

# **Alternative Communications For Critical Infrastructure Protection (CIP)**

**By Rory Eikland KG6HCU**

In the aftermath of the September 11 terrorist incidents, licensed amateur radio operators provided critical communications support when the phone network was jammed and cell phones went dead from too much traffic. The amateur radio support was provided in both New York City and in the Washington DC area. This terrorist incident focused national attention on the growing role of amateur radio operators in providing communications during emergencies. Across the country local and county emergency managers have been encouraged to identify radio operators in their jurisdictions and enlist their support for future emergency operations. Last October the City Of Thousand Oaks requested amateur radio support for the City's Earthquake Drill. This is the first time that amateur radio has been involved in city disaster planning. The city was very impressed with the services provided by our Thousand Oaks ARES/RACES team and has requested that local amateur radio operators be involved in future city disaster planning and drills. In a related event, the American Radio Relay League (ARRL) received a grant from the Corporation for National and Community Service to train ham radio operators to respond in emergencies. This training is available to all U.S. amateur radio operators through the ARRL Amateur Radio Emergency Communications Course.

## **CVARC Speaker Will Recall**

### **"Old Time Ham Radio"**

"What are those orange things that glow in the dark?" They were probably the tubes that used to be an essential part of every radio! The Conejo Valley Amateur Radio Club's (CVARC) February 13 meeting will feature Reynold Johnson recalling some of the traditions and history of "Old Time Ham Radio." Mr. Johnson is an experienced Ham Radio operator and is an amateur historian on many aspects of the hobby including the traditions and the evolution of the equipment used by experimenters.

## **FCC License Examinations**

**By Jeff Reinhardt AA6JR**

CVARC hosts FCC License Examinations at 8:30 AM on the second Sunday of even numbered months at the Ventura East County Sheriff Station on Olsen Rd. (near the Reagan Library). CVARC conducts exams for all license classes. Exam candidates must bring a form of government issued photo I.D., the original AND a photocopy of any existing license or Certificate of Exam Element Completion, a Social Security (or government issued Taxpayer I.D.) number, and \$12 ARRL VE Exam fee (cash is preferred). No advance reservation is necessary, walk-ins are welcome. Advance notice is needed for special circumstances, such as reading the exam to sight-impaired candidates. If you have any questions, contact CVARC VE Coordinator Jeff Reinhardt at 818-706-3853.

## **Two Amateur Radio Courses Offered**

**By Karl Moody KE6WVZ**

Two amateur radio courses will begin in February, the CVARC Technician License Course and an

## Amateur Radio Technician License Course For Students.

The next CVARC Amateur Radio course for the Technician Class License will start on Tuesday February 4. The course will run for ten weeks through April 8. This schedule has been selected so that those attending the course will be ready to take their Technician Class License test at the CVARC VE Session on Sunday April 13. The course will run from 7:00 PM to 8:45 PM on each Tuesday evening at the Church of Jesus Christ of Late Day Saints at 3645 Moorpark Road in Thousand Oaks. This location is one block North of Olson Road on Moorpark Road. Karl Moody, KE6WVZ, will teach the course. The cost of this course is \$20.00 which covers the cost of the study manual "Now You ~~’~~re Talking" and all necessary classroom materials. The Amateur Radio Technician License Course For Students will begin on Thursday February 13 and run through March 27. This course is intended primarily for students under the age of 18. Classes will run from 7:00 to 8:30 PM each Thursday night. The course will be taught by Nancy Beyer, KF6EBF, and will be held at the Moorpark Presbyterian Church at 13950 Peach Hill Rd. in Moorpark.

## **Amgen Repeater Receives Coordination**

**By Mike Bass N7WLC**

The Amgen Amateur Radio Club ~~’~~s 70cm repeater received its official coordination from SCRRBA (Southern California Repeater and Remote Base Association). The repeater has moved to an output frequency of 449.440 MHz (input offset is down 5 MHz) and the PL tone is 131.8 Hz. The repeater remains an open repeater. But because of the scarcity of open repeater channels, we accepted an officially closed frequency pair. (So if you hear another repeater on this frequency when you are traveling around, don't assume it is an open repeater.) The good news is that the repeater now has a very quiet channel! The repeater is located on Rasnow Peak, and it has good coverage over the Conejo Valley, Camarillo, Oxnard, Santa Paula, Moorpark and the western edge of Simi Valley. We ~~’~~ve noticed coverage is a little spotty if you are in Newbury Park near Lynn and Wendy. Hope to hear you on the air!

## **ARES/RACES Basic Training Class**

**by Greg Lane K7SDW**

An ARES/RACES Basic Training Class has been scheduled at East County Sheriffs Station on Monday, February 24<sup>th</sup>, from 7pm until 9:30pm. This will be a three-part program with three breaks. The outline is as follows. ARES/RACES organization overview, County Organization and Operation, Net Control Operations, Drills, and Specific Area 2 Net and Operational Procedures (1 hour). The second part will cover Portable Digital Packet Operation needed during Drills and actual emergencies (1 hour). This second part will be a workshop; so if you have a portable packet setup, please bring it along (note that the portable packet stations used during the class will need to run on a dummy load or at no more than 5 watt to avoid overloading other stations in the room). The third part will be Q&A feedback from those attending (30 Min). This feedback will help to improve future class structures and presentation materials. This is an important training class. Both new and old ARES/RACES members are encouraged to attend as the class will be covering the material in the new Ventura County ARES/RACES Operational Manual. Remember to sign in at the door entryway so you will get ARES/RACES credit for this training.

73 de Greg, K7SDW EC AREA 2. ARES/RACES Training Officer, Ventura County.

## **DX Report**

**By Howard Elovitz W6EGZ**

Amateur Radio offers a wide range of opportunities unmatched by most hobbies. What originally attracted me to Ham Radio was the potential for Global communications. An offshoot of that interest was to see how many countries I could talk to on the different amateur radio frequency bands. That is what got me interested in DX. Ken has asked me to share some thoughts each month on DX in general. This month I will share information on one of the major DX events that occurs every year in California. If you want to hear from people who have traveled the world on DX expeditions, operating amateur radio stations in strange places, then the DX convention is an activity to attend. The people at the convention share their ideas on latest antennas and equipment used in DX expeditions. This equipment must be portable enough to be carried in airplanes, boats and what ever other vehicles are used to get to the remote sites from which they operate. Once there, the equipment must be easy to set. The DX convention is also a good place to learn how you can get started in DXing. This year the convention will be held on May 2-4 at the Holiday Inn Plaza Park in Visalia. The event this year is sponsored by the Northern California DX club and for information use the following link. [www.ncdxc.org/Ncdxc/convention](http://www.ncdxc.org/Ncdxc/convention). As for an easy contact to get started, AH3D located on Johnson Island will be operating on all frequencies till Feb 4<sup>th</sup>. The significance is Johnson Island is in the process of being restored to its natural state. There will be no permanent operations from the island in the future.

73 ✂ s Howard W6EGZ

## **Solar Update**

**By Ken Larson KJ6RZ**

Tad Cook, K7VVV, reports in [www.arrl.org](http://www.arrl.org) that the solar numbers for the last week in January were lower with average daily solar flux down more than 9 points and average daily sunspot numbers down more than 25. Solar flux has probably reached a minimum for the short term at about 125, and should slowly rise over the first part of February. Geomagnetic conditions during the last week of January were generally unsettled to active. For the last week in January the mean sunspot number was 132.6, the mean 10 cm flux was 127.3 and the mean planetary A index was 16.1. Referring to the tables in last month ✂ s "Understanding Solar Indices" article, a solar flux of 127 indicates fairly good signal propagation up through 15 meters. However, with an unsettled to active geomagnetic field, band conditions were somewhat degraded from that indicated by the solar flux. In particular, on signal paths passing near the north and south poles additional signal absorption and lower maximum usable frequency could be expected. With lower solar flux and sunspot numbers, 10 meters will probably not be back as strong this year. A year ago the average daily solar flux was more than 122 points higher than current numbers.

## **Santa Barbara Area Radio-Orienteering Saturday, February 8, 2003**

**Submitted by Rob Hanson W6RH**

Lake Los Carneros Park in Goleta, CA will be the site of southern California's next international-style on-foot foxhunt. A ham radio license and knowledge of radio equipment is not required. All ages are welcome, but small children should be accompanied by an adult on the course. This event is being hosted by Scott Moore KF6IKO, assisted by Marvin Johnston KE6HTS. There will be five fox transmitters on 146.565 MHz FM with international-rules timing, plus one or more two-meter transmitters for beginners. An optional 80-meter transmitter may also be hidden. The site area is slightly less than 150 acres. Gathering time is 12 noon with a two-meter test transmitter on the air. The main 5-fox hunt starts at 12:30 PM. Full-color orienteering maps will be available. Bring any 2-meter and 80-meter RDF "sniffing" gear you have. If you don't have any, just bring your handi-talkie or scanner. If you don't have that, come

anyway, because a limited number of RDF sets will be available for loan. Also be sure to bring anything you'll need while going after those radio foxes, such as munchies, bottled water and sunscreen. Bring your own compass, protractor and pencil if you plan to use them for map marking. Make sure that all batteries are fresh. Starting point is the Stow House Parking Lot just off of Los Carneros Road. From US 101 about 8 miles west of downtown Santa Barbara, take the Los Carneros Road exit, head north about 1/4 mile and turn right into the parking lot. There should be plenty of free parking. Look for the orange-and-white orienteering flag.

Questions? Send e-mail directly to Scott Moore [KF6IKO@rain.org](mailto:KF6IKO@rain.org) and Marvin Johnston [marvin@rain.org](mailto:marvin@rain.org)

## **Equipment Burn-in**

**By Ken Larson KJ6RZ**

One characteristic of modern semiconductor electronic equipment is something called infant mortality. The failure rate of new electronic equipment is generally very low. However, if the equipment is going to fail, it is likely to do so within the first few hundred hours of operation. Failure within this time period is called an infant mortality failure and is usually caused by a flaw in a semiconductor or other electronic component. Simply having the equipment power turned on is often enough to cause this type of failure to occur. If the equipment does not fail in the first few hundred hours of operation, then it will probably provide many years of trouble free operation.

The consumer electronic industry generally warrants new electronic equipment for 90 days. A new computer, audio equipment, a television, DVD player, or similar equipment that fails in the first 90 days can generally be returned to the store where it was purchased and replaced with a new unit with few if any questions asked. However, if the device fails after the 90 day warranty, then getting it replaced becomes much more difficult.

Understanding infant mortality and 90 day warranties suggests a procedure that probably should be used for all new electronic equipment. When you purchase a new electronic device, turn it on and run it continuously for two weeks. Two weeks will provide 336 hours of operation (14 days x 24 hours/day = 336 hours). Once a day cycle the power. Turn the device off, wait a minute or two, and then turn it back on. If after two weeks, your new equipment is still working, then you are probably through the infant mortality period and can expect years of reliable service. If things go badly instead and your new device fails, then by running the equipment continuously you have forced the failure to occur in two weeks, well within the 90 day warranty period. The problem with not following this procedure is that you can become busy doing other things. 90 days goes by and you have used your new equipment for only a few hours. Your warranty has expired and you are still in the infant mortality period, not a good situation.

Burn-in procedures are used by most high-tech companies. For example, when I worked for GTE Government Systems, we had to supply the Government with records showing that we had burned in each system prior to delivering it.

I use this procedure on all electronic equipment that I buy, and it works! Last year I bought a 1 E meter transceiver for ARES/RACES work. In addition to turning on the power, I made a point of transmitting at least once a day. Usually just transmitting my call. On the third day of burn-in a problem developed. Occasionally when I hit the push to talk key, the transceiver turned off (completely powered down). Not every time, it was a very sporadic failure, the worse kind. I returned the radio to Ham Radio Outlet and they gave me a new one without any hassle. The new radio made it through the two week burn-in and has been working great ever since.

## Event Calendar

Date	Event	Comments
Jan. 9	CVARC Meeting	Care and feeding of batteries
Feb. 4	CVARC Radio Class	CVARC amatuer radio class begins
Feb. 8	On foot fox hunt	On foot transmitter hunt in Santa Barbara
Feb. 9	CVARC VE Session	License exams given at sheriff station
Feb. 13	Student Radio Class	Technician class for students
Feb. 13	CVARC Meeting	Old Time Ham Radio
Feb. 20-23	Coyote 4 Play	Communications Support
Feb. 24	ARES/RACES Training	ARES/RACES Training class at sherrif's station
March 9	CLU MS Walk	CROP Walk
March 13	CVARC Meeting	Radio Direction Finding
March 16	Westlake Street Fair	Tentative date
April 6	Simi Valley MS Walk	Tentative date
April 10	CVARC Meeting	_____
April 12-13	Baker to Vegas Run	Supporting Ventura County Sheriff Dept.
April 13	CVARC VE Session	License exams given at sheriff station
May 10	Crusin Conejo Bike Ride	A major CVARC event supporting Conejo Valley Cyclist
May 17	Sea To Summit Bike Ride	Tentative date
June 8	CVARC VE Session	License exams given at sheriff station
June 28-29	Field Day	CVARC annual field day event, you don't want to miss it!

July 3	Moorpark Fireworks	Comm. support for Moorpark's 4th of July Fireworks
Aug 10	CVARC VE Session	License exams given at sheriff station
Sept	Country Days	Fun event supporting Moorpark Country Days Parade
Oct	SET	Simulated Emergency Test
Oct 12	CVARC VE Session	License exams given at sheriff station
Nov	State Hospital Drill	A very important annual emergency communications drill
Dec 13	Camarillo Parade	Big annual event for Ventura County ARES
Dec 14	CVARC VE Session	License exams given at sheriff station

## **Radio Amateur Civil Emergency Service**

Ventura County Area 2 R.A.C.E.S. members are encouraged to check in every Tuesday night at 7:00 pm on the Area 2 Check-in Net. Specific ARES/RACES times and frequencies are as follows:

### **ARES/RACES Times And Frequencies**

<b>Area</b>	<b>Time</b>	<b>Mode</b>	<b>Frequency</b>	<b>PI</b>	<b>Repeater</b>
County	7:30-8 pm	Voice	146.880 -	127.3	WA6ZTT
County	7:30-8 pm	Voice	224.020 -	127.3	WB6ZTR
County	Before 6:30 pm	Packet	145.710	No pl	Hospital Net
County	RACES Simplex	Voice	147.570	No pl	_____
Area 1	7:00-7:30 pm	Voice	147.930 -	127.3	WB6WEY
Area 2	7:00-7:30 pm	Voice	147.885 -	127.3	N6JMI
Area 2	Simplex	Voice	147.555	No pl	_____
Area 2	Backup Repeater	Voice	146.850 -	94.8	K6AER

Area 2	Amgen Repeater	Voice	449.440 -	131.8	KE6SWS
Area 3	7:15-7:30 pm	Voice	147.150 +	127.3	WB6ZTQ
Area 4	7:15-7:30 pm	Voice	146.970 -	127.3	WB6YQN
Area 5	7:00-7:30 pm	Voice	145.400 -	No pl	N6FL
Area 6	7:00-7:30 pm	Voice	147.975 -	127.3	N6AHI
Area 7	7:00-7:30 pm	Voice	146.985 -	127.3	WB6ZTX
Area 8	7:00-7:30 pm	Voice	145.280 -	100	WB2WIK
6 Meter	6:45-7:00 pm	Voice	052.980 -	082.5	K6SMR

The Net Controller's script for the Area 2 weekly RACES check-in net is on the CVARC website, in printable form. Every member is encouraged to periodically serve as net controller. RACES members should remember that their RACES card is issued for only two years. When your card is due to expire call Jackie at the Office of Emergency Services in Ventura for an appointment to renew your card. Call (805) 654-2551 or toll free from the east half of the county at (800) 660-5474. For packet, call coordinator Dan Dicke KE6NYT (805) 983-1401 To register for Red Cross Disaster Services Classes, call (805) 339-2234 ext 0 Ventura County ARES/RACES web site: <http://home1.gte.net/res19999/>

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The Conejo Valley Amateur Radio Club is an ARRL affiliated Special Service Club. Meetings are held on the second Thursday of each month, unless otherwise noted. Meeting location is at the Elks Lodge, 158 Conejo School Rd., Thousand Oaks, CA. Meetings start at 7:30 pm. with a pre-meeting social and technical assistance session, for those who are interested at 7:15 pm. Meetings are open to the public, and members are encouraged to bring their friends.

[Return to CVARC](#)

Editors: Ken "&" Paula Larson