 104, Orange
- **Aug 7:** Orange County Fair, OCRACES at Ham Radio Booth, 1600-2300
- **Aug 8:** RACES/MOU Breakfast, Katella Grill, Orange, 0800
- **Aug 10:** Huntington Beach RACES Meeting, Orange County EOC, 1900
- **Aug 15:** ARRL Southwest Division Convention & Hamfest, Santa Barbara
- **Aug 19:** SONGS Dress Rehearsal Plume Exercise
- **Aug 24:** Southwest ACS Radio/Frequency Test, 2015, OC EOC
- **Sep 23:** SONGS FEMA Graded 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

- 10 m: 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL
  - 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: 1282.025 MHz output, 1270.025 MHz input, 88.5 Hz PL
- \*Primary Net—Mondays, 1900 hours

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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



Marten Miller  
KF6ZLQ



Robert Stoffel  
KD6DAQ



Jack Barth  
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Jim Carter  
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Joe Selikov  
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Steve Sobodos  
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Tom Stroud  
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Tom Tracey  
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