

December 2009



Newsletter of the County of Orange Radio Amateur Civil Emergency Service

Inside this issue:

Captain's Corner	1
Holiday Dinner	3
EOC SONGS Grade	3
SKYWARN Day	3
Palm Springs Fest	3
City/County Meeting	3
Fire Watch in Parks	4
Watching the Web	5
RACES/ACS News	6
Events Calendar	7

Captain's Corner

by RACES Capt. Ken Bourne, W6HK, Chief Radio Officer

New Toys

Many new amateur radio products have become available just in time to be placed under a Christmas tree. Open up the latest ham radio magazine or check the major amateur radio Web sites and you will see lots of new equipment to enhance your base, mobile, and portable RACES stations.

As we contemplate what to wish for during this holiday season, I thought I would briefly describe some of the new ham products that have recently become or will soon be available.

What appears to be competition with the Kenwood TM-D710A 2-m/70-cm mobile transceiver is the Yaesu FTM-350R dual-band mobile transceiver. It features a multi-purpose GPS display, APRS, Bluetooth, event-timer functions, simultaneous dual-band receive, and full-duplex operation. Transmit output power is 50 W on both bands. The LCD display has eight color options. Numerous displays are available with the optional FGPS-1 GPS receiver and antenna. It is compatible with various APRS information and functions. It includes a high-speed band scope, built-in dual speakers on the rear



of the control head with independent volume controls, 500 + 500 alpha memories, built-in barometric pressure sensor, line input jack on rear panel, and 1200/9600 b/s packet port (handy for Winlink). It also receives the AM and FM broadcast bands (with FM stereo decoder) and commercial frequencies up to 1000 MHz. Enhanced Yaesu ARTS (Automatic-Range Transponder System) displays distance and direction to other APRS stations using FTM-350R and VX-8R transceivers. It will be interesting to see if it works with the AvMap G5 APRS GPS Navigator, as does the Kenwood TM-D710A. Price or availability have not yet been announced, pending FCC approval.

Tired of lifting and repositioning your 70-pound (or more) linear amplifier, or worrying about getting zapped by a high-voltage tube-type amplifier? Good news! Ameritron recently received FCC approval on its new 1200-watt solid-state no-tune amplifier, covering 1.5 to 22 MHz (plus 10/12 meters with optional MOD-10MK low-pass filter assembly). Included is a 50-VDC, 50-A switching power supply wired for 220 VAC, but which can be rewired for 110 VAC. Two cross-needle meters are pro-



**The Annual
OCRACES
Holiday Dinner Is**

December 7, 2009

1830 Hours

**Marie Callender's
307 E. Katella Ave.
Orange**

Recognition Awards



Orange County Sheriff's Department
Communications & Technology Division

Continued on page 2

Captain's Corner *Continued from page 1*

vided. The left meter monitors DC current of both 600-watt amplifier modules. The right meter reads antenna SWR, forward and reflected output power simultaneously, amplifier balance, ALC between amplifier and transceiver, and DC drain voltage of each power amplifier. LEDs show which band is selected (manually or automatically with optional ARI-500 radio interface, ALC activity, when the amplifier is keyed, high SWR, and power amplifier fault. The compact amplifier is 10½ in W × 6¾ in H × 19 in D, and weighs 23 pounds. The power supply is 10 in W × 6½ in H × 9½ in D, and weighs 12 pounds. Suggested retail is \$2899.00 for the ALS-1300 amplifier with power supply, \$39.95 for the MOD-10MK 10/12-meter filter assembly, \$119.95 for the AIR-500 radio interface, and \$49.95 for the ALS-500RC remote control head.

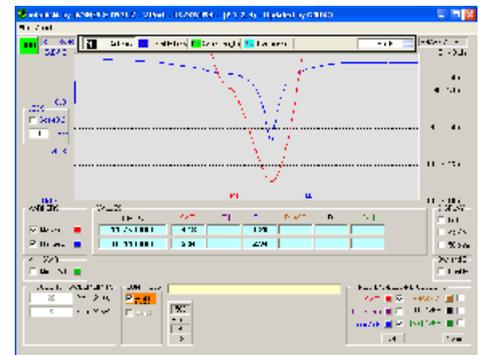
If you like to experiment with antennas and analyze your contraptions, several antenna analyzers are now available. A nice one is the Timewave TZ-900 AntennaSmith, which provides SWR, complex impedance, R+jx, reflection coefficient, and a Smith chart on its full-color LCD display. It covers 0.2 to 55 MHz, but it costs \$999.95. Perhaps the most popular with hams is the MFJ-259B, which covers 1.8 to



170 MHz, for \$289.95, or the MFJ-269, which adds 415 to 470 MHz to the above range, for \$389.95. It measures SWR, return loss, reflection coefficient, antenna resistance, reactance, impedance, phase angle, coax cable loss, coax cable length, distance to short or open in coax, inductance, capacitance, resonant frequency, bandwidth, Q, velocity factor, and attenuation. It has an LCD readout,

frequency counter, side-by-side meters, and an Ni-MH/Ni-Cad charger circuit. However, to perform all these measurements from 0.1 to 180 MHz, if you don't mind plugging into a laptop or other computer, you get even more detailed analysis and a Smith Chart with the miniVNA software-defined HF/VHF antenna analyzer. It connects to a computer with one

USB cable. Power is supplied over USB or from a battery. An internal setting is available for serial (RS-232) communications. In real time, you can see where the antenna is resonant, and the SWR, return loss, impedance ±jx, phase, R/L/C, etc., as a function of frequency.



The best (minimal) SWR frequency is automatically found and displayed. A feedback connector enables filter, trap, or gain measurements. Other measurements include cable losses and cable length. A Smith chart may be created with ZPLOTS+ software. The miniVNA is available from W4RT Electronics and its dealers for \$398.99, including USB cable, CD with software, and quick installation guide.

The Tigertronics Signalink USB has a built-in low-noise sound card to operate virtually all digital and voice modes, while isolating your computer from your radio (through the use of audio transformers and a relay-based PTT keying circuit), thus eliminating ground loops and preventing hum and noise. It works with all radios and attaches to the mic jack, data port, or accessory port. A wide selection of fully assembled radio cables is available for all common base and mobile radios. The Signalink USB is powered by the computer's USB port. Front-panel controls let you optimize your transmit audio (RF power), receive audio level ("waterfall drive"), and transmit



"hang time" delay. The price is \$99.95 with mic cable or 5-, 6-, or 8-pin DIN cable or \$104.95 with 13-pin DIN cable.

OCRACES Holiday Dinner: December 7th

The annual OCRACES holiday dinner will be on Monday, December 7, 2009, at 6:30 PM, at Marie Callender's Restaurant, 307 E. Katella Avenue, in Orange. We will not have a regular open monthly meeting in December.

OC EOC SONGS Performance Outstanding

OCSD Emergency Management Program Coordinator Donna Mayer reported that EM met with FEMA on October 26, 2009, and the preliminary After Action Report reads that Orange County EOC had no Areas Requiring Corrective Action (ARCA) or Deficiencies noted during the September 23rd SONGS Graded Exercise. In the world of FEMA graded exercises, Donna said the Orange County EOC had an outstanding performance. Participating in the exercise on behalf of OCRACES was Radio Officer Harvey Packard, KM6BV.

SKYWARN Recognition Day: December 5th

SKYWARN Recognition Day (SRD) begins at 0000 UTC on December 5, 2009. It is co-sponsored by the ARRL and the National Weather Service (NWS) as a way to recognize the commitment made by amateur radio operators in helping keep their communities safe. Hams can visit their local participating NWS office, working as a team to contact other hams throughout the 24-hour event. It is estimated that 100 NWS stations will participate this year. Each NWS station will transmit on different frequencies and modes, depending on the individual capabilities of each site. Most stations will operate on 80, 40, 20, 15, 10, and 2 meters using phone operations. However, some sites will utilize other modes including PSK31, RTTY, packet, and CW. WX6SGX at NWS San Diego plans to operate on 40, 20, 10, and 2 meters and 440 MHz, on SSB, PSK, and FM.



Palm Springs Hamfest: January 30th

The Desert Rats and the Palm Springs DX Club have announced their hamfest/picnic/raffle/winter field day for Saturday, January 30, 2010, from 9:30 AM to 4:30 PM. It will be held at the BARN at "the Boskovich's Estate" (Gary, KD6QLT, and Susie, KD6TVO), 4193 Matthew Drive. Exhibitors include Ham Radio Outlet, ARRL, Cable Experts, DX-Store, Hams for Less Dot Com, WPSS, WARFA, W5YI, and EDS. Bring your ham gear to sell; no fee for selling if you bring your own table and chairs. One or two items may be placed on the single-items table with a sign, and the sale will be handled by the club for a small commission. Setup time is 7:00-9:00 AM.

Drills Discussed at City/County/MOU Meeting

Most of those attending the City/County RACES/ACS & MOU meeting on October 26, 2009, wanted more than one City/County/MOU exercise per year. We decided to go for at least two exercises per year, although some city representatives wanted at least four per year. Saturday, April 3, 2009, is the tentative date of our next exercise.

COAR members Ken Konechy, W6HHC, and Robbie Robinson, KB6CJZ, discussed their success with digital ATV during the October 3rd exercise. (They will demonstrate their DATV system at the January 4th OCRACES meeting.) Message-handling problems during the exercise were discussed. Virginia RACES modified the ICS 213 form to accommodate five-word segments, and we should consider that form. It is posted at http://www.w4ava.org/races/VARACES_IC213MSGFORM_Rev31Jul06.pdf. The next City/County/MOU meeting is on January 25th.

OCFA & OC Parks Launch Fire Watch Program

Orange County Board of Supervisors Chair Patricia C. Bates joined the Orange County Fire Authority (OCFA) and OC Parks officials on November 12, 2009, to announce a new, countywide fire watch program to alert the public of elevated fire dangers in wilderness parks and communities across Orange County. (This is not the same program as the OCRACES Severe Fire Weather Patrol, and amateur radio is not planned for communications.)

Wildfires are more likely to occur and spread during Red Flag conditions, when strong winds are accompanied by low humidity levels and high temperatures. OC Fire Watch will increase public awareness of the fire dangers by raising red "Fire Alert" flags at OC Parks and other County facilities, as well as at OCFA fire stations and participating City Halls throughout Orange County. The program will also incorporate fire watch volunteers to help monitor the County's wilderness parks, which are especially vulnerable to fire during Red Flag conditions.

"The memories of last year's Freeway Complex Fire and the Santiago Fire two years ago still linger as painful reminders of the devastation wildfires can inflict on our wilderness areas and nearby residential communities," said Supervisor Bates. "I proposed the Red Flag program and volunteer component of OC Fire Watch to involve the public in our effort to protect lives, property, and our natural areas during periods of extreme fire danger. OCFA and OC Parks are to be commended for their participation in this important joint effort."

OC Parks and OCFA will raise Fire Alert flags at their respective facilities during designated Red Flag conditions, which will be based on CALFIRE advisories.

"OC Parks manages nearly 40,000 acres of beautiful parkland and wilderness that is still largely in its natural, undisturbed state," OC Parks Director Mark Denny said. "But extra vigilance is needed to protect it during Red Flag conditions. Time is of the essence to prevent large-scale damage to these wilderness areas and nearby homes."

OC Parks will coordinate the deployment of OC Fire Watch volunteers in and around the County's wilderness areas during designated Red Flag conditions. OCFA will train the fire watch volunteers in communication procedures and map reading, as well as how to recognize and report potentially dangerous situations.

"The OC Fire Watch program will heighten public awareness of increased fire dangers," OCFA Chief Keith Richter said. "Orange County residents should take personal responsibility for protecting themselves, their families, and their properties. OC Fire Watch, along with OCFA's Ready! Set! Go! Program, can help you through advanced planning and preparation."

OC Parks manages nearly 40,000 acres of parks, historical and coastal facilities, and open space for the County of Orange as part of the OC Community Resources. OC Fire Watch will be an arm of the OC Parks Adopt-A-Park Program and will be headquartered at OC Community Resources Headquarters in Santa Ana. The program will cover Orange County Wilderness Parks and Regional Parks such as Aliso & Wood Canyons Wilderness Park, Caspers Wilderness Park, Laguna Coast Wilderness Park, O'Neill Regional Park, Thomas F. Riley Wilderness Park, and Limestone Canyon & Whiting Ranch Wilderness Park.

Volunteers will use their own vehicles and provide their own cell phones and binoculars. All volunteers must attend one orientation meeting and one training session.

To register as an OC Fire Watch volunteer, the applicant must complete an on-line General Volunteer Application, and print out and sign the "OC Fire Watch Guidelines and Provisions. Volunteers will also be prompted to print out the list of upcoming Program Orientation Meetings and OC Fire Watch Training Sessions.

The two-hour Program Orientation Meeting (POM) will be provided by the OC Parks Volunteer Coordinator. Items covered will include OC Parks Policies and Procedures, Benefits, Safety, and specific OC Parks Site information. A mobile Live Scan fingerprinting system (volunteers 18 years and older) will be present at all POMs. A two-hour OC Fire Watch Training Session will be conducted by OCFA. Among the items covered will be safety, communication procedures, map reading, and how to recognize and report potentially dangerous situations.

After completing the training each volunteer will be issued the following items: shirts with OC Fire Watch logo, hats with logo, photo badge with lanyard, fire watch vests, fire watch car magnets, fire watch manuals, wilderness first-aid kits, ready bags for supplies, route/area maps, emergency phone numbers and procedures, disposable camera, flashlight, log book, light sticks, etc.

Each two-person patrol shift will be limited to two hours.



Watching The Web

*Web Sites of Interest to RACES Personnel
by RACES Capt. Ken Bourne, W6HK, Chief Radio Officer*

Radio Operations Center™ Software Suite
<http://www.cssincorp.com>



This Creative Services Software Web site features Radio Operations Center (ROC), which offers PC-based radio control. The ROC suite ranges from multimode radio operations to packet radio operations for emergency communications (EmComm) to marine radio and more.

ROC Digital Desktop software (formerly called PacTerm and PKTerm) allows the user to connect to, access, integrate, and operate multiple radios, TNCs, antenna rotors, logging applications, call books, and more. ROC Digital Desktop operates TNCs from Kantronics, MFJ Enterprises, and Timewave/AEA, and also supports soundcard-based radio control.

EmComm Ops is intended for radio operators who only want to use their radio and TNC for packet communications on the VHF bands. It offers support for multiple packet-radio data streams, connection types, and transmit/receive/listen modes. One-click access is provided to any data stream, packet mode, radio, TNC, and rotor. Built-in customizable macros automate common commands. It supports dual TNCs, allowing radio amateurs to work in multiple packet modes simultaneously. Colors and fonts are user-definable for received, transmitted, and command text. An unlimited buffer allows robust file transfers in ASCII (text) formats. Multiple monitor windows include separate windows for network traffic. Point-and-click settings are provided for TNC commands at startup. The user can cut and paste to and from any other Windows application. A built-in mini logging program is built on a Microsoft Access database and is interoperable with Log Window and DX4Win software. Call books are integrated, including Sams, QRZ, Buckmaster, and Flying Horse. It is compatible with over 70 radios from such manufacturers as Icom, Kenwood, Ten-Tec, Yaesu, and Alinco. Support is provided for multiple start-up/shut-down commands, allowing packet bulletin-board systems to be operated from a TNC even when the software and computer are shut down. The software supports TNC models from Kantronics, Timewave/AEA, and MFJ Enterprises. It includes a TNC wizard for connecting and configuring a TNC for radio operation. EmComm Ops helps radio operators set up and operate organized communications networks locally for government and emergency officials, as well as noncommercial communications for private citizens affected by a disaster.

Marine Radio Ops transforms an Icom marine radio into an amateur radio transceiver. With a simple point-and-click virtual radio interface, you can change transmit and receive frequencies, set the mode (LSB, USB, CW, AM, and FSK), and tune your antenna. With a Kantronics or Timewave/AEA TNC, you can send e-mail via HF. Marine Radio Ops complies with the National Marine Electronics Association's network interface standard.

Weather Ops is weather fax software for Kantronics and Timewave/AEA TNCs. It is intended for transmitting, receiving, and printing weather fax transmissions via radio for commercial, military, or amateur radio applications. Wefax images are saved in two-color bitmap format, allowing integration into other Windows-based programs. Images may also be saved in 16 shades of gray with Kantronics KAM 98 or KAM XL. Resolutions up to 1024 × 768 are provided. It requires only a small memory footprint. It prints to any Windows printer. Scan lines per minute are selectable. You can pause/resume and synchronize wefax. Provided are multiple color selections and user-selectable default colors. Automatic startup and shutdown commands are provided for the TNC. Basic image manipulation allows resizing and changing colors. Wefax may be transmitted with Timewave/AEA TNCs.

All components in the Radio Operations Suite are available in a no-cost, no-obligation, fully functional demonstration-version download.

RACES/ACS News from Around the County

"RACES/ACS 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:

w6hk@ocraces.org

Irvine

Congratulations to Pete Bergstrom, K6PB, who is the new IDEC Radio Officer, and who succeeds Bob Pestolesi, KE6GYD, who we commend for his years of outstanding service in Irvine's RACES unit.

Santa Ana

Congratulations to Santa Ana Fire Capt. Steve Snyder, KI6EYQ, ACS Coordinator and Chief Radio Officer, Santa Ana Response Team, who recently became an Amateur Extra Class licensee.

Seal Beach/Los Alamitos

Mike Maronta, KC6YNQ, took his position as the new Seal Beach RACES Radio Officer. Alan Ginsburg, WA6TOI, stepped down after serving as Radio Officer for four years.

At the Seal Beach/Los Alamitos RACES meeting on November 10, 2009, members participated in a short step-by-step send-and-receive exercise involving the outgoing ICS 213 form. A copy of the new colored three-part ICS 213 form for incoming and outgoing messages was given to each member. The exercise emphasized consistency, speaking slowly in five-word segments, distinguishing the portions of the form that the radio operator fills out and the portion that the sending official sends out, and where each of the three pages are retained.

Also discussed at this meeting was a way to control radios from the Internet using Echolink software and Signaling hardware. A demonstration will be given at the January meeting.

Orange County

Congratulations to Tom Tracey, KC6FIC, who was recently hired at Care

Ambulance Service as a dispatcher. Tom is a very sharp emergency communicator, and we know he will excel in his new position.

OCSD/Communications Assistant Director Ray Grimes, N8RG, was the featured speaker at the November 2nd OCRACES meeting. His presentation highlighted the history of the Communications Division, and described the numerous current systems in use by the County and its partner agencies, and possible future technologies.



Ray Grimes, N8RG, talks about Motorola APX7500 mobile triband radio

Ray also described and showed the new Motorola APX7000 portable triband public-safety radio (700 MHz/800 MHz/VHF high-band), and talked about the APX7500 mobile version.

Karl Pagel, N6BVU, Silent Key

With great sadness, we report that Karl Pagel, N6BVU, became a silent key on November 10, 2009. Karl died at the age of 66 and was an ARRL Life Member and former OCRACES member. He was involved with the Southern California VHF and UHF repeater coordination organizations, and was a co-compiler of the original Southern California *Repeater Location Guide*." He represented the Southwestern Division on the ARRL VHF Repeater Advisory Committee, and was the chairman for a term. His awards include the ARRL Southwestern Division Meritorious Service Award. Karl is survived by his mother Mary Pagel, KA6IGG.

December 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5 SKYWARN Recognition Day
6	7 OCRACES Holiday Dinner & Weekly ACS Net	8	9	10 OCSD/Communications Luncheon	11	12 EmComm Breakfast
13	14 Weekly ACS Net	15	16	17	18	19
20	21 Weekly ACS Net	22	23	24	25 Christmas	26
27	28 Weekly ACS Net	29	30	31		

Upcoming Events:

- Dec 5: SKYWARN Recognition Day
- Dec 7: Annual OCRACES Holiday Dinner, 1830, Marie Callender's, 307 E. Katella Ave., Orange
- Dec 10: OCSD Communications & Technology Division Holiday Luncheon, 1130, 840 N. Eckhoff St., Orange
- Dec 12: EmComm Breakfast, Katella Grill, Orange
- Jan 4: OCRACES Meeting, 1930, 840 N. Eckhoff St., Suite 104, Orange
- Jan 25: City/County RACES/ACS & MOU Meeting, 1900, 840 N. Eckhoff St, 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

- 10 m: 29.640 MHz output, 29.540 MHz input, 107.2 Hz PL
 - 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: 1282.025 MHz output, 1270.025 MHz input, 88.5 Hz PL
- *Primary Net—Mondays, 1900 hours

Program Coordinator

Marten Miller, KF6ZLQ
(714) 704-7917

Radio Officers (Lieutenant)

Scott Byington, KC6MMF
Harvey Packard, KM6BV
Ralph Sbragia, W6CSP

Chief Radio Officer (Captain)

Ken Bourne, W6HK
(714) 997-0073

Assistant Radio Officers (Sergeant)

Jack Barth, AB6VC
Chuck Dolan, KG6UJC
Jim Carter, WB6HAG
Ernest Fierheller, KG6LXT

County of Orange RACES

OCSD/Communications
840 N. Eckhoff St., Suite 104
Orange, CA 92868-1021

Telephone – (714) 704-7917

Fax – (714) 704-7902

E-mail – ocraces@comm.ocgov.com

County of Orange RACES

OCSD/Communications
840 N. Eckhoff St., Suite 104
Orange, CA 92868-1021

Telephone – (714) 704-7917
Fax – (714) 704-7902
E-mail – ocraces@comm.ocgov.com

Visit Our Website
www.ocraces.org
It's Where It's @!

Questions or Comments?
Contact *NetControl* Editor Ken Bourne, W6HK
w6hk@ocraces.org



**“W6ACS ...
Serving
Orange County”**

Meet your County of Orange RACES Members!



Ken Bourne
W6HK



Scott Byington
KC6MMF



Harvey Packard
KM6BV



Ralph Sbragia
W6CSP



Marten Miller
KF6ZLQ



Robert Stoffel
KD6DAQ



Jack Barth
AB6VC



Jim Carter
WB6HAG



Chuck Dolan
KG6UJC



Ernest Fierheller
KG6LXT



Randy Benicky
N6PRL



Bill Borg
KG6PEX



Nancee Graff
N6ZRB



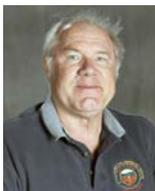
Ray Grimes
N8RG



Walter Kroy
KC6HAM



Martin La Rocque
N6NTH



John Roberts
W6JOR



Tony Sanchez
AE6QT



Joe Selikov
KB6EID



Steve Sobodos
KN6UX



Tom Tracey
KC6FIC