Mobile Ham Radio—Is It Legal?

California radio amateurs, including RACES members, are now prohibited from holding and operating a handheld wireless telephone or electronic communications device (such as an HT) while driving, unless it is mounted on the vehicle’s wind- shield or affixed to a dashboard or center console in a way that does not hinder the individual’s view of the road, according to Assembly Bill 1785. A motorist can only use his or her hand to activate or deactivate a feature or function on the device that requires a single swipe or tap. Systems installed by manufacturers and embedded in the vehicle are exempted from this law.

In my opinion, the new law is quite clear that we radio amateurs cannot hold and operate an HT (Motorola trademark, commonly and improperly used for referring to all brands of handheld radios) while driving. Unfortunately, the new law may be interpreted as preventing a ham from pressing a PTT switch on a handheld microphone connected to a mounted mobile radio while driving. By careful reading of the law, my interpretation is that using a mobile radio might be legal. However, interpretations might vary between officers and even judges, so be aware when using your mobile radio that you might be pulled over by an officer who has an interpreta-
handheld wireless telephone or wireless communications device with the motion of a single swipe or tap of the driver’s finger.

(d) A violation of this section is an infraction punishable by a base fine of twenty dollars ($20) for a first offense and fifty dollars ($50) for each subsequent offense.

(e) This section does not apply to an emergency services professional using an electronic wireless communications device while operating an authorized emergency vehicle, as defined in Section 165, in the course and scope of his or her duties.

(f) For the purposes of this section, “electronic wireless communications device” includes, but is not limited to, a broadband personal communication device, a specialized mobile radio device, a handheld device or laptop computer with mobile data access, a pager, or a two-way messaging device.

Paragraph (a) is scary. It says “A person shall not drive a motor vehicle while holding and operating a handheld wireless telephone or electronic wireless communications device,” which could refer to a mobile radio microphone in addition to an HT. If it referred only to an HT, the paragraph would say, “operating a handheld wireless telephone or handheld electronic wireless communications device.”

“handheld” is concerning, and an officer (and maybe a judge) could rule that operating a mobile radio is a bad thing. But because the paragraph also says “holding,” and the driver would not be holding the entire device (mobile radio), a proper interpretation (in my opinion) would allow us to operate a mobile radio, whether or not “handheld” is stated.

The same concern applies to paragraphs (c) and (c)(1) and (c)(2).

Don’t scold a police officer or deputy if you see him using a cellphone while driving a black-and-white. Paragraph (e) allows it!

Paragraph (f) brings back the scare. It says that an “electronic wireless communications device” includes a specialized mobile radio device, which could, in my opinion, refer to a mobile ham radio.

In spite of what CHP Officer Olivera said, this new law, in my opinion, explicitly prohibits us from operating an HT while driving, and could also prevent us from using our mobile radios as well. It’s a matter of interpretation. By the way, paragraph (f) also says we can’t operate a pager while driving, so, if you receive an OCRACES activation page, don’t read it until you have parked!

FEMA Mobile App Is Available for Download

Download the FEMA App, available for Apple, Android, and Blackberry mobile devices. Features include:

- Alerts from the National Weather Service: Receive severe weather alerts for up to five locations across the U.S. and see information about how to stay safe.
- Disaster Report: Upload and share photos of damage and recovery efforts. The purpose of the FEMA Disaster Reporter is to crowdsource and share disaster-related information for events occurring within the United States, allowing citizens, first responders, emergency managers, community response & recovery teams, and others to view and contribute information on a publicly accessible map. The Disaster Reporter is a feature in the FEMA App that allows users to take a photograph in a disaster area and submit it, along with a short text description. All approved disaster-related photos and text are posted.
- Maps of disaster resources: Locate and receive driving directions to open shelters and disaster recovery centers.
- Apply for assistance: Easily access DisasterAssistance.gov to apply for federal disaster assistance.
- Custom emergency safety information: Save a custom list of the items in your family’s emergency kit, as well as the places you will meet in case of an emergency.
- Safety tips: Receive safety and preparedness reminders and learn how to stay safe before, during, and after over 20 types of hazards, including floods, hurricanes, tornadoes, and earthquakes.
- Information in Spanish: Easily toggle between English and Spanish for all features of the app.
Next OCRACES Meeting: February 6th

The next OCRACES meeting will be on Monday, February 6, 2017, at 7:30 PM, at OCSD Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, in Orange. Our featured speaker at this meeting will be OCRACES Training Sergeant Tom Tracey, KC6FIC, who will cover various training topics, including some very interesting observation procedures.

City/County RACES Meeting: Feb. 13th

The next City/County RACES & MOU meeting will be on Monday, February 13, 2017, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting we will discuss plans for upcoming ACS exercises. Each agency representative is invited to give a brief report of current activities.

OCRACES Activates for Winter Storm

On Saturday, January 20, 2017, OCSD Emergency Communications Manager Lee Kaser, KK6VIV, informed OCRACES Chief Radio Officer Ken Bourne, W6HK, that OCSD Emergency Management Division was going to activate the Orange County EOC at a low level the next morning (Sunday, January 21st) at 1000 hours, due to the pending major winter storm with expected flooding, debris flows, mudslides, downed trees, road closures, power outages, property damage, and evacuations. Anticipated continuous rainfall was expected to exceed 3-5 inches within a 24-hour period. OCSD/EMD Director Donna Boston asked that the EOC RACES Room be staffed beginning at 1000 hours on Sunday. After receiving Lee’s information, Ken sent an e-mail to all members, requesting availability. Based on the response, Ken assigned Tom Riley, K6TPR, to the first shift. The EOC was indeed activated at 1000 hours on Sunday and the Public Information Hotline was staffed. Tom arrived at the EOC RACES Room at 0930 hours and worked for more than three hours. After church, Ken arrived about noon and stayed about six hours, coordinating with the EOC Command Center and keeping tabs on shifts. OCSD/EMD indicated that OCRACES could stand down at 2200 hours, but might need staffing the next morning. At 1436 hours, the National Weather Service in San Diego issued a Flash Flood Warning for Orange County. Fran Needham, KJ6UJS, arrived at about 1420 hours on Sunday and stayed for several hours. Fran greeted Sgt. Jack Barth, AB6VC, who arrived at about 1730 hours. OCSD EMD released Fran and Jack at about 2100 hours, and asked Fran to return at 0900 hours on Monday. Fran arrived before 0900 hours on Monday, and expected to work until 1300 hours, at which time he would be relieved by Ken Tucker, WF6F. Fran was soon informed that the EOC was deactivating at 0930 hours, at which time OCRACES deactivated, and Ken Tucker did not need to report for scheduled duty.

Several cities had also activated their EOCs, and some city RACES units were activated. Some roadways were flooded and power outages and downed trees were also reported throughout the County. The 146.895 MHz and 448.320 MHz OCRACES repeaters were monitored for field reports throughout the activation. Members who are not deployed to the EOC during a weather activation are encouraged to report their observations of heavy weather conditions and damage to the EOC via the repeater.
Brian Ahn, KM6CXL, was the fox on Monday, January 16, 2017, on the monthly cooperative T-hunt. He turned on the fox box immediately following the 2-meter OCRACES ACS net, hiding in a parking lot of the Columbus Tustin Middle School in Tustin.

First to find the fox was a team consisting of Ken Bourne, W6HK, Bob Bourne, K6RBI, and Fran Needham, KJ6UJS. They started near the corner of Tustin Ranch Road and Bryan Avenue, and used an Arrow three-element beam for an initial bearing. Then they narrowed in with an Arrow loop. Next to arrive was Joe Moell, KØOV, followed by Richard Saunders, K6RBS. All hunters found the fox quickly, since there were very few signal reflections and erroneous bearings on this hunt.

The next cooperative T-hunt will be held on Monday, February 20, 2017, immediately following the OCRACES 2-meter net (approximately 7:20 PM). The fox will transmit on the input (146.295 MHz) of the 146.895 MHz repeater. Hunters will compare bearings via the 448.320 MHz repeater (while the 449.100 MHz repeater is down), and are encouraged to beacon their positions via APRS throughout the hunt. The fox will be hiding in a city or sector of Orange County (to be announced a few days prior to the hunt) on paved, publicly accessible property. No fees will be required to drive directly to the fox. We are looking for a volunteer to be the fox, and a “fox box” will be available.

The cooperative T-hunts are usually held on the third Monday of each month. 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!

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 Arrow OFHA 4-MHz offset attenuator can be useful when close to the fox, to prevent receiver overload. An all-mode transceiver is quite useful, allowing hunters to switch to the SSB or CW mode for detecting extremely weak signals, or to switch in a built-in attenuator, reduce RF gain, or tune slightly off frequency when dealing with extremely strong signals. Some hunters use the DF2020T radio direction finder kit, which is a Doppler system available from Global TSCM Group, Inc. (http://www.kn2c.us).

**Amateur Radio Parity Act Passes U.S. House**

Just 10 days after being introduced, the 2017 Amateur Radio Parity Act legislation, H.R. 555, passed the U.S. House of Representatives on unanimous consent under a suspension of House rules. The bill’s language is identical to that of the 2015 measure, H.R. 1301, which won House approval late last summer after attracting 126 co-sponsors, but failed to clear the U.S. Senate last fall as the 114th Congress wound down. The new bill, again sponsored by Rep. Adam Kinzinger (R-IL), was introduced on January 13th with initial co-sponsorship by Rep. Joe Courtney (D-CT) and Rep. Greg Walden, W7EQI (R-OR), who chairs the influential House Committee on Energy and Commerce.

“The grassroots effort of Amateur Radio operators across this nation in support of the Amateur Radio Parity Act has been remarkable, nothing like we have ever seen before,” ARRL President Rick Roderick, K5UR, said. “To all hams, keep going! Now is the time to charge forward with that same momentum to the Senate. We can do it!” The bill arrives in the U.S. Senate with ample time in which to garner its approval through an education campaign.

“We’re very encouraged by the speed with which this bill made it through the House. It’s amazing that this happened,” said ARRL Hudson Division Director Mike Lisenco, N2YBB, who has been at the forefront of the legislative initiative. “With the help of ARRL members, we believe we can get this done,” Lisenco continued. “We came within a hair’s breadth last time, with 110,000 e-mails to members of both houses of Congress, as well as letters and telephone calls. Member participation in this final push is critical.”

H.R. 555 calls on the FCC to establish rules prohibiting the application of deed restrictions that preclude amateur radio communications on their face or as applied. Deed restrictions would have to impose the minimum practicable restriction on amateur radio communications to accomplish the lawful purposes of homeowners association seeking to enforce the restriction.
Illegal Drones Could Interfere with Air Traffic

In what it calls an “extremely urgent complaint” to the FCC, ARRL has targeted the interference potential of a series of audio/video transmitters used on unmanned aircraft and marketed as amateur radio equipment. In a January 10th letter to the FCC Spectrum Enforcement Division, ARRL General Counsel Chris Imlay, W3KD, said the transmitters use frequencies intended for navigational aids, air traffic control radar, air route surveillance radars, and global positioning systems.

“This is, in ARRL’s view, a potentially very serious interference problem, and it is respectfully requested that the products referenced...be investigated and removed from the marketplace immediately and that the importers be subjected to normal sanctions,” ARRL’s letter said. Some of the transmitters operate on frequencies between 1,010 and 1,280 MHz.

“These video transmitters are being marketed ostensibly as amateur radio equipment,” the League said, “but of the listed frequencies on which the devices operate, only one, 1280 MHz, would be within the amateur radio allocation at 1240-1300 MHz.” Even then, ARRL said, operation there would conflict with a channel used for radio location.

ARRL said the use of 1,040 and 1,080 MHz, which would directly conflict with air traffic control transponder frequencies, represented the greatest threat to the safety of flight. The use of 1,010 MHz, employed for aeronautical guidance, could also be problematic.

ARRL cited the Lawmate transmitter and companion 6 W amplifier as examples of problematic devices being marketed in the US. Each costs less than $100 via the Internet. The device carries no FCC identification number.

“It is the target market for these devices is the drone hobbyist, not licensed radio amateurs. The device, due to the channel configuration, has no valid amateur radio application,” ARRL told the FCC. “While these transmitters are marked as appropriate for amateur use, they cannot be used legally for amateur radio communications.” In the hands of unlicensed individuals, the transmitters could also cause interference to amateur radio communications in the 1.2 GHz band, ARRL contended.

The League said it’s obvious that the devices at issue lack proper FCC equipment authorization under FCC Part 15 rules, which require such low-power intentional radiators to be certified.

“Of most concern is the capability of the devices to cripple the operation of the [air traffic control] secondary target/transponder systems,” ARRL said. “These illegal transmitters represent a significant hazard to public safety in general and the safety of flight specifically.”

The surge in sales of drones has been dramatic. The FAA has predicted that combined commercial and hobby sales will increase from 2.5 million in 2016 to 7 million by 2020.

In Exhibit A of the January 10 letter, “Illegal Drones Threaten Public Safety,” the League noted that some of the drones and associated equipment it has come across “are blatantly illegal at multiple levels,” with some drone TV transmitters described as “particularly alarming.”

“Rated at six times over the legal power limit, and on critical air navigation transponder frequencies, these devices represent a real and dangerous threat to the safety of flight, especially when operated from a drone platform that can be hundreds of feet in the air,” the exhibit narrative asserted.

Contact Manager 2.10 Moves DMR Zones

Tom Wheeler, N0GSG, has announced the release of Contact Manager 2.10, which now provides complete support for DMR (Digital Mobile Radio) radios that use the RDG (Radio Database) file format. The program now has complete support for RDB radios, which include the Connect Systems CS750 and CS800 radios and others. In this release, you can view, edit, import, and export contacts, zones, and channels from all supported radio formats, regardless of their type (RDB or RDT). RDT radios such as the CS700 and MD380 series are still completely supported.

This software can freely move contacts, channels, and zones between any supported codeplug types. No spreadsheets or conversion programs are required. Just open two copies of Contact Manager with the two codeplugs you wish to work with—they can be different radio types—and simply issue a “copy” from the source codeplug, and a “paste” on the destination codeplug. You can easily transplant contacts, channels, and entire zones using this method.

CS750 and CS800 users can now import the entire US DMR-MARC call database in one easy step. With your codeplug open in Contact Manager, simply use the DMR-MARC database search feature to pull in all US contacts—type “United” or “United States” into the search box, and click the new ADD ALL button.

The program’s user interface is unchanged and works identically regardless of what type of codeplug you are working with.

The program can be downloaded free of charge from http://n0gsg.no-ip.org/contact-manager/.
RACES/MOU News from Around the County

Costa Mesa RACES (MESAC)

The City of Costa Mesa Emergency Service Amateur Communications (MESAC) unit has changed the URL of its Web site to http://mesac.org.

For the third year, MESAC volunteers will provide additional communicators to support Huntington Beach RACES under the Huntington Beach Fire Department during the Surf City Marathon on Sunday, February 5, 2017. The RACES volunteers provide health, safety, and welfare communications on the marathon race course, at medical tents, in support vehicles and at the police/fire/lifeguard unified command.

On March 25 and 26, 2017, the Costa Mesa Police Department will participate in the 2017 Baker to Vegas Challenge Cup Relay Race. Leading the effort is CMPD Officer Hans Gunther, the team Captain. The race is a 125-mile relay run through the desert and mountains from Baker, California, through Pahrump, Nevada, and into a Las Vegas hotel conference hall for the finish line. MESAC will provide support in setting up the three donated vehicles used—prior to leaving for the race, completing the final setup in Baker, and accompanying the vehicles to inspection at the start line. MESAC will provide communications support throughout the race, ensuring the runners check in for their legs and providing logistical communications for any issues that come up.

The 10th Annual Costa Mesa Community Run will take place on April 22, 2017, at Fairview Park. This event will feature one of the best 5k and 10k courses in Southern California. The run raises money for Costa Mesa’s schools. MESAC will provide communications support staff throughout the course and will provide logistical communications, including coordination should a runner need medical attention or just assistance off the course. MESAC also will provide the staff with business-band radios to improve setup, course coordination, event management, and teardown. The 10k course will take the runners on an out-and-back course through Fairview Park, onto the San-ana River Trail towards the beach, and then back to Estancia High School for a stadium finish.

Hospital Disaster Support Communications System (HDSCS)

HDSCS will hold an examination session for all classes of amateur radio license on Saturday, April 8, 2017, at Care Ambulance headquarters, 1517 West Braden Court, in Orange. The testing session is open to HDSCS members and non-members alike and starts at 9:00 AM. If you wish to take a test, please register in advance by contacting Ken Simpson, W6KOS, phone (714-651-6535) or e-mail (w6kos@arrl.net). Ken will need your phone number, e-mail address, and level(s) of license that you will test for. He will reply via e-mail with testing details and what to bring. Amateur radio talk-in will be on K6QEH/R, 146.970 MHz, 136.5 Hz PL.

Huntington Beach RACES

Huntington Beach RACES has moved its Web site to Facebook. The URL is https://www.facebook.com/groups/hbraces.

Tri-Cities RACES

Tri-Cities RACES Chief Radio Officer Joe Lopez, W6BGR, lists the RACES Program Coordinators for Dana Point (Aaron Rosen), San Clemente (Steve Foster), and San Juan Capistrano (Lynne Mata).

Orange County SKYWARN

Orange County SKYWARN was activated on Thursday, January 12, 2017, at the request of NWS San Diego, for a heavy band of showers, expected flooding, and possible thunderstorms. Deactivation occurred at 6:00 PM. OC SKYWARN activated again on Sunday, January 22nd, until 10:00 PM. Spotters were requested to report significant weather via computer or by amateur radio. OC SKYWARN reactivated at 10:00 AM the next day for thunderstorms, hail, flash floods, wind, and cold, and deactivated at 1800 hours.
February 2017

Upcoming Events:

- February 6: OCRACES Meeting, 840 N. Eckhoff Street, Suite 104, Orange; 1930 hours
- February 13: City/County RACES & MOU Meeting, 840 N. Eckhoff Street, Suite 104, Orange; 1930 hours
- February 17: Orange County Amateur Radio Club Meeting, American Red Cross (George M. Chitty Building, 600 Parkcenter Drive, Santa Ana; 1900 hours
- February 20: Cooperative T-Hunt on input of 2-meter repeater, 1920 hours
- February 27: ACS Nets on five bands and Cal OES Nets

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

40 m: 7250 kHz SSB (City/County/MOU Net—Saturdays, 1000 hours)
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 (out of service)
70 cm: 449.180 MHz output, 444.180 MHz input, 107.2 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)
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Chief Radio Officer (Captain)
Ken Bourne, W6HK
714-997-0073

Radio Officer (Lieutenant)
Scott Byington, KC6MMF

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

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