April 2014

Newsletter of the County of Orange Radio Amateur Civil Emergency Service

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April 7, 2014
1930 Hours

840 N. Eckhoff Street, Suite 104, Orange

Earthquake and Baker to Vegas Debriefing, plus Review of Forms

Orange County Sheriff's Department
Communications & Technology Division

Captain's Corner

by RACES Captain Ken Bourne, W6HK, Chief Radio Officer

Are You Prepared?

The magnitude 5.1 earthquake on Friday, March 28, 2014, was a wake-up call. (See article on page 2 of this issue.) How many of us are as prepared as we should be for another one at even greater magnitude?

Seismologists are saying that the Puente Hills thrust fault, which caused the March 28th quake centered in La Habra, has the potential of erupting with a shaker more devastating than the dreaded "Big One" on the San Andreas Fault.

The Puente Hills fault runs from the Chino Hills to downtown Los Angeles to Hollywood. A magnitude 7.5 earthquake along that fault would be more devastating than an 8-point shaker along the San Andreas fault in Southern California. USGS estimates that such a quake along the Puente Hills fault could cause 3,000 to 18,000 deaths and up to $250 billion in damage. They say a San Andreas 8-point quake would cause about 1,800 deaths

And what about the Newport-Inglewood Fault? It's a right-lateral fault that runs 47 miles from Culver City to Newport Beach and then out into the ocean. It is predicted to be capable of a magnitude 6.0 to 7.4 earthquake. On March 10, 1933, a magnitude 6.3 quake erupted, causing 115 deaths. Imagine the toll such a quake would take with today's population density!

Were you prepared for this activation, and will you be prepared for the next? Are you in ready access of a dual-band radio, including a well maintained radio and antenna at home, a mobile radio in your car, and a hand-held radio when you are away from your home or car? Do you carry your pager at all times, with a fresh battery? Do you have a current copy of the roster, squad assignments, net control assignments, roll call, and ICS 214 log form in ready access?

Is your home prepared for the next big earthquake? Here is what ReadyOC recommends for a basic home emergency kit:

- Water, one gallon per person per day for at least three days, for drinking and sanitation
- At least a three-day supply of non-perishable food
- Battery-powered or hand-crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- First-aid kit
- Whistle to signal for help
- Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towlettes, garbage bags, and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)
- Maps for Orange, Los Angeles, and San Diego Counties
- Cell phone with chargers

Other recommended items include disposable toilet bags, hygiene kit (toothbrushes, toothpaste, comb, shampoo, soap, and disposable razor), Mylar blanket, poncho, light sticks, and a metal or plastic camping set (forks, spoons, and knives).

RACES Activates for March 28th Earthquake

Earthquake-induced Landslide at 2110 hours on March 28th overturned this car on Carbon Canyon Road. ***(Courtesy Brea Police Department)***

It all began Friday night, March 28, 2014, at 2004 hours, when a 3.6 magnitude earthquake struck the La Habra/ Fullerton/Brea area. OCRACES Chief Radio Officer Ken Bourne, W6HK, and his wife Carol, N6YL, were sitting in the living room of Ray and Carol Grimes, N8RG and WB6VMH, in Rossmoor at the time, and didn't feel a thing. However, Ken was advised of the quake via tweets from LA QuakeBot, Large quakes LA, and OC Fire Watch, a couple of minutes later. Later, while driving home to Orange, Ken heard an excited call from Brian Turner, KI6WZS, on the OCRACES 2-meter repeater about a much stronger 5.4 magnitude (later downgraded to 5.1) earthquake in the same area, which had just struck at 2110 hours, with an epicenter 1 mile south-southeast of La Habra. Apparently the 2004 quake was a precursor to the 2110 quake, which was then followed by more than 200 aftershocks, including a 3.4 at 2111, a 3.6 at 2130, a 3.1 at 2237, a 3.4 at 0902 the next day, a 4.1 at 1432, a 3.3 at 22.51, a 3.1 at 2318, etc. Other OCRACES stations called Ken to give reports and advise of their availability, including Radio Officer Scott Byington, KC6MMF, Assistant Radio Officer Tom Tracey, KC6FIC, Ray Grimes, N8RG, Sue Mickelson, KJ6LCJ, and Fran Needham, KJ6UJS. The Brea RACES unit (Radio Officer Dick Bremer, WB6DNX) also called Ken.

Tom, KC6FIC, assumed net control duties at 2120. He then checked in OCRACES Radio Officer Ralph Sbragia, W6CSP, Assistant Radio Officer Bob McFadden, KK6CUS, John Bedford, KF6PRN, Randy Benicky, N6PRL (via 449.100 MHz to W6HK), Brian Lettieri, KI6VPF, and Applicant Tom Wright, KJ6SPE. Additional City RACES and MOU stations checking in included Cypress, Fullerton (K6FUL, with Radio Officer Gene Thorpe, KB6CMO), Irvine (Radio Officer Pete Bergstrom, K6PB), Newport Beach (Harry Wallace, KI6VVN), Placentia (Don McLaren, KB6FTI), and Westminster (Radio Officer Chi Nguyen, KE6MVS). At 2125, Scott, KC6MMF, gave scanner reports of structure fires, landslides in Carbon Canyon with an overturned vehicle, water-flow alarms, and Fire Department conducting windshield surveys). Mission Viejo (Bob McCord, K6IWA) reported at 2130 that their RACES unit had performed a quake net. Orange County SKYWARN (Coordinator Scott O'Donnell, WX6STO) reported at 2130 that they were activated. Red Cross (Coordinator Tom Woodard KI6GOA and Communications Activity Lead Dave Popko, AF6TN) at 2130 inquired about OC EOC activation and reported minor damage in Yorba Linda. At 2140 Red Cross reported full activation of their EOC. Also on frequency was OCSD Emergency Communications Manager Delia Kraft, KF6UYW. OCSD Communications & Technology Division Manager Robert Stoffel, KD6DAQ, communicated on the 449.100 MHz repeater.

Delia then advised Ken, W6HK, that OCSD Emergency Management Division was activating the Orange County EOC, and two OCRACES members were needed at the RACES Room. Ken informed Delia that Scott, KC6MMF, and Brian, KI6VPF, had volunteered to drive up to the EOC. He then advised net control (Tom, KC6FIC). At 2147, a level 3 page was sent to all members, to indicate that OCRACES was activated. Some of the above members checked in after that page. Scott, KC6MMF, arrived at the EOC and assumed net control duties from the RACES Room at 2217. Brian, KI6VPF, arrived at 2221.

At 2257, Hospital Disaster Support Communications System (Coordinator April Moell, WA6OPS) reported that they checked 20 hospitals and determined that communications were intact.

At 2310, Fullerton RACES reported a possible gas leak on three floors of St. Jude hospital.

At 0111 the next morning, Fullerton RACES reported that six two-person teams were patrolling and that individuals were being sent to the La Habra evacuation center.

At 0140, Tom, KC6FIC, arrived at the EOC, performed a shift change, and received pass-down information. Scott, KC6MMF, and Brian, KI6VPF, departed at about 0150.

At 0230 on March 29th, Tom, KC6FIC, concluded net control operations, and OCRACES was deactivated.

Next OCRACES Meeting: April 7th

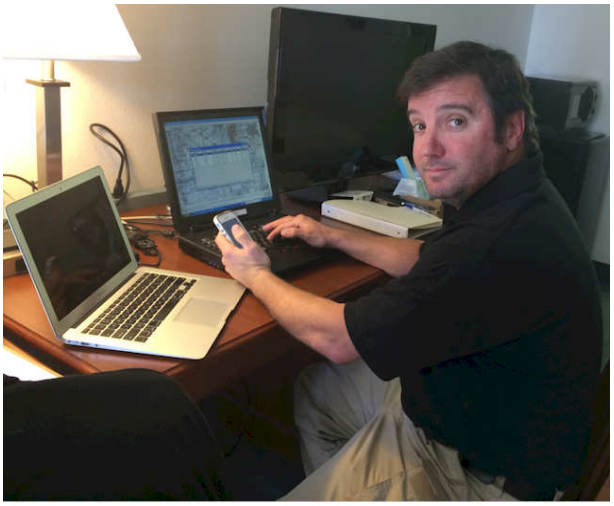
The next OCRACES meeting is on Monday, April 7, 2014, at 7:30 PM, at OCSD Communications & Technology Division, 840 N. Eckhoff Street, Suite 104, in Orange. At this meeting we will review our new and modified forms and have a debriefing of Baker to Vegas and of our March 28th earthquake activation, discussing what we did correctly, what went wrong, and improvements that we can make prior to the next activation. We will also begin our preparations for the next City/County RACES & MOU drill, scheduled for Saturday, May 3rd, from 9:00 AM until 11:00 AM.

Next City/County RACES & MOU Drill: May 3rd

The next City/County RACES & MOU Drill will be on Saturday, May 3, 2014, from 0900 to 1100 hours. OCRACES participation will be focused on our enhanced training program, led by Sgt. Tom Tracey, KC6FIC. We will be using some of the new forms he has developed for streamlined operations and message handling. The scenario for this drill is flooding in North County, with mutual assistance provided by South County City RACES units. The April 7th OCRACES meeting will include preparations for this drill.

OCRACES Supports OCSD Runners at B2V

County of Orange RACES members supported the OCSD running team during the Baker to Las Vegas Challenge Cup Relay on the weekend of March 22-23, 2014. OCRACES used a vehicle tracking system using APRS equipment in the follow vehicles. The tracker data was transmitted from these vehicles to a system maintained and operated by the B2V Communications Committee, where it then connected to the Internet. The OCRACES Command Post was set up at Pahrump, Nevada. Live race course coverage was viewable at http://b2v.findu.com. After race completion, equipment (roof signs, labels, radios, etc.) was removed at the Circus Circus KOA Kampground in Las Vegas.



RACES Sgt. Bob McFadden locates follow vehicle via APRS at the Pahrump Command Post.

Martin La Rocque, N6NTH, at the Pahrump Command Post communicates with the follow vehicle via a UHF repeater.

The APRS tracker box installation team arrived at Baker High School Friday night, March 21st, to begin installations at 0600 Saturday morning. RACES Lt. Ralph Sbragia, W6CSP, was the installation coordinator. Randy Benicky, N6PRL, provided team support. John Bedford, KF6PRN, rode in a follow vehicle.

At the Pahrump Command Post were RACES Sgt. Jack Barth, AB6VC, Martin La Rocque, N6NTH, RACES Sgt. Bob McFadden, KK6CUS, Sue Mickelson, KJ6LCJ, and Tom Riley, K6TPR.

2-Meter Repeater Activity Is Now Recorded

In support of OCRACES, OCSD Communications & Technology Division has added the OCRACES 2-meter repeater to a channel of the Stancil logging recorder at Loma Ridge. This will be advantageous for training purposes and during activations, if communications over a certain period need to be reviewed.

KJ6PFW and N6HAM Hide in Newport Beach

Patrick Williams, KJ6PFW, and Tom Pastore, N6HAM, from Costa Mesa RACES (MESAC) were the fox on the cooperative T-hunt Monday night, March 10, 2014. They hid at the end of Harbor Island Drive near the Balboa Yacht Basin, which caused some enjoyable challenges to the hunters. Some bearings seemed to indicate that the fox was on the south end of Balboa Island, and even farther south across Balboa Island North Channel on the Balboa Peninsula. After realizing that the fox was in neither location, some hunters proceeded down Bayside Drive in the Bayside Cove area and then realized a narrow channel near the Newport Beach Harbor Resources going into Promontory Bay separated them from the fox. Finally, all hunters arrived and found the fox in a nice big parking lot.

Patrick Williams, KJ6PFW (left), and Tom Pastore, N6HAM (red shirt), at their fox's den, with hunters Carol Bourne, N6YL, Bob McFadden, KK6CUS, and Ron Allerdice, WA6CYY (right).

Richard Saunders, K6RBS, and Mike Slygh, NM6X, with Tom Pastore, N6HAM, at the fox's den.

Bob McFadden, KK6CUS, tries a body-shielding direction-finding technique after finding the fox.

The first team to find the fox consisted of Richard Saunders, K6RBS, with Mike Slygh, NM6X, from Mission Viejo, at 2025 hours. Next was Ron Allerdice, WA6CYY, from Costa Mesa, at about 2030 hours. Coming in next, using his new Doppler direction-finding system, was Bob McFadden, KK6CUS, from OCRACES, at 2040 hours. The last team in, using an Arrow loop antenna, was Ken Bourne, W6HK, from OCRACES, with his wife Carol, N6YL.

The next cooperative T-hunt will be on Monday, April 14, 2014, immediately following the 2-meter OCRACES net. The fox will hide in a designated area (to be announced) of Orange County, and will transmit on the input (146.295 MHz) of the OCRACES repeater. Hunters will compare bearings on the 449.100 MHz repeater. This is an excellent exercise in working together to quickly find interference. Hunters are encouraged to beacon their positions via APRS and to use the "Foxhunt" iPhone app or "Triangulate" Android app. Direction-finding equipment can consist of a beam, quad, Doppler, loop, and/or step or offset attenuator.

Ken Bourne, W6HK, examines the fox's "gutter-mount" vertical antenna.

OCRACES Participates in Pacific Ex 2014

March 27, 2014, marked the 50th anniversary of the Alaskan Earthquake and Tsunami. In conjunction with this historic event, OCSD's Emergency Management Division conducted an exercise of the EOC to test response to a tsunami. Pacific Ex 2014 was held on that anniversary date, from 8:00 AM until noon. Targeted EOC positions were activated to ensure that all personnel were properly trained and comfortable in their position or roles.

Sue Mickelson, KJ6LCJ, and Tom Riley, K6TPR, participated in the exercise on March 27th. Prior to that, they participated in EOC Section Training on Tuesday, March 18th, from 10:00 AM until 11:30 AM. Net control from the RACES Room transmitted simulated messages during the exercise on the OCRACES 2-meter repeater and on OA1 and OA2 on VHF low band from the Motorola Centracom console.

Hams and Feds Engage in 5 MHz Joint Test

Amateur Radio operators and federal government stations are engaged in a 12-day nationwide test of their capability to communicate with each other on HF in the event of an emergency or disaster. The High Frequency Interoperability Exercise 2014 (HFIE-2014) is running concurrently with the federal National Exercise Program (NEP) 2014. Activity is taking place on two of the five 60-meter channels. The primary center-frequency channel is 5358.5 kHz, and the secondary center-frequency channel is 5373.0 kHz. Amateur radio is secondary to government users on the band. The joint readiness exercise that began March 27th will continue through April 7 and include all areas of the US. Participants will use Automatic Link Establishment (ALE), a standardized digital selective calling protocol, to establish communication between stations.

"The HFIE has been a semi-annual exercise for some years," explained HFIE-2014 Coordinator Bonnie Crystal, KQ6XA. "Previously, HFIE has been a ham-only exercise. This year, we scheduled HFIE so it coincides with the NEP."

Participation in the interoperability exercise is open to all ALE-capable federal government radio stations and to all ALE-capable US amateur radio stations. A Special Temporary Authorization (STA) has been granted, giving permission for radio amateurs to communicate with federal government stations for the duration of the exercise.

Crystal said ALE signaling "sounds like turkey gobble," adding that ALE calls last about 15 seconds. Stations listening "may also hear the operators then start talking on USB voice," she said. "The signals can be up to about 40 seconds long, if there's texting riding on it, using a very rapid type of ARQ [automatic repeat request] handshaking."

"Once someone links with another station, they have the choice of using SSB voice or sending/receiving up to about 80 characters of text," Crystal said. "Or they can switch to some other mode, such as CW or PSK or PACTOR."

ARRL Regulatory Information Manager Dan Henderson, N1ND, said the exercise offers an excellent opportunity for those amateurs with ALE capability. "It is a good exercise that highlights one of the key elements under which US amateurs were granted secondary status on the 60-meter band," he said. "The amateur community's ability to participate in an interoperability exercise with governmental communications is a great way to assess where things stand in this area—and to explore the next steps to take. We encourage those amateurs familiar with the ALE protocols and have the station equipment to participate in a meaningful way to do so."

Crystal said that in past years some hams who work for federal government radio systems have participated in HFIE during their off-hours as amateur radio operators. "We got together with some of them and worked out a way to enable federal stations to do some ALE interoperability testing on the 5-MHz channels with hams, since they already are authorized on the exact same channels as hams." Crystal said it was just a matter of getting the National Telecommunications and Information Administration (NTIA) and the FCC to allow hams and government stations to communicate. The STA was approved on March 24.

Federal government HF radio stations have the ALE capability built into the hardware. Amateur Radio operators implement ALE protocols using computer software with their ham gear. "The STA allows for on-the-air testing of interoperability between the hardware and software-generated ALE implementations," Crystal said.

The HFIE is a semi-annual ham radio readiness exercise coordinated by the HFLINK organization and the Global ALE High Frequency Network It is open to all ALE-capable ham radio stations. Technical and operational guidelines for ham and federal government stations are available on the HFIE-2014 Web site.

The National Exercise Program is a complex emergency preparedness exercise with activities sponsored by government departments and agencies, designed to educate and prepare the whole community for complex, large-scale disasters and emergencies. As part of the National Preparedness Goal, it enables a collaborative, whole community approach to national preparedness that engages individuals, families, communities, the private and nonprofit sectors, faith-based organizations, and all levels of government.

RACES/MOU News from Around the County

"RACES/MOU News" provides an opportunity to share information from all City & County RACES/ACS units and MOU organizations in Orange County.

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

w6hk@ ocraces.org

Tri-Cities RACES

Tri-Cities RACES Chief Radio Officer Joe Lopez, W6BGR, reports that they will be supporting the Warrior's Society Vision Quest on April 5, 2014, beginning at 5:30 AM. This Santa Ana Mountain bike race will begin from the end of Blackstar Canyon Road. Participants will ride across the Main Divide Road to and down the Silverado Trail (Motorway) to Aid Station #1 at Maple Springs. At this point they will follow Maple Springs Road to the Main Divide and Modjeska Peak and Santiago Peak, and then down to the Holy Jim Trail, which they will take to Aid Station #2 at the parking lot at the base of Holy Jim Canyon. They will then continue up Trabuco Road to the Trabuco Trail and the West Horse Thief Junction. They will hike up the West Horse Thief Trail to the Main Divide Road. From this point, they will ride across the Main Divide Road to the Trabuco Trail, which they will ride down to the Trabuco Creek Trail and Road. They will follow Trabuco Creek Road to the finish line at the intersection of Trabuco Creek Road and Trabuco Canyon Road. During this event, Tri-Cities RACES will use the OCRACES 2-meter repeater for some of their support communications until about noon, primarily to cover the length of Maple Springs Road.

Orange County SKYWARN

Orange County SKYWARN Coordinator Scott O'Donnell, WX6STO, sent the following update and news:

There has been some confusion in the past regarding SKYWARN. Although it is desired to have an amateur radio license as a method of communications, it should be noted that participation in the SKYWARN program does not, however, require an amateur radio license. SKYWARN was not conceived by, nor is it owned or operated by any amateur radio organization. More than half of all SKYWARN spotters are not licensed amateur radio operators.

As an NWS Spotter, you are assigned to Orange County SKYWARN, which is the Orange County operational area of the Southwest SKYWARN under the direction of the National Weather Service in San Diego. For more information visit http://www.nws.noaa.gov/skywarn/.

If you have passed the training, you are qualified to submit weather reports. You do not have to remember your spotter number to make a report. (E-mail Scott if you forgot your spotter number.) You can report weather outside Orange County as well.

The Orange County SKYWARN net is held every Tuesday evening at 1900 on the WARA repeater in the Fullerton hills, 145.400 MHz (-), 104.5 Hz PL. OC SKYWARN wants to improve coverage for the southern end of Orange County, for those who cannot reach the WARA repeater.

Hospital Disaster Support Communications System (HDSCS)

An electrical failure took down all telephones at Placentia-Linda Hospital on Saturday evening, December 28, 2013. The hospital switchboard operator used the facility's Call-up List to notify HDSCS of the problem and request communications backup. HDSCS member Dale Petes, KI6ANS, was first to be reached at 8:25 PM. Dale followed HDSCS procedures by first calling a Coordinator (April Moell WA6OPS) and then setting out for the hospital with his go-kit. By 8:56 PM, Dale was operational in the Hospital's Command Center, using his radio equipment and the hospital's rooftop antenna. As he was en route, three other HDSCS members, who were monitoring the main repeater, grabbed their go-kits and went to the hospital. By 9:20 PM, HDSCS operators were providing communications from the Command Center, Emergency Department, Intensive Care Unit, and switchboard. Fortunately, the telephone problem was repaired and the phones returned to operation around 10:05 PM. After a 30-minute wait to insure that everything was stable, HDSCS operations were secured. In addition to Dale, the responders to the hospital were Pete Martinez, K2PTM, Dahna Malheim, KK6FIH, and Dave Reinhard, KJ6REP. Net Control and Base Station was April Moell, WA6OPS. Ready in case an all-night response was needed were relief operators Paul Broden, K6MHD, Dave Conklin, KI6LYZ, Louie DeArman, K6SM, Tom Gaccione, WB2LRH, and Ken Simpson, W6KOS.

April 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5 Vision Quest
6	7 OCRACES Meeting & Weekly ACS Net	8	9	10	11	12
13	14 Weekly ACS Net & Cooperative T-hunt	15	16	17	18	19 Good Friday
20 Happy Easter	21 Weekly ACS Net	22	23	24	25	26 Newport Beach RAC-ES Drill
27	28 Weekly ACS Nets & SWACS Radio Test	29	30			

Upcoming Events:

- **Apr 5:** Vision Quest Mountain Bike Race (Tri-Cities RACES)
- **Apr 7:** OCRACES Meeting, 1930, 840 N. Eckhoff Street, Suite 104, Orange
- **Apr 14:** OCRACES Cooperative T-hunt, 1920, input of 2-m repeater (146.295 MHz), bearings compared on 449.100 MHz repeater
- **Apr 26:** Newport Beach RACES Drill
- **Apr 28:** OCRACES Nets on 2 m, 70 cm, 6 m, and 1¼ m, beginning at 0700, followed by CESN on 3960 kHz at 2000, followed by Southwest ACS Frequency/Radio Test at 2015, at OC EOC
- **May 3:** City/County RACES & MOU Drill, 0900-1100
- **May 19:** City/County RACES Meeting, 1915, 840 N. Eckhoff Street, Suite 104, Orange

www.ocraces.org

Mission Statement

County of Orange RACES has made a commitment to provide all Public Safety departments in Orange County with the most efficient response possible to supplement emergency/disaster and routine Public Safety communications events and activities. We will provide the highest level of service using Amateur and Public Safety radio resources coupled with technology, teamwork, safety, and excellence. We will do so in an efficient, professional, and courteous manner, accepting accountability for all actions. We dedicate ourselves to working in partnership with the Public Safety community to professionally excel in the ability to provide emergency communications resources and services.

County of Orange RACES Frequencies

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: 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

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Assistant Radio Officers (Sergeants)
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Ernest Fierheller, KG6LXT
Bob McFadden, KK6CUS
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"W6ACS ... Serving Orange County"

Meet your County of Orange RACES Members!

Ken Bourne W6HK | Scott Byington KC6MMF | Harvey Packard KM6BV | Ralph Sbragia W6CSP | Delia Kraft KF6UYW | Marten Miller KF6ZLQ | Robert Stoffel KD6DAQ

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