Responding to Terrorism

A terrorism attack will be the scenario for the City/County RACES & MOU drill on May 4th. (See article on page 5 of this issue.) Is this far-fetched? Not if you look at how amateur radio was utilized at the Boston Marathon on Monday, April 15, 2013, after terrorists detonated two bombs near the finish line.

More than 200 radio amateurs were providing a communications service for the Boston Marathon even before the bombs exploded. The following information, courtesy of ARRL, provides an example of how RACES members in Orange County might respond after a terrorist attack.

Steve Schwarm, W3AVE, who was the Amateur Radio Course Communication Coordinator and is associated with Marathon Amateur Radio Communications (MARC), a consortium of clubs and groups, said, “Within minutes, cell phone systems became overloaded and making phones calls and text messages was difficult. Amateur radio operators performed communication duties under duress and performed admirably. No amateur radio volunteers were injured on the course in this terrible act.”

Paul Topolski, W1SEX, Amateur Radio Finish Line Coordinator, said, “At the finish line net control, which was only 400 feet from the initial blast, we heard the explosion. I poked my head outside to confirm what I thought it was and saw the white smoke. We immediately knew what had happened and commenced a roll call of all ham operators and medical tents. State Police authorities initially ordered us to lock down and post a ham for security watch outside the net control trailer. Thankfully none of our people were hurt.”

After the explosion and roll call, Topolski said they began pulling together updates and sent the information via the Massachusetts Emergency Management Agency (MEMA) WebEOC software tool and provided updates via amateur radio. (OCRACES and City RACES members will get trained on WebEOC at the May 6th meeting at Loma Ridge.) Shortly after sending a few updates, both Boston Police and Massachusetts State Police gave the order for the tent area to be evacuated.

Across the course outside of the finish line after the bombings occurred, first-aid stations were consolidated to larger stations to pool runners for pickup and to keep runners warm. At the Heartbreak Hill first-aid station, amateur operators had a complete base-station setup, including a computer, and were prepared to handle health-and-welfare traffic. Several amateur radio operators from secured first-aid stations went to several shelters that were set up along the route at churches and schools, and provided communications in those areas until runners were moved out of their locations.

Net Control Center Coordinator Karen Brothers, K1KEB, kept in contact with MEMA, where Terry Stader, KA8SCP, sorted out the sheltering plan and reception centers for the runners and later transport of runners from shelter locations, and gave out MBTA bus and train information.
OCRACES Supports Baker to Vegas

OCRACES members did an outstanding job at the Baker to Las Vegas Challenge Cup Relay on April 13-14, 2013, supporting two OCSD running teams with voice communications and location reports via APRS. Members served as communicators/drivers in follow vehicles and as catchers/communicators (communicating with the follow vehicle). Members also staffed the communications command post in Pahrump. Lt. Ralph Sbragia, W6CSP, served as the OCRACES Coordinator for this event. Other members providing support included Sgt. Jack Barth, AB6VC, Randy Benicky, N6PRL, Sgt. Chuck Dolan, KG6UJC, Jim Dorris, KC6RFC, Martin La Rocque, N6NTH, and Sue Mickelson, KJ6LCJ. Also supporting our efforts was OCSD Emergency Communications Manager Delia Kraft, KF6UYW.

At approximately 1500 on Friday, April 12th, Chuck, Jack, and Martin arrived at Pahrump to set up the command post (CP) at the Best Western—Pahrump Station. One room was used as the CP and, on April 13th, they occupied an additional room for running-team shower facilities and a break room. Because of short staffing, Jack was assigned double duty at the CP and as driver/communicator for the OCSD Team 165 follow vehicle for legs 1 through 6. Accordingly, Chuck, Jack, and Martin arrived at Pahrump earlier than usual so they could set up the CP on Friday afternoon, to allow Jack time to attend a drivers’ meeting in Las Vegas at 1830 that evening. Immediately upon arrival, they commenced establishing their work station, bringing their computer on-line using the motel’s WiFi connection, installing antennas, and getting Jack’s APRS system up and running. By around 1700, all systems were “go” and Jack departed for Las Vegas. Jim also handled driving a support vehicle, and Sue was a communicator in a support vehicle.

The CP crew was able to track Teams 24, 165, and 171 from the start line at Baker, but soon after the race began lost contact with Team 165 and never again resumed APRS coverage. They did, however, have voice contact at leg 7 and again at legs 12 and 13. Teams 24 and 171 were tracked from the start until about 0100 on April 14th, when all tracking ceased from about legs 12 through 15-16. From that point on, they had only voice radio traffic between Las Vegas Command and their field vehicles, which was minimal.

By 0200, radio traffic was minimal and other stations (Shoshone and Pahrump alternate command) were beginning to stand down. At 0625 on April 14th, Ralph directed the CP to stand down. The tear-down was completed by 0730.

OCSD Emergency Communications Manager Delia Kraft, KF6UYW, and her husband Brian visited the CP on Saturday afternoon with a shopping bag full of snacks and drinks. Other OCRACES members who visited the CP included Randy Benicky, N6PRL, and his wife Lee Anne, KI6VUH, and his son Ryan, K6AVS, Jim Dorris, KC6RFC, and Sue Mickelson, KJ6LCJ. Randy and Lee Anne did their usual excellent job of driving and providing communications for the OCSD main team. Also visiting the CP was retired OCSD Emergency Communications Coordinator Walt Wilson, K7WWW (who supplied the photos for this article).

Ralph did his usual job of programming the APRS beacon boxes and making sure they were transmitting and being seen via the feed to the Internet, so members and those interested in the teams could view their progress along the race course. Ralph pulled his emergency communications trailer loaded with equipment to support the race. He and his son Giovanni installed wiring for the APRS tracking equipment, amateur radio transceiver, and follow-vehicle signage and lighting. He also programmed the equipment for the Arizona Attorney General team, which was supported by Walt.
Next OCRACES Meeting: May 6th at EOC

WebEOC will be the topic at the next County of Orange RACES meeting on Monday, May 6, 2013, at 7:30 PM. This meeting will be held at the Orange County EOC on Loma Ridge, and not at the usual Eckhoff Street location. OCSD Senior Emergency Management Program Coordinator Bryan Hovde, KD7CRA, will be the instructor. Seating is limited. In addition to the OCRACES members, we can accommodate up to 10 City RACES members. All those who plan to attend the May 6th WebEOC class at the EOC may enroll by contacting Chief Radio Officer Ken Bourne, W6HK, at w6hk@ocraces.org.

WebEOC is a locally configurable, Web-enabled incident and event management system used at the Orange County EOC and at city EOCs throughout the county. A PC running Internet Explorer 7 or later is required for logging into the OCSD system. With Internet access, emergency managers and first responders can enter and view incident information in WebEOC status boards from any location. It enables users to manage multiple incidents and daily events, assign and track missions and tasks, provide situation reports, manage resources, and prepare Incident Command System (ICS) and Incident Action Plan (IAP) reports.

City/County RACES & MOU Meeting: May 20th

The next City/County RACES & MOU meeting will be on Monday, May 20, 2013, at 7:15 PM. We will review the May 6th exercise at this meeting, and discuss how we can improve our drills as we look ahead to the October 5th drill. Each RACES unit and MOU agency is invited to give a brief report of recent activities at this meeting.

Net Exercise Is a Success

by OCSD Emergency Communications Manager Delia Kraft, KF6UYW

On April 1, 2013, at 1900, our net check-in began. I had planned an exercise that would test OCRACES members on their ability and speed in contacting other OCRACES members with little notice. When OCRACES is activated, it’s very common to have little notice. How quickly can we get the word out? The exercise was announced at the end of the net check-in, and I’m pleased to say that I began receiving responses from members immediately. The quickest was Scott Byington, KC6MMF, calling my office after receiving the request by Ralph Sbragia, W6CSP. Thanks to all who participated and thanks to Mission Viejo RACES who gave me this exercise idea.

APCO Conference Is a Volunteer Opportunity

As you may be aware, the largest national public-safety communications conference is coming to Anaheim this August. “APCO 2013” is being held at the Anaheim Convention Center and Anaheim Marriott Hotel on August 18-21, 2013. Adriana Spirescu from the Sheriff’s Communications & Technology Division is serving as the volunteer coordinator for this conference and is seeking volunteers who would like to serve in a variety of ways.

The purpose of this article is to make our RACES members aware of the volunteer opportunity. Volunteering is a great way to give back, be involved with a terrific event, and meet other individuals in the public-safety sector who will be attending from around the world. And, best of all, volunteers will receive a free day pass for each four hours of service, as well as a Volunteer Shirt. Certain meals will be provided for volunteers, consisting of breakfast and lunch on the day of service. Volunteers will serve in a variety of ways, including classroom monitors, staffing the registration desk, serving as ushers, and operating as a dispatcher in the command center.

A volunteer application is available if you would like to participate. If you have any specific questions about volunteering for this event, please contact Adriana at 714-628-7150.
FCC Seeks to Reassess RF Exposure Limits

On March 27, 2013, the FCC released a First Report and Order, Further Notice of Proposed Rulemaking, and a Notice of Inquiry (ET Docket Nos. 13-84 and 03-137). The documents seek to reassess the FCC’s RF exposure limits and policies, as well as to propose changes to the FCC’s rules regarding human exposure to RF electromagnetic fields. These proposed changes would affect the Amateur Radio Service (Part 97) rules.

In the 201-page document, the FCC noted that “[p]eriodic review of the government’s rules and regulations to ensure they have kept pace with current knowledge and changing needs is an important characteristic of good government, and we here will advance the process of providing a comprehensive review and modification, where appropriate, of this Commission’s various rules pertaining to the implementation of the National Environmental Policy Act (NEPA) requirements for environmental reviews, specifically those reviews related to health and safety of radiofrequency (RF) emissions from radio transmitters. Our actions herein are intended to ensure that our measures are compliant with our environmental responsibilities and requirements and that the public is appropriately protected from any potential adverse effects from RF exposure as provided by our rules, while avoiding any unnecessary burden in complying with these rules.”

The document is divided into three parts: a First Report and Order (First R&O) and a Further Notice of Proposed Rulemaking (FNPRM) in ET Docket No. 03-137, and a Notice of Inquiry (Inquiry) in a new docket, ET Docket No. 13-84. In the R&O, the FCC looks at several technical and semantic issues—initiated in 2003—to be revised and updated; in the FNPRM, the FCC proposes to further update and revise its procedures and treat all services equally.

In the Inquiry, the FCC seeks comments to determine whether its RF exposure limits and policies need to be reassessed. “Since consideration of the limits themselves is explicitly outside of the scope of ET Docket 03-137, we propose with the Inquiry to open a new docket to consider those limits in light of more recent developments,” the FCC said. “The Inquiry is intended to open discussion on both the currency of our RF exposure limits and possible policy approaches regarding RF exposure. We look forward to developing a complete record to determine whether the current rules and policies should remain unchanged, or should be relaxed or tightened.”

According to the FCC, mitigation matters are “post-evaluation procedures to ensure exposure limits are not exceeded, such as labels, signs, barriers, enforcement and occupational issues.” In its Notice of Inquiry, the FCC included clarifications related to the application of occupational exposure limits for devices and at fixed transmitter sites. The FCC noted that it “should be helpful to licensees to codify our earlier adopted policy with regard the use of occupational/controlled limits at Amateur Radio stations.”

This policy was first established in the RF Report and Order of 1996, but it was not incorporated in the rules at that time. It allows amateur stations to be evaluated “with respect to occupational/controlled exposure limits, as long as appropriate training and information has been provided to the amateur licensee and members of his or her immediate household. Other nearby persons who are not members of the amateur licensee’s household must be evaluated with respect to the general population/uncontrolled exposure limits.” The FCC will codify this policy by adding a paragraph as a new sub-section in Section 1.1310—radiofrequency radiation exposure limits—to its rules.

The FCC pointed out that one goal of the general exemptions from routine RF exposure evaluation proposed “is to avoid specific exemptions for particular services and ensure a consistent set of rules without exceptions.” With this in mind, the FCC is proposing to delete the special exemptions from evaluation in the Amateur Radio Service in Section 97.13(c) of its rules.

“We appreciate that Amateur Radio operators are knowledgeable about the appropriate use of their equipment, such that separation distances are likely to be maintained to ensure compliance with our exposure limits,” the FCC said. “However, since the existing amateur exemptions are based only on transmitter power and do not consider separation distance or antenna gain, exempt transmitting antennas that are unusually close to people could potentially lead to non-compliant exposure levels.” The FCC said that a separation distance of at least 24 feet would meet its proposed exemption criteria, “considering a currently exempt 50 W transmitter at VHF in accord with Section 97.13(c) and assuming an antenna gain of 6 dBi.”

The FCC noted that existing classification of amateur exposure as occupational “is consistent with use of our proposed general exemption criteria based on general population exposure limits because awareness of exposure greater than the general population limits is required in all occupational settings, including amateur households. Application of the general exemptions proposed here to Amateur Radio installations would preclude the possibility of overexposure and require further evaluation only when necessary, giving guidance for both fixed and mobile transmitting antennas.”

The FCC invited comments on how this would affect the amateur community.
A terrorism attack will be the scenario for the City/County RACES & MOU Drill to be held on Saturday, May 4, 2013, from 9:00 AM to 11:00 AM. County of Orange RACES, City RACES units, and MOU organizations (HDSCS, Orange County Chapter of the American Red Cross, and Orange County SKYWARN) traditionally participate by using radio equipment from their EOCs. By conducting this drill as an ACS exercise, all designated participants will be able to communicate directly with each other, regardless of whether or not an MOU exists. OCRACES will be the coordinating agency for this exercise.

During an actual activation, official messages would be generated and approved by designated Emergency Management personnel in the EOC. Accordingly, the Emergency Manager or designee from each participating city/agency is requested to prepare and/or approve several messages for their RACES/ACS personnel to send during this exercise. Considering the scenario for this exercise, messages should be prepared to reflect the possible needs public safety might have, such as structure protection, firefighting, traffic gridlock, road closures, evacuations, rescue operations, shelter needs, portable water procurement, hospital damage, etc. Other messages should include any resources a city can offer, such as care and shelter facilities or police/fire/public-works personnel and equipment. Messages should be addressed to Emergency Managers or similar, not to RACES units, or to particular hospitals, not to HDSCS. Having these messages already prepared will help expedite the flow of radio traffic during the two-hour exercise. We recommend that the ICS-213 general message form, as modified by Seal Beach RACES for incoming and outgoing messages, should be used by all participants in this drill, to ensure common radio traffic passing techniques. These forms can be downloaded from the OCRACES Web site at http://www.ocraces.org.

The simulated attack will occur in three different locations, including Mission Viejo Mall, a chemical plant in Anaheim, and Main Place Mall in Santa Ana. The “explosions” will have occurred during the late evening hours; therefore, the malls will be closed for business and the chemical plant will be operating with minimum staffing. The proximity of the Mission Viejo Mall explosion will have been responsible for a MetroLink train derailment. The chemical plant will have suffered a safety breach that created a widespread hazardous material spill. The incident will have rendered many phone systems unusable, due to the large call volume. Immediately after the explosions, existing emergency response have suffered a safety breach that created a widespread hazardous material spill. The incident will have rendered many phone systems unusable, due to the large call volume. Immediately after the explosions, existing emergency response have suffered a safety breach that created a widespread hazardous material spill. The incident will have rendered many phone systems unusable, due to the large call volume.

No major road closures will have been reported, although the Operational Area will still be receiving status updates from affected areas. More than 1.2 million tons of debris will have impacted roads and highways throughout the County. Downed traffic signals will have caused gridlocked streets throughout the region. The entire County will have initially lost power, but that will have been restored; however, rolling brownouts will be occurring. The EOC will have been activated to a level three, with all critical positions operational.

Three exercises will occur simultaneously during the two-hour exercise period. They will be identified as Exercise A—General Message Blitz, Exercise B—Simplex Relay, and Exercise C—ATV/SSTV. Participation in Exercise A and Exercise B will be required of all participants. Exercise C is optional for testing ATV and/or SSTV.

Agencies are welcome to add elements to their own internal participation if they wish, such as deploying personnel to field locations to conduct “damage assessment,” or to locate simplex relay points, for example.

The primary focus of Exercise A—General Message Blitz—will be communicating by voice between your EOC and surrounding city EOCs, as well as with MOU agencies and the County EOC, by sending and receiving general messages in accordance with the communications plan and participant expectations. (See the communications plan that was e-mailed to all agencies by OCSD Emergency Communications Manager, Delia Kraft, KF6UYW.) In addition to sending outgoing message traffic, each agency must have someone monitoring their primary channel for incoming message traffic. City/County RACES to City RACES voice traffic will be on the primary frequency as published in the January 2013 Official RACES Guidebook (“Yellow Book”). (Anaheim RACES will use their alternate repeater.) City RACES to County RACES voice will be on 449.100 MHz (-), 110.9 Hz PL, repeater (primary) or 146.895 MHz (-), 136.5 Hz PL, repeater (secondary). In addition, the 52.62 MHz (-), 103.5 Hz PL, repeater may be used for City-to-County or City-to-City EOC-to-EOC traffic. City RACES to HDSCS voice will be on the primary repeater, 146.970 MHz (-), 136.5 Hz PL, or as directed by HDSCS. Winlink messages may be sent to OCRACES at W6ACS-8@winlink.org direct on 145.05 MHz, or through the K6NBR-10 RMS site on that frequency. OCRACES UHF RMS sites include W6ACS-10, Loma Ridge, 431.475 MHz; W6ACS-11, Olinda, 431.125 MHz; and W6ACS-12, San Clemente, 431.075 MHz. ATV/SSTV voice coordination will be on 144.354 MHz simplex. SSTV video will be on the 449.180 MHz (-), 107.2 Hz PL, repeater. ATV video will be on 426.250 MHz simplex. See the communications plan for more details on Exercises A, B, and C.
Placentia RACES

After over 10 years leading the Placentia RACES unit, John McCauley, KD6PGC, has stepped down as President. The positions of President and Vice-President of Placentia RACES, holdovers from the 1980s Placentia "Radio Watch," have been abolished. Radio Officer Mark Garrett has assumed the responsibility of running Placentia RACES. Mark has been licensed for 13 years and holds a General Class license. He has served the city of Placentia as a member of Placentia RACES, participating in Earth Week Run, Placentia Heritage Parade, and City/County RACES & MOU drills for many years.

Tri-Cities RACES

13th Vision Quest Bike Ride
by Joe Lopez, W6BGR
Tri-Cities RACES Radio Officer
San Juan Capistrano

On Saturday, April 6, 2013, the Warriors Society held its 13th Vision Quest bike ride in the Santa Ana Mountains. With the cooperation of the National Forest Service and a successful search and rescue in Trabuco Canyon, we were told that were were a go for the race just 12 hours before race time.

We had 22 amateur radio operators stationed all over the mountain, starting at 4:30 AM until about 3:30 PM on Saturday.

We used two repeaters—one on 2 meters and one on 70 cm at high level. Simplex was used between units in the field as they needed to speak to each other.

Assignment sheets and copies of the entry and exit plan were provided to each of the three groups that comprised the 22 operators.

We had a Black Star Group, a Maple Springs Group, and an Ortega Group. They were named for the entry and exit gates they used to insure a safe event.

Two of our operators were volunteer medics who had full trauma bags and backboards supplied by the Warriors Society Mountain Bike Club.

Chris Vargas, KF6TKE, is the Executive Director of the non-profit group that does trail maintenance and access advocacy for mountain bikers on public lands.

Several conditions were in our favor. The weather was cool and comfortable for the riders on their 57-mile bicycle ride with over 12,000 feet of climbing.

The use of the OCRACES 2-meter repeater on Loma Ridge was a great asset for us, as it provided communications up the length of Silverado Canyon. This was critical because the canyon is a major entrance and exit into and out of the forest as well as the location of our first-aid station.

Only one injury was handled, with a rider going down and separating his shoulder and having to be escorted down the Motorway Trail that goes from the Main Divide to the canyon bottom near the Silverado Canyon Maple Springs gate. He was given a ride to his car and drove himself to get checked out. I saw him at the barbecue afterwards in a sling.

As the RACES Officer from Tri-Cities RACES in San Juan Capistrano, I served as the Logistics and Communications Director and coordinated the communications teams.
May 2013

Upcoming Events:

- **May 4:** City/County RACES & MOU Drill, 0900-1100
- **May 6:** OCRACES Meeting, 1930, OC EOC; WebEOC Class
- **May 11:** American Red Cross/Orange County MayDay
- **May 20:** City/County RACES & MOU Meeting, 1915, 840 N. Eckhoff Street, Suite 104, Orange
- **Jun 3:** OCRACES Meeting, 840 N. Eckhoff Street, Suite 104, Orange; demonstration by Peter Putnam, N6IE, of packet transmission and reception of text-based ICS-213 form using RMS Express software in peer-to-peer mode
- **Jun 22-23:** Field Day, Craig Regional Park, Fullerton
- **Aug 17-21:** APCO 2013, Anaheim Convention Center

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

10 m: 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL (off the air)
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: 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: Off the air until reprogrammed to new coordinated frequencies

*Primary Net—Mondays, 1900 hours

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It’s Where It’s @!

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