#### **June 2019**



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## Next OCRACES Meeting

Monday, June 3, 2019, at 1930 Hours

840 N. Eckhoff Street, Suite 104, Orange

Microcomputers for Ham Radio by Alan Hill, W6ARH



Orange County Sheriff's Department Communications & Technology Division



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

# **Captain's Corner**

## by RACES Captain Ken Bourne, W6HK, Chief Radio Officer

#### **ALERTWIIdfire Camera Network**

I attended the Fire Watch Symposium on Saturday, May 11, 2019, and learned about the ALERTWildfire camera network in a presentation by Dr. Neal Driscoll, a professor at University of California San Diego (UCSD), Geosciences Research Division, and co-presented with OCFA Division Chief Brian Norton.

UCSD's Scripps Institution of Oceanography has a network of about 180 cameras in Southern California and other parts of the state and neighboring states. The network is a collaboration of three universities—UCSD, the University of Nevada, Reno, and the University of Oregon, plus numerous public agencies and utilities, including Southern California Edison.

ALERTWildfire provides access to pantilt-zoom (PTZ) fire cameras and associated tools to help: (1) discover/locate/confirm fire ignition; (2) quickly scale fire resources up or down appropriately; (3) monitor fire behavior through containment; (4) during firestorms, help evacuations through enhanced situational awareness; and (5) ensure contained fires are monitored appropriately through their demise.

You can see what the network cameras are viewing on ALERTWildfire's public website at http://www.alertwildfire.org/. The program is divided into six networks—Tahoe, Nevada, SDGE, Oregon-Idaho-Washington, North Bay, and SCE. The SCE network is of most interest to us. This project is funded jointly by Southern California Edison and County of Orange, protecting the service areas of SCE including Orange County, the greater Los Angeles region, and

parts of the Sierra Nevadas. You can monitor 102 different cameras on the SCE network at http://www.alertwildfire.org/orangecoca/.

Current locations include Santiago Peak, Pleasants Peak east of Orange, Sierra Peak between Anaheim Hills and Corona, Rancho Carrillo northeast of San Clemente, Mt. Elsinore, Box Springs Mountain near Riverside, Quail Canyon north of San Bernardino, and hilly or rugged terrain in Ventura to the north and San Diego to the south.

The cameras (provided by Scripps) have a line-of-sight range up to 60 miles on a clear day and up to 100 miles at night using infrared imaging, according to Dr. Driscoll. Currently the cameras provide an early alert and determine the size of a fire and accessibility. Dr. Driscoll said evolving technology will eventually enable the cameras to distinguish between dust swirls and wisps of smoke.

Data gathered by the cameras reveal how fires create their own weather and destroy root systems that inhibit erosion. The cameras are also used to map landslides and debris flows after heavy rains. The camera network also measures seismic motion, moisture in the air, and other ingredients of natural disasters.

Scripps hopes to increase the network to about 250 cameras by the end of summer. The City of Anaheim is jumping aboard the network by installing high-definition cameras with infrared imaging to monitor fireprone areas. Their cameras will be mounted on existing structures such as water towers and utility poles in four Anaheim Hills locations, where the Canyon Fire 2 destroyed 15 homes and burned 9,200 acres (also in Orange and Tustin) in October 2017.

# **ACS Radio Rodeo Rode Again on May 4th**



Standing to the right (near OCSD's Control 7, out of view) are (left to right OCRACES Chief Radio Office Ken Bourne, W6HK, Roger Berchtold, WB6HMW (now a silent key), and OCSD Emergency Communications Manage Lee Kaser, KK6VIV. To the left is the surplus news van of Newport Beach RACES Member Peter Putnam, NI6E, used for net control on 6 meters and 1½ meters. At the far left on a tripod mast is a 6-meter Hamstick dipole.

City and County RACES and MOU units participated in the annual ACS Radio Rodeo on Saturday, May 4, 2019, as they gathered at the rear parking lot of OCSD Communications & Technology Division in Orange. They began setting up before 0800 hours with OCSD's Control 7 Chevy Tahoe providing net-control facilities on 2 meters and 70 centimeters, Peter Putnam's (NI6E from Newport Beach RACES) surplus news van providing net-control facilities on 6 meters and 1½ meters, and OCRACES Lt. Scott Byington's (KC6MMF) portable station providing net-control facilities on 60 meters. All net-control antennas were vertical except Scott's, which was an 88-foot half-wave 60-meter dipole running between three tall tripod masts. Several 60-meter dipoles, each about 14 feet long, made with MFJ Hamsticks, were seen throughout the parking lot. At 0830 hours, OCRACES Capt. Ken Bourne briefed all participants of exercise procedures. Questions were answered on 146.595 MHz simplex.

Beginning at 0900 hours, roll calls of stations at the local site were conducted on the five bands. The first local net was on 60 meters, run by Lt. Byington, with 10 check-ins. Near Scott's setup was a portable station set up by OCRACES Sgt. Jack







Bob McFadden, KK6CUS, at Control 7 communicates with his Kenwood TH-D74A hand-held radio (left photo), while Robert Stoffel, KD6DAQ (left), and Matt Luczko, KM6CAO, observe (center photo). Tony Scalpi calls the roll on 6 meters and 1½ meters from the NI6E news van (right photo).

\*\*Continued on page 3\*\*

# ACS Radio Rodeo Continued from page 2



Scott Byington, KC6MMF, at his portable station from which he operated 60-meter net control.



Placentia RACES members checked into the nets from the impressive Mobile Command Vehicle brought to ACS Radio Rodeo by the Placentia Police Department, Emergency Services Division.







Three of the portable stations at ACS Radio Rodeo included (left to right) OCRACES (Jack Barth, AB6VC), Buena Park RACES, and Costa Mesa RACES (MESAC).







Portable stations at ACS Radio Rodeo included these from (left to right) Fountain Valley RACES, Huntington Beach RACES, and Laguna Woods RACES.

Barth, AB6VC. The 60-meter net was run on 5346.5 kHz upper sideband (dial frequency), the same frequency used most Saturday mornings at 10:00 AM for the Cal OES Southern Region ACS Net, usually run by OCRACES. The next two Rodeo nets were run on the OCRACES 2-meter repeater (29 check-ins) and then on the 448.320 MHz repeater (21 check-ins) by Roger Berchtold, WB6HMW (sadly, now a silent key), from Control 7, while Sgt. Bob McFadden, KK6CUS, oversaw operations. The final two nets were conducted on the OCRACES 6-meter repeater (11 check-ins) and 1½-meter repeater (16 check-ins) by Tony Scalpi, N2VAJ, assisted by Tom Wright, KJ6SPE, from the NI6E van. Announcements of net-frequency changes were

# ACS Radio Rodeo Continued from page 3

made by OCRACES Sgt. Tom Tracey, KC6FIC, on 146.595 MHz simplex. OCSD Emergency Communications Manager Lee Kaser, KK6VIV, made announcements over the Control 7 public-address system. Other OCRACES members participating and checking into the nets included Matt Luczko, KM6CAO, and Randy Benicky, N6PRL, both checking in from Randy's car, Robert Stoffel, KD6DAQ (who was also the event evaluator), Sgt. Jack Barth, AB6VC, from his portable station, Walter Kroy, KC6HAM, Sgt. Ernest Fierheller, KG6LXT, and Fran Needham, KJ6UJS. Applicant John Pilger, K6PIO, also checked in.

At 1000 hours, OCRACES began checking in on eight different Cal OES nets run from the Southern Region EOC in Los Alamitos. The nets were on 60 meters Channel 2, Cactus 70-cm linked system, SCRN 70-cm linked system, EARN 1½-m linked system, OCRACES 448.320 MHz repeater, LACDCS repeaters, and a Riverside County 1½-m RACES repeater. OCRACES checked in from Lt. Byington's station, Control 7, and the NI6E van. During this time period, local participants inspected Control 7, the NI6E van, Placentia Police Department's impressive Mobile Command Vehicle, and portable stations from OCRACES members as well as members from Buena Park RACES, Costa Mesa RACES (MESAC), Fountain Valley RACES, Huntington Beach RACES, Laguna Woods RACES (Radio Officer Bruce Bonbright, NH7WG, who also communicated with their Incident Command Post in a field behind the Laguna Woods Community Center), Mission Viejo RACES, Westminster RACES, and American Red Cross. Members from Anaheim RACES, Laguna Niguel ACS, and Orange RACES (COAR) also participated and communicated with their members who were deployed to other events, such as most COAR members who were with the Orange Police Mobile Command Vehicle at the Orange May Parade.

At the conclusion of the Orange County check-ins to the Cal OES nets, OCRACES Capt. Ken Bourne, W6HK, debriefed the participants, thanked them for their participation, and invited them to attend the May 6th OCRACES meeting, at which Vivian Jui, KK6DTS, and Dave Molinaro, KK6DTX, spoke about the Mojave Death Race scheduled for June 1st and 2nd.

Robert Stoffel, KD6DAQ, as the event evaluator, noted that ACS Radio Rodeo was successful in bringing together multiple RACES and MOU units, which communicated effectively. Secondarily, Orange County successfully communication with Cal OES on various radio systems. The location was ideal, allowing vehicles in one area and second clear area in the same vicinity to set up the HF stations. Thanks to OCSD Emergency Communications Manager Lee Kaser for printing handouts of the Incident Action Plan and ICS 205 communications plans for those who did not bring their own copies. Using 146.595 MHz simplex served to advise participants of which frequency would be next for the roll call. Robert noted that all net-control operators were easy to understand, used plain language, a projected a professional image. He suggested that we consider adding a DMR net to future ACS Radio Rodeos.







Mission Viejo RACES, Westminster RACES, and American Red Cross (left to right) had portable stations at ACS Radio Rodeo.

# City/County RACES & MOU Meeting: June 10th

The next City/County RACES & MOU meeting will be on Monday, June 10, 2019, at 7:30 PM, at OCSD Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting we will have an afteraction review of the May 4th ACS Radio Rodeo and will discuss suggestions for any changes to make the next Rodeo even better. We will also discuss the types of liability protection (or risks) that RACES members have while serving their agencies. Each RACES unit at the meeting is invited to give a brief report of their recent and planned activities.

# **Next OCRACES Meeting: Monday, June 3rd**

The next County of Orange RACES meeting will be on Monday, June 3, 2019, at 7:30 PM, at OCSD Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting Alan Hill, W6ARH, will talk about using microcomputers (especially the Raspberry Pi) for various amateur radio applications.

# **W6ONT Hides in Cypress**

Cypress RACES Chief Technology Officer Ed Kane, W6ONT, was the fox on the monthly cooperative T-hunt on Monday, May 20, 2019. He hid the fox box outside the Cypress EOC, buried in a plastic bag under some sand, with the antenna sticking up through a tube, which unfortunately shielded the radiated signal and prevented accessing the 2-meter repeater. After Ed reconfigured the antenna so it would radiate better, the hunters were able to tell when the fox was on the air by listening to the repeater output and then switching over to the input to take bearings on the very weak signal. Ron Allerdice, WA6CYY, was the first to find the fox. He began picking up the signal even before the fox box accessed the repeater, south of the I-405 Freeway and south of South Coast Plaza. Coming in second were OCRACES Chief Radio Officer Ken Bourne, W6HK, and OCRACES Member Don Mikami, N6ELD. They started near the Los Alamitos Race Course and were plagued with reflected signals throughout the hunt. This was Don's first T-hunt and he quickly became an expert with the loop antenna.

The next hunt will be on Monday, June 17, 2019, immediately following the OCRACES 2-meter net (approximately 7:20 PM). The fox will hide on paved, publicly accessible property in a city or sector of Orange County to be announced a few days before the hunt. He will transmit tones on the input (146.295 MHz) of the 146.895 MHz repeater. Hunters will compare bearings via the 448.320 MHz repeater and are encouraged to beacon their positions via APRS while hunting. We are looking for a volunteer to be the fox.

Fox-hunt loops and beams are available from Arrow Antenna and HRO, including the Arrow Model FHL-VHF fox-hunt loop (covers 1 MHz to 600 MHz) and the Arrow Model 146-3 three-element portable hand-held yagi.

The cooperative T-hunts are usually held on the third Monday of each month (except in October). The hunts provide excellent practice in working together to find sources of interference quickly. The hunts are not official RACES events, so DSW (Disaster Service Worker) coverage does not apply. Please drive carefully!

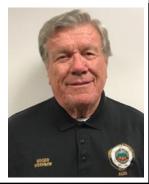
## OCRACES Website Is Down

The OCRACES website, http://www.ocraces.org, is down, due to situations with the host and domain-name registrar. OCRACES e-mail lists and e-mail forwarding addresses are also down. For example, e-mails to w6hk@ocraces.org will bounce and should, instead, be sent to kbourne.ocsd@earthlink.net. The ocsd-races Yahoo Group is still operational, since that is not affiliated with the website and domain name. We hope the website will be restored sometime in June. Meanwhile, the OCRACES website has been duplicated at another URL: http://ocraces.w6hk.com, which will remain active at least until the regular website is back in operation.

# Roger Berchtold, WB6HMW, Silent Key

We are mourning the loss of our treasured friend and OCRACES member Roger Berchtold, WB6HMW, who died peacefully of natural causes on Saturday, May 11, 2019. Roger was born in 1946. His wife died five years ago. He is survived by two sons and two daughters: Michael Berchtold, K6MKL, Eric Berchtold, KJ6WZK, Sharilyn Castro, and Jodeen Hultquist, KK6OBO. Roger's funeral service will be on Saturday, June 1, 2019, at 2:00 PM, at Our Lady of Guadalupe Church, 900 W. La Habra Blvd., in La Habra. A reception will follow.

Roger became a radio amateur in 1964. Amateur television sparked his interest in 1972. He was a member of the Amateur Television Network. Besides his OCRACES service, Roger was a Professional Services Responder (PSR) in the Orange County Sheriff's Department, High-Tech Services Reserve Squad, Investigative Reserve Unit.



# **RACES/MOU News from Around the County**

**Huntington Beach RACES** By Jon Welfringer, WB6OZD **HBRACES Public Information Officer** 

On Saturday, May 11, 2019, Huntington Beach RACES was activated to perform an 8hour shadow drill with Huntington Beach Fire Department. This was a failure simulation of the Orange County 800-MHz fire dispatch system. A total of 26 HBRACES members were deployed to Huntington Beach EOC 911 dispatch, Fire Dispatch Operations Center, and an assigned member on each apparatus/vehicle at every fire station within the City.



day started with HBRACES Chief Radio Officer Jim Hansen, KG6ZDP, being notified by the City that HBRACES had been activated to provide dispatch and tactical communications because of an 800-MHz system failure. Hansen then activated HBRAC-ES members by utilizthe AlertOC (reverse 911) system to perform the callout.



Assistant Chief Radio Officer Greg Turlis, K6GAT, was first on site at the FDOC and immediately established net control operations on the HBRACES W6HBR 2-meter repeater. HBRACES members checked in to net control to signify that they were en route to their preassigned stations. When HBRACES members arrived at the stations, they checked in with the station Captain for their apparatus assignment and, with the assistance of the apparatus engineer, quickly moved to add a mobile antenna to each vehicle. Once their equipment was in place, HBRACES members checked back in to net control to alert them of their operational status, using a tactical call sign that matched their apparatus assignment.

At the EOC, HBRACES members monitored the 911 calls and logged all fire-related emergencies. Utilizing the HBRACES 70-cm repeater system, the EOC 911 dispatch communicated these calls to the HBRACES FDOC dispatch, where the calls were logged and given to the FDOC Fire Captain. HBFD training officer Captain Carl Corbin would then make the decision as to which apparatus should be deployed to each call. FDOC dispatch communicated the call on the 2-meter net to the required HBRACES field members via their tactical call signs. HBRACES members conveyed the call to their local station captain and apparatus crew. HBRACES members also communicated back to net control for any changes in apparatus available/unavailable status, en route or on-scene status, as well as changes in ALS/ BLS capability status so the FDOC Fire Captain could accurately track his available assets.

During the drill period, HBRACES dispatched 27 calls through the EOC to the FDOC and finally to the appropriate station/apparatus. During this shadow drill, the 911 dispatch process was still being handled normally at Metro-Net with apparatus dispatch being handled by computer algorithm. The drill is not only a training and testing of the HBRACES members' ability to communicate, but also a test of HBFD's ability to adequately dispatch and track their required apparatus. It was a very successful day with both HBRACES and HBFD being able to communicate and coordinate the HBFD assets in a crisis situation.

#### **County of Orange RACES**

Due to other commitments, OCRACES Member Tom Riley, K6TPR, has submitted his resignation. Tom first became an OCRACES member in December 2012. We thank Tom for his participation in drills and activations. Tom Riley, K6TPR



"RACES/MOU News" provides an opportunity to share information from all City & County RACES/ACS units and MOU organizations and supportive amateur radio clubs in Orange County.

Please send vour news to **NetControl Editor Ken** Bourne, W6HK, at:

kbourne.ocsd@ earthlink.net

# **June 2019**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Weekly 60 m ACS Net & Roger Berch- told Funeral
2	3 Weekly 2 m ACS Net & OCRACES Meeting	4	5	6	7	8 Citizen Corps Exercise
9	10 Weekly 2 m ACS Net & City/ County RACES & MOU Meeting		12	13	14 Orange County Ama- teur Radio Club Meeting	15 Weekly 60 m ACS Net
16 Father's Day	17 Weekly 2 m ACS Net & Cooperative T-Hunt	18	19	20	21	22 Weekly 60 m ACS Net & Field Day
23 Field Day	24 ACS Nets on Five Bands & Cal OES Nets	25	26	27	28	29 Weekly 60 m ACS Net
30						

## **Upcoming Events:**

- June 1: Funeral for OCRACES Member Roger Berchtold, WB6HMW, 1400 hours, Our Lady of Guadalupe Church, 900 W. La Habra Blvd., La Habra
- June 3: OCRACES Meeting, 1930-2130 hours, OCSD Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, Or-
- June 8: Citizen Corps Exercise, Saddleback College, Mission Viejo
- June 10: City/County RACES & MOU Meeting, 1930-2130 hours, 840 N. Eckhoff Street, Suite 104, Orange
- June 14: Orange County Amateur Radio Club Meeting, 1900 hours; check http://www.w6ze.org for special meeting location and other information
- June 17: Cooperative T-Hunt, 1920 hours
- June 22-23: ARRL Field Day



## 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**

60 m: 5346.5 kHz USB (dial) (Channel 2) (OC ACS Net—Saturdays, 1000 hours)

40 m: 7250 kHz LSB

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: 146.595 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: 448.320 MHz output, 443.320 MHz input, 141.3 Hz PL (private)

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)

70 cm: 449.680 MHz output, 444.680 MHz input, 131.8 Hz PL (private) 23 cm: 1287.650 MHz, 1287.675 MHz, 1287.700 MHz, 1287.725 MHz, 1287.750

MHz, and 1287.775 MHz outputs, -12 MHz inputs, 88.5 Hz PL

\*Primary Net-Mondays, 1900 hours

**RACES Program Coordinator** (Emergency Comm's Manager) Lee Kaser, KK6VIV 714-704-8080

Radio Officer (Lieutenant) Scott Byington, KC6MMF Chief Radio Officer (Captain) Ken Bourne, W6HK 714-997-0073

Assistant Radio Officers (Sergeants) Jack Barth, AB6VC Ernest Fierheller, KG6LXT Bob McFadden, KK6CUS Tom Tracey, KC6FIC

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Visit Our Web Site http://ocraces.w6hk.com It's Where It's @!

Questions or Comments?
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"W6ACS ... Serving Orange County"

# Meet Your County of Orange RACES Members!





Ken Bourne W6HK



Scott Byington KC6MMF



Jack Barth AB6VC



Ernest Fierheller KG6LXT



Bob McFadden KK6CUS



Tom Tracey KC6FIC



Randy Benicky



Ray Grimes N8RG



Walter Kroy KC6HAM



Martin La Rocque N6NTH



Matt Luczko KM6CAO



Don Mikami N6ELD



Fran Needham KJ6UJS



Harvey Packard KM6BV



Tony Scalpi N2VAJ



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