County and City RACES units as well as hams from the Orange County Chapter of the American Red Cross and the Hospital Disaster Support Communications System (HDSCS) introduced the public to emergency communications provided by amateur radio at the Orange County Fair, July 13th through August 5th. Members of several radio clubs also explained amateur radio to visitors to the Fair’s ham radio booth. Gordon West, WB6NOA, especially is to be congratulated for his many hours in organizing the participation as Fair Chairman, assisted by Red Cross’s Cheryl Day, KI6AFL, and Susan Roatch, KF6VBO, as Fair Booth Coordinators. The booth’s HF equipment included an Icom IC-7000, a Kenwood TS-2000, an Icom 746 PRO, a Kenwood TS-520, and a Yaesu FT-897, plus numerous VHF/UHF transceivers. An Icom transceiver operated on the SOARA D-Star repeater. Don Hill, KE6BXT, installed amateur television (ATV) in the booth, which attracted considerable interest, especially working through the Amateur Television Network (ATN) repeater on Santiago Peak. Also in the booth was a “Snap Kit” electronics project kit, which attracted the attention of many children, who showed an amazing aptitude for building circuits. The booth was decorated with a beautiful 20-foot mural, and out of sight (up on the building’s roof) was an array of antennas that provided many interesting contacts during the Fair.

The Long Beach Amateur Radio Association dazzled fairgoers on the first day of the Fair, and again on July 21st. The Claremont Amateur Radio Association (CLARA) brought CW pad certificates, and worked sporadic E skip on 2 meters. On July 15th, HDSCS explained their hospital communications capabilities to fairgoers the next day and also on July 22nd, and Joe Moell, K0OV, talked about direction finding. Occupying the booth on July 17th were Newport Beach RACES and COAR, the City of Orange RACES unit. On July 18th, members of the Orange County Amateur Radio Club (OCARC) excited the public about amateur radio. On July 19th, Fountain Valley RACES dazzled the public and the judges, as the ham radio booth won...

Continued on page 2
Blue First Prize for the building, and Red Second Place best in the show. On July 20th, Huntington Beach RACES made lots of 20-meter and 40-meter contacts and ATV QSOs.

During the following week, the booth was occupied by the West Coast Amateur Radio Club, Fullerton Radio Club, Fountain Valley RACES again, Huntington Beach RACES again, Costa Mesa RACES (MESAC), Fam Comm Amateur Radio Association (FCARA), and Western Amateur Radio Association (WARA). HBRACES on July 27th provided an ATV downlink on the cattle drive (300 bulls through the streets of Costa Mesa). On July 28th HBRACES air-remote gave the booth a one-hour ATV demonstration from HB Airship #1. MESAC supported the Fair with helicopter videos and SSTV.

On July 31st, Red Cross communicators manned the booth during the day, and OCRACES took over in the evening. The nine OCRACES members in attendance were Jack Barth, AB6VC, Randy Benicky, N6PRL, Ken Bourne, W6HK, Scott Byington, KC6MMF, Chuck Dolan, KG6UJC, Ernest Fierheller, KG6LXT, Nancee Graff, N6ZRB, Martin La Rocque, N6NTH, and Harvey Packard, KM6BV. Also at the booth that evening was John McCauley, KD6PGC, from Placentia RACES.

IDEC spent August 1st in the booth, celebrating their 25th anniversary. SOARA worked the booth on August 2nd and 3rd. The Orange County Amateur Radio Club was there on August 4th, and CLARA wrapped it up on August 5th.

OCRACES will participate in a SONGS Siren Drill on Wednesday, October 24, 2007, between 9:00 AM and 1:00 PM. We will report the effectiveness of sirens at three locations—Oglebay Norton Industrial Sands east of San Juan Capistrano and two Northrop Grumman test sites east of San Clemente. We will communicate from the siren locations to the Orange County EOC on an OCRACES UHF repeater. An OCRACES member will be at the siren switching location in Control One, and will communicate via HT to OCRACES net control in the RACES Room. OCRACES Net Control (subnet) will communicate with the Drill net control (operated by Red Cross at Southern California Edison/San Onofre) on the CLARA repeater. Overall, we will need at least five OCRACES members for this drill.
Volunteer Mutual Aid Drill: September 15-16

About 70 communicators from City and County RACES units, American Red Cross, Hospital Disaster Support Communications System (HDSCS), and SOARA will participate in the first annual Orange County California Citizen Corps Council (OCCCCC) Volunteer Mutual Aid Drill (VMAD) on September 15 and 16, 2007, in the Orange County Sheriff’s training facility in Orange. Primarily voice communications will be used, but ATV, SSTV, and Winlink will be available for support.

After morning NIMS training sessions, eight 11-member teams (with one communicator per team) will participate in scenarios at the training facility’s “Laser Village” (which consists of a one-story house, gas station, bank, mini mart, bar, two-story house, senior residential home, and a fast-food restaurant). Communicators will be used in the Incident Command Post (ICP), Field Command Post (FCP, which is the OCRACES emergency communications response vehicle), display area (which will include Ralph Sbragia’s communications trailer), parking lots, registration, staging area, medical treatment area, supply trailer, operations (local EOC/SIM cell), etc.

Communicators will report incident conditions and relay information and orders between the incident command and other officials. HDSCS members will respond to a special assignment at the medical treatment area. All other communicators will receive their assignments when they register. Drill officials reserve the right to reassign communicators to other tasks at any time, possibly not even involving communications.

Communicators should arrive by 7:45 AM on the day of assignment, or probably a little earlier, in case of assignment to parking areas. All volunteers enter from Katella Avenue. (The facility is near the Honda Center and the 57 Freeway.) Parking control will be conducted by Police Explorers and Sheriff's personnel. When you arrive, lock your valuables in your trunk. Wear long pants, comfortable closed-toed footwear, and a polo shirt (Class B uniform for OCRACES members and agency-issued shirt for other personnel), and a hat (for sun protection), and bring sunglasses and sunscreen. Water and first-aid kits will be provided at a shaded cooling area. No weapons, firearms, ammunition, knives, chemical agents, batons, etc., are allowed in the Laser Village scenario area.

Communicators need to bring a dual-band HT, programmed to 147.480 MHz simplex (for communications from the scenario area), 446.000 MHz simplex (for communications to the FCP from the parking lot, display area, ICP, etc.), and 146.970 MHz (-), 136.5 Hz PL, for communicating with the medical treatment area.

Registration begins at 8:00 AM each day, and closes promptly at 8:40 AM. Only pre-registered volunteers will be accepted. Bring your photo ID and agency-issued ID. Be prepared to provide emergency contact information. Notify staff/instructors of pre-existing medical conditions that may be aggravated during the drill or affect your ability to perform.

Volunteer briefing will be conducted at 8:55 AM in the classrooms. ICS/NIMS classroom training will be conducted from 9:00 AM to 11:30 AM.

An excellent lunch will be provided to all volunteers. Lunch time is 11:30 AM to 12:15 PM, and will include a guest speaker.

Two scenario activities will be conducted on Saturday afternoon, and one on Sunday. Saturday’s Group A (four teams) activities will occur from 12:15 PM to 1:15 PM, followed by debrief and demobilizing from 1:15 PM to 2:15 PM. Saturday’s Group B (four teams) activities will occur from 1:30 PM to 2:30 PM, followed by debrief and demobilization from 2:30 PM to 3:30 PM. While one group is active, the other group may visit the display area. On Sunday, scenario activities are from 12:15 PM to 2:00 PM, followed by debrief and demobilization from 2:00 PM to 3:00 PM.

This will be a structured drill, following NIMS procedures. All of us will learn a lot from this event. We expect to make some mistakes, and we will learn from those mistakes so that we will be more ready and capable when a major disaster occurs, involving many agencies. We have new procedures to learn, but it will be an enjoyable experience.
Next OCRACES Meeting: September 10th

The next County of Orange RACES meeting will be on Monday, September 10, 2007, at 7:30 PM, at 840 N. Eckhoff Street, Suite 104, in Orange. We will discuss the Citizen Corps Volunteer Mutual Aid Drill (VMAD) scheduled for the following weekend, and other upcoming events (such as the City/County RACES & MOU ACS Drill on October 6th, the OCFA open house on October 13th, and the RACES Academy on November 10th), and watch the last half of the “Civil Defense: The War at Home” video provided by Ray Grimes, N8RG.

City/County RACES & MOU ACS Drill: Oct. 6th

The next City/County RACES & MOU ACS Drill will be on Saturday, October 6, 2007, from 9:00 AM to 11:00 AM. Note that we are conducting this drill as an ACS (Auxiliary Communications Service, as defined by State OES) exercise, to allow all MOU participants (HDSCS, Red Cross, and SKYWARN) who do not have an MOU with all City RACES units to communicate with those Cities, which otherwise would not be allowed under the strict regulations of FCC RACES rules. This will still be a controlled net, in accordance with FCC Amateur Radio Service rules, prohibiting interference from non-participating amateurs.

The focus of this exercise will be communicating by voice, primarily between City EOCs and secondarily to the County EOC. Participants may also wish to test PSK31, Winlink, ATV, and SSTV.

The scenario for this exercise will be flooding resulting from a failure of the Prado Dam. The map in this article shows the projected path of flooding, based on a study by Anaheim Fire. For additional realism, SKYWARN advises that the River Forecast Center in Sacramento is running a model of what would most likely happen if Prado Dam broke. Messages should be prepared ahead of time that reflect the possible needs public safety might have, such as evacuating citizens, requests for resources, or resources that can be offered, such as care & shelter facilities or police/fire/public-works personnel and equipment. The Countywide RACES Message Form (downloadable from http://www.ocraces.org) should be utilized by all participants in this drill.

RACES Academy: November 10th

County of Orange RACES will hold a “RACES Academy” on November 10, 2007, at the Orange County Sheriff’s Department training facility in Orange. Courses will be offered by instructors from County and City RACES units, OCSD, MOU organizations, and other sources. They will cover such topics as ATV, 2.4 GHz amateur “WiFi,” NIMS, 800-MHz public-safety system, Winlink, APRS, power-supply safety, net protocol, digital communications, etc. Please contact OCRACES Chief Radio Officer Ken Bourne, W6HK, at w6hk@ocraces.org if you wish to teach a class. Information on registering for the RACES Academy (open to all radio amateurs) will be posted in October on the OCRACES Web site at http://www.ocraces.org, and in the next issue of NetControl.
DiscoverCircuits has more than 26,000 electronic circuits or schematics cross-referenced into more than 500 categories. This Web site is the work of David A. Johnson, PE, a consulting electronics engineer with over 30 years of practical experience in the areas of analog and digital design, applications, fiber optics, and RFID.

A small sample of the schematics that are found on this site include power supplies, sensors, antennas, filters, alarms, AM and FM transmitters and receivers, amplifiers (audio, RF, microwave, video, etc.), antennas, mixers, battery chargers, bridges, oscillators, converters, current limiters, data acquisition, direction-finder, compass, field-strength meter, doublers, modulators, synthesizers, function generators, human motion and proximity detectors, infrared, instrumentation, microphone, memory, multiplexers, phase detector, solar-cell, telemetry, telephone, voltmeters, and much more.

The site’s Discover Forum posts questions and answers on such topics as circuit design, components, repair, microprocessors, sensors, home-made gadgets and inventions, basic electronics, RF circuits, digital circuits, electro optics, and solar energy.

The site’s Hobby Corner includes circuits designed by David Johnson, including a voltage converter, 2.45 GHz RF signal detector, 40-kHz light detector with sunlight immunity, 9-V battery voltage monitor, AC current monitor, audio signal detector/switch, automotive 12-V electrical system voltage indicator, battery-charging-current indicator, earthquake alarm, electronics field disturbance monitor, modulated laser light source, pop-free microphone switch, solar-powered lithium-ion battery charger, two-12-V battery isolator, and much more.

The site also provides links to electronic resources, including electronic manufacturers by component type, electronic suppliers, abbreviations and acronyms, calculators on the Web, electro-optics, employment, helpful lists, technical dictionaries/encyclopedias, patent offices, periodic tables, resistor color codes, standards, tables and conversions, and more.

We have just touched the surface of the wealth of material on this fascinating Web site. Be sure to spend some time exploring http://www.discovercircuits.com for its many treasures.

OCRACES to Exhibit at HAMCON on Sept. 8th

The next ARRL Southwestern Division Convention, called HAMCON 2007, will occur on September 7-9, 2007, at the Marriott Hotel, 3635 Fashion Way, in Torrance. OCRACES will display its emergency communications response vehicle and will have a display table nearby in the hotel. We urge all members to be present at least on Saturday, September 8th, to explain our operations to convention visitors, and to recruit new members for OCRACES. We also invite members of City RACES units and all amateur radio emergency communications groups in Orange County to spend time at our table to hand out literature and to promote their activities.
Anaheim

Anaheim RACES Radio Officer Chris Kielich, K6CF, reports that they completed an event on the evening of August 7, 2007. They set up a portable HF station in a local park and got on the air promoting crime prevention in connection with National Night Out.

American Red Cross/Orange County

We admire the enhanced communications capabilities of the Orange County Chapter of the American Red Cross, and appreciate the closer relationship we are having with them. Their recent Communications Boot Camp was a great success, and they were very active at the ham radio booth at the Orange County Fair. They are providing valuable communications support to the upcoming Citizen Corps Volunteer Mutual Aid Drill on September 15th and 16th, and are leading the communications efforts in the upcoming SONGS Siren Drill on October 24th. Contributing greatly to their communications efforts are Gordon West, WB6NOA, Tom Woodard, KI6GOA, Disaster and Client Services Specialist, Ed Ross, KI6EYE, Bobbie Guice, KG6MIF, and many others. Listen to their well-conducted net on Monday nights at 7:45 PM on the CLARA repeater, 145.220 MHz.

Orange County Amateur Radio Club

OCARC has a couple of upcoming meetings that should be of interest to RACES members. On Friday, September 21st, Dave Doody, a Senior Engineer with the Jet Propulsion Laboratory, will talk on the Cassini Spacecraft currently orbiting Saturn after a seven-year journey through space. The meeting starts at 7:00 PM, at the American Red Cross (George M. Chitty Building), 600 Parkcenter Drive, Santa Ana.

OCARC’s annual ham radio auction is Friday, October 19th, at 7:00 PM. Bring your gear to sell or bid on other equipment. This meeting is also at the American Red Cross in Santa Ana.

Irvine

Congratulations to Irvine Disaster Emergency Communications (IDEC), which celebrated its 25th anniversary on August 23rd at the UCI University Club.

The Anniversary Dinner began with an impressive color guard presentation by the Irvine Police Department in dress uniform, followed by an invocation by IPD Chaplain Mike Anthony. Sergeant Robert Warren, IDEC Advisor, gave the introduction and made closing comments. Founding Member Clark Dwinell, KA6TMK, gave an interesting presentation on IDEC history.

California State University Fullerton

CSUF RACES Coordinator Quentin Frazier has left the campus and Radio Officer Don McLaren, KB6FTI, has retired and is now affiliated with Placentia RACES. Effective CSUF RACES participation is therefore currently on hold until interested radio amateur students or staff are located.
<h2>September 2007</h2>

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**Upcoming Events:**
- **Sep 7-9:** HAMCON; Van and Table on Sep 8
- **Sep 10:** OCRACES Meeting, 840 N. Eckhoff St.
- **Sep 15-16:** Citizen Corps Volunteer Mutual Aid Drill
- **Oct 6:** City/County RACES & MOU ACS Drill
- **Oct 13:** OCFA Open House & Southwest ACS
- **Oct 24:** SONGS Siren Drill
- **Oct 29:** City/County RACES & MOU Meeting

**County of Orange RACES Frequencies:**
- 6m: 52.62 MHz output, 52.12 MHz input, 103.5 PL
- 2m: 146.895 MHz output, 146.295 MHz input, 136.5 PL *
- 23cm: 1282.025 MHz output, 1270.025 MHz input, 88.5 PL
- 1.25m: 223.76 MHz output, 222.16 MHz input, 110.9 PL
- 70 cm: 449.180 MHz output, 444.180 MHz input, 107.2 PL

* Primary Net - Mondays, 1900 Hours

**Mission Statement**

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

**County of Orange RACES**
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- **Chief Radio Officer**
  Ken Bourne, W6HK
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- **Radio Officers**
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  Harvey Packard, KM6BV
  Joe Selikov, KB6EID
  Ralph Sbragia, W6CSP
- **Assistant Radio Officers**
  Jack Barth, AB6VC
  Jim Carter, WB6HAG
  Ernest Fierheller, KG6LXT

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Meet your County of Orange RACES Members!

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Ralph Sbragia
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Joe Selikov
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N6PRL

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KG6UJC

Nancee Graff
N6ZRB

Ray Grimes
N8RG

Walter Kroy
KC6HAM

Martin La Rocque
N8NTH

John Roberts
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Tony Sanchez
AE6QT

Steve Sobodos
KN6UX

Tom Stroud
N6FDZ

Tom Tracey
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