Using Chinese HTs Legally

The new inexpensive Chinese HTs, such as the Wouxun KG-UV3D dual-band (2 meters/440 MHz or 2 meters/220 MHz) and KG-833 UHF-only, when purchased, are normally limited to transmit only on amateur frequencies. However, unlocking software is readily available for download, to allow the HTs to operate on Part 90 “commercial” frequencies, for which they are FCC certified. For example, the KG-UV3D, when unlocked, will transmit from 136 to 174 MHz and (in the 2-meter/440-MHz version) from 420 to 470 MHz. It features a two-band display that toggles between alphanumeric, actual frequency, or channel number per band. The KG-833 has no display, and covers 16 channels from 400 to 470 MHz. Both models provide voice annunciation when switching channels. At less than $120 for the dual-band model and less than $100 for the UHF-only model, the HTs are competing with the more expensive amateur-only HTs from Japan (and the expensive commercial HTs from US and Japanese manufacturers), but are causing concern that untrained and unauthorized individuals might use them inappropriately on public-safety frequencies.

A few years ago, OCRACES officers were issued Motorola HT1250 VHF highband HTs, programmed for public-safety frequencies (such as County Admin, CLEMARS, NALEMARS, state and federal fire channels, etc.), in addition to 2-meter repeater and simplex frequencies. The new Chinese dual-band radios can be programmed for these same frequencies, as well as public-safety UHF channels such as Blue, Amber, Maroon, CLEMARS, and MED-10. Orange County Red Cross members are programming their HTs for the Red Cross OPS-1 channel.

The Chinese HTs will comply with the Part 90 narrowband regulations that go into effect on January 1, 2013. Therefore, any HTs currently used by OCSD Search & Rescue on Blue channel, for example, that are not “narrowbandable,” may be replaced inexpensively. Several OCSD Reserve Deputies and PSRs have already purchased these HTs for use on Blue and other OCSD channels, and, if they are radio amateurs, also for use on the ham bands.

Another concern is that non-amateurs who purchase these Chinese HTs might be tempted to “bootleg” on amateur frequencies, since they are easily programmed for amateur use. Therefore, we in RACES must be diligent in preventing illegal operations, either by non-amateurs invading our RACES repeaters, or by amateurs transmitting on public-safety frequencies without authorization and training.

The new Chinese Part 90 HTs must never be programmed to transmit on GMRS, FRS, and MURS frequencies. Such operation is illegal, since those services fall under FCC Part 95, for which the HTs are not certified.

Some amateur-only HTs can be modified to transmit on Part 90 frequencies, but that is illegal. Non-certified HTs can cause spurious emissions that could interfere with adjacent-channel communications.
Steve Sobodos, KN6UX, Silent Key

We are extremely sad to announce the passing of OCRACES Member Steve Sobodos, KN6UX, on January 11, 2011, from cancer. Steve was a dedicated member for 19 years, and we will truly miss him. At one time Steve was a RACES Lieutenant, but returned to regular membership in order to devote more time to his engineering position with OCSD/Communications & Technology Division, to his duties as a Level II OCSD Reserve Deputy in the Search & Rescue Reserve Unit, to his side video business (Scs Video), and to his family.

Steve was born on September 15, 1954. He was devoted to his wife Sue, and to their daughters Christi and Michelle. He was an expert in video recording techniques and photography, and was much sought after for recording weddings and other events. He used his videography experience in OCRACES as an ATV operator, including service during floods in South Orange County when his images were routed to key positions throughout the EOC. He was an avid participant in the OCRACES hidden-transmitter hunts a few years ago, and continued his friendship with the old “fox hunters” (and “Lunch Bunch”), even after some had left OCRACES and moved out of California. Steve was also a rugged off-road driver. A few years ago he gave a fascinating video presentation at an OCRACES meeting of his off-road adventures.

Steve applied himself to advancing his RF systems engineering skills, and eventually became a valued telecommunications engineer with OCSD/Communications & Technology Division. He loved working for the Sheriff’s Department, not only as an Engineer and 19-year RACES member, but also as a Level II Reserve Deputy for the past 12 years. He was the handler of K-9 Bloodhound Kenda in the Reserve Bureau Search and Rescue Unit, in which he would be ready for deployment at any time of day or night to track a wayward hiker, a lost child, disoriented senior, or a fugitive criminal.

Steve joined the OCSD/Communications & Technology Division as a paid employee in July 2002, when he was hired as a Telecommunications Engineer III in the Engineering Section. He worked on various radio engineering projects and initiatives, while continuing to volunteer with the OCSD RACES Unit and Reserve Bureau.

As pointed out by John McDonald in his January 11th article on The OC Sheriff Blog, Steve became an OCSD Reserve Deputy in April 1998. He had a great interest in Search and Rescue, and proceeded to become a bloodhound handler. In 2008, Steve and Kenda received a letter of appreciation for their participation at Soka University’s “International Festival on the Green.” At this event the public learned about the valuable service the OCSD Search & Rescue Bloodhound Team provides the citizens of Orange County.

Also in 2008, Steve and Kenda were dispatched to the scene of a missing 14-year-old boy with special needs. When they arrived, a full-scale search was in progress with the use of patrol officers and helicopters. Steve and Kenda started their search where the boy was last seen. They trailed through a grassy area, along the creek bed and under a bridge where they located the missing boy. For their efforts, Steve and Kenda received the Bravo for Bravery award from the American Red Cross.

For the past 12 years, according to McDonald, Steve averaged over 1000 hours of volunteer service to the Sheriff’s Department, and continued to serve until his illness made it impossible to continue.

Memorial services for Steve were held on January 14, 2011, at the Presbyterian Church of the Masters in Mission Viejo. Many OCRACES members, OCSD Reserve Deputies and PSRs from the Search & Rescue Reserve Unit, and Regular Deputies attended the service. Reserve Lt. Steve Durrett officiated as Chaplain. Reserve Lt. Doug Williams from the OCSD SRRU K-9 Operations shared experiences, as did Steve’s best friend Mark Rettberg, KL6KYT, from OCSD/Communications & Technology Division. Steve’s daughters Christi and Michelle delivered moving tributes to their dad, and OCSD Lt. Paul Fuzzard presented the U.S. flag to Steve’s wife Sue.

We appreciate the many condolences and tributes to Steve, posted on the ocsd-races Yahoo Group by City RACES Officers, Program Coordinators, and members. Steve was deeply admired throughout the County.

Rest in peace Steve, and 73.
Next OCRACES Meeting: Feb. 7 at Loma Ridge

The next OCRACES meeting is on Monday, February 7, 2011, at 7:30 PM. This is a closed meeting for OCRACES members and applicants only, for training on the new equipment in the EOC RACES Room, as well as ATV, Winlink, D-STAR, and the Motorola Centracom console. We will meet first in the Support Center for other “business,” and then to begin our training with PowerPoint or other projected slides. Before the meeting begins, the 7:00 PM OCRACES 2-meter net will be handled from the RACES Room. The training instructors will include Marten Miller, KF6ZLQ, on the Centracom console, Kenan Reilly, KR6J, on the Kenwood TM-V71A and TM-D710A 2-meter/440-MHz transceivers, Brian Turner, KI6WZS, on the Icom D-STAR transceivers, Jim Carter, WB6HAG, on ATV, Scott Byington, KC6MMF, on Winlink, and Ken Bourne, W6HK, on the Elecraft K-3 HF transceiver.

6-Meter Repeater Is Down Again

We reported in the January 2011 issue of NetControl that the OCRACES 6-meter repeater was back on the air. We spoke too soon! The repeater is down again, and hopefully the failure will be analyzed and repaired in the near future. Meanwhile, EOC-to-EOC communications will be conducted on the 449.100 MHz repeater if necessary, until the 6-meter repeater is back on the air.

Blue Alert System Helps Apprehend Suspects

Blue Alert System Senate Bill (SB) 839, which became effective January 1, 2011, adds Section 8594.5 to the California Government Code (GC) and creates the Blue Alert System. The purpose of a Blue Alert is to quickly coordinate and provide information to the public and solicit help in the safe and swift apprehension of suspects meeting specific criteria. The California Highway Patrol (CHP) administers the Blue Alert System and is responsible for issuing Blue Alerts. Pursuant to Section 8594.5 GC, “Upon the request of an authorized person at a law-enforcement agency that is investigating an offense” described in Condition #1, the CHP shall activate a Blue Alert if all the following conditions are met:

1. A law-enforcement officer has been killed, suffers serious bodily injury, or is assaulted with a deadly weapon, and the suspect has fled the scene of the offense.
2. A law-enforcement agency investigating the offense has determined that the suspect poses an imminent threat to the public or other law-enforcement personnel.
3. A detailed description of the suspect’s vehicle or license plate is available for broadcast.
4. Public dissemination of available information may help avert further harm or accelerate apprehension of the suspect.

As specified in law, all the listed conditions have to be met for the CHP to issue a Blue Alert. The CHP’s Emergency Notification and Tactical Alert Center (ENTAC) is the designated “24/7” point of contact for law-enforcement agencies wanting to activate Blue Alerts. The 24-hour phone number for law-enforcement agencies to contact ENTAC is (916) 843-4199.

Blue Alerts and the emergency Alert System (EAS): SB 839 and Section 8594.5 GC authorize the CHP to activate the EAS for a Blue Alert if authorized and under conditions permitted by the federal government. At this time, the Federal Communications Commission has not approved and designated an EAS code to be used for Blue Alerts. Therefore, the EAS cannot be used for Blue Alerts (note: this is consistent with other states that have Blue Alert programs).

The general use of Changeable Message Signs (CMS) for Blue Alerts has also not been approved. Similar to the approval to use EAS, a federal authority, in this case the Federal Highway Administration, has not granted approval for CMS to be used during Blue Alerts.

At this time, the Emergency Digital Information Service (EDIS), which is provided by the California Emergency Management Agency (Cal EMA), will be the primary means to distribute Blue Alert information. The EAS and CMS will be integrated into the system once they are approved by federal authorities for use during Blue Alerts. Any questions regarding the content of this notification can be directed to ENTAC at (916) 843-4199 or at the following e-mail address: entac@chp.ca.gov.
House and Senate Introduce Ham Bills

Representative Sheila Jackson Lee (D-TX-18) introduced a bill (HR 81) on January 5, 2011, to the House Committee on Energy and Commerce “to promote and encourage the valuable public service, disaster relief, and emergency communications provided on a volunteer basis by licensees of the Federal Communications Commission in the Amateur Radio Service, by undertaking a study of the uses of amateur radio for emergency and disaster relief communications, by identifying unnecessary and unreasonable impediments to the deployment of Amateur Radio emergency and disaster relief communications, and by making recommendations for relief of such unreasonable restrictions so as to expand the uses of amateur radio communications in Homeland Security planning and response.”

On January 26, 2011, Senator Joe Lieberman (ID-CT), along with Senator Susan Collins (R-ME), introduced Senate Bill 191, The Amateur Radio Emergency Communications Enhancement Act of 2011. Similar to HR 81, which has the same title, the bill, if passed, would direct the Department of Homeland Security (DHS) to undertake a study on emergency communications. S 191 has been referred to the Committee on Homeland Security and Governmental Affairs.

The objective of the bill, which is supported by the ARRL, is for the Secretary of Homeland Security to study the uses and capabilities of Amateur Radio communications in emergencies and disaster relief and to identify and make recommendations regarding impediments to Amateur Radio communications. DHS, then, is to submit a report to Congress no more than 180 days after the bill becomes law. The study shall:

♦ Include a review of the importance of Amateur Radio emergency communications in furtherance of homeland security missions relating to disasters, severe weather, and other threats to lives and property in the United States, as well as recommendations for enhancements in the voluntary deployment of Amateur Radio licensees in disaster and emergency communications and disaster-relief efforts and improved integration of Amateur Radio operators in planning and furtherance of the Department of Homeland Security initiatives.
♦ Identify impediments to enhanced Amateur Radio Service communications, such as the effects of unreasonable or unnecessary private land use regulations on residential antenna installations, and make recommendations regarding such impediments for consideration by other federal departments, agencies, and Congress.

In conducting the study, S 191 directs the DHS Secretary to “utilize the expertise of stakeholder entities and organizations, including the Amateur Radio, emergency response, and disaster communications communities."

FCC Acts to Advance Broadband Comms

The Federal Communications Commission on January 25, 2011, adopted a Third Report and Order (Order) and Fourth Further Notice of Proposed Rulemaking (FNPRM) that will significantly advance communications interoperability for our Nation’s first responders. The rules adopted and proposed in the Order and FNPRM support the build-out of robust, dedicated, and secure mobile broadband networks that will enable public-safety broadband users to share information, videos, photos, and e-mails across departments and jurisdictions nationwide for day-to-day operations and during large-scale emergencies.

The Order and FNPRM requires all 700-MHz public-safety mobile broadband networks to use a common air interface, specifically Long Term Evolution (LTE), to support roaming and interoperable communications, and seeks comment on additional rules to enable nationwide interoperability. The FCC’s actions build on the technical requirements that state and local 700 MHz broadband waiver recipients are already subject to in the early build-out of their regional public-safety broadband networks.

The FNPRM seeks public comment on, among other things:
♦ The architectural vision of the network;
♦ The effectiveness of open standards;
♦ Interconnectivity between networks;
♦ Network robustness and resiliency;
♦ Security and encryption;
♦ Coverage and coverage reliability requirements;
♦ Roaming and priority access between public-safety broadband networks; and
♦ Interference coordination and protection.

The deadlines for public comments and reply comments on the FNPRM are 45 days and 75 days, respectively, after publication in the Federal Register.
OCRACES Assistance Asked for Swallows Day

The 53rd presentation of the Swallows’ Day Parade and Mercado (street fair and market place) will be on Saturday, March 26, 2011, in San Juan Capistrano. OCSD will deploy its Samantha trailer to serve as the Sheriff’s command post for this event. The City’s RACES unit, as part of Tri-Cities RACES, will support the City that day with communications. SJC Radio Officer Joe Lopez, W6BGR, has requested OCRACES to deploy its emergency communications response vehicle to serve as SJC RACES net control. If we are available, we need to be on scene no later than 8:00 AM.

The parade takes place in downtown San Juan Capistrano, and begins promptly at 11:00 AM. Most street closures are by 10:00 AM. It is the nation’s largest non-motorized parade.

FCC Seeks Comments on Aerial Comms

An important mission of the FCC’s Public Safety and Homeland Security Bureau is to support and advance state-of-the-art communications initiatives and strategies that further strengthen and enhance the security and reliability of the nation’s communications. In order to advance this important mission, the Bureau seeks comment on current and future technologies, specifically aerial telecommunications architecture, such as unmanned aerial vehicles or balloon mounted or unmounted systems, that can be rapidly deployed to an area within the first few hours after major natural disasters or terrorist attacks.

The Bureau seeks comment regarding low-altitude aerial telecommunications architecture solutions that are accessible, reliable, resilient, cost-effective, and secure, and which are capable of providing public safety and emergency response personnel the capability to communicate during the critical restoration period after a major disaster over a multitude of communications platforms (e.g., HF, UHF, VHF, cellular, Internet, and satellite). The Bureau says it recognize that authorization of any particular aerial telecommunications architecture for public-safety use will depend on various characteristics of that solution, such as the spectrum band in which the equipment operates, but the Bureau is seeking comment only to better understand the available technologies as well as the associated technical issues. The Bureau seeks comment on the means of coordinating and managing such solutions before and during deployment, what public-safety agencies may be involved in the operations of such systems or those who own communications operations may be adversely impacted by such systems, specific classes of such systems that might be involved in such operations with their capacity and bandwidth requirements, the costs associated with their design, implementation, deployment, and maintenance of such packages. Specifically, the Bureau seeks comment on how to best ensure spectrum coordination of these systems with terrestrial and satellite infrastructure in the affected area or adjacent areas, interference mitigation techniques to ensure that terrestrial and satellite communications are not negatively impacted, and network management. Further, the Bureau seeks comment on how to ensure that communications that are provided via aerial communications systems for emergency preparedness are secure.

Interested parties may file comments on or before February 28, 2011.

OCARC Members Hear About Winlink

OCRACES Radio Officer Scott Byington, KC6MMF, gave an excellent presentation on Winlink at the January 21st meeting of the Orange County Amateur Radio Club. Scott heads the Winlink program for OCRACES and is guiding the City RACES units in getting up-to-speed on their Winlink systems.

OCARC meets on the third Friday of each month (except December) at the American Red Cross—Orange County Chapter, George M. Chitty Building, 600 Parkcenter Drive, in Santa Ana. Enter at the west door. The next meeting is on February 18, 2011. Janet Margelli, KL7MF, will talk on the history of HRO.
**Fountain Valley**

Jerry Fullerton, KD6JBL, is the new Fountain Valley RACES Chief Radio Officer.

**Dana Point**

Drew Holtz, KI6IZD, has been appointed Dana Point RACES Radio Officer in the Tri-Cities RACES program.

**La Palma**

William Ingalsbe, AD6WI, is now the Radio Officer for La Palma RACES.

**Laguna Beach**

Darin Lenyi is replacing Laguna Beach Police Capt. Mike Hall, KF6RNI, as the Field Services Division Commander, and will be the new Assistant RACES Coordinator for the City.

**Orange**

David Friese, KG6RWU, is the new COAR (City of Orange Amateur Radio) Chief Radio Officer for the City’s RACES unit.

**Seal Beach**

Seal Beach RACES has a new Assistant Radio Officer, Mark Stanford, W6MCS.

The RACES unit has also purchased radio equipment, power supplies, and antennas for the city’s backup EOC at the new Fire Station 48. Seal Beach RACES is currently in the process of assembling its new operating console there. Initially they are installing a Yaesu FT-8900R 10-m/6-m/2-m/440-MHz radio, a Yaesu FT-8800R 2-m/440-MHz radio, two Samlex SEC-1235M power supplies, one Diamond V2000A 6-m/2-m/440-MHz antenna for the FT-8900R, and one Diamond X-50NA for the FT-8800R.

They are also installing a new EOC-EOC radio and antenna for the OA1 system with the capability to operate on the OA2 school frequency if needed. All this should be operational sometime in February.

Further, Seal Beach RACES is installing a permanent ATV beam antenna on top of the lifeguard tower at the Seal Beach pier, pointed at their equipment at the Seal Beach Police Department, to which to connect their portable ATV transmitter if needed. This should give them a P5 signal from the beach area at the PD, according to Chief Radio Officer Mike Maronta, KC6YNQ. This system was expected to be operational by the end of January 2011.

Seal Beach RACES also tested a 2.4-GHz wireless camera link for video and audio for the ATV system, to allow movement around the beach, Seal Way, and Main Street, transmitting back to the pier and then via the regular link to the PD. The 300-mW output gives about a 0.5-mile range, line of site.

**Westminster**

Because of health issues, Al Toll, W6JNU, has resigned as the Westminster RACES Radio Officer. At the January 26th Westminster RACES meeting, Chi Nguyen, KE6MVS, was selected as the new Radio Officer. Al says, “Chi is very technically competent and participates in all our activities. He is most certainly qualified to be the Radio Officer.” OCRACES wishes Al all the best, and we appreciate his many years of excellent service to Westminster RACES as well as to the County.

**Orange County**

Tom McDermott, KC6TEK

Silent Key

It is with great sadness that we announce the death of former OCRACES member Tom McDermott, KC6TEK. Tom died on January 25, 2011, at the age of 59, after losing his battle with brain cancer. After leaving OCRACES several years ago, Tom served with Mesa Emergency Service Amateur Communications (MESAC), the Costa Mesa RACES unit.
February 2011

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Upcoming Events:

- **Feb 7:** Closed OCRACES Training Meeting, 1930, Orange County EOC, Loma Ridge
- **Feb 12:** EmComm Breakfast, 0800, Katella Grill, 1325 W. Katella Ave., Orange
- **Feb 28:** Southwest ACS frequency/radio test, 2015
- **Mar 8:** SONGS Dress Rehearsal, Orange County EOC
- **Mar 26:** Swallows Day, San Juan Capistrano
- **Apr 12:** SONGS Graded Exercise, Orange County EOC
- **Apr 16-17:** Baker to Las Vegas Challenge Cup Relay
- **Sep 9-11:** HAMCON 2011, Marriott Torrance South Bay

County of Orange RACES Frequencies

- **10 m:** 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL (disabled)
- **6 m:** 52.620 MHz output, 52.120 MHz input, 103.5 Hz PL (disabled)
- **2 m:** 146.895 MHz output, 146.295 MHz input, 136.5 Hz PL*
- **2 m:** 147.480 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:** 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)
- **23 cm:** 1282.025 MHz output, 1270.025 MHz input, 88.5 Hz PL

*Primary Net—Mondays, 1900 hours

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.

Program Coordinator
Marten Miller, KF6ZLQ
(714) 704-7917

Chief Radio Officer (Captain)
Ken Bourne, W6HK
(714) 997-0073

Radio Officers (Lieutenants)
Scott Byington, KC6MMF
Harvey Packard, KM6BV
Ralph Sbragia, W6CSP

Assistant Radio Officers (Sergeants)
Jack Barth, AB6VC
Chuck Dolan, KG6UJC
Jim Carter, WB6HAG
Ernest Fierheller, KG6LXT

County of Orange RACES
OCSD/Communications & Technology
Telephone – (714) 704-7917
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840 N. Eckhoff St., Suite 104
E-mail – ocraces@comm.ocgov.com
Meet your County of Orange RACES Members!

Ken Bourne
W6HK

Scott Byington
KC6MMF

Harvey Packard
KM6BV

Ralph Sbragia
W6CSP

Marten Miller
KF6ZLQ

Robert Stoffel
KD6DAQ

Jack Barth
AB6VC

Jim Carter
WB6HAG

Chuck Dolan
KG6UJC

Ernest Fierheller
KG6LXT

Randy Benicky
N6PRL

Bill Borg
KG6PEX

Nancee Graff
N6ZRB

Ray Grimes
N8RG

Walter Kroy
KC6HAM

Martin La Rocque
N6NTH

Brian Lettieri
KI6VPF

Kenan Reilly
KR6J

John Roberts
W6JOR

Joe Selikov
KB6EID

Tom Tracey
KC6FIC

Brian Turner
KI6WZS

“W6ACS ... Serving Orange County”