

# The Short Circuit

<http://www.avarc.av.org>



The official publication of the Antelope Valley Amateur Radio Club

September 2005

## President's Corner

### Rich Stocking N7OP

I think it was Vern KØLVS that stated "Ham radio is patient; it will be there when you come back to it." Luckily that has been repeatedly true, at least in my experience.

I started in Ham radio back in early 1970. Several things led to my interest, the first being a television set I built out of junk parts, chassis, and tuner to allow me to watch the 1969 Apollo 11 moon landing. Maybe too many times of getting across that high voltage sweep circuit or maybe breathing too many fumes from that oversized soldering iron seemed to change my life's interests profoundly. The next big factor was seeing a 100 foot Rohn tower being erected just a few miles away from my house. That huge TH6DX HF beam seemed to shrink as it was hauled to the top and soon was almost always pointing at South Africa. Anyway the combination of these and other factors such as a good Elmer got me hooked on electronics and inevitably into ham radio,

A homebrew XMTR, a homebrew tower and more wires than my parents could have ever imagined as "necessary" soon sprouted up to support my obsession. Three solid years of activity allowed radio to firmly get into my psyche.

The US Army created my first absence from this "deep seated mania". Back in the day when one had to swear on the FCC form that their CW proficiency and activity met sufficient standards, I faced the expiration of my first license. The ability to automatically renew without comment was years from occurring and I couldn't stay active enough while stationed overseas in HF hostile environments. I still have that laminated, faded, and well folded paper. The day that license expired was a sad one. Life went on and ham radio was not in the

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## UNITED WE STAND

### Meeting Notice

Thursday, September 22, 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.

We will have a pot luck dinner so bring a food or drink item to share.

We will discuss club activities and nominate club officers and board members for next year. The elections will be held at our October meeting.

Our speaker this month is Pat Coker N6RMJ.



N6RMJ caught in the act at 2005 AVARC Field Day

## From The Veep

### Dan Rowlan KG6PQA

In this new era of super inflated fuel prices where international oil companies are profiteering at the expense of our way of life, we have no other defense except to use less fuel. Our government, which used to regulate monopolies, is now run by and for greedy oil monopolies.

How can we use less fuel? Drive less or drive more fuel efficient vehicles, which brings me to the subject of this month's column.

One of the fun activities hams can do is to attend swap meets, ham fests, conventions etc. If we could find a way to organize a car pool or rent buses to travel as a group, it could be a lot of fun as well as saving fuel.

If you have any ideas or opinions on our traveling as a group, please be at our September meeting and let us know what you think.

Our meeting this month will be a pot luck dinner. If it is inconvenient for you to make or pick up something please come anyway, as we will have plenty of food.

Until next time...

73,

Dan KG6PQA

## FROM THE SECRETARY'S

## President's Corner...

### AVARC GENERAL MEETING

Date: 26 August 2005

Location: EOC, City Hall

44933 N. Fern

Lancaster, Calif. 93534

The President called the meeting to order at 1930hrs. We then did our Pledge of Allegiance, and moved and seconded to accept the minutes as written in the newsletter from the last meeting.

We had a very small attendance with only 25 members showing up. The Mayor of Lancaster, Frank Roberts, also attended this meeting.

The speaker for the night was our Bill Feldman, N6PY, who gave a presentation on old military radios that lasted till 2130hrs. Bill was quite enthusiastic with his presentation showing slides of many radios and explaining many of the circuits and improvements made over time with various radios.

The meeting ended around 2135 after the drawing. The next General Meeting will be nominations and hopefully a pot luck dinner. Please show up as the club needs your support.

Submitted by  
Robert K. Holland, KG6DHQ  
Secretary, AVARC 2005

### AVARC Board Meeting

Date: 8 Sept. 2005

Location: Pizza Hut, Lancaster, Calif.

Board Members present:

Rich Stocking, N7OP, President

Dan Rowlan, KG6PQA, Vice President

Don Jackson, WA6KPP, Treasurer

Bob Holland, KG6DHQ, Secretary

Gary Mork, WA6WFC, Master at Arms

Keith Hoyt, K6GXO

Vern Eubanks, K0LVS

The meeting had to be moved from Shakey's to the Pizza Hut on Tenth St. because of over crowding. Rich got the meeting going by 1940hrs. The only topics discussed were the upcoming nominations and election. This months General Meeting will be a Pot Luck dinner and nominations will be held. Please show up and show some interest in the club before we disappear. Next months meeting will be elections and our annual Anchors Away swap meet.

The next Board Meeting will be held again at Shakey's in Lancaster on the 6<sup>th</sup> of October at 1900hrs.

Submitted by  
Robert K. Holland, KG6DHQ  
Secretary, AVARC 2005

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picture for some time.

Something rekindled that spark of radio a few decades later. Karen (now KD5PLF) was away on a two week visit to Florida (with a two year old, now KD5PLE) for a high school reunion. Somehow in her absence I managed to find ARRL study guides, Morse code software, and a scheduled exam session. After a grueling 2 and a half hour session I walked out having passed all five written exams and through some miracle the 20 wpm code exam. The highest license I had held previously was a General Conditional, and now I was an Extra Class! Boy did I have news to tell Karen! Boy did she have news to tell me ... Seems Justin (now KD5PEV) was on the way. A used Ten Tec transceiver, a tuner and a CW key later had me back in the game. Of course the No antenna CC&R's challenged the creativity and camouflage skills as I had to get 3Y0PI under the belt.

From that re-entrance to the hobby I had been very active with contesting, Navy MARS, DX'ing, and exploring many technical aspects of unique modes. Even a stint in Scotland allowed further adventures involving ham radio (MM0BYC). The activity level had remained very high until ... about the third year here in the Antelope Valley. Seems the tower, beam, and dedicated ham radio room were not enough to compete with the demands of work at the Skunk works. Overtime seemed to turn into double

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**President's Corner...**

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time and soon it seemed all I did was either work or sleep. Travel started cutting into favorite activities, missing the Rim of the World Rally, missing contest after contest, ... soon just barely making board meetings and regular meetings became the norm.

Well, something finally snapped again. Maybe it was leaving Field Day to go back to work. Or, missing the wavery sound of aurora propagation over the poles on a weak R1FJ CW signal? I missed the stiff muscles and sore neck after a 48 hour contest. What good is overtime if you can't enjoy it? Definitive action was called for...and I have started exercising that action. First, I actually got a column into the short circuit for the first time in way too long. Secondly I ordered the contest radio I have been dreaming about for too many years. I should see that in October if the creek doesn't rise too much in Tennessee. The third thing involves climbing and erecting new towers but that will just scare the neighbors so I won't elaborate!

Speaking of getting back into radio, nominations are starting in September and elections for the AVARC will be held in October. If you, like me have been away too long, take the time and get back to where we all belong. See you at the next meeting and let's get the AVARC back into the radio game.

Looking forward to seeing everyone at the next meeting,

*73,*

*Rich N70P*



**TriviaTronics**

**By Vern Eubanks KØLVS**

**RADAR** (Radio Detection And Ranging) – Radar was patented by British scientist Sir Robert Watson-Watt in 1935 Early radar systems were in the VHF region using frequencies between today's 6 meter and 2 meter ham bands. The British "Chain Home" air defense radar even operated as low as 30 MHz (10 meters) . There was no technology to produce RF at high power levels in the UHF (300-3,000 MHz) and SHF (3,000-30,000 MHz) spectrum at the time. While those radar systems provided limited utility; they suffered from accurate azimuth (angle of bearing from the observer), and the ability to resolve multi-aircraft raids down to individual targets. Practical radars cannot exist in the VHF region because VHF antennas have insufficient gain and have too broad a beamwidth to identify individual targets. Radar scientists recognized the need to generate UHF and VHF signals at high power levels.

As WW2 approached, the major countries worked feverishly (but in utmost secrecy) to improve radar performance for their war machines. British engineers Harry Root and John Randall invented the multicavity magnetron in 1939, opening the way for radars operating at 3 GHz (3,000 MHz) and higher.

For the first time, radar antennas with pencil thin beams could be produced for ship and aircraft installation.

12 prototype "Maggies" (as magnetrons became known) were produced. One was shipped to the US in 1940 under the ultra-secret "Tizard Mission". Within a month, a US military "RADLAB" (Radiation Laboratory) was set up at MIT. The RADLAB technical staff grew to more than 1300 engineers and scientists, including ten future Nobel Laureates. RADLAB developed more than one hundred models of radar, including early warning systems, anti-aircraft gun-laying radars, anti-submarine radars, ground approach systems, and bomber targeting radars. Nearly one million radar sets were produced in the U.S. as the war progressed!

The Japanese, who had independently invented the multicavity magnetron before Root and Randall, were hampered by bureaucratic entanglements, military secrecy and personnel shortages as engineers were drafted into the army as ordinary soldiers. The Germans never produced an SHF radar during the war and were caught in a losing game of technical catch-up.

*Vern*

**FOR SALE**

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1. Custom home in SE Palmdale on a hilltop overlooking the Antelope Valley. 3 towers and misc. antennas on 1.5 + acres. No neighbors, no CC & R's, and all towers grandfathered. Top-of-the-Honor-Roll status and other awards obtained using this location.
2. M2's version of the KT36XA tri-bander, partially assembled.
3. M2's 8 element log periodic for 6-30 Mhz. Out of the box but never assembled.
4. ICOM IC-T7H dual band FM handheld transceiver. New and never out of the box.
5. Misc. pieces of aluminum tubing salvaged from various low band antennas.

For more information on any of the above items please call Keith, K6GXO, at



### Antelope Valley Amateur Radio Club 2005 Officers



<b>President</b>	Rich Stocking	N7OP	949-1039
<b>Vice President</b>	Dan Rowlan	KG6PQA	944-1123
<b>Secretary</b>	Bob Holland	KG6DHQ	285-0150
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