



County of Orange RACES

NetControl

April 1998



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Top Story Blowing In the Wind (By C.R.O. Ray Grimes)

Friday the 13th did not pass without excitement. March 13, 1998, at approximately 19:05 hours, Robert Stoffel issued an urgent weather bulletin via the OCRACES paging system, advising of a National Weather Service Tornado Watch for the coastal cities of Orange County. Yes, Orange County has suffered fires, earthquakes, floods, and now tornadoes! At 19:35 hours a second pager alert advised that NWS had upgraded the alert to a Tornado Warning for northwest Orange County, Long Beach, and San Pedro coastal sections. A cluster of water spouts was observed moving from the L.A. Harbor in a southeasterly direction at 15 mph and was expected to reach land shortly. A water spout can rapidly decompose upon reaching land, or on rare occasion, become a full tornado. A Tornado Watch may be issued by the National Weather Service if severe weather conditions are anticipated

which could spawn tornadoes. This is usually related to an aggressive cold front passage with considerable moist air and instability. A Tornado Warning is a higher level of alert which means that weather conditions now exist, supported by observer reports of water spouts, adding to the probability that tornado formation is likely.

Chief Radio Officer Ray Grimes transmitted a QST via the 2 Meter repeater advising of the warnings and requesting a clear frequency. David Boehm, KD6IOV contacted the C.R.O. shortly after by telephone, and advised that per a pilot's weather briefing service, there were reports of several waterspouts being sighted by pilots in the L.A. harbor area. The Tornado Warning was expected to be canceled or extended at 20:08 hours. Repeat alert messages on 2 Meters were transmitted at about 10 minute intervals until the NWS canceled the Tornado watch at 20:00 PM. As there was no reported damage in Orange County, OCRACES was not officially activated. Con-

April Meeting

ATV Presentation - The ATV Committee will provide an overview about ATV during the April General meeting. If you know nothing about ATV and would like to know what it is and how it works, you don't want to miss this one. Our Chief Radio Officer, Ray Grimes (W6RYS) will present the technical side in an easy to understand format. Jim Carter (WB6HAG) and Amish Parashar (KE6EZM) will demonstrate the ATV field equipment.

tact was made with Robert Stoffel and A. C.R.O. Ken Mirabella via 2 Meters and the County "800 OPS" channel. Robert Stoffel also established contact with Control One via the 800 OPS radio.

As an interesting sidenote, there was really very little public announcement about the pending tornado emergency. The TV stations continued normal programming, with the exception of one station which transmitted a brief announce-

(Continued on page 7)

Upcoming Events

Apr 1	State OES "Duck, Cover and Hold" Earthquake Drill
Apr 5	Persian Festival, Mason Regional Park, Irvine
Apr 6	General Meeting, Eckhoff Street
Apr 13	Staff Meeting, Eckhoff Street
Apr 22	Last day to submit articles for May <i>NetControl</i>
Apr 25-26	Baker to Las Vegas Challenge Cup Relay Race Web Site: http://www.flo-bin.com/Baker2Vegas
May 29	OCSD/EM SONGS Decontamination Drill, Orange Coast College
Jun 2	Primary Election

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Captain's Corner By Ray Grimes

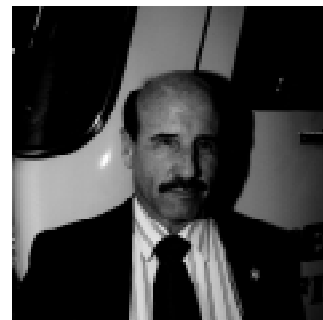
SWIFT WATER DANGER

I hope you enjoyed the general meeting presentations on Swift Water Rescue and the Rescue Hover Craft as much as I did. It gave us plenty to think about. Perhaps the most important message was about how extremely dangerous our flood control channels can be, even for professional rescuers. We need to always keep this in mind, particularly in the event that we should be activated to respond to a swift water mutual-aid incident. Equally important to remember is that we can not allow ourselves to get caught up in the urgency of the situation without due consideration for the risk to well-meaning rescuers and a possible catastrophic outcome. Remember, our primary job is to communicate!

LEADING TECHNOLOGY

There is an interesting controversy surrounding public safety acceptance of the

Rescue Hover Craft for swift water operations. It is not always easy to get departments to change accepted and proven methods for radically new, and sometimes untested ways. It can take a disaster with adverse media attention to brute force such changes. That was largely how the Super Scooper Fire Fighting aircraft found acceptance in L.A. County, after the terrible Malibu fires. OCRACES finds itself in a unique position at the leading edge of communications technology, testing and proving new systems and methods with private funds and volunteer manpower. Many of these concepts have become reality, with a real benefit to the County. To name a few, there is OCRACES packet radio, GPS and its tracking software, Amateur Television (ATV), Byron's Vote Talley Center Ballot box Monitoring System, and Marty's radio remote-controlled traffic signal used at the Vote Talley Center to control incoming van traffic. We soon hope to have



a HAMFAX portable radiofacsimile terminal to add to our list of fine achievements.

There are many challenges awaiting eager members of OCRACES. There is a real excitement and pride stemming from personal achievement when your idea becomes reality, and you see a public benefit from your efforts. Ideas come in all sizes. If you see an operational or tactical problem which could be resolved using our OCRACES talents, write it down in brief outline form and submit it to any Staff member. We promise your ideas will be taken seriously and a prompt response will be made.

City Watch

This is a new section of **NetControl**. It is dedicated to fostering relations between city RACES groups and OCRACES. City ECCs and Radio Officers are encouraged to submit articles about events held within their city. Mutual aid requests will also appear in this column.

Huntington Beach

The City's EOC was activated due to the heavy downpour which occurred in early February. Numerous streets were closed due to flooding. CERT and RACES volunteers staffed three off-site sandbag distribution sites. Quick response by personnel during flashflood conditions saved several mobile homes threatened by rising flood waters which reached 2-3 feet deep during the peak of the storm. All emergency responders are to be congratulated on a job well done.

Huntington Beach will hold their annual Camp CERT and RACES Field Day on June 27 & 28. The combined exercises include CERT training which includes the setup of outdoor shelters and feeding stations, practice for First Aid and Search & Rescue. RACES will setup their tower and radios and provide the CERT volunteers an opportunity to talk on the radio to other operators across the country.

Huntington Beach CERT maintains a web site at <http://ourworld.compuserve.com/homepages/pburtis>.

Irvine

OCRACES staff members Capt. Ray Grimes, C.R.O. and Lt. Steve Sobodos, South Squad Leader, attended the February 26 IDEC meeting in Irvine and presented an overview of OCRACES to about 45 members at the IDEC monthly

general meeting. A new OCRACES video production, by Steve Sobodos, highlighting many of the events and special projects supported by our members, was shown. This is one of many P.R. visits planned for this year as part of our "Adopt a City" program.

La Palma

The Neighborhood Emergency Response Team (NERT) has been renamed to Community Emergency Response Team (CERT). The CERT terminology has a wide acceptance throughout the country. La Palma RACES is part of the CERT program. RACES will move its meeting night to Tuesdays which coincides with the CERT meeting night. The RACES meetings will be at 19:00 hours and the CERT meeting will be at 19:30 hours. Meetings are held in the City Hall conference room.

ECC News and Views by Robert Stoffel

March has been a busy month, and April is shaping up to be just as busy. As you read this issue of **NetControl**, final preparations are being made for the Persian New Year event. If you suddenly find yourself available Sunday April 5th, contact John Roberts, W6JOR at (714) 540-7368. Additional RACES personnel are needed for this event.

Three OCRACES members participated in the Seal Beach Naval Weapons Station (NWS) exercise on Friday March 20th. CalQuake '98 simulated a 6.8 magnitude earthquake and tested the emergency response procedures of the NWS facility. Al Baird, KC6TWI, Harvey Packard, KM6BV and Chris Storey, KA6WNK participated in the drill by staffing the Loma Ridge EOC. Messages were passed between the two locations utilizing various modes of communication.

I am sorry to report that T.J. McCann, KE6ESJ has submitted his resignation

from OCRACES. Heavy work commitments are keeping T.J. from participation, we wish him the best and say "thanks" for his contributions to the program.

Several upcoming events for the month of April are just around the corner. First, the next OCRACES General Meeting will feature Amateur Television (ATV). This is our second technical presentation of the year, and will be an excellent overview covering everything you ever wanted to know about ATV. Personnel from city RACES organizations and the HDSCS are invited and encouraged to attend this meeting, Monday April 6, 1998 at 1930 hours. OCRACES will also be participating in the Metropolitan Water District (MWD) of Southern California's earthquake drill on April 7, 1998. Ken Mirabella, KM6YH and Al Baird, KC6TWI will provide RACES support at the MWD Diemer Filtration Plant in Yorba Linda.

The Baker-to-Vegas relay race, April 25 and 26, 1998, will wrap up the month of April. Mike Krueger, KC6ZSF has done an outstanding job in the coordination responsibilities for this event. We have a number of OCRACES members participating in this event, and appreciate their support. Additional information on Baker-to-Vegas can be found in this edition of **NetControl**.

Lastly, effective March 1998, OCRACES will no longer conduct radio nets on the 220 and 6-meter repeaters. The nets are being discontinued as OCRACES personnel have limited radio equipment on these bands. We will continue to use these resources for specialized events and activities. RACES personnel who have equipment on these bands are encouraged to check the repeaters weekly to ensure their operational status.

Until next month
The frequency is now clear!

March Meetings Swift Water Rescue (By Nancee Graff OCRACES P.I.O)

Thanks to Eric Johnson from the Costa Mesa Fire Department for an interesting presentation at our general meeting on March 2, 1998. He showed us a film on previous rescues from the February El Nino's. He also shared with us some of the mistakes that were made during the rescues.

Thanks to Miles Flewitt co-owner and Marine/Stunt Coordinator for Extreme Marine of Newport Beach for being our second guest speaker that evening. He showed us a brief tape of how to operate a hovercraft rescue vehicle he markets. He also took us outside to see the very same rescue vehicle as seen on Baywatch

(a hovercraft with a light bar).

We would like to offer our thanks to both speakers for a very informative evening.

Event Coordination

Persian Festival

Mutual Aid requested

OCRACES will be supporting the Orange County Park Rangers this year during the Persian Festival being held in Mason Park, Irvine. Over 30 RACES members are needed to man 3 shifts from 08:00 hrs till 22:00 hrs on Sunday, April 5, 1998. All City and County members are urged to participate. People interested in volunteering should contact Lt. John Roberts.

Primary Election, June 2

On June 2, 1998 OCRACES will again assist in the collection of Election Ballot Boxes throughout Orange County. RACES personnel will be stationed at the 22 regional ballot collection centers around the County and will update the Vote Tally Center with the total number of ballot boxes collected at each site every 15 minutes. This will enable the Vote Tally Center personnel to evaluate van deployment and expedite ballot pickup at the Regional Collection Cen-

ters. A former member now living in Las Vegas, N6BG, Byron Garrabrant developed a PC based program that tracks the status of each collection van including the number of boxes being carried. In addition, the program stores information about the number of boxes waiting for pickup at each Collection Center. This information has proven vital to the collection process, to the County and the Registrar of Voters.

Training

Fill'er Up
by: Ray Grimes, W6RYS
Chief Radio Officer,
Orange County RACES

If you stay up on your technical reading, you may have observed a parade of "newer and better" portable electronics equipment battery products. There are rechargeable nickel cadmium (NiCad) batteries which we have used for hand-held transceiver equipment for well over a decade. There are also alkaline types featuring low-cost, long-term storage life, producing higher output current at low temperatures. The lithium battery has made a comeback, offering high capacity, and excellent temperature characteristics, though somewhat more costly. The nickel metal hydride (NMH) battery is one of the latest rechargeable batteries, featuring improved current capacity while being environmentally friendly. There are also silver oxide and mercury batteries, and of course, the old favorite carbon-zinc battery, to name a few of the major types.

Let's depart from the conventional and consider a new portable electronics equipment power source, the "fuel cell". You have likely heard about fuel cells for spacecraft and experimental vehicles. How about a fuel cell for cell-phones and portable radio transceivers? This is not science fiction. The day of fuel cell power is close, only a year away from a working prototype according to its inven-

tor, Robert G. Hockaday. Energy Related Devices, Inc. of Los Alamos, New Mexico soon plans to market its Hockaday Micro-Fuel Cell. The new power source promises to deliver 100 hours of cell-phone talk-time and up to 40 days of standby power. This new technology and application has attracted a 1 million dollar development contribution from Manhattan Scientifics, Inc.

What are the benefits of a fuel cell power source for your cell-phone or two way portable radio? How about a non-polluting power generating device which uses renewable, low cost fuel available most everywhere, and a fuel cell size and weight that won't appreciably add to the bulk of the electronics device? Are there drawbacks? ---probably. For one, fuel by its very nature is combustible, and methanol is volatile, making use, handling, and disposal more critical. While the inventor plans to make the fuel cell package resistant to impacts through use of tough plastics and a spongy liquid absorbing material, a shorted device could pose an explosion hazard. All of this has yet to be worked out for consumer distribution. There are also questions to be raised as to whether the airlines will be happy to let passengers carry fuel cell-equipped portable electronics devices onboard. Fuel cells are not new, having been used successfully in the space program since the 1960's. Only the application is new. What's in the Micro-Fuel fuel cell? Much of the details are proprietary, but



the primary ingredient is methanol, or simple wood alcohol (definitely not the kind you drink). A fuel cell's ability to generate electricity is the result of a chemical reaction. Fuel cells can be thought of as an electrochemical engine. The fuel cell does not actually burn the fuel, but electrochemically reacts to the fuel and oxygen mixture to produce electricity. Typically, methanol is introduced into the fuel cell at one intake while oxygen is drawn into a second intake. The fuel cell contains two dissimilar metal electrodes. Electricity is the byproduct of the electrochemical reaction, along with water.

It is envisioned that replacement fuel will be sold in small ampoules, similar to perfume bottles. Refilling will be similar to loading a cigarette lighter where fuel is squirted from a container/applicator into the device. The day may not be too far away where you take your portable transceiver to the convenience store and say "fill'er up".

April is Earthquake Preparedness month

Earthquakes do happen! No one knows when the next quake will hit, and we can't prevent it from occurring, but we can reduce the number of deaths and injuries by preparing.

Some things you can do now to prepare include identifying hazards and eliminat-

ing or reducing them, storing emergency supplies and replenishing them annually, educating your family where to duck, cover, and hold, learning first aid, and conducting practice drills on a regular basis.

Be sure that your emergency supplies kit has an adequate supply of water and food and includes other items such as first aid kits, books, fire extinguishers, flashlights

and radios with extra batteries, cash, tools, outdoor cooking supplies, etc. Store your supplies in a pre-designated place and check them once a year. Don't forget to store extra food and water for your pets.

The Los Angeles County office of Emergency Management has a program called ESP which stands for Earthquake Survival Program. As part of that program they supply a set of articles which focus on a different hazard each month. **NetControl** will publish each month's hazard through the end of the year.

Committee Reports

Amateur



Television (ATV) By: Jim Carter WB6HAG

Coordinator: Jim Carter (WB6HAG)
Web page:
[http:// www.qsl.net/wb6hag/](http://www.qsl.net/wb6hag/)

Tri-Agency Update - The Signal Hill Tri-Agency ATV repeater project is on hold. Both Long Beach and Los Angeles agencies have not responded to our revised proposal as reported last month.

Persian Festival - ATV will support the Park Rangers at Mason Park in Irvine, during the upcoming Persian Festival. Costa Mesa RACES member Ken Leak (KB6EVR) and OCRACES members Ray Grimes (W6RYS) and Jim Carter (WB6HAG) will provide video support. ATV has been beneficial in previous years as we have provided extra eyes to the rangers. We still need more ATV'ers. If city RACES ATV'ers are interested in assisting, please contact Jim Carter (WB6HAG).

Brea Drill - We have been requested by Brea to participate in their upcoming May exercise. Jack Barth (AB6VC), Al Baird (KC6TWI), and Jim Carter (WB6HAG) will support this exercise. Al Baird volunteered to operate our ATV command post. His assistance will allow us to provide two ATV cameras on scene. Thanks Al!

ATV Manual - The OCRACES Introduction to ATV and Procedure Manual was completed and will be distributed to OCRACES members during the April general meeting. The manual provides a technical overview about ATV and OC-

RACES ATV activation and operating policies.

EOC Equipment - Thanks to the County of Orange, we have new ATV equipment on Loma Ridge. Ray Grimes (W6RYS), Jack Barth (AB6VC), Amish Parashar (KE6EZM), and Jim Carter (WB6HAG) worked late into the evening installing this new equipment. Thanks guys!

We now have the capability to distribute video for both 426.25 MHz and 1.2 GHz frequencies throughout the EOC. Also, the crystal controlled equipment makes it user friendly and allows anyone not familiar with ATV equipment to operate it. A video was made to show this equipment and it will be shown at the April general meeting.

Baker to Vegas - A 900 MHz FM ATV transmitter was received from the County. This transmitter will be used on the race course to track the OCS D runners and to send live video to the EOC on Loma Ridge. A special thanks goes to the Las Vegas ATN group who has allowed us to use their ATV repeater. Presently, both audio and video feeds from Las Vegas are working. If you want to see our video, tune your ATV 1.2 GHz downconverter to 1253.25 MHz and swing your beam toward the Santiago Peak ATN repeater. Video will be fed from Las Vegas throughout the day on April 25th.

GPS Video Integrator - One of the ATV Committee objectives this year, is to investigate and obtain a device that takes raw GPS information and superimposes

its Lat./Long information onto the ATV field video. A demonstration unit was obtained from one company and we found it's design was too selective as to the type of GPS inputs (TTL or RS-232) it would accept. Also, customer support was lacking. Another company is presently being evaluated and we hope their product will meet our specifications.

NEW Members - The ATV Committee is looking for additional members. If you would like to learn about ATV and take part in our drills, please contact Jim Carter (WB6HAG) for additional information.

Baker to Las Vegas

Event Coordinator: Sgt. Mike Krueger
B2V Web page:
<http://www.flo-bin.com/Baker2Vegas/>

The Baker to Las Vegas Challenge Cup Relay Race is scheduled for April 25-26, 1998. This 120-mile relay will assemble at the Baker High School, begin north of town, proceed over Ibex Pass to Shoshone, head toward Pahrump, Nevada, go up the mountain through Mountain Springs, and then head down to Las Vegas, ending at the Tropicana Hotel. The MGM Grand will be the host hotel and convention center.

If you would like to participate please contact OCRACES Sgt. Mike Kruger.

HAMFAX



The HAMFAX committee is currently conducting research into the feasibility of creating a facsimile system using amateur radio. The goal is to transmit an image using conventional, low-cost communications hardware. Limitations of amateur radios and digital communications equipment, make HAMFAX a challenging design problem. If anyone has any source material, or knows someone who has attempted to solve this problem, please contact either by e-mail (DaveBoehm@msn.com) or phone (714) 827-7992, David Boehm (KD6IOV). Your help is greatly appreciated!

Baker to Las Vegas (continued)

APRS Coordinator:
Harold Robinson (KE6DVB)
B2V Web page:
<http://www.flo-bin.com/Baker2Vegas/>

APRS Report

On Saturday March 7th, 1998 Ham Radio operators supporting running teams that will be participating in this years Baker to Las Vegas Challenge Cup Relay Race, flocked to 840 N. Echoff Street, Orange, CA. These operators are involved with APRS which is an acronym for Automatic Positioning and Reporting System.

For the past 3 years, OCRACES has provided APRS as a service to participating running teams. This service provides team captains with up to the minute vehicle course location. Most teams identify a minimum of two vehicles which they would like to track. The first vehicle is the Follow Vehicle. This vehicle follows the runner currently carrying the baton. The Follow Vehicle is on the course from start to finish. The second vehicle that teams commonly use is called a Shuttle Vehicle. The Shuttle is used to move runners from various hotels to their start point in the race.

Located inside each vehicle is a mobile transmitter capable of outputting a minimum of 25 watts, a GPS or Global Positioning System receiver, and a Packet Radio translation device called a TNC, usually a Kantronics KPC3 or KPC3+ with a minimum firmware revision of 6.0

APRS plays a valuable role in the logistics of getting runners into position for the baton hand off. Standing out in the elements for long periods of time is eliminated. Shuttle Vehicle ETA's can also be more accurately predicted.

The APRS network is supported by three fixed hub sites. They are located at Ibex Pass, Pahump, and Mountain Springs (or Tocopa Peak). These sites have a

TNC and a laptop that run a DOS based program called Tracker, currently version 1.03, which was developed by OC-RACES member Marty Mitchell (N6ZAV) just for this purpose.

Tracker spends most of its time listening to APRS beacons. Then at its designated time it will compile what it heard, remove any duplicates, and retransmit this information for the next hub site to hear. This process will continue until all the hub sites have been updated. Using the hub site transmissions, vehicle locations can be monitored from anywhere along the course.

The APRS Committee held the first configuration and testing meeting on Saturday March 7th, 1998. The following teams were at the Saturday Meeting: Orange County RACES, San Bernardino County ECS, Westminster Police Department, Orange Police Department, Costa Mesa Police Department, Corona Police Department, and Route 66. Team "Route 66" is comprised of the following Police departments: Azusa, Glendora, and Monrovia Police Departments.

A total of 29 beacons are expected to be supported this year with 18 beacons already configured. This is twice the number of beacons supported over last years race. Orange County RACES will be supplying beacons for Orange County Sheriff's Department (5 beacons), Laguna Beach/Seal Beach Police Department (1 beacon), Camp Pendelton Marines (1 Beacon), and OCRACES ATV Van (1 beacon) for a total of 8 beacons.

The final testing and configuration date for the APRS network is Saturday April 4th at 10:00 am. It will be located at 840 N. Echoff Street, Suite #104, Orange, CA. Any team signed up for the APRS network will be required to attend this meeting. If a team does not show up, they will be removed from the network



Meeting Schedules:

Saturday April 4th: Final APRS beacon testing! 10AM.

This will be a full scale test of the Tracker software system and all beacons that will be used during the race.

Monday April 20th: General meeting for all participating agencies and OC RACES members.

Thursday April 23rd: Installation of wiring harnesses in OCS D vans. Time is yet to be decided. 840 N. Eckhoff St.

and not allowed to participate.

Because of the special nature of our APRS network at Baker to Las Vegas, the DOS version of APRS will not work in our network. Please use WinAPRS, or MacAPRS. If you have questions about this please contact the APRS Coordinator, Harold Robinson at (714) 837-4865.

Please visit the APRS committee web site at <http://home.pacbell.net/ke6dvb/aprs>.

I would also like to thank the following Orange County RACES personnel for taking time out of their busy weekend to help me with the setup process. Ken Mirabella (KM6YH) who helped in col-

(Continued on page 7)

Baker to Las Vegas (Continued from page 6)
lecting valuable information for configuration purposes, and assisted in the programming process. Marty Mitchell (N6ZAV) who helped in the testing and verification of all beacons that were present that day. Robert Barris (KD6IFZ) who helped in answering various questions about our network. Thank you very much!

Harold Robinson (KE6DVB)

Direction Finding

Direction Finding Coordinator:
Sgt. Robert Barris (KD6IFZ)
Email: rbarris@quicksilver.com

As many of you know our monthly T-Hunt has been rained out for the last two

months. A number of suggestions have been received in regards to the hunt and how it might be made even better. Some have suggested a scheduling change, while others suggested changes to the format and style. The following ideas represent a compilation of those ideas:

New day and time:

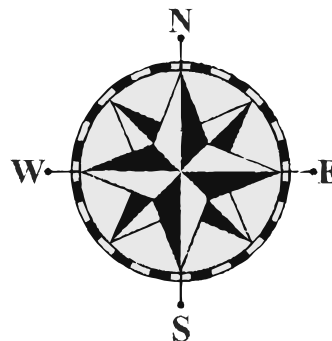
The 4th Sunday afternoon of the month
start time 1:00 PM

New formats:

- mileage, expanded boundaries, higher difficulty, one start point
- mobile fox, possibly more limited boundaries
- “Ricky Racer” (the classic race to “Find it First”, start anywhere).

The format for each month would be selected in advance by the FOX (hider) and the participants. Weather and participation permitting, some great hunts will be had this spring and summer.

If you do not have T-hunt equipment or feel you lack the experience to participate in these challenging hunts but are interested in DF'ing, drop Robert Barris (KD6IFZ) a note at rbarris@quicksilver.com. Robert is maintaining a list of people interested in a ride-along with one of the more experienced hunters.



Top Story (Continued from page 1)
ment strip at the bottom of a program screen. The news stations had but a little information, while the 162.450 MHz Orange County weather station had a brief announcement at the beginning of a long general information tape, if you were fortunate enough to listen in at the right time.

As I live in the Tornado Warning area defined by NWS, I decided to contact A.C.R.O. Ken Mirabella and ask him to monitor the radio systems and prepare to takeover command in the event I had to evacuate. Fortunately, not only did we not experience a tornado, but we hardly received any rain or winds at that time.

If you think about it, we are reasonably well-trained in protecting ourselves and our families from the threats of fire, flood, and earthquakes, thanks to the media and basic training received in schools and workplaces. Californians as a whole, know very little about tornadoes. When I first moved to Chicago, some years ago, I experienced a Tornado Warning. Sirens activated, and the sky turned green. I tuned around the AM and FM bands for emergency instructions. There were none. I observed buses and cars operating normally and

pedestrians walking at a normal pace. People in this area are as casual about tornadoes as we are about minor earthquakes. Make no mistake about it though, tornadoes carry power beyond anything most of us can imagine. While tornadoes are rare in Southern California, they do occur, particularly along river beds which connect to the ocean. I have two personal experiences with a property I used to own in Long Beach, near a river bed, where patio covers were ripped off and hurled through wooden fences, dumpsters were propelled down streets, and trees bent and snapped.

The NWS had some helpful information which we should consider. If you happen to be in a building during a tornado event, move to the lowest floor and toward the center, away from windows. If you are in a vehicle, seek shelter under a freeway overpass or leave your vehicle and crawl into a culvert or ditch. What should OCRACES members do during a Tornado Warning? The same things you would do for any other emergency.

1. If you observe a dangerous situation evolving, prepare yourself and your family. Review your family emergency plan and telephone tree with family members. If you are sepa-

rated, where will you meet? Put your radios in the chargers and check your emergency supplies. Always keep your vehicles at least half full of gas. Take care of your family first. Minimize travel on roads.

2. Monitor the OCRACES 2M repeater and standby for further information. The OCRACES pager net will be activated if necessary, but don't depend on it as a single source of information, particularly if telephone lines are lost.
3. Don't wait for OCRACES to activate to begin action. If the weather becomes severe, promptly turn on local television and radio stations and become informed. Monitor the OCRACES repeaters for further information and possible activation. Prepare to respond if needed, but never self-activate.

Next Meeting Date:

Monday, April 6, 1998
1930 hours

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: 449.175 MHz output, 444.175 MHz input, 110.9 Hz PL (private)

OCRACES Web Page:

<http://www.flo-bin.com/ocraces>

OCSD/Comm's Staff:

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Joe Selikov, KB6EID
Steve Sobodos, KN6UX

Sergeants
Al Baird, KC6TWI
Rob Barris, KD6IFZ
Mike Krueger, KC6ZSF
Marty Mitchell, N6ZAV
David Steffen, W6DS

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Lt. Joe Selikov, KB6EID
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Silent Drill

 by Al Baird

On Friday, March 6th, several members of OCRACES visited USMC Base, Camp Pendleton. The visitors included C. Reynard Storey, W6YBW (father of Chris Storey), Chris Storey, KA6WNK, Dixie Baird, and Al Baird, KC6TWI.

Viewers had the privilege of watching the "world famous" United States Marine Corps Band (Commandant's Official Band), and the "One and Only" US Marine Corps Silent Drill Team. The band entertained with many famous pieces of marching music. Followed by the Silent Drill Team platoon which performed marching and rifle maneuvers with outstanding precision

Mr. Storey W6YBW, and Al Baird KC6TWI (both veterans of WW2 and Korea), join the other visitors in thanking OC-RACES member GSgt/Steve King KE6WEZ, for arranging this privilege.

Steve will soon be retiring from the US Marine Corps, after serving his Country for nearly 30 years. His service is deeply appreciated. "Semper Fi" Steve.

Calquake98

by Chris Story

On Friday March 20th 1998 from 0900 to 1100 Chris Storey (KA6WNK), Al Baird (KC6TWI), and Harvey Packard (KM6BV), as well as the OCRACES 2 meter repeater supported the US Navy Weapons Support Facility (WSF), Seal Beach exercise, CALQUAKE 98. The scenario for CALQUAKE 98 was that of a magnitude 6.8 earthquake occurring along a portion of the Newport-Inglewood fault near Beverly Hills, to offshore Laguna Beach. Surface displacement along the fault averaged three feet. Due to the violent shaking of this seismic event major structural damage, loss of electricity and telephones occurred at WSF. The status and whereabouts of more than 500 personnel, as well as damage assessments of the facility and most importantly,

the underground munitions storage bunkers had to be determined. During CALQUAKE 98, numerous pieces of message traffic were passed to off-site locations. Several of those messages were handled via the OCRACES 2 meter repeater. Those messages were destined for various US military commands in several states as well as the American Red Cross. In addition to providing a workable off-site communications link via the OC-RACES repeater, the Orange County Fire Authority 800 MHz system was also tested from the RACES Room at Loma Ridge. Base commands at WSF commented on the professionalism of the OCRACES members involved, as well as the quality of the communications link that was provided.

Did You Know?

Orange County appears pretty big to those of us who traverse its freeways every day, commuting alongside what seems to be millions of other motorists. Did you ever stop to think how Orange County actually ranks in size and population with respect to its neighboring counties? Anticipating demands on emergency services and estimating available resources is vital information for disaster planning.

Orange County is the smallest in size of its three neighboring counties, with an area of 798 sq. miles, and a population of 2.64 million (1996). Riverside County covers 7,200 sq. miles, boasting a population of 1.4 million (1996). San Bernardino County includes 20,164 sq. miles, with a population of 1.53 million (1996). Last but not least in population is Los Angeles County which has 4,080 sq. miles, with a population of 9.37 million (1994).

Though not of particular importance for disaster planning, you may also be interested to know that our county has 42 miles of beaches, 125 miles of bikeways, and 200 miles of hiking trails.

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