

VACAVILLE, CALIFORNIA

VACA VALLEY RADIO CLUB

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February 2009

Message from the President

By Mike Vieira W6MAV

Happy Ground Hog Day to all, the little critter saw his shadow so six more weeks of winter. Could have fooled me with this wonderful weather we've been having. Valentine's Day is also fast approaching so make sure you do not forget your significant other. We will have a great program this Wednesday with Art Mayoff from Benicia talking about the new digital television conversion. We will be having dinner with Art at the Outback Restaurant in Vacaville at 5:30 PM just before the meeting. I have reserved a table for 8, which has filled up already. I'm sure there will be other tables available close by.

There are a few contests this month. The North America Sprint, CW (Feb 7-8, 2009) and The North America Sprint, Phone (Feb 14-15 2009). Both are very easy; just make as many North American contacts as you can. (From Nicaragua to the south, Canada/Alaska to the north and the Caribbean to the east.)

Did anyone see the lunar penumbral eclipse Monday morning at 6:00 AM? I would have, but I have no idea what a "penumbral" is.

I am working on other great programs for the coming year. If you have someone of interest who you think would make a great program, please contact me. We are looking for communication type programs, but if anyone knows someone of interest or with an interesting topic that would be great.

Thanks all, hope to see you at the meeting Wednesday night!

73' Mike W6MAV

Club Meeting Minutes—January 2009

With a crisp sizzle in the air the meeting was called to order for the first time in 2009 by club president Mike Vieira W6MAV at 7:14pm local time.

Reports

Minutes from the December 2008 meeting/Christmas party at Hometown Buffet were discussed with no changes made to the report. A motion was made and seconded to accept the minutes as submitted by Skip Lawson AF6HC.

The financial report was submitted by Bob Hewitt K6HEW as follows:

\$815.94 General Fund
736.47 Repeater Fund
0.00 Prize Fund
\$1,552.41 Total in the Bank

Old Business

Discussed was postponed until the February meeting regarding a club donation to Skipp May WV6F to support our club repeater.

New Business

Interesting and spirited discussion was had about the new location and coverage of our new repeater location high on Mt. Vaca. A quick demonstration on how to turn on the PL tone was done by Kim KI6JNX for the elucidation of the group.

The meeting was closed at 8:34pm with a motion and second.

Courteously submitted, Jerry Olive KD6WKY, Club Secretary

East Bay Section Manager in the Area

I got an email from Jim Latham AF6AQ giving me a heads up that he will be attending our club meeting. I immediately invited him to dinner at Outback Restaurant at 5:30pm prior to our meeting. Mike Vieira W6MAV, Art Mayoff, AB6HB, and several other club members will be breaking bread at that QTH so come join us. Jim visited us just a few months ago. He must like us!

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FAMOUS AMATEUR TO SPEAK AT VVRC MEETING

Famous amateur Art Mayoff, AB6HB will speak at the Vaca Valley Radio Club meeting on February 11 at the Vine Street Fire Station. The subject of his talk will be a lightly technical presentation about the upcoming switch to digital television. Art lives in Benicia and it is safe to say, is known by almost all the hams living there.

His talk has been presented to other Solano County radio clubs with great acclaim. It touches on some of the parameters of Digital TV and why four TV programs can now fit in the space formally occupied by one.

The Switch involves a lot more than just turning off the analog TV channel. Many of the stations will change their present digital frequency to another. This in turn means that folks who are presently receiving digital TV over the air will need to rescan their receivers after the switch. He also explains why Channel 3 will still be called Channel 3 even though it is now occupying different part of the electromagnetic spectrum.

If you wish to learn more, plan on attending the meeting.



VACA VALLEY RADIO CLUB—2009 ELECTED OFFICERS

President: Mike Vieira, W6MAV
 Vice President: Open and taking resumes!
 Secretary: Jerry Olive, KD6WKY
 Treasurer: Bob Hewitt, W6HEW

BOARD OF DIRECTORS

Director: Skip Lawson, AF6HC
 Director: Chris Jones, KD7TQO
 Director: Antonio Del Rio, N6ZGB
 Director: Glen Mitchell KI6CJZ

APPOINTED POSITIONS

Net Control Chairperson: Open
 Activities Chairperson: Board of Directors
 Newsletter Editor: Jerry Olive, KD6WKY
 Newsletter Publisher & Distributor: Bob Hewitt, K6HEW

HAM RADIOS FOR SAFETY: Campus seeks radio users to keep communication lines open during emergencies

By Julia Ann Easley

January 30, 2009—A lone voice rode out on a very high frequency into amateur radio bands to conduct a roll call. And one by one, about a dozen UC Davis volunteers transmitted their call sign and reported their locations across campus.

It was the weekly check for the recently established UC Davis amateur radio group, an important part of the university's plan for communicating across campus and with other agencies in an emergency.

"It's a backup communication system that is outstanding in communicating when other systems are overloaded," said John Berg, who helped found the group and is a member of the campus team that regularly trains and coordinates response to emergencies.

Berg works as a laboratory manager in the Department of Chemistry and is known on the airwaves as K6JRB. After the 2007 shooting tragedy at Virginia Tech, he responded to a chancellor's message about campus safety initiatives and offered to help set up an amateur radio group.

Amateur radio, which transmits and receives messages on radio frequencies set aside for noncommercial use, is a reliable and powerful means of emergency communications when telephone, cell phone and Internet services are overloaded or damaged.

UC Davis recently purchased a transmitter/receiver and scanner for its base station, adjacent to the Emergency Operations Center, and installed an antenna on top of the building. "It's a really big achievement," Berg said.

In an emergency, a controller at the UC Davis base station would dispatch group members to areas of campus where communication support was needed. The base station would feed information to and from the campus emergency operations team.

Currently, the amateur radio group includes men and women from across campus. Some have been licensed for more than 40 years; others have just earned their license.

Gary Matteson, who is a researcher in biological and agricultural engineering and WA6TQJ, performed the recent net check. Among others, Gary Ford, associate vice provost for undergraduate studies and call sign N6GF, reported in from Mrak Hall.

Nancy Flagg, budget and finance manager for Student Affairs and KI6KWB, responded from the South Silo. And nurse practitioner Pamela Porter, or N6OLO, checked in from the Cowell Student Health Center.

Other ham radio operators from Sacramento and Vacaville reported in as guests. "You've got a great signal," said Greg Kruckewitt of Vacaville, also known as KG6SJT. "It's booming right in down here."

Alison Kent, publications coordinator for the Wildlife Health Center and KI6IMU, earned her license two years ago and values the chance to provide help in an emergency. "Last year when we had the big storm," she said, "here were the hams with all their backup equipment."

Diana Cox, emergency and continuity planner for the campus and also a licensed ham radio operator, is recruiting other members of the campus community—including students—to participate in the amateur radio group.

While amateur radio operators must be licensed by the Federal Communication Commission, Cox said, people should not be intimidated by the little bit of studying it takes. The written test covers some electronics theory and amateur radio rules and regulations. The FCC recently eliminated a Morse code requirement.

The UC Davis group conducts its weekly checks at 12:30 p.m. on Mondays at 146.475 MHz. For more information, call Diana Cox at (530) 754-2559.

13.56 MHz as a Cancer Cure? It just might be!

From *QST* - a magazine of the ARRL, the national association for Amateur Radio in the US

In the past months there has been a lot of publicity about John Kanzius and a possible method of destroying cancerous tumors in humans using RF energy and nanoparticles. Animal tests look very good and human testing is on the fast track. But who is this and how does radio fit in?

John Kanzius is a ham, K3TUP, and a cancer survivor. He loves to build what he calls "exotic antennas" at his station. Stacked rotating beams or a rotating tower with multiple beams was a common K3TUP antenna farm. According to John, many well known contesters won world wide contests from his Western Pennsylvania site as guest op's.

John also is a broadcast engineer who acquired ownership of several radio and TV stations, then sold them as a group and retired to a life of leisure on Sanibel Island - or so he

thought. That dream was destroyed in 2002 when he was diagnosed with leukemia.

In between trips to the doctors, he saw the devastation cancers have on human beings and the horrors of chemotherapy's side effects. Despite the advances in pharmacology and surgery, "cancer" was still a terrifying word. The slow downward spiral that engulfed many lives, let alone his own situation, was summarized by John as, "...hoping we kill the cancer before we kill the person."

In October 2003 John had an idea - kill cancer cells with radio waves. As every ham knows, radio energy (RF) can heat objects. This was not a new idea and had been tried before with poor results. Previous attempts, called "ablation," used needles inserted into the patient as the targets for the RF energy. The energy would heat up the needles and cook the tissue surrounding the needle. The problem was that it (a) used needles and (b) cooked everything, both good and bad cells. But John's idea went further - and this is where the inspiration came. What if, instead of needles, the cancer cells were tricked into taking a metal target inside just the tumor cells?

Like many of us who have great ideas in the middle of the night, it sounded good to him. But unlike most of us, he did not wait until morning. Rather than run the risk of losing the concept in his sleep, John immediately got up in the dark and began work on possible antenna designs by cutting up his wife's pie pans. Hearing the strange noises in the night his wife, Marianne, investigated. "What the hell are you doing?"

John's first attempts used copper sulfate, and his first "patient" was a hot dog. But it worked and gave him the confidence to start asking questions of doctors in the field. The next steps were to interest scientific researchers in the concept, build a special transmitter that could safely focus the RF energy, test it out on real tumors, find ways to trick cancerous cells into absorbing the RF target and see if it really was "too good to be true."

THE VVRC WELCOMES YOU

The Repeater is Published by the Vaca Valley Radio Club, PO Box 143, Elmira, CA 95625-0143, An ARRL Affiliated Club. Founded 1987, Chartered 1988 General Meetings: 2nd Wednesday of each month at 7:30 PM 420 Vine Street Fire Station.

Wheelchair accessible

Visit the Repeater online courtesy of Bob K6HEW at:

<http://users.cwnet.com/hewbob/vvrc>

Club repeater in Vacaville: W6VVR 145.470 MHz(-) pl 127.3

Additional local repeaters

WV6F 224.200(-) WV6F 440.025(+) WV6F 1291.900(-)

A much better RF target was presented in 2005 when his own personal doctor brought him into contact with Dr. Steven Curley, M.D., a professor at the M.D. Anderson Department of Surgical Oncology at the University of Texas. Dr. Curley found the process promising and brought a present – “nanoparticles.”

Nanoparticles are incredibly small objects, usually metallic, measured in billionths of an inch. If the tumor cells could be made to take these particles internally, and if they could then be heated up with RF, would that kill off the tumor or the patient?

John built a special RF generator for the project. As John says, “Trying to build an array that would heat particles one billionth of a meter in length was challenging. But building equipment all of my life was inspired by my dad, W3NRE, who was licensed in 1934.”

As for attracting serious researchers, John got the interest of Dr. David Geller, a co-director at the University of Pittsburgh Medical Center in their liver cancer program.

In 2005, John, Marianne, Curley and Geller put it all together for the first time in a lab at the University of Pittsburg. John’s special RF generator targeted a tube of carbon nanoparticles in a solution. John had the honor of pressing the switch, and within seconds the solution began to boil.

Dr. Curley knew they were on to a major event in medicine. “We could target specific abnormal proteins, put a polar charge on the nanoparticles and use magnets to focus them on those areas of the tumor.”

Dr. Richard Smalley (SK), a Nobel laureate and also a cancer victim, was Rice University’s expert in nanoparticles and especially “fullerenes,” which are made of carbon and include tube shaped particles called “nanotubes.” When Dr. Curley first reported to Dr. Smalley that he actually had seen carbon nanoparticles get very hot when in the beam of John’s RF generator, Smalley is reported to have grasped the importance immediately and exclaimed, “Holy God!”

John is more modest about it and simply writes, “The research

scientists at Rice were stunned to see that my device could heat nanoparticles at the 13.56 MHz frequency.”

Dr. Smalley spent the rest of his working days on the project because he believed that this is indeed the breakthrough that had been hoped for by so many millions. Dr. Boris Yakobson, Ph.D., continues the work at Rice.

The rabbit didn’t die

Initial animal testing done at Rice University used rabbits. Being careful that all scientific methods were complete with several control groups, a solution containing carbon nanotubes was injected into cancerous tumors in rabbits. The rabbits had either pancreatic cancer or liver cancers. Four rabbits were the primary test animals for the experiment. After the injection, they were put into the special RF field created by John’s RF generator for two minutes. 48 hours later the results were checked. The tumors in all four had been destroyed by heat, but there was very little damage to neighboring tissues as close as 2-5 mm away.

Science is an exacting discipline. Every aspect of a clinical trial, let alone a revolutionary finding like this one, must withstand extensive peer review and be published for others to test and duplicate. In September 2007 John learned that the paper he co-authored¹ had been accepted and would be printed in no less than *Cancer*, a major oncology medical journal published on behalf of the American Cancer Society in December.

The Future

Unfortunately, even though in vivo animal tests and human cancer cells on Petri dishes have been destroyed by this method and the technology is on “fast track,” actual experiments with living human cancer victims still may be three years away. Meanwhile he has been bombarded with offers and people wanting to make a deal for his invention.

Work continues to progress on the procedure at the world’s largest cancer research center. John wisely patented his RF

generators being made in a factory, so his wife's pie pans are safe again. John is obviously optimistic about it all and credits his Amateur Radio experiences as a fundamental part of the invention process.

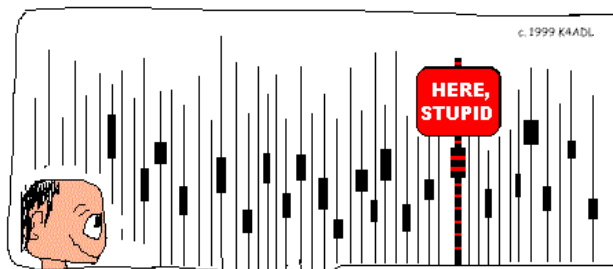
"If it were not for my ham radio and all the days of experimentation to improve my station, this new procedure for treating cancer, which continues to show such promising results, would probably not be on the cutting edge at the largest cancer center in the world."

In the past months others have also become excited as positive results pile up.

Editors Note—I was not able to single space this article for some reason.



All the equipment is Homebrew!



OWING TO HIS EXCELLENT BUT SOMEWHAT SELF-EFFACING SIGNMAKING SKILLS, LEONARD QUICKLY LOCATES HIS VEHICLE AT THE DAYTON HAMFEST.



PLEASE RENEW YOUR MEMBERSHIP

VACA VALLEY RADIO CLUB, INC.
MEMBERSHIP APPLICATION / RENEWAL FORM

Please Print & Fill in Completely

Dues are delinquent January 1st

Name: _____ Call Sign _____	MEMBER Dues -----\$15.00 _____
Street: _____	Each Family Member ---\$ 2.00 _____
City: _____ Zip: _____	Student -----\$ 5.00 _____
Phone: (____) _____ - _____ OK to Publish?(____)	Repeater/Autopatch donation--- _____
License Class: _____ ARRL Member?(____)	Call/Name badge -----\$10.00 _____
E-Mail Address _____	Optional ARRL membership
FAMILY Member (Spouse or Children)	ARRL dues-----\$37.00 _____
Name: _____ Call Sign _____	ARRL dues (Senior) -----\$34.00 _____
License Class: _____ ARRL Member?(____)	Senior is 65 yr or older with one time proof on age.
Name: _____ Call Sign _____	Total----- _____
License Class: _____ ARRL Member?(____)	Paid by CASH: _____ Check # _____

Mail to : Vaca Valley Radio Club, PO Box 143, Elmira, CA 95625-0143