Captain’s Corner
by RACES Captain Ken Bourne, W6HK, Chief Radio Officer

AUXCOMM

During the weekend of May 2-3, 2015, I attended a 20-hour Auxiliary Communications (AUXCOMM) training course in San Marcos, given by the U.S. Department of Homeland Security, Office of Emergency Communications. Over the next few issues of NetControl, I will share the course material with you, which covers:

- The Communications Unit and Emergency Operations Center (EOC)
- AUXCOMM Roles and Responsibilities
- Interoperable Communications
- Incident Radio Communications Plan
- Incident Communications Center (ICC)
- Team Management and Responsibility
- Resources
- Dos and Don’ts
- Interstate and Intrastate Radio Networks

The following information is taken from the introductory material to the AUXCOMM training course.

The National Emergency Communications Plan (NECP) 2014 refers to “…volunteer organizations such as Community Emergency Response Teams (CERT) and Auxiliary Communications (AUXCOMM) volunteers (e.g., amateur radio operators [hams])…. Today, nearly all the States and territories have incorporated some level of participation by amateur radio auxiliary communications operators into their TICPs (Tactical Interoperable Communications Plans) and SCIPs (State Communications Interoperability Plans); this allows them to quickly integrate the operators into response efforts, which can strengthen communications and operations during incidents of any scale.”

Auxiliary Communicators are one of many Technical Specialists that may be called upon to support the National Incident Management System (NIMS). The Incident Commander has the final authority as to where the auxiliary communications (AUXCOMM) personnel will reside within their command.

The goal of this 20-hour course was to provide instruction to AUXCOMM volunteers so that their individual and organizational efforts/expertise are appropriately integrated into the public safety/service communications support environment in the Auxiliary Communicator’s role:

- Provide alternate communications in cases where local services have failed
- At emergency incidents/planned events/training exercise
- Within the emergency management structure (EOCs, etc.)
- Supporting communications with other organizations (Red Cross, Salvation Army, etc.)

The purpose of the course was to:
- Enable an AUXCOMM volunteer

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- Educate the Auxiliary Communicator on how to work in a NIMS/ICS environment under the direction of the Communications Unit Leader (COML) or at an EOC under the direction of the EMA Director or designee
- Standardize basic AUXCOMM procedures that can be used either within a state or between states
- Educate volunteers on how to work closely with the public-safety community so that communications between the two will be interoperable
- Identify the functions, duties, and responsibilities of the Auxiliary Communications Manager (ACM) and the Auxiliary Communicator
- Arrive at an incident appropriately dressed, equipped, ready to gather information to assess the assignment, and begin initial planning

- Plan, organize, staff, direct, control, and demobilize the Auxiliary Communications Unit (ACU) in a safe and effective manner
- Coordinate with incident sections, communications personnel, and other agencies to accomplish incident objectives
- Design, order, and ensure the installation, operation, and maintenance of all auxiliary communications systems
- Maintain accountability of assigned communications equipment

Next month we will discuss the Communications Unit and Emergency Operations Center (EOC).

Navy-Marine Corps MARS Program to End

The U.S. Department of Defense (DOD) is phasing out the U.S. Navy-Marine Corps Military Auxiliary Radio System (MARS) program. Its operational mission will transition to the other MARS service branches by the end of September. The head of the U.S. Navy-Marine Corps MARS program in Williamsburg, Virginia, made the announcement. The Navy-Marine Corps MARS program also supports the U.S. Coast Guard as well as the Federal Emergency Management Agency, the U.S. Department of Homeland Security, and local emergency management agencies. A U.S. Department of Defense-sponsored program, MARS branches are separately managed by their respective military service branches. MARS volunteers are amateur radio operators who provide auxiliary or emergency communications to local, national, and international emergency and safety organizations, as an adjunct to normal communications.

“Naval Computer and Telecommunications Area Master Station Atlantic (NCTAMS LANT) intends to work with U.S. Army MARS and U.S. Air Force MARS in transitioning the Navy-Marine Corps MARS (NAVMACORMARS) program by 30 Sep 2015,” the announcement said. “The intent of the transition is to best align the program to support national mission requirements.” Chris Jensen of NCTAMS LANT told ARRL that the Navy no longer has any service specific requirements for Navy-Marine Corps MARS and is working within DOD to transition the program into Army and Air Force MARS. “We will continue to publish updates as this transition progresses,” he said.

The announcement encouraged current Navy-Marine Corps MARS members and clubs to submit applications to the U.S. Army MARS or U.S. Air Force MARS programs as soon as possible.

“The U.S. Navy greatly appreciates the thousands of MARS volunteers, past and present, who have been integral to the success of MARS,” the announcement concluded.

One individual who is very familiar with the MARS program said the change was not unexpected and came to a head as the U.S. Strategic Command embraced Army MARS as the lead branch for contingency communication and Air Force MARS began partnering with the U.S. Army program on the operations side.

“The Army and Air Force MARS branches have an obvious role in providing contingency communications for the 50 states,” said the individual, who preferred not to be cited by name. “Members are everywhere ‘on the ground,’ and experience in Afghanistan and Iraq has proven the tactical usefulness of HF on land. There was no similar role for the land-locked membership of Navy-Marine Corps MARS.” He said the MARS program can use all the volunteers it can attract and hopes the Navy-Marine Corp MARS volunteers will join one of the other MARS branches.

Army MARS Program Manager Paul English, WD8DBY, echoed those sentiments. "Navy leadership will continue to stay engaged with the MARS services to support the DOD quarterly exercises and other training missions and requirements as they are identified," English said. "Both Army and Air Force leadership is committed to making the transition process from the Navy MARS program as smooth as possible. Navy volunteers in good standing will transition as full members; they will not have to start over."
June 1st OCRACES Meeting: Field Day

The next OCRACES Meeting is on Monday, June 1, 2015, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting we will discuss our Field Day plans. Kenan Reilly, KR6J, led the effort to procure a 40-meter element for our Cushcraft A-3S triband beam (which was donated to OCRACES a few years ago by Jim Carter, WB6HAG), to be used at Field Day. On Saturday, May 23rd, Kenan, along with Bob McFadden, KK6CUS, Fran Needham, KJ6UJS, Ken Tucker, WF6F, and OCRACES Applicants Roger Berchtold, WB6HMW, and Dennis Brunning, KC6NVX, put the antenna together and installed it on our Will-Burt push-up mast next to the OCRACES van in the Eckhoff parking lot. They ran SWR tests and got the antenna ready for Field Day (June 27-28, 2015, at Craig Regional Park in Fullerton). We will be located at approximately the same spot in the park as last year, and we have also been given the use of a picnic shelter. A large trailer will also be provided for our operation. We plan to run as a 2A entry, for ease of setup and teardown. This category allows a “free VHF station,” which we plan to operate on 6 meters.

K6IBH Hides in Irvine

SART/COAR Member Kathleen Nelson, K6IBH, was the fox on the cooperative T-hunt held on Monday, May 11, 2015. She hid at the Northwood Town Center Shopping Center, near the corner of Yale Avenue and Irvine Boulevard, in Irvine. She placed the fox box on a table on a grassy mound near Del Taco, where she and most of the hunters enjoyed a snack and conversations after the hunt. The fox box transmitted on 146.295 MHz, which is the input of the OCRACES 146.895 MHz repeater, while hunters compared bearings via the 449.100 MHz repeater, aided by a due-east bearing from the Costa Mesa home of Gordon West, WB6NOA.

The first hunter to find the fox was OCRACES Sgt. Bob McFadden, KK6CUS. Within the next few minutes, OCRACES Capt. Ken Bourne, W6HK, arrived with his son Don, KB6TVK. Next to arrive was Ron Allerdice, WA6CYY, from Costa Mesa. The fourth hunting team to arrive consisted of MESAC Assistant Radio Officer Patrick Williams, KJ6PFW, MESAC Member Eric Bowen, W6RTR, and Huntington Beach RACES Member Bill Rose, KA6HMS.

The next cooperative T-hunt will be held on Monday, June 8, 2015, immediately following the OCRACES 2-meter net (approximately 7:20 PM). This time, the fox will transmit on the input (444.100 MHz) of the 449.100 MHz repeater. Hunters will compare bearings via the 146.895 MHz repeater, and are encouraged to beacon their positions via APRS throughout the hunt. David Corsiglia, WA6TWF, will be the fox, and he will hide in the city of Fullerton, north of Bantanchury Road. His location will be on paved, publicly accessible property. No fees will be required to drive directly to the fox.

The cooperative T-hunts provide excellent practice in working together to find the source of interference. 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 for 2 meters and 70 centimeters from Arrow Antenna and HRO. A 4-MHz offset attenuator, also available from Arrow Antenna and HRO, 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). Other useful tools are the Foxhunt app for iPhones and the Triangulate app for Android phones. For some good information on T-hunting, see http://www.homingin.com.
May 2nd Drill Focuses on 7.2 Earthquake

The bi-annual City/County RACES & MOU drill took place on Saturday, May 2, 2015. The scenario was a 7.2 magnitude earthquake that occurred at 0850 along the Newport Inglewood fault, centered in San Diego and rupturing north towards Orange and Los Angeles Counties. The Orange County coastal and near-coastal cities felt strong to severe shaking while the rest of the County experienced strong shaking for a period of 2 minutes. Immediately after the shaking stopped, existing emergency response measures were implemented.

Sergeants Tom Tracey, KC6FIC, and Ernest Fierheller, KG6LXT, were assigned to lead the OCRACES members, organize messages, and maintain documentation. Both officers executed their duties very well. The drill was organized into different exercise options, including general messages, simplex contacts, Winlink operations, and HF NVIS communications. A total of 18 City and MOU units participated while 12 OCRACES members and applicant staffed the County EOC RACES Room on Loma Ridge to handle message traffic using the ICS 213 message form. Participating City RACES units included Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach Irvine, Laguna Niguel, Laguna Woods, Los Alamitos, Mission Viejo, Orange, Placentia, Seal Beach, and Westminster. MOUs included American Red Cross and the Hospital Disaster Support Communications System (HDSCS).

Participating OCRACES members included Sgt. Jack Barth, AB6VC, John Bedford, KF6PRN, Randy Benicky, N6PRL, Bill Borg, KG6PEX, Lt. Scott Byington, KC6MMF, Sgt. Ernest Fierheller, KG6LXT, Sgt. Bob McFadden, KK6CUS, Fran Needham, KJ6UJS, Lt. Harvey Packard, KM6BV, Kenan Reilly, KR6J, Sgt. Tom Tracey, KC6FIC, and Tom Wright, KJ6SPE. Also operating was OCRACES Applicant Roger Berchtold, WB6HMW. Emergency Communications Manager Delia Kraft, KR6AFT, composed replies to the messages received at the EOC during the drill. HDSCS Assistant Coordinator Ken Simpson, W6KOS, operated at Position 2 in the RACES Room. General messages were handled on County, City, and MOU repeater and simplex frequencies on 2 meters and 70 centimeters.

Sergeants Bob McFadden and Jack Barth, AB6VC, operated the Winlink station, and exchanged messages with Costa Mesa, Mission Viejo, Fountain Valley, Seal Beach, Brea, Fullerton, Irvine, Orange, Westminster, Cypress, and Laguna Woods.

Randy Benicky, N6PRL, ran the HF net on 7250 kHz, assisted by OCRACES Applicant Roger Berchtold, WB6HMW. The objective was to test 40-meter propagation throughout Orange County in the event of repeater failure during an extended power outage. No message traffic was handled on HF. City RACES units that participated in the 40-meter net included Cypress, Fountain Valley, Fullerton, City of Orange, and Westminster. All units exchanged signal reports and antenna polarity with each other.
**OCRACES Participates at “Surf Quake 2015”**

“Surf Quake 2015,” a countywide earthquake exercise, was conducted by the Orange County Operational Area on Thursday, May 21, 2015. At the Orange County EOC, player registration occurred at 0830, and they were briefed at 0850. The exercise started at 0900 and ended at 1200, followed by a hot wash. The OCSD Communications & Technology Division filled the Communications Alert and Warning Unit Leader position with Communications Technician II Peter Jimenez, K16UTE, and the RACES Support Supervisor position with OCRACES Chief Radio Officer Ken Bourne, W6HK. Other OCRACES Members participating included Radio Officer Harvey Packard, KM6BV, Fran Needham, KJ6UJS, and Joe Selikov, KB6EID. OCSD Emergency Communications Manager Delia Kraft, KR6AFT, was a Controller.

The scenario for this drill was a 7.2 magnitude earthquake that occurred the previous morning along the Newport-Inglewood Fault, centered in Huntington Beach and rupturing north. Strong to severe shaking was felt in Orange County coastal and near-coastal cities, while the rest of the County felt moderately strong shaking for 30 seconds to 2 minutes. Immediately after the shaking stopped, emergency response measures were implemented. A simulated 5.3 magnitude aftershock occurred at 2 AM on the day of the drill, with more aftershocks expected. Even though the National Tsunami Warning Center immediately issued a tsunami warning, there was no threat by the time of the drill. Many landline phone systems were unusable and the cell-phone towers that were still standing were overloaded. Ground motion and liquefaction caused widespread damage to buildings and infrastructure. Damaged homes and fires resulted in 5,000 persons being displaced. Numerous fires were said to be actively burning, along with numerous hazardous material issues and ruptured gas pipelines. Many bridges and highways were significantly damaged. Debris was blocking major roadways, obstructing first responders and the deployment of resources. Downed traffic signals caused gridlocked streets. More than 5,000 commuters and visitors were stranded on highways, trains, and airports. All commercial and general aircraft flights were said to be canceled at John Wayne Airport. Power was lost initially throughout the entire County, but, by drill time, some areas were restored except for much of the coastal and near coastal areas. Most residents along the coast were without water. All EOCs within the County were activated, according to the drill plan.

Joe Selikov handled traffic between the Orange County EOC and the Hospital Disaster Support Communications System (HDSCS), while Harvey Packard transmitted press releases on the OA1, OA2, and WEROC (Water Emergency Response Organization of Orange County) frequencies, as well as on the OCRACES 2-meter repeater. Throughout the transmissions, “This is a drill” was stated. Fran Needham monitored all OCRACES frequencies for incoming traffic. Early in the drill, OCSD Emergency Management Division asked Ken Bourne if communications with the Health Emergency Operations Center (HEOC) could be established. Joe Selikov responded immediately to the request and contacted HDSCS Coordinator April Moell, WA6OPS, on an HDSCS frequency. She facilitated contact between Joe and Roman Kamienski, KG6QMZ, who was assigned to HEOC. HDSCS was very busy with traffic for HEOC, Emergency Medical Services Department Operations Center (EMS DOC), and hospitals via the Catalina 2-meter repeater and other frequencies. HDSCS Assistant Coordinator was assigned to the EMS DOC. April strived to get the DOC or HEOC to send a request to the Medical Health Operational Area Coordinator (MHOAC), who was at the Orange County EOC during the drill.
RACES/MOU News from Around the County

Buena Park RACES

Congratulations to 12-year-old Daniel Eng, KK6REI, who holds a General Class amateur radio license. Daniel is the son of Buena Park RACES Chief Radio Officer John Eng, KI6BWU, who holds an Extra Class license. Other hams in the Eng family include David, KI6NQJ (Extra Class), Sarah, KI6UXK, Mary, KK6BMW, Elizabeth, KK6BVE, and Anna, KK6MRE.

Placentia RACES

Placentia Radio Officer Mark Garrett, KG6CAV, reported that since their primary simplex frequency (147.525 MHz) was reallocated by TASMA as the output for a repeater pair, Placentia RACES is now using 145.645 MHz as their primary simplex frequency.

Tri-Cities RACES and Mission Viejo RACES

The Tri-Cities and Mission Viejo RACES units supported the San Juan Capistrano Swallows Day Parade in March 2015. The units deployed Broadband-HamNet technology to provide real-time video camera coverage of the parade route to support the Orange County Sheriff’s Department.

Six parade cameras sent video across the radio data network to the Sheriff’s Department’s state-of-the-art Mobile Command Center, Samantha I.

Orange County Sheriff’s Administrative Sgt. Joseph Cope noted that “This mesh camera system provided by RACES members was a very valuable tool for our command staff. As we were taking the calls, we could see the activity taking place in real time.” In a meeting with city staff, he also stated, “The parade was the safest in years. Incredibly, there was only one arrest for fighting, which just happened to take place in the camera’s view.” There were two incidences where an ambulance response was needed. Each situation occurred in proximity to an IP camera, enabling the incident commanders to observe them in real time. Direct visual situational awareness of the event was “extremely valuable” to the Sheriff’s leadership.

Mission Viejo RACES has deployed this RF data “mesh” network in Mission Viejo EOC and will be linking up with Tri-Cities RACES in June. A data link connection will route-hop this WiFi Internet-like traffic through a relay node on Saddleback, then Krum Reservoir node site, and on to Tri-Cities locations. This will enable video, voice, e-mail (Winlink), and other data services to occur “off-grid” between City EOCs.

RACES members are developing their skill set by creating home and portable mesh node stations to deploy at future incidents and events. Participating in the Swallows Day Parade were Tri-Cities Chief Radio Officer Joe Lopez, W6BGR, Phil Greenberg, W6SOI, Drew Holtz, KI6IZD, Clark Croisette, KI6IZE, Gray Bickford, WA6BJY, and Mission Viejo RACES members Don Hill, KE6BXT, and Joe Ayers, AE6XE (who submitted this article).

For further details about this exciting technology, please visit the Amateur Radio Emergency Data Network (AREDN) Web site at http://www.aredn.org or contact Joe Ayers at AE6XE@soara.org. Joe is one of the developers helping to create AREDN.

AREDN video feeds, WA6BJY RACES Net Control, CERT, and San Juan Capistrano Chief of Police Services Lt. Scott Spalding (left to right) in work center of Samantha I command vehicle.
June 2015

Sun  Mon  Tue  Wed  Thu  Fri  Sat
1  OCRACES Meeting & Weekly 2 m ACS Net
2
3
4
5
6  Weekly 40 m ACS Net
7  Weekly 2 m ACS Net & Cooperative T-Hunt
9
10 11 Introduction to SEMS, NIMS, EOC Orientation
12 13 Weekly 40 m ACS Net
14 15 Weekly 2 m ACS Net
16
17
18
19
20 Weekly 40 m ACS Net
21 22 All-Band ACS Nets & SWACS Radio Test
23
24 WebEOC Orientation
25
26
27 Field Day
28 Field Day
29 Weekly 2 m ACS Net
30

Upcoming Events:

- **June 1:** OCRACES Meeting, 840 N. Eckhoff Street, Suite 104, Orange, 1930
- **June 8:** Cooperative T-Hunt, 1920; fox will transmit on input of the 449.100 MHz repeater, and hunters will compare bearings via the 146.895 MHz repeater
- **June 11:** Introduction to SEMS, NIMS, EOC Orientation, OC EOC, 1000-1200
- **June 23:** Southwest ACS Frequency/ Radio Test, OC EOC, 2015
- **June 24:** WebEOC Orientation, OC EOC, 1000-1200
- **June 27-28:** Field Day, Craig Regional Park, Fullerton
- **July 11:** Ham Jam, HRO Anaheim
- **September 11-13:** ARRL Southwestern Division Convention (HAMCON), Torrance Marriott South Bay Hotel, 3635 Fashion Way, Torrance

County of Orange RACES Frequencies

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequency Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 m</td>
<td>7250 kHz SSB (City/County/MOU Net—Saturdays, 1000 hours)</td>
</tr>
<tr>
<td>6 m</td>
<td>52.620 MHz output, 52.120 MHz input, 103.5 Hz PL</td>
</tr>
<tr>
<td>2 m</td>
<td>146.895 MHz output, 146.295 MHz input, 136.5 Hz PL*</td>
</tr>
<tr>
<td>2 m</td>
<td>147.480 MHz simplex</td>
</tr>
<tr>
<td>1.25 m</td>
<td>223.760 MHz output, 222.160 MHz input, 110.9 Hz PL</td>
</tr>
<tr>
<td>70 cm</td>
<td>446.000 MHz simplex</td>
</tr>
<tr>
<td>70 cm</td>
<td>449.100 MHz output, 444.100 MHz input, 110.9 Hz PL (private)</td>
</tr>
<tr>
<td>70 cm</td>
<td>449.180 MHz output, 444.180 MHz input, 107.2 Hz PL (private)</td>
</tr>
<tr>
<td>23 cm</td>
<td>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</td>
</tr>
</tbody>
</table>

*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.

**County of Orange RACES**

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Meet Your County of Orange RACES Members!