#### June 2024





#### Inside this issue:

**CRO's Nest OCRACES Meeting** Field Day: June 22nd May 11th Solar Flare Zero Retries May 4th Drill Review **NTEMC Exercise** Jack Barth, AB6VC **CPRA Awards** New Flex 8000 Series 5 **RACES News Events Calendar OCRACES Members** 

2

2

5

**OCRACES** Meeting Monday, June 3, 2024 at 7:30 p.m. Online on Zoom **Discuss County and** City Field Day Plans

Orange County Sheriff's Department **Emergency Management Division** 



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

### **CRO's Nest** by Ken Bourne, W6HK, OCRACES Chief Radio Officer

#### Band-Pass Filters for Field Day

ulti-station operation, such as at Field Day or in multi-operator contest stations, or even with another nearby ham in the neighborhood, often produces a challenge, because of desensitization or overload of receivers, images, harmonics, subharmonics, spurious products (harmonic intermodulation), phase noise from nearby transmitters, etc.

Although modern transceivers have receivers with improved stability, sensitivity, selectivity, and dynamic range, some of the less expensive models have transmitters emitting phase noise on adjacent bands. The level is within FCC specifications, but is a problem when the transceivers are within close physical proximity.

Band-pass filters can solve many of these problems. They not only reduce the transmitted noise spectrum from each transceiver, but they also reduce receiver frontend overload. The phase-noise problem is not generated in any amplifiers that might be used at Field Day, so band-pass filters do not need to be rated at much over the transceiver's (exciter's) output level, since they are placed between the transceiver and the amplifier—and they help to reduce receiver front-end overload. Narrow filters can allow two nearby stations to operate within the same band, such as SSB at the high end and FT8 or CW at the low end, or antennas of different polarity, such as vertical for FT8 or CW and horizontal for SSB, would provide about 20 dB cross-polarization difference. Band-pass filters typically provide over 60 dB of out-of-band suppression. Each has a sharp roll-off just outside its designed ama-



Triplexer with band-pass filters that enable three transceivers to operate on 20, 15, and 10 meters with only one multiband antenna.

teur band, dramatically lowering the noise floor.

Used with a transmit multiplexer, a band -pass filter provides additional isolation that enables multiple transceivers to be operated on different bands simultaneously with the same multiband antenna.

Selecting a band-pass filter, whether for Field Day or for other applications, even beyond HF, requires that you pay attention to specifications of type, frequency, insertion loss, and attenuation or isolation. Various types include LC (inductive/capacitive such as Chebyshev or Butterworth), lumpedelement, ceramic, cavity, SAW, notch, etc. The frequency specifications involve the minimum and maximum frequency of the band to be passed, such as 3.5 MHz and 4.0 MHz for the 80-meter band. The filter will attenuate any signal out of that range, but will also have slight insertion loss in the pass band. The attenuation/insertion loss specification indicates the insolation level for any signal on the fringes or outside of the pass band. \*

### **OCRACES Meeting: June 3rd on Zoom**

The next OCRACES meeting will be on Monday, June 3, 2024, at 7:30 p.m., on Zoom. During this online meet-

ing we will discuss County and City RACES plans for Field Day on June 22, 2024. ★

### Planning for Field Day on June 22nd

Plans for OCRACES participating in Field Day are being finalized. Ryan and Robert Moore, KN6WSJ and KW6B, are leading our effort. Ryan recently sent a link to members for an online survey, seeking their preferences. ARRL Field Day is over a 24-hour period on June 22-23. We would probably operate only on Saturday, June 22nd.

Ryan's survey asked members if they would participate, and if it would be in-person or remotely via radio. If in -person, would they work at setting up, operating, and/or cleaning up? Also if in-person, would they prefer Mason Regional Park in Irvine, Craig Regional Park in Fullerton, or the Orange County Fairgrounds? Would they want a potluck meal? What are their food ideas? Ryan also asked members to specify the equipment they would bring to operate.

Ryan plans to discuss the result of this survey during the June 3rd OCRACES meeting, which will be on Zoom at 7:30 p.m. Members of City RACES and EmComm units are welcome to participate in this meeting, especially if they wish to join us at Field Day.

MESAC Chief Radio Officer Ashley Fisher, KM6UJD, who will host the Zoom meeting, suggested that OCRA-

CES and MESAC team up, with possibly other city RACES units joining, in a joint Field Day effort in a parking lot at the Orange County Fairgrounds. While considering this suggestion, we are concerned about gathering on an asphalt parking lot if the weather on Field Day is hot, which is often the case in late June. Last year we had our first Field Day since COVID, but only three stations were set up, at Irvine Regional Park east of Orange. Access to restrooms and trees for stringing HF wire antennas was insufficient. Lately, lines on weekends to get into the park are agonizingly long. \*

### Solar Flare Wipes Out May 11th 60-Meter Net

CRACES runs a weekly ACS net on 60 meters (5371.5 kHz USB) every Saturday at 1000 hours. The average number of check-ins is nearly 30, from throughout Orange County and nearby counties and Southern Nevada, relying on Near Vertical Incidence Skywave (NVIS) propagation. Coverage is up to about 325 miles under good ionospheric conditions. Conditions were *not* good on May 11th, due to a severe geomagnetic solar event. We had only 5

check-ins, all within 2 miles of net control in Orange. Net control then checked other bands, and the entire HF spectrum was "dead."

Cal OES issued a briefing about the intense Coronal Mass Ejections (CMEs) and encouraged checking the National Oceanic and Atmospheric Administration's Space Weather Prediction Center at <a href="https://www.swpc.noaa.gov">https://www.swpc.noaa.gov</a>. The National Weather Service posted information on

the G4+ CME and X-class solar flare.

In addition to being an emergency communications training net, the OC-RACES 60-meter net is technical in nature. Participants comment about their antennas, signal levels, and observed propagation effects. Horizontal antenna polarity is important for NVIS propagation, for signals to pierce through the heavily ionized lower layers of the ionosphere to the highest layer, to be reflected back down. \*

## **Zero Retries Promotes Ham Technology**

newsletter promoting technological innovation in amateur radio is now available. It's called *Zero Retries*. Thanks to Scott MacGillivray, KM6RTE, for calling this newsletter to our attention.

The editor of *Zero Retries* is Steve Stroh, N8GNJ. He says the most well-known "use" of amateur radio is emergency communications in a disaster. However, he mentions three more technologically advanced services that have evolved in the late 2010s and now integrate into emergency planning. These are FirstNET (local voice and data), Iridium (regional/worldwide voice and data), and Starlink (regional/worldwide broadband internet). In addition, Information Technology

Disaster Resource Center (ITDRC) provides emergency communications based on Information Technology services, rather than two-way radio, such as providing Wi-Fi at disaster relief sites.

These advanced services can be complemented by technological innovations occurring in amateur radio, which *Zero Retries* tries to highlight.

For more information, go to <a href="https://www.zeroretries.org/about?utm\_source=substack&utm\_medium=email">https://www.zeroretries.org/about?utm\_source=substack&utm\_medium=email</a>. To sign up for the newsletters, go to <a href="https://www.zeroretries.org">https://www.zeroretries.org</a>. For a copy of the latest newsletter, go to <a href="https://www.zeroretries.org/p/zero-retries-0151">https://www.zeroretries.org/p/zero-retries-0151</a>. \*

### City/County RACES & EmComm Drill Review

City/County RACES & EmComm ACS Drill was held on Saturday, May 4, 2024, from 0900 to 1130 hours. Communications were on 2 meters simplex (simulating repeater failure), 60 meters SSB, and Winlink. Some City RACES units also were active on AREDN mesh during the drill. OCRACES PSRs operated net control at the Orange County EOC at Loma Ridge, including Ryan Moore, KN6WSJ, on 146.595 MHz simplex, Robert Moore, KW6B on 5371.5 kHz upper sideband, and Scott MacGillivray on Winlink. Overseeing the activity was Chief Radio Officer Ken Bourne, W6HK. Other participating OCRACES members, checking in via 2 meters, included Assistant Radio Officer Randy Benicky, N6PRL, Ted Lavino, KG6LZP, Ryan Moore, KN6WSJ, Fran Needham, KJ6UJS, Chi Nguyen, KE6MVS, Robert Stoffel, KD6DAQ, and Ken Tucker, WF6F. Steve Livingston, NJ6R, as well as N6PRL and WF6F, checked in on 60 meters.

City RACES units calling into OCRACES net control on 146.595 MHz simplex included Anaheim, Brea, Costa Mesa, Cypress, Fountain Valley, Fullerton, Laguna Niguel, Laguna Woods, Orange, Seal Beach/Los Alamitos, Tri-Cities (Dana Point, San Clemente, and San Juan Capistrano), and Westminster. EmComm units included American Red Cross, Newport Beach Repeater Club, and

Ryan Moore, KN6WSJ, operates 2 meters simplex at OC EOC.



Robert Moore, KW6B, operates 60 meters at OC EOC.

OCHEART. Whittier also checked in (LACDCS).

Checking in on 60 meters were City RACES units and members: Anaheim (K6GRO), Fountain Valley (WA6FV), Irvine (K6PB), Laguna Woods (AJ6VT and NH7WG), Los Alamitos/Seal Beach (KU6H), and Orange (K0VNJ), as well as Cal OES CRU (NJ6U). Three visitors from Orange also checked in (WD6AJR, K6BS, and N2VAJ).

The scenario for this drill was civil unrest, disrupting public order to the extent that a county-wide emergency had been declared, requiring auxiliary communications to be provided to county and city law-enforcement agencies. Some of the

simulated reports received by OCRACES net control from OCRACES members and City RAC-ES units included: freeway shutdown near Euclid Street in Fullerton by protesters (reported by Robert Stoffel, KD6DAQ); a mall in Huntington Beach lost power, while people with hats and masks were looting (reported by Chi Nguyen, KE6MVS); utility water supplies were unreliable and cyberattacks in Dana Point; I-405 was blocked in both directions in Fullerton and all power was shut down; a large group of protesters and internet outages were in Costa Mesa; a power failure occurred in Brea (real!) and there was unrest at



Scott MacGillivray, KM6RTE, operates Winlink at OCEOC.



Chief Radio Officer Ken Bourne, W6HK, at OCEOC.

the Brea Mall with many people (scenario); the Westminster Police Department lost power and was operating on backup, while suspicious people were at Bella Terra Mall; protesters were crossing a bridge from Costa Mesa to Huntington Beach (reported by American Red Cross), Laguna Woods had scattered power outages; there was civil unrest in Whittier with storm troopers storming the police station, followed by zombies (!); there were looting and rioters around Fullerton; and two guys in fatigue clothes were in Aliso Viejo, with a black rifle bag and camouflage gun bag (reported by Randy Benicky, N6PRL).

Scott MacGillivray, KM6RTE, reported the Winlink portion of the drill had the highest message traffic and operator participation since Winlink was incorporated into the countywide ACS drill in May 2022. A total number of 122 messages were received and sent during the 24 hours allocated to Winlink. Using Winlink Express, 48 messages had an attached Field Situation Report. A testing goal was to determine if there were any operational VHF packet Winlink RMS gateways reachable from San Clemente. The KM6SLF-12 RMS in Dana Point was accessible from all eight locations. Connection with the KM6RTE-12 RMS at Loma Ridge was successful from seven of the eight locations.

## **Supporting NTEMC/USV-JSC June 8 Exercise**

teve Aberle, WA7PTM, a volunteer with the National Tribal Emergency Management Council, reached out to OCRACES to see if we can support their Thunderbird and Whale 2024 Exercise on Saturday, June 8, 2024, with Winlink and DMR (Digital Mobile Radio). The National Emergency Tribal Management Council (NTEMC) conducts regular emergency exercises for tribal nations. A writeup on their 2022 exercise can be found on the http:// www.arrl.org/ares-el?issue=2022-08-17#toc01 website. NTEMC again this year will be assisted by the United States Volunteers—Joint Services Command (USV-JSC. https:// www.usvjsc.org), which will activate operational units in California, Oregon, Florida, Puerto Rico, Texas, and Washington.

The California—9th RC JOC/Alternate JOC location for this exercise will be at the Korean American Federation, 9876 Garden Grove Blvd., in Garden Grove. Operational hours will be from 0900 to 1400. OCRACES Member Chi Nguyen will

provide and operate the Winlink station.

Steve Aberle also contacted ARRL Orange Section Manager and ARES Section Emergency Coordinator Bob Turner, W6RHK, as well as ARES Assistant Section Emergency Coordinator Tom Cowart, W6ETC, if OCRACES or a City RACES unit cannot provide a DMR station. OCRACES, with Chi on Winlink, will work together with City RACES or ARES on this exercise if they can provide DMR.

During the exercise, direct tactical communications between commanders will be via DMR. Talkgroup 31771 will be bridged between the Brandmeister and PNW digital networks.

At 10 minutes prior to the start of their operational period, each remote station will contact the National HQ JOC via DMR to report the operational status of their Winlink station. Requests to "talk over the radio" from participants are possible, to be handled in accordance with FCC third-party regulations.





Formal written messages will be sent via the Winlink Global Radio Email System. General messages will use form ICS-213. Resource requests will use form ICS-213RR. Winlink connection will use any RMS gateway.

All communications participants should keep an ICS-214 activity log. Submission of an After-Action Report (AAR) is encouraged.

\*

### OCRACES PSR Jack Barth, AB6VC, Silent Key

Port that OCRACES member Jack Barth, AB6VC, passed away on May 8, 2024. He served valiantly in OCRACES for 30 years (since 1994). He was dedicated to serving others, not only as an Assistant Radio Officer in OCRACES and participating in most activations, drills, and events, but also as a PSR in the Sheriff's Search & Rescue Reserve Unit, devoting so much of his time to training and responding.

Some examples of Jack's activities include configuring his own portable amateur television equipment, which he used for providing images of fire storms to the Sheriff's Emergency Operations Center, such as during the Windy Ridge Fire incident. He participated in the RACES Severe Fire Weather Patrols, such as during the Holy Jim fire. He backed up Sheriff's runners with communications during the Baker to Vegas Challenge Cup Relay. He helped build the RACES emergency communications response vehicle.

Jack's funeral service was on May 20th at Hilgenfeld Mortuary in Anaheim, followed by interment at Good Shepherd Cemetery in Huntington Beach.

Jack is survived by his beloved wife Carolyn and their two daughters.



Jack Barth, AB6VC, silent key.

\*

# **OCSD Members Receive CPRA Awards**

by Robert Stoffel, KD6DAQ

The California Public-Safety Radio Association (CPRA) conducted their annual Public Safety Awards Banquet on April 19, 2024, at the Knott's Hotel in Buena Park. Members of the Orange County Sheriff's Department received various awards, while others served in behind the-scenes roles. CPRA is the Southern California Chapter of APCO International. APCO (The Association of Public-Safety Communications Officials) is a professional organization for emergency communications personnel.

Created in 1987 to honor dispatchers who work diligently behind the scenes, the awards banquet celebrates and recognizes the professionalism, dedication, and pride that each displays in their chosen profession. In 2004, CPRA started presenting technology awards, recognizing individuals who provide outstanding support

for radio communications and computer systems used by dispatchers and first responders.

The Technical Awards were presented first, and three members of the Orange County Sheriff's Department received awards.

CPRA presented the Radio Frequency Engineer of the Year award to Senior Telecommunications Engineer Erik Schull, KE6BVI. Erik has served as an RF engineer for 23 years. Among the many services he provides is FCC licensing of the many radio systems administered by the Department and adherence to FCC Part 90 rules and regulations. He completes VoIP phone-line hookups while implementing NG-911 and other Dispatch requirements. Erik is a member of the Southern Region Next Generation 911 taskforce and makes sure all the NG-911 racks are correctly installed and operational. He helps all PSAPs in Orange County with radio issues, and is an expert on radio system design, maintenance, and updates. Erik was out of state and unable to attend the dinner. Bruce Cobb accepted the award on Erik's behalf.

CPRA presented the Radio Frequency Engineer of the Year award to Lead Engineer Bruce Lee Cobb. Bruce is primarily responsible for reviewing, evaluating, and either approving or disapproving all contractors' design, construction, and installation plans. He is involved with investigating and resolving the cause of any adverse interference on the Orange County 800 MHz Countywide Coordinated Communications System. He excels in bi-directional amplifiers, distributed antenna systems, engineering projects and documentation, engineering project managing, and assisting technicians with resolving issues. **\*** 

### FlexRadio Introduces 8000 Series SDR Radios

FlexRadio has introduced the FLEX-8400/8600 and FLEX-8600/8600M SDR transceivers. They produce 100 watts PEP on HF and 6 meters, all modes/all bands.

No sound cards, cables, or boxes are needed for digital mode operation.

Integrated remote operation using SmartLink is provided with Maestro, PC/laptop, Mac, iPad, or iPhone.

Featured are two independent band/mode receivers in the 8400 Series and four in the 8600 Series. Full-duplex cross-band operation and true diversity reception is provided. A transverter port (two ports in the 8600) is available. There is also a receive-only antenna port (two in the 8600).

The SDR has direct sampling at 122.88 Msps, 16 bit, in the 8400 Series, and 245.76 Msps, 16 bit, in the

8600 Series

Dynamic range is greater than 155 dB. Reciprocal Mixing Dynamic Range (RMDR) at 2 kHz spacing is 115 dB.

A 10-MHz reference input is provided.

An optional integrated antenna tuner will handle up to 3:1 SWR. A port is available to control an external tuner with wider range.

Ultra-high frequency precision and accuracy is achievable with an optional GPSDO.

An optional TX expansion module enables MARS/CAP/SHARES operation.

The all-in-one "M" version with internal speaker adds an 8-inch, 1920 x 1200 IPS integral display, with touch tune, zoom, and pan controls. Ergonomically optimized controls are



FlexRadio FLEX-8400 or 8600.



FlexRadio FLEX-8400M or 8600M.

provided with full dual Visual FoxPro (VFP). It provides real-time spectrum/ waterfall with up to 7 MHz bandwidth. An output enables an external display of 1920 x 1200 resolution. ★

### **Countywide RACES/EmComm News**

"RACES/ **EmComm** News" provides an opportunity to share information from all City & County RACES/ACS units and **EmComm** organizations and supportive amateur radio clubs in and near Orange County, as well as from Cal **OES** and federal agencies.

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

kbourne.ocsd@ earthlink.net



#### **Dana Point RACES**

Larry Meyerhofer is now the Dana Point Emergency Coordinator. He previously served as the Emergency Coordinator for the City of Los Angeles. Dana Point RACES is part of Tri-Cities RACES.

#### San Juan Capistrano RACES

Kristen Hauptli is now the Coordinator for San Juan Capistrano RACES (part of Tri-Cities RACES).

#### **Tri-Cities RACES**

Tri-Cities RACES Chief Radio Officer and Technical Director Bill Kreutinger, KM6SLF, reported that the KM6SLF-12 Winlink RMS gateway worked great during the May 4th City/County RACES & EmComm ACS Drill, with many contacts routed through it. The gateway was accessible from the Camp Pendleton Naval Hospital based on testing conducted on April 30th by San Diego County operator Mike Orlando, K6AMQ. In light of that gateway's key role in enabling Winlink in South Orange County, a UPS has been added to ensure some ongoing coverage in the event of a power outage.

#### **Seal Beach/Los Alamitos RACES**

Seal Beach RACES Chief Radio Officer Dick Crowe, KG6XJ, reported they had 17 checkins plus a couple of visitors on simplex or via relay during the May 4th City/County RACES & EmComm ACS Drill. Winlink computer issues were "a good learning experience." They also sent messages and made a phone call via AREDN mesh



# OC Countywide Winlink P2P Exercise: June 8, 2024 P. County M. C. W. M. D. T. C.

By Scott MacGillivray, KM6RTE

Based on the successful previous exercises, the next countywide Winlink Peer-to-Peer (P2P) practice exercise is planned for the morning of Saturday, June 8, 2024. This exercise provides an opportunity to gain experience using the Winlink P2P Operating Mode.

The exercise will again focus on sending a Winlink P2P message with an attached form to "Drill Ops" located at Loma Ridge in central Orange County. Details are fully described in the instructions currently being finalized and will be distributed prior to the exercise.

It is important to note that this is an informal practice exercise (organized by me) and not associated with any organization. Your participation is solely for your own personal benefit, and the exercise is not to conflict with any official city or county government activities

Importance of Winlink P2P. For those not familiar with Winlink P2P, it is one of the four operating modes that Winlink supports and does not rely on an intermediate Radio Message Server (RMS) or "gateway" for connection to the internet. It is valuable to understand how to operate this mode since it is expected to be a critical Winlink mode used after a major disaster when phone, text, and internet services are not available in our area. I highly recommend that you take advantage of this exercise to gain experience with P2P. However, make sure your Winlink equipment can operate using Conventional Mode (i.e., using local a "gateway") before participating in this drill. The main purpose of this drill is not to verify that your Winlink equipment works, but instead focuses on becoming familiar with how to operate P2P mode.

You are encouraged to forward this information to other individuals and organizations that you feel might be interested in taking advantage of this practice exercise. This includes any operators that can reach Loma Ridge directly or through a Winlink gateway operating as a relay.

For more information on Winlink Global Radio Email: <a href="https://www.winlink.org/">https://www.winlink.org/</a>.

If you have questions or comments, please don't hesitate to contact me.

# **June 2024**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Weekly 60 m ACS Net
2	3 Weekly 2 m ACS Net & OCRACES Meeting	4	5	6	7	8 NTEMC Exercise & Weekly 60 m ACS Net
9	10 Weekly 2 m ACS Net	11	12	13	14 Orange County Ama- teur Radio Club Meeting	15 Weekly 60 m ACS Net
16	17 Weekly 2 m ACS Net	18	19	20	21	22 Field Day
23 Field Day	24 ACS Nets on 4 Bands	25	26	27 Orientation for PSR Appli- cants	28	29 Weekly 60 m ACS Net
30						

#### **Upcoming Events:**

- June 3, 1930-2130 hours: OCRA-CES Meeting on Zoom
- June 8, 0900-1400 hours: National Tribal Emergency Management Council Thunderbird and Whale 2024 Exercise
- June 14, 1900 hours: Orange County Amateur Radio Club meeting, American Red Cross (George M. Chitty Building), 600 Parkcenter Drive, Santa Ana
- June 22-23: Field Day
- June 27, 1800 hours: Orientation for Professional Services Responder (PSR) applicants, Orange County Sheriff's Regional Training Academy, 15991 Armstrong Ave., Tustin



#### https://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**

60 m: 5371.5 kHz USB (dial) (Channel 4) (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 (down for repair)

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)

\*Primary Net-Mondays, 1900 hours

OCSD RACES Coordinator

Lee Kaser, KK6VIV, (714) 628-7081

Radio Officer

Scott Byington, KC6MMF

<u>Chief Radio Officer</u> Ken Bourne, W6HK, (714) 997-0073

Assistant Radio Officer Randy Benicky, N6PRL

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

Orange County Sheriff's Department, Emergency Management Division 2644 Santiago Canyon Road, Silverado, CA 92676 Telephone: (714) 628-7081 • Fax: (714) 628-7154

Email: LKaser@OCSheriff.gov

### **County of Orange RACES**

OCSD Emergency Management Division 2644 Santiago Canyon Road Silverado, CA 92676

Telephone - (714) 628-7081 Fax - (714) 628-7154 E-mail: LKaser@OCSheriff.gov

> **Visit Our Web Site** https://ocraces.org It's Where It's @!

**Questions or Comments?** Contact NetControl Editor Ken Bourne, W6HK kbourne.ocsd@earthlink.net



**"W6ACS ...** Serving **Orange County**"

### Meet Your County of Orange RACES Members!





Ken Bourne W6HK



**Scott Byington** KC6MMF



Randy Benicky N6PRL





Lee Kaser KK6VIV



**Heide Aguire** 



Joel Bishop AJ6ZP



Eric Bowen W6RTR



**Ray Grimes** 



**Ted Lavino** KG6LZP





Steve Livingston Scott MacGillivray KM6RTE



**Robert Moore** KW6B



Ryan Moore KN6WSJ



Ron Mosher **K0PGE** 



Fran Needham KJ6UJS



Chi Nguyen KE6MVS



Joe Selikov **KB6EID** 



Robert Stoffel KD6DAQ



**Chuck Streitz** KK6HFS



Ken Tucker WF6F