

The Short Circuit

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The official publication of the Antelope Valley Amateur Radio Club

March 2006

President's Corner

Eugene Humpherys KG6SLC

Weeks after Hurricane Katrina wreaked havoc in the New Orleans area it was reported that well over 100 internet networks were still down and areas without electricity were still too numerous to tally. "When the phone lines are down and 'wireless' takes on a whole new meaning, when cell phone and PDA networks fail and batteries go dead, when the lights go out, authorities fall back on this seemingly antiquated but always reliable form of communication, amateur radio becomes quite literally a lifeline." A recent Delta-Sky magazine stated.

"Most communications systems are all going through some common chokepoint" said Allen Pitts, media and public relations manager of the ARRL. Whether it's a telephone switchboard, an Internet relay or a radio tower, "knock out that chokepoint, and the whole system fails."

As amateur radio operators, we use complete, self-contained transmitting and receiving stations that are not part of a vulnerable network. In many cases we also supply our own power. For this reason many government agencies and hospitals have enlisted amateur radio operators to be on call for emergencies. When the two hospitals making up New Orleans' Medical Center decided to set up their station two years ago, they looked around for volunteers to run it. Richard Webb and his wife, Kathleen Anderson, also a ham, raised their hands. They set up the station and tested it every week or so.

The night before Katrina hit, Webb pushed Anderson in her wheelchair to their van. She then drove them to the hospital from their small home in

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UNITED WE STAND

Meeting Notice

Thursday, **March 23**, is the next meeting of the AVARC at the Emergency Operations Center (EOC) at Lancaster City Hall, 44933 N. Fern Ave. in Lancaster. Talk-in is available on 146.73 MHz. if you need directions.

This month's meeting will feature an exciting program by **Paula Gibeault N6OQQ** about the Rim of the World Rally. The program will feature videos of past rallies and how Amateur Radio has provided radio communications for these events. So please plan to attend to see some great racing and hear learn how you can get involved in the fun of this event.



Antelope Valley by Brian S. Kelly

From The Veep

Bill Feldmann N6PY

I would like to thank Dennis DuVall (W7QHO) for the great program he presented on the West Coast Military Collectors Group at our February membership meeting. For myself operating and rebuilding vintage military radios has been an interesting part of our hobby and I hope this program will encourage some of you to get evolved.

At our next meeting we'll have a program by Paula Gibeault (N6OQQ) about the upcoming Rim of the World Rally and how we, as radio operators, can become involved and have lots of fun by providing radio communications. This Rally will be held the last weekend in April. This program will feature videos of past rallies held in the local mountains around the Antelope Valley. Since the start of these rallies Paula and her husband Mike (N6PYM) have organized and done most of the work to make these events happen. Also Amateur radio has played a big part in making these rallies a success by providing communications. For rallies in the past members of the AVARC have been the primary providers of communications.

Rally racing is with high performance and nearly stock or highly modified cars, depending on their class, on mostly unpaved mountain roads in areas like our local mountains. Each race event, like the Rim of the World Rally, is composed of stages that are usually around ten miles in length over which the cars go as fast as they can. The total times for each car to cover a stage are added at the conclusion of the event, which will consist of many stages, and the car with the lowest time for his class wins. For a communications worker this is not only an opportunity to sharpen your radio skills but to also see some great racing.

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President's Corner...

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suburban Slidell, Louisiana. Pretty much every other vehicle they encountered during that 30-mile trip was heading out of, not into, downtown New Orleans. At the hospital, this unlikely A-Team—a blind man and a woman in a wheelchair—set up their antennas and gasoline-fired generators, got on the air, tracked the approaching storm and rode it out. Webb and Anderson kept communications going 20 hours a day, relaying messages to and from the state command center in Baton Rouge.

In hundreds of cases trapped people tried calling 911 only to find that their calls would not go through. Some were successful in calling out of the area relatives and asked them to call 911. The out of the area 911 dispatchers then passed critical information via ham radio operators back to rescuers in New Orleans.

There are many stories of Amateur radio operators glad to provide much needed and in many cases life saving public service. Offers of compensation were routinely refused.

In retrospect, important lessons should be learned from Katrina. (1) We cannot depend on the government to provide adequately in an emergency. (2) We must realize that what relief/assistance is given by the government will first go to heavily populated areas such as Los Angeles before coming to the Antelope Valley. (3) What is obvious to us is not always obvious to government leaders and/or is subject to the bureaucratic “red tape” treatment.

For example, Sarah Ferguson of the Village Voice reported: Houston activists attempted to set up a low-power radio station at the Astrodome that would have broadcast Hurricane Katrina relief information for evacuees. It had the support of the Mayor's office and Texas governor Rick Perry. To their credit the FCC quickly granted temporary license for the project. However, FEMA stated “Security

FROM THE SECRETARY'S DESK

AVARC General Meeting February 23, 2006

Our meeting started on time, but with a little confusion. The City of Lancaster decided to work on the area of the entrance to the EOC, which was fenced off. We all finally made it in through the main entrance. There were about 40 people present for the meeting. The minutes and the treasurer's report from the last meeting were voted on and accepted.

Paula announced that Rim of the World was coming up. Rim of the World will be the subject of next month's presentation.

Adrienne announced that a new Tech class will be started at the Kumon Center, on March 7th. It will cost 20 dollars for all materials and will be at 7:30 on Tuesday nights. If you know anyone who is interested please call Adrienne at 264-1863.

Retention was mentioned by Eugene, and it was suggested that we could pass out flyers at Field Day. The Southwest Convention was also mentioned and we voted to spend 200 dollars to participate.

The presentation was on MRCG, Military Radio Collectors Group. The guest speaker was Dennis Duvall. He presented quite a show with a lot of pictures of some very nice old radios.

Next month's board meeting will be held at Shakey's. The meeting ended at a little after 9pm.

Submitted by
Robert K. Holland, KG6DHQ
Secretary, AVARC 2006

AVARC Board Meeting

Date: 2 March 2006

Location: Shakey's Pizza, Lancaster

Board Members Present:

Eugene Humpherys, KG6SLC, Club President

Bill Feldmann, N6PY, Vice President

Don Jackson, WA6KKP, Treasurer

Bob Holland, KG6DHQ, Secretary

Gary Mork, WA6WFC, Master-at-Arms

Dan Sherwood, WA6PZK, Board Member

Albert Almeida, N6JZ, Board Member

Claude Brown, K7TEN, Board Member

Keith Hoyt, K6GXO, Trustee

Adrienne Sherwood, WA6YEO

Ron Hammel, K6WLC

The meeting was called to order at 1930hrs by the President, with enough members present to constitute a quorum.

The subjects that were discussed were:
Renewing our use of the EOC with the city
Getting the park permit for field day
More ideas for retention of members
Rim of the World Rally
Paying the \$10 to the L.A. Council of Amateur Radio Clubs

This month's guest speaker will be Paula Gibeault, on the Rim of the World Rally.

The next board meeting will be again at Shakey's in Lancaster on the 6th of April. The meeting ended at 2030hrs.

Submitted by
Robert Holland, KG6DHQ
Club Secretary, 2006

concerns” and the project was halted. According to Gloria Roemer, a spokesperson for Harris County, which has jurisdiction over the Astrodome complex FEMA officials further stated that FEMA could not allocate “scarce” electricity, office space, phone and/or other services for the volunteer station even though the volunteers offered to run on their own power and use their own equipment!

Perhaps Katrina's most important lesson is that WE must be prepared. Having a radio to assist others is noble and great, but rest assured, you will not be helpful for long (if at all) without **YOUR** supply of food and water.

73,

Eugene KG6SLC



TriviaTronics

By Vern Eubanks KØLV5

From the Veep...

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Early Speed of Light Experiment

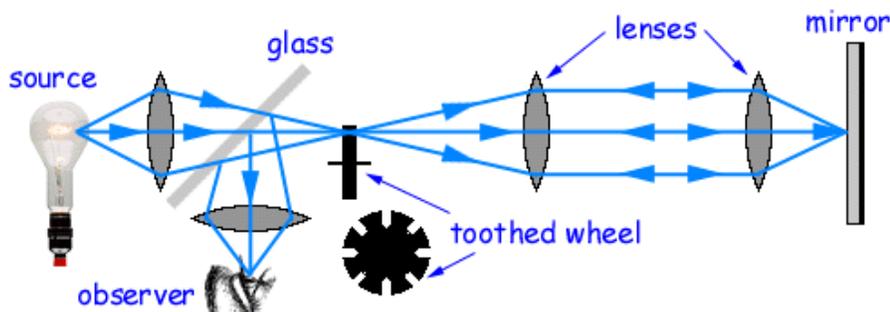
The speed of light in a vacuum is an important part of equations for radio, radar, identification, and navigation systems. It is presently defined as 299,792.458 kilometers per second (sometimes called Einstein's Constant), and further refinement of that number is probably not needed. I use Einstein's constant in my daily work, but more likely in the form of a "1 radar nautical mile = 12.4 microseconds" – the time it takes a radio wave to reach a target and return to the transmitting station. With today's technology, we have measured the speed of light with extreme accuracy, and the accepted speed of light is unlikely to be refined further. I remember reading in high school science classes that experimenters in the 19th century had made surprisingly accurate speed of light measurements, despite their crude instrumentation setup. My memory clouded by the 45+ years since high school classes, I could only remember something about rotating slotted wheels and mirrors. I lay awake at night wondering "How did they do it without electricity and electronic time instruments?"

I dug out some old references to refresh my mind, and the fuzzy images of 11th

grade physics came into focus. About 1840, two French physicists, Armand Fizeau and Jean-Bernard-Leon Foucault, constructed a wheel with hundreds of equidistant spaced notched cut in the rim. When the wheel was rotated rapidly, the notches produced a light beam pulsing at a rate specified by the rotational speed and physical dimensions of the notched wheel. The light is then reflected by a distant mirror, which reflects it back to the wheel. The reflected pulsed light can be observed from a glass plate placed at an angle in the path of the light beam. The wheel rotation is increased until the reflected light is lost. At that rotational speed, the light pulse is interrupted by the space between notches on the wheel rim. As the rotation speed is further increased, the reflected light pulse passes through the next notch opening. The speed of light can then be calculated as the distance from the notched wheel to the distant mirror and back, divided by the time the wheel moves from one notch to the next. The accompanying figure is a schematic of that test layout. The speed of light calculated from this purely mechanical experiment was amazingly within one percent of the present day accepted speed of light.

Nine years ago I got involved with rally communications by helping as a motorcycle sweep and stage communications worker. This involved first riding a race stage just prior to its start to help confirm the stage was safe and spectators on the stage knew racing was about to start. I reported the condition of the stage using a VHF and UHF radio followed by being on the stage to report positions of cars racing on the stage and any problems by radio. A few years later I helped as a stage communications team leader where I organized the communications team for the stages my team worked. I reported directly to race officials, mainly the stage captain, the status and progress of cars on the stage using information supplied by members of my team using VHF and UHF radio. Later I worked as and assistant stage team captain. Unfortunately some other obligations kept me away from the fun of working the Rim of the World Rally the last three years. But since the rally is a little earlier this year I'm looking forward to helping out again.

Please plan to attend our March membership meeting to learn how Amateur Radio is a part in rally racing, see some great racing movies, and learn how you can get involved in providing communications for this great sport.



73,

Bill N6PY



Antelope Valley Amateur Radio Club 2006 Officers

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