

January 2015



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Captain's Corner

by RACES Captain Ken Bourne, W6HK, Chief Radio Officer

Inside this issue:

Captain's Corner	1
OCRACES Meeting	3
Cooperative T-Hunt	3
December Storms	4
Holiday Dinner	5
RACES/MOU News	6
Events Calendar	7
Meet Your Members	8

The Internet Is Not Your Friend

The recent hacking attack on Sony Pictures wakes us up to the vulnerability of corporate and government networks connected to the Internet, and even of the Internet itself. If the Internet goes down, either because of overload from a major disaster in Southern California, or because of a deliberate cyberattack by a foreign or domestic enemy, commerce and our economy could collapse, and our communications infrastructure would rely more on good old-fashioned two-way radio, including amateur radio and RACES.

It appears that cyberdefenses are not very good. An FBI official at a recent congressional hearing estimated that the tactics used in hacking into Sony would have evaded 90 percent of the federal government's cyberdefenses. Should we assume that city and county government, as well as corporate, cyberdefenses are any better than federal?

Hacking groups, including some that are government-sponsored, have been accessing or attacking financial institutions, private corporations, infrastructure (including the power grid), and the military.

The FBI said on December 26th that North Korea was responsible for the attack on Sony. Some cybersecurity experts doubt that, because of North Korea's small size and lack of knowledge. Furthermore, a former female Sony employee by the name of "Lena," with ties to the so-called "Guardians of Peace" hacking group claiming responsibility for the hack, is being

blamed by hacking expert Marc Rogers, the director of operations for DEF CON, the world's largest hacker conference, and the primary researcher of security for global CDN and DNS provider CloudFlare. An "inside job" such as this is possible in any corporation or government agency, and we must stay alert for anything or anyone that appears suspicious (especially someone who is disgruntled).

If "Lena" and the Guardians of Peace did arrange the cyberattack on Sony, it would mean the FBI was wrong in accusing North Korea, although it's possible that Guardians of Peace collaborated with the North Korean government. Even if North Korea was directly involved, it might not be considered an act of cyberwar, because it was not aimed at the infrastructure or the economy or the military.

Cyberwarfare has begun, and will only get more complex and more devastating. It is being waged by China, Russia, Ukraine, Syria, Iran, North Korea, Israel, and others, including the United States. North Korea's recent loss of the Internet is being attributed to the United States, although that has not been proven.

The most famous act of cyberwarfare is "Stuxnet." This complex computer worm, discovered in 2010, sped up the centrifuges at Iran's nuclear enrichment center, and was undetected for 17 months. This temporarily disabled one-fifth of the centrifuges, and set back Iran's nuclear program by two years. The United States and Israel developed the worm together, according to former NSA contractor Edward Snowden.

**The Next
OCRACES
Meeting Is**

**January 5, 2015
1930 Hours**

**840 N. Eckhoff Street,
Suite 104, Orange**

**Disaster Mitigation
Site Hardening
by Ray Grimes, N8RG**



Orange County Sheriff's Department
Communications & Technology Division

Continued on page 2

Captain's Corner *Continued from page 1*

NBC News recently summarized a number of incidents of cyberattacks. For example, in 2013, Iran reportedly retaliated against the United States by assaulting our energy firms. They apparently gained access to software that controls oil and gas pipelines. In 2012, Iran reportedly launched a cyberattack against Saudi Aramco, knocking 30,000 of the Saudi Arabian oil firm's computers offline.

In 2010, Google disclosed that a series of attacks called "Operation Aurora," believed from China, went after Google, Northrop Grumman, Morgan Stanley, Symantec, and others. Google said evidence pointed to hackers trying to access the Gmail accounts of Chinese human-rights activists.

In 2013, the "Red October" cyber-espionage ring was uncovered in Russia. The malware targeted government agencies, embassies, research institutions, energy companies, infrastructure, and others, mostly within the former Soviet Union but also around the world. Kaspersky Lab, a Russian security firm, suspected Russian-speaking operatives working with Chinese hackers to launch the malware, which had been spreading for five years.

In 2013, the Syrian Electronic Army, a pro-government group, launched multiple cyberattacks against governments and media it perceived to be against Syrian President Bashar al-Assad, including the *New York Times* and communications tools that Syrian activists used, including Skype, Tango, and Viper. The group compromised the Associated Press's Twitter account and posted a message saying President Obama had been injured in an attack on the White House.

Two major cyberattacks were uncovered in November 2014. Symantec reported that about half of the attacks by the complex Regin malware targeted "private individuals and small businesses," and about half of the targets were in Russia and Saudi Arabia. Symantec said the complexity pointed to a state-sponsored attack, and other experts suspected it was an American-British project. Kaspersky Labs unveiled the Darkhotel espionage campaign in November, which for seven years targeted Internet users in luxury hotels. The malware appears to be linked to a South Korean coder, and is still active.

Not only is the Internet insecure, it also is not safe. We must be increasingly careful what we send in our e-mails. Leaked Sony e-mails have caused extreme embarrassment to the corporation and its executives, and have damaged Sony's status within the industry. Think what would happen if a hacker got into any of the corporate or government networks that you are associated with. Be careful what you send (including jokes) in e-mails to anyone in RACES or OCS. Don't embarrass yourself or

your agency.

It's advisable to change your e-mail passwords regularly. (The House of Representatives will soon require its members to change e-mail passwords every 60 days, and to use more complex passwords.) Occasionally we see a posting on the ocsd-races Yahoo! Group from someone with a hacked e-mail account or hacked computer. (Only group members are able to post to the Yahoo group, or OCRACES members to the members mailing list.) Never click on a link in a suspected e-mail, or your computer could get hacked as well. Regularly scan your computer with a good virus checker, and continuously run virus/malware protection software.

Also be careful what you post on Facebook and other social media. Those of us in a law-enforcement agency must limit or eliminate our social-media postings. After all, Facebook is an open book!

Law-enforcement personnel, whether sworn or not, are targets. We must assume that bad guys are searching for our vulnerabilities. Even using APRS for automatically indicating our locations could make us more vulnerable. Yes, APRS is a valuable tool for some missions such as Severe Fire Weather Patrols, and I am requesting all OCRACES members to install an APRS app on your smartphones (or have an over-the-air APRS beacon box), but please be discrete in your use of APRS. It is possible that we will insist that APRS not be used in some missions, if revealing our locations could jeopardize the security of those missions. APRS beacons are seen on various Internet sites such as <http://www.aprs.fi>, which anyone (even non-hams) can observe. Also consider what might happen if a home burglar sees your far-from-home beacon on aprs.fi. By the way, it's also a good idea not to mention your vacation plans over the air. Scanner-equipped burglars might delight in hearing your plans for being far away from home for a week or two. Also, don't mention on the air that a fellow ham is away on vacation.

Cybersecurity is a top priority in emergency planning. Infrastructures supporting first responders must be protected, including radio frequencies, computer systems, wireless technology, and power systems. Only trusted, key people should have access to the critical infrastructure that supports emergency operations. Passwords must be changed often. Our RACES backup communications systems must have redundancy and be able to function when all other systems fail. We must continue to test our redundant backup systems in countywide drills, including mock cyberattacks in the drill scenarios. Preparing for a cyberattack is essential. Shutting down power and computer systems during part of an exercise is recommended, to see how quickly we can adapt to the situation.

Next OCRACES Meeting: January 5th

The next OCRACES Meeting is on Monday, January 5, 2015, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. Our featured speaker will be Ray Grimes, N8RG, who will talk about disaster mitigation site hardening. Also at this meeting we will discuss our plans and goals for 2015. Members who wear their black OCRACES polo shirt to this meeting may have their picture taken for updating their photo on Page 8 of *NetControl*.

KJ6QOC from MESAC Hides in Costa Mesa

MESAC Member Terri Fuqua, KJ6QOC, was the fox on the December 8, 2014 cooperative T-hunt. She hid in an excellent location, Shiffer Park in Costa Mesa, situated in a “triangle” between Bear Street, I-405, and Route 73. Hunters had to drive northwest off of Bear Street on Yukon Avenue, and then back east on Tanana Place to the park. Strong reflected signals around South Coast Plaza and on the “wrong” side of the I-405 and Route 73 misled some of the hunters. With Terri were Theresa and Jim Drain, who are not hams but are Costa Mesa CERT volunteers.

The first hunter to find the fox was Richard Saunders, K6RBS/GØERY, from Mission Viejo RACES.

The second was Ron Allerdice, WA6CYY, from Costa Mesa. Coming in third was the MESAC team, including Tom Pastore, N6HAM, Patrick Williams, KJ6PFW, Bill Rose, KA6HMS (Huntington Beach RACES), Ted Bohrer, N7QY, and Patricia Shannon, KJ6CPI. Fourth was Bob McFadden, KK6CUS, from OCRACES. Scott O’Donnell, WX6STO, from Orange SKYWARN was fifth, and Ken Bourne, W6HK, from OCRACES was the sixth hunter to find the fox.

After the hunt, the hunters met at Coco’s Bakery Restaurant on Harbor Boulevard in Costa Mesa, and were joined by Gordon and Suzy West, WB6NOA and N6GLF.

The next cooperative T-hunt will be held on Monday, January 12, 2015, immediately following the OCRACES net on the 146.895 MHz repeater. The fox will begin transmitting at approximately 7:20 PM on the input of the repeater (146.295 MHz). Hunters will compare bearings on the 449.100 MHz repeater, and are encouraged to beacon their positions via APRS throughout the hunt. The fox will be John Bedford, KF6PRN, hiding in the area of Costa Mesa.

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 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 or tune slightly off frequency when dealing with extremely strong signals. Some hunters use the DF2020T radio direction finder kit, 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/>.



At the fox’s den are (left to right) Scott O’Donnell, WX6STO (Orange County SKYWARN), Bob McFadden, KK6CUS (OCRACES), Ted Bohrer, N7QY (MESAC), and Ken Bourne, W6HK (OCRACES).



Gathering at Coco’s after the hunt included (left to right) Ron Allerdice, WA6CYY, Bob McFadden, KK6CUS, Bill Rose, KA6HMS, Tom Pastore, N6HAM, Patricia Shannon, KJ6CPI, Gordon West, WB6NOA, Suzy West, N6GLF, Scott O’Donnell, WX6STO, Ken Bourne, W6HK, and Ted Bohrer, N7QY.

OCRACES Activates for December Storms

December turned out to be a wet month—welcomed in drought-ridden California, but of so much concern in the burn area of Silverado Canyon that the Orange County EOC activated and so did OCRACES a couple of times.

At 0700 hours on Tuesday, December 2, 2014, the County of Orange Emergency Operations Center was activated and staffed with County agency representatives, to prepare for a voluntary evacuation of the Silverado Canyon burn area, due to potential flooding and debris flows. This voluntary evacuation had the potential to be upgraded to a mandatory evacuation if the storm became more intense. At the request of OCSD Emergency Communications Manager Delia Kraft, KF6UYW, OCRACES Chief Radio Officer Ken Bourne, W6HK, e-mailed a notice to all members at 1546 hours on December 1st that OCRACES would be activated the following morning at 0700 to provide communications from the EOC RACES Room in four-hour shifts until about 1900 hours. A “-2” page was sent to indicate the upcoming activation, and members called on the 2-meter repeater to indicate availability. Shifts were scheduled that evening, after the OCRACES Holiday Dinner.

The following morning, December 2nd, the EOC was activated, and the Public Information Hotline was staffed and ready to accept calls in regard to the rainfall in the canyon areas. All resources and support personnel were identified and ready to mobilize other areas of the EOC when needed. The National Weather Service warned that significant rainfall was expected from late morning through the evening. Evacuation routes could quickly become impassable due to mud, debris, or flooding. Homes against steep slopes that were burned during the Silverado Fire were urged to follow the voluntary evacuation. Beginning at 0800 hours, only residents were allowed to enter the areas under the voluntary evacuation. The American Red Cross opened a shelter at 0800 hours at El Modena High School in Orange for evacuated residents.

Capt. Bourne showed up at the EOC at 0700 on December 2nd, along with Tom Riley, K6TPR. The next four-hour (plus) shift was filled by Ken Tucker, WF6F. During that shift, Randy Benicky, N6PRL, came in and put in almost four hours. The next four-hour (plus) shift was filled by John Bedford, KF6PRN. During that shift, Fran Needham, KJ6UJS, came in and put in at least a couple of hours. At that time, Delia requested that the staffing be extended to 2300 hours. Radio Officer Scott Byington, KC6MMF, agreed to fill the 1900 to 2300 hours shift. At 1925, Capt. Bourne departed for home and left the operation in the capable hands of Lt. Byington.

Members were ready for field deployment and various duties at the EOC. However, not much was needed of them during this activation, other than reading a detailed press release on the OA1 and OA2 frequencies and the 2-meter repeater. As in any public-safety activity, much time can go by with relative calmness, when all of a sudden a dire situation occurs and the adrenalin flows. That dire situation did not occur during this situation, but our members were well prepared for it, and used the time to interface with each other and to practice using the equipment in the EOC RACES Room.

Capt. Bourne reported to the EOC the next morning, December 3rd, at 1000 hours, and found that it had not been re-staffed, due to the rain letting up. He notified all members by e-mail that the EOC was not activated.

On Thursday night, December 11, 2014, a strong storm was headed for Orange County, and it appeared likely that the EOC and OCRACES would be activated the next day. Chief Radio Officer Ken Bourne, W6HK, e-mailed all members, asking for their availability, and received an excellent response. Sure enough, at 0833 the following morning, Emergency Communications Manager Delia Kraft, KF6UYW, contacted Capt. Bourne and asked him to activate OCRACES and to schedule staffing until 2300 hours. Bourne sent a “-3” level page to the members and an e-mail, and worked on scheduling the many responses. Tom Riley, K6TPR, had earlier been notified that the EOC was activated, and was already at the EOC RACES Room by 0830. Bourne then set up additional shifts until 2300 hours for Fran Needham, KJ6UJS, Randy Benicky, N6PRL, Ken Tucker, WF6F, John Bedford, KF6PRN, Sgt. Bob McFadden, KK6CUS, and Sgt. Jack Barth, AB6VC. However, at about 1330 hours, the rain had let up enough that the EOC was deactivated and so was RACES, during Benicky’s shift. Bourne then sent a “-0” page to indicate deactivation (a procedure established after reviewing the previous activation’s deactivation process), and notified Tucker, Bedford, and Sergeants McFadden and Barth that they did not need to report for duty. Other members who had offered to serve during the activation included Bill Borg, KG6PEX, Kenan Reilly, KR6J, and Brian Turner, KI6WZS. Because so many had responded to the callout, short shifts were established and activated members did not need to spend a great deal of time away from family or work.



Some of the OCRACES members at the EOC RACES Room during the December 2nd rain activation included (left to right) Randy Benicky, N6PRL, Ken Tucker, WF6F, and Capt. Ken Bourne, W6HK.

OCRACES Celebrates at Holiday Dinner

OCRACES members and their family guests had a great time at the annual OCRACES Holiday Dinner on Monday, December 1, 2014, at 6:30 PM, at Ricardo's Don José in Orange. Joining in the celebration and making the fabulous arrangements (including an incredible chocolate curl cake from Rockwell's Bakery in Villa Park) was OCSO Emergency Communications Manager Delia Kraft, KF6UYW. Also from the OCSO Communications & Technology Division were Division Director Robert Stoffel, KD6DAQ, Assistant Director/Chief Engineer Joe Saddler, WA6PAZ, and his wife Rachele, KB6JIE, and Program Support Manager Denis Marin, K6OLU, and Judy. Delia presented several awards, including Officer of the Year to Assistant Radio Officer Bob



McFadden, KK6CUS, and Member of the Year to Randy Benicky, N6PRL. Attending with Randy was his wife Lee Anne, KI6VUH. Other OCRACES members at the Holiday Dinner were Assistant Radio Officer Jack Barth, AB6VC, and his wife Carolyn, John Bedford, KF6PRN, Chief Radio Officer Ken Bourne, W6HK, and his wife Carol, N6YL, Radio Officer Scott Byington, KC6MMF, Jim Dorris, KC6RFC, and Nancee Graff, N6ZRB, Walter Kroy, KC6HAM, and his wife Terey, Martin La Rocque, N6NTH, and his son Rod, KK6DBP, Sue Mickelson, KJ6LCJ, Fran Needham, KJ6UJS, and his wife Sharon and daughter Mona, Ken Tucker, WF6F, and his wife Vicki, and Tom Wright, KJ6SPE, and his wife Debi.

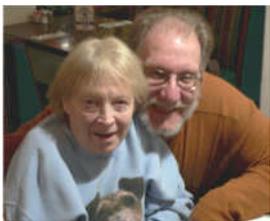


Officer of the Year Bob McFadden, KK6CUS.



Member of the Year Randy Benicky, N6PRL.

Other OCRACES members at the Holiday Dinner were Assistant Radio Officer Jack Barth, AB6VC, and his wife Carolyn, John Bedford, KF6PRN, Chief Radio Officer Ken Bourne, W6HK, and his wife Carol, N6YL, Radio Officer Scott Byington, KC6MMF, Jim Dorris, KC6RFC, and Nancee Graff, N6ZRB, Walter Kroy, KC6HAM, and his wife Terey, Martin La Rocque, N6NTH, and his son Rod, KK6DBP, Sue Mickelson, KJ6LCJ, Fran Needham, KJ6UJS, and his wife Sharon and daughter Mona, Ken Tucker, WF6F, and his wife Vicki, and Tom Wright, KJ6SPE, and his wife Debi.



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

Hospital Disaster Support Communications System (HDSCS)

HDSCS Assistant Coordinator Joe Moell, KØOV, reported that the next Southern California on-foot transmitter hunting session will be Sunday, January 11, 2015, at Schabarum Regional Park in Hacienda Heights. "It is intended for both beginner and intermediate level transmitter hunters. Try your hand at some easy two-meter transmitters set by Joe Moell KØOV, plus a five-fox 2-meter international-rules course of moderate difficulty, set by Marvin Johnston, KE6HTS. A fox transmitter on the 80-meter band may also be set up to try, as well as a Fox Oring course.

"This radio-orienteeing session is being combined with a classic orienteeing session of the Los Angeles Orienteering Club (LAOC). That's why it's on Sunday, not Saturday. Because Marvin has duties for LAOC during this event, there will not be an antenna and attenuator building workshop this time. However, if you want to pick up a kit for an antenna and/or attenuator to take home, contact Marvin by e-mail (marvin@west.net) and he will bring it to this event.

"Beginner transmitters will be on at 9:30 AM. The five-fox hunt will commence at 10 AM. Hunters may start out on the courses at any time until 12 noon. Courses close at 3 PM. Orienteering flags and electronic scoring will be used at each transmitter. If you have an "e-stick," be sure to bring it. For the full ARDF course, a small donation to cover expenses related to the use of Los Angeles Orienteering Club's expenses is requested. No donation is requested for the beginner course or the 80-meter transmitter hunt.

"If you have them, bring a handi-talkie, receiver, or scanner covering the 2-meter band for each person who will be going ARDFing. If you have directional antennas, attenuators, or other on-foot RDF equipment, be sure to bring those too. For those with no radio gear, some extra ARDF receiver/antenna sets will be available. All ages are welcome, but young children must be accompanied by an adult at all times.

"The starting point for the full ARDF course will be in a remote part of the park, so if you plan to take on that course, please arrive at the gathering area before 10 AM so we can transport that group to the starting point and do starts at five-minute intervals. Beginners will start from the gathering area and will not need to be transported.

"Schabarum Regional Park is on the south side of Colima Road, just east of Azusa Avenue in Hacienda Heights (Thomas Guide 678-G4). There is a vehicular entry fee for the park, so carpooling would be a good idea. Upon passing through the entry gate, drive south (straight ahead, don't turn right) and continue to the end of the road (about 0.7 mile), following the orange and white orienteeing flags and signs. Call KØOV on 146.52 MHz simplex if you have trouble finding the gathering area within the park.

"A map to the site is at <http://www.homingin.com>. If moderate-to-heavy rain is forecasted, check that page on Friday, January 10, 2015, for possible cancellation."

Orange County SKYWARN

The National Weather Service in San Diego activated Orange County SKYWARN on December 2, December 12, and December 17, 2015. Spotters were requested to report wind damage, rain total, urban flooding, debris flow, and any other significant weather via computer or by amateur radio. OC SKYWARN monitored the primary repeater at 448.040 MHz (136.5 Hz PL) on Santiago Peak.

Orange County/City/MOU

The 40-meter ACS net for members of County and City RACES and MOU units has become popular on Saturday mornings at 10:00 AM on 7250 kHz. OCRACES Chief Radio Officer Ken Bourne, W6HK, has been running the nets, but is looking for others to take turns being net control. They do not need to be OCRACES members. During the nets, we observe the fascinating variations of 40-meter propagation between areas of Orange County and beyond.

January 2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 <i>New Year's Day</i>	2	3 <i>Weekly 40 m ACS Net</i>
4	5 <i>OCRACES Meeting & Weekly 2 m ACS Net</i>	6	7	8	9	10 <i>Weekly 40 m ACS Net</i>
11	12 <i>Weekly 2 m ACS Net & Cooperative T-Hunt</i>	13	14	15	16	17 <i>Weekly 40 m ACS Net</i>
18	19 <i>Weekly 2 m ACS Net</i>	20	21	22	23	24 <i>Weekly 40 m ACS Net</i>
25	26 <i>City/County Meeting & Weekly 2 m ACS Net</i>	27	28	29	30	31 <i>Weekly 40 m ACS Net</i>

Upcoming Events:

- **January 1:** Happy New Year!
- **January 5:** OCRACES Meeting, 1930, 840 N. Eckhoff Street, Suite 104, Orange
- **January 12:** Cooperative T-Hunt, 1920
- **January 26:** City/County RACES & MOU Meeting, 1915, 840 N. Eckhoff Street, Suite 104, Orange
- **February 2:** OCRACES Meeting, 1930, OCFA, 1 Fire Authority Road, Irvine



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

40 m: 7250 kHz SSB (City/County/MOU Net—Saturdays, 1000 hours)
 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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Questions or Comments?
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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



Jack Barth
AB6VC



Jim Dorris
KC6RFC



Ernest Fierheller
KG6LXT



Bob McFadden
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Tom Tracey
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John Bedford
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Randy Benicky
N6PRL



Bill Borg
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Nancee Graff
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Ray Grimes
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