



# County of Orange RACES



# NetControl

## November 1999

**Newsletter of the County of Orange Radio Amateur Civil Emergency Service**

### Top Story

#### 1999 Countywide RACES Drill Summary Report

By: Lt. Mike Krueger - N6MIK

On October 16<sup>th</sup>, several RACES groups participated in one of the largest RACES mutual aid communications exercises in Orange County history. Several RACES groups from as far away as Northern Nevada joined forces to pass a staggering number of simulated emergency messages over Amateur Radio.



Countywide RACES Drill gets underway at Loma Ridge

With the Year-2000 rollover just around the corner, we thought it appropriate to use "Y2K recovery" as our drill scenario. The drill plan was designed to be flexible, and did not rely on any

scripted messages or message timing. The format allowed each participating group to create a "local" drill based upon their cities actual Y-2K concerns. Mutual aid requests generated at the local level became part of the wide-area drill. Several groups altered their scenarios in response to an actual earthquake that occurred just hours before the drill began. This magnitude 7.0 event was centered about 100 miles east of Orange County and was felt throughout Southern California. Orange County RACES (OCRACES) members staffed 6 radio positions at

### Nov. Meeting

The November OCRACES meeting is open to all and will feature an open critique and review of the October 16th City/County RACES drill. This exercise was one of the largest ever conducted in Orange County. All City and County participants are encouraged to attend and share their experiences from the drill. The meeting will begin at 1930 hours at the usual meeting location, 840 N. Eckhoff Street

the Orange County Emergency Operations Center (EOC) RACES room and monitored 13 VHF and UHF radio channels as well as HF. The Orange County EOC acted as the hub, or "switchboard", receiving each message and then relaying it to the desired recipient in accordance with the Orange County EOC Mutual Aid procedures. The exercise began promptly at 0800 and several groups were ready to send drill

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### Upcoming Events

November 1	General Meeting, Alternate EOC, 1930 hours
November 8	ATV Presentation For Anaheim RACES, 1930 hours
November 10	Mass Casualty Drill, Fullerton
November 15	OCRACES Officer Meeting, Alternate EOC, 1900 hours
December 6	General Meeting, Alternate EOC, 1930 hours
December 31	OCRACES Y2K Activation, EOC
January 3, 2000	General Meeting, Alternate EOC, 1930 hours

Visit the OCRACES Web Page @ <http://www.ocraces.org>



## Captain's Corner By Ray Grimes

What a way to begin a RACES drill! At 2:46 AM nature left a wakeup

call, announcing the 7.0 Moment Magnitude Hector Mine earthquake. The ground shook at my home, then 5 minutes later at 2:51 AM shook again. I wasn't too sure about the second quake, until I heard a distant car alarm activate. I checked to make sure the family was all right, then proceeded to turn on all of my radios and the TV, hoping to learn about the earthquake. There was absolutely nothing being announced on any television channel. I then turned on my 146.895 MHz radio and heard two

hams discussing the earthquake. In a few minutes I learned that this event was 31 miles north of Joshua Tree, with a preliminary 7.0 Moment Magnitude reading. This was very useful preliminary information, telling me that we were likely not in the epicenter and that a major disaster in Orange County was improbable. It immediately occurred to me that Amateur Radio was powerful!

OCRACES (not by design) had its annual planned Cities/Counties mutual aid exercise only five and a half hours after the Hector Mine earthquake. I am very proud of OCRACES and all of the participating agencies who turned up for this

exercise anyway. Most all of us were lacking sleep at that point, and worrying somewhat about when the next shake would occur. The knowledge of the "real" event may have moved participants to take the OCRACES drill more seriously. I view our exercise as a great success. Mike Krueger is to be commended for his many weeks of hard work in planning and supervising this exercise. As the public was now eager for information and somewhat uneasy after the early morning earthquake, it became most important that while performing our radio communications exercise that we made sure we stated

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traffic.

Below is a brief list of observations (many pertinent to OC-RACES operations only) and action items for future events. Many more items will be discussed at the November 1<sup>st</sup> OCRACES meeting, which will be a full critique of this event.

- It was noted that many groups have established a unique message-passing format. The combination of these different formats caused some confusion until each operator became acclimated. This is a condition that we'll see again, since changing/standardizing a message format is not practical.



RACES Room Activity During the Drill.

- Northern Nevada Amateur Radio Service reported that communications with the Orange County EOC and field command post were loud and clear on 7.230kHz. Contact was also made with Huntington Beach and Mission Viejo. Westminster's HF station was barely readable in Nevada.

- Several city groups withdrew from the event early, some as early as 0918. The actions of these groups had a serious impact on the operations, causing several messages to be undeliverable. All groups should have remained active until the drill was completed as requested in the opening announcements.

- OCRACES PagerNet was

activated from Loma Ridge. Not all members received a page on their County-issued pagers, however most personal pagers activated.

- Non-essential conversions in the RACES radio room overshadowed radio traffic.

- Some incoming radio traffic was missed, as operators had the radio volume turned down.

- All radio operators and assistants should wear headphones to monitor radio traffic.

- The use of headphones prevented the observer from monitoring the content of radio traffic.

- The use of the whiteboards should be utilized to display/track current statistics and pertinent information.

- Approximately 200 RACES operators participated in the event,

# Training

By Lt. Mike Krueger

We continue our ICS training by introducing several more ICS definitions. This month, we'll look at items beginning with M through R. Previous definitions are found in the past issues of NetControl, available at [www.ocraces.org](http://www.ocraces.org).

**Management By Objective (MBO)** – Top-down management so that all involved know and understand the objectives of the operation.

**Message Center** - The Message Center is part of the Communications Center and is collocated or placed adjacent to it. It receives, records, and routes information about resources reporting to the incident, resource status and administration and tactical traffic.

**Mobilization Center** - An off incident location at which emergency service personnel and equipment are temporarily located pending assignment, release or reassignment.

**Multiagency Coordination System (MACS)** - The combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordination an assisting agency resources and support to agency emergency operations.

**National Interagency Incident Management System (NIIMS)** - Consists of five major subsystems which collectively provide a total systems approach to all-risk incident management. The subsystems are:

- The Incident Command System,
- Training,
- Qualifications and certification,
- Support technologies and

- Publications management.

**NOAA Weather Station** - A mobile weather data collection and forecasting facility (including personnel) provided by the National Oceanic and Atmospheric Administration which can be utilized within the incident area.

**Operational Period** - The period of time scheduled for execution of a given set of operation actions as specified in the Incident Action Plan.

**Operations Coordination Center (OCC)** - The primary facility of Multiagency Coordination System. It houses the staff and equipment necessary to perform the MACS functions.

**Orthophoto Maps** - Aerial photographs corrected to scale such that geographic measurements may be taken directly from the prints.

**Out-of-service Resources** - Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

**Overhead Personnel** - Personnel who are assigned to supervisory positions which includes the Incident Commander, Command Staff, General Staff, Directors, Supervisors and Unit Leaders.

**Patrol Unit** - Any light, mobile unit having limited pumping and water capacity.

**Planning Meeting** - A meeting held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.

**Radio Cache** - A cache may consist of a number of portable radios, a base station and in some cases a repeater stored in a predetermined location for dispatch to incidents.

**Reinforced Attack** - Those resources requested in addition to the initial attack.

**Reporting Locations** - Any one of six facilities/locations where incident assigned resources may check-in. The locations are the:

- Incident Command Post,
- Resources Unit,
- Base,
- Camp,
- Staging Area or
- Division Supervisor for direct line assignments.

(Check-in at one location only.)

**Rescue Medical** - Any manned ground vehicle capable of providing emergency medical services.

**Resources** - All personnel and major items of equipment available, or potentially available, for assignment to incident task on which status is maintained.

**RESTAT** - An acronym for Resource Unit - a unit within the Planning Section.



# City Watch

## HDSCS Hams Help Hospitals Handle Hector

By: Joe Moell, K0OV

The Hector Mine earthquake seemed like a non-event to most hams in the Los Angeles area, because few were activated by authorities to provide emergency communications support. But to one hospital, the temblor brought on a crisis that was made less stressful because hams were prepared and acted quickly.

Following established procedures, the Hospital Disaster Support Communications System (HDSCS) activated, as it does any time the ground shakes in Orange County. Because minutes count when hospitals need help, this ARES group doesn't wait for calls from health care facilities or governmental agencies. Instead, HDSCS immediately checks on the hospitals, gathers status, and provides it to Orange County Emergency Medical Service Agency. If hospital phones or other communications links fail or are overloaded, ham responders discover it and are in position to provide immediate backup.

Net control was on the air within five minutes of the quake. Thirty-eight members quickly began to assess the condition of the county's 33 hospitals. In addition, one went to the radio room at the county Emergency Operations Center. (Because RACES usually does not activate immediately in these situations, HDSCS provides its own operator to the EOC, in accordance with established procedures.)

Members provided the first status reports within ten minutes. Status of all 33 medical centers was determined within 75 minutes. At Los Alamitos Hospital, the responding hams (Dennis Kidder WA6NIA and Phil Glumm KD6TJT) discovered that commercial power had failed. The hospital was using its generator, but that didn't power some important diagnostic equipment, such as X-Ray and CT-Scan. HDSCS members remained at the hospital for six hours to provide backup communications as the facility was forced to close its Emergency Department to incoming patients.

Hospital officials were unsuccessful in contacting Edison Company by telephone, so WA6NIA contacted Rosie Falcon N3IVO at the EOC for assistance. N3IVO relayed the request to county officials, who were able to make tie-line contact with Edison and initiate a high-priority response.

This event was reminiscent of the Landers earthquake of 1994. During the immediate HDSCS response to that temblor, Gary Holoubek WB6GCT was first to arrive at Buena Park Hospital, where both commercial and generator power had failed, plunging the entire facility into darkness. The problem of overloaded Edison phone lines was overcome in that case when another ham spotted an Edison truck and gave the message to its driver, who called it in on his mobile radio.

"Portability, flexibility and speed are the keys to successful response to hospital emergencies," says April Moell WA6OPS, Coordinator of HDSCS. "If we had not checked on our supported hospitals within the

first hour, we would not have been aware of problems and been able to help. In disaster and potential disaster situations, hospitals must be a first thought of hams, not just an afterthought."

The Hector Mine earthquake marks the 67th incident since 1980 in which HDSCS hams have provided emergency backup communications to Orange County hospitals.

For more on HDSCS and Amateur Radio support to hospitals, go to <http://members.aol.com/emcom4hosp/> on the World Wide Web.

[written by Joe Moell K0OV, e-mail

## Cities

[homingin@aol.com](mailto:homingin@aol.com)]

[April Moell's e-mail address is [emcom4hosp@aol.com](mailto:emcom4hosp@aol.com)]

## Laguna Woods

OCRACES Chief Radio Officer Ray Grimes, W6RYS visited the Laguna Woods Amateur Radio Club during their October 7 meeting and made a presentation explaining the duties, government relationships of a RACES unit, and the resources available to its members. The Leisure World Amateur Radio Club, is under the direction of President Art Welch, K7TX. Art has been a driving force in promoting a RACES unit for the City of Laguna Woods. Laguna Woods, formerly Leisure World, is a very new city, being chartered in March, 1999. Present at the meeting were Mayor pro tem Brenda Ross, City Manager Leslie Kein, and City Councilwoman Snei-

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der. I was honored and pleased to have such prominent officials at this meeting. The City of Laguna Woods is quite obviously excited about the formation of their RACES unit. I also presented Steve Sobodos' excellent OCRACES public relations video tape which goes far in displaying the many beneficial services a RACES unit can offer to its parent agency.

**La Palma**

La Palma RACES is in need of operators to work the La Palma Days Parade. Please call or respond via e-mail.

Event: La Palma Days Parade  
Date: Saturday, November 13, 1999  
Time: 0600 - 1400 (ending time approximate)  
Location: City of La Palma

Personnel Requested: 35  
Equipment Required: 2-meter handheld (Also 440 HT if available)  
Contact: Susan Atkinson W6SLA

714-527-5706 home  
714-385-7439 work  
w6sla@yahoo.com

This event qualifies as a R.A.C.E.S. drill with the Disaster Council of La Palma.

73,  
Susan W6SLA  
Chief Radio Officer  
La Palma R.A.C.E.S

**Laguna Beach**

I have put together an LBACT home page which you can consult at

<http://www.soara.org/lbact/index>.

html

It is still rudimentary and needs quite a bit of additional work, but it is usable in its current form. Please make it a point to consult it periodically, since I will be using it to make announcements to the membership. Since I am anything but a pro at creating Web pages, I will appreciate any suggestions for improving the page. Also let me know if you encounter any trouble spots as you navigate the page and its links.

Please note that a preliminary agenda for next Monday's meeting can be found on the page.

Thanks to NZ1M for the use of the server and for helpful guidance; thanks also to KF6EUO for helpful comments.

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## It's That Time Again (Almost)

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By Ray Grimes, W6RYS  
Chief Radio Officer, OCRACES

Only 55 shopping days until Christmas (and 61 days until Y2K)!

Sorry, I didn't mean to create panic! It is however, time to start planning the annual OCRACES Holiday Party (now you can panic!). In past years we have had discussions



about the perfect place to hold the OCRACES holiday party and what the menu should include. If we wait until mid-November or early December, we won't have many choices available (unless you want your meal at the drive-in window, with cat-sup). I am making the call for an

OCRACES member to step forward and assume the duties of OCRACES Holiday Party Coordinator. There are certain benefits to this position in that you initially pick the menus, restaurants, and propose the date and time that you like best. You also would have an excuse to eat out frequently, in the name of culinary research. Seriously, we really need to move forward on this event. Be prepared to organize an OCRACES Holiday Party Committee at the November OCRACES meeting.

## Did You Know?

### Meetings:

General: First Monday of Month  
(open to public) @ 1930 hr

### Meeting Location:

OCSD/Communications  
840 N. Eckhoff St. Suite 104  
Orange, CA 92868-1021

### County RACES Frequencies:

6 m: 52.62 MHz output, 52.12  
MHz input, 103.5 Hz PL

2 m: 146.895 MHz output,  
146.295 MHz input, 136.5 PL;  
(primary net Mondays, 1900 hrs)

2 m: Packet: 145.07 MHz  
(1830 – 1900 hours)

1.25 m: 223.76 MHz output,  
222.16 MHz input, 110.9 Hz PL

70 cm: 449.180 MHz output,  
444.180 MHz input, 107.2 Hz  
PL (private)

### OCRACES Web Page:

<http://www.ocraces.org>

### OCSD/Communications

OCRACES Program Coordinator  
Robert Stoffel, KD6DAQ  
(714) 704-7919

Chief Telecomm. Engineer  
Gary Gray, W6DOE  
(714) 704-7911

OCRACES Chief Radio Officer  
Ray Grimes, W6RYS  
(562) 594-0065

Assistant Chief Radio Officer  
Ken Mirabella, KM6YH  
(714)990-6656

Assistant Radio Officers  
Jim Carter, WB6HAG  
Mike Krueger, N6MIK  
Joe Selikov, KB6EID  
Steve Sobodos, KN6UX

Sergeants  
Al Baird, KC6TWI  
David Boehm, N6DSB  
John Roberts, W6JOR  
David Wilson, KE6AFR

### Fuelin' Around

By: Ray Grimes, W6RYS  
Chief Radio Officer, OCRACES

Recent industry attention has been turned toward the commonplace use of cellular telephones at service station gasoline pumps by the public. The media has also picked up on this issue, but has unfortunately missed many of the critical points in understanding the complex technical problems and any workable solutions. A large gasoline distributor is in the process of placing labels on all of their pumps nationwide, prohibiting use of cellular telephones within so many feet of a gasoline pump. They are taking a further step in recommending that cellular telephones be left in the vehicle during refueling. I suspect that this will have as much influence as the "No Smoking" or "Stop Your Engine" signs now in place.

This major gasoline distributor's spokesman stated to the media recently that taking this measure was a conservative step toward preventing a potential explosion in a service station. While I will most always agree that prevention is the best policy relative to accidents, I can't help but wonder what scientific basis such policy is founded upon? If we study the National Electrical Code (sponsored by the National Fire Protective Association, NFPA), Article 514, "Gasoline Dispensing and Service Stations", we learn that gasoline dispensing areas are "locations where volatile flammable liquids or flammable gases are transferred to fuel tanks of self-propelled vehicles". Other areas of a gasoline service station may also be considered hazardous and regulated under NEC Articles 510 and 511. The "No Cellphones" initiative by the gasoline dispensing companies should then equally apply to other potentially hazardous areas around a filling station.

I have never read a confirmed report or article about an explosion proven to be caused by the RF component of a cellular telephone, or an electrical spark produced by a solid-state cellular telephone or two-way radio (maybe there wasn't enough evidence left after the explosion to analyze?). There is however plenty of documentation related to explosions caused by non-intrinsically equipment operated in "closed hazardous areas". In an earlier article, I had previously discussed talked about grain dust, ethers, and pure oxygen to name a few hazardous materials which can indeed be set off by a spark (but not by RF).

If one believes that the potential for explosion may be that the electronic dispensing computer could be affected by RF, and may fail to shut off fuel delivery, let me dispell that myth too. In the State of California, among other states, there is a Bureau of Weights and Measures regulation that requires that fuel dispensing equipment (in particular, the fuel quantity and pricing computer) to be immune from environmental interference. This includes weather extremes, magnetic fields, and RF. I have personally been involved in such testing, and found that these fuel pumps are very well designed and environmentally protected to the maximum.

If we want to put the celfone ban into perspective, most all celfones have a maximum RF power output of 0.6 watts (automatically power-adjusting). These radios are solid-state, with the probability of spark generation being very unlikely. One of the problems of this celfone ban initiative is that it is unscientific. If we are going to ban celfones specifically, why stop there? What about all other possible mobile and portable transmitters which may be in use around a filling station? Anyway, soon expect to receive scowls from other motorists if you exit your vehicle with a radio in hand. What's

# A Tall Story

By: Ray Grimes, W6RYS  
Chief Radio officer, OCRACES

You have all seen large broadcast and communications towers, with their flashing beacons twinkling at night (there are an estimated 45,000 communications towers in the U.S. alone). The red and white paint and flashing lights are there to protect aircraft. That would be a good thing, right? Several recent articles in broadcast and communications magazines have brought to light (no pun intended) some problems with FAA mandatory tower lighting. One curious problem is that while the FAA can require mandatory antenna structure lighting for towers over 200 ft. AGL, or for antennas which are in the path of approaches and landing zones for airports, local zoning may attempt to prohibit such lighting where it is deemed a public nuisance. There was one noteworthy case where a cellular antenna near an airport required a strobe lighting system. The problem was that the antenna structure with its lighting system was just tall enough to illuminate nearby apartments. A workable solution was that a carefully placed reflector shield in the direction of the apartments solved the nuisance problem while still maintaining visibility upward in all directions.

A larger problem which has apparently been ongoing since the 1940's

is that of bird strikes. There have been confirmed cases where 30,000 birds were killed in a single night in Wisconsin, in 1974, and 10,000 birds were killed by collisions with a 420 ft. television broadcast tower in Kansas. Researchers from the U.S. Fish and Wildlife Service report that as many as 3 million to 5 million birds per year are killed by collisions with towers. It seems that birds apparently become confused at night in bad weather and seem to be attracted to the tower lights. Several environmental groups are doing research on this phenomenon and the FCC appears interested.

The experts say that migrating birds typically fly at around 2000 ft. at night at around 50 MPH. Amazingly, they use stars and the moon and the horizon to navigate. As the migrating birds enter an area of poor weather, they will fly down below the overcast deck, bunching up under the clouds. The tower lighting causes navigational confusion for the birds, and they will run into guy wires or other birds as they swarm.

What are the proposed solutions? Research has shown that if the tower lights are turned off, the birds leave the area, confirming that they are being drawn to the lights. The blinking rate of incandescent tower lights may be a fac-

tor. Perhaps rapid flashing strobe lights would reduce the attractiveness to birds. Another proposed solution is to have all towers mapped on GPS so that aircraft would be able to navigate around tall obstructions. The problem with that line of thinking is that U.S. domestic aircraft are not required to operate GPS navigation systems, and that many low-flying aircraft such as crop-dusters and helicopters primarily use visual navigation. If the GPS system were to fail for some reason, it would be highly unsafe to fly at low altitude at night most anywhere in the U.S. There could be solutions using infrared or high-frequency sound on towers to detract birds.

The experts and regulators say that this issue needs to be studied further and will require action, and that the problem occurs mostly along migratory bird routes. This implies that while the industry and regulators take this matter seriously, an effective solution won't be forthcoming.

from: Radio World, P.1

October 13, 1999

## *(Captain's Corner from page #2)*

frequently that "this is only a drill". I can just envision someone casually listening to us on a scanner and learning that most everyplace is destroyed.

OCRACES will be having an exercise debriefing at the November general meeting. We welcome comments and suggestions from all participating agencies. OCRACES has

already compiled a partial list of equipment and procedural changes based on how we performed during this realistic scenario. This exercise and a "real" earthquake can help serve as a reminder to check your



# 1999 Countywide RACES Drill

