

YAVAPAI SIGNAL

The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 15 – No. 8f • Sept. 2004

Welcome To The Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliated club. The club participates in many activities in the tri-city area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community. Membership in the YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00/yr. The YARC meets at 7:00 PM local time on the 3rd Thursday of every month at the Granite Mountain Middle School, 1800 Williamson Valley Rd. in Prescott. It is about 1/2 mile north of Iron Springs Rd and all amateurs and non-amateurs as well are invited. Programs of interest are included as part of the meeting. The weekly NET is held every Wednesday at 7:00 PM local time on the 146.880- repeater. All amateurs are invited to participate and visitors are always welcome. The Yavapai County ARES/RACES NET is held on Monday nights approximately at 6:45PM local time on the 147.220+ repeater on Mingus Mtn.

Club Repeater

The local 146.880- mHz repeater is the official adopted repeater for the YARC. It is located on the hill above Willow Creek Rd and requires a PL of 100.0 Hz. If you hear a 1400 Hz pulsing tone, the repeater is on backup battery power and usage should be limited to necessary communications. The 147.040+ (100.0 PL) repeater is back up and running in Prescott Heights. Many thanks to Bill Kafka, W2YAV for the upkeep and use of the repeaters.

YARC Officers for 2004

<i>President</i>	<i>Vice President</i>
Rex Mauldin-N7NGM <i>rxer@jolmail.com</i>	Dick Hughes-W6CCD <i>w6ccd@arrl.net</i>

<i>Secretary</i>	<i>Treasurer</i>
John BroughtonWB9VGJ <i>wb9vgj@arrl.net</i>	Al Crook-KD7MTJ <i>alcrook@access-4-free.com</i>

YARC Board of Directors (includes Club Officers)

Bob Smith-WB6ODR
Frank Horneff-WA7JBV
Jack Ragen-W3IVQ
David Passell-K6UWV

Weekly Net Control–Rex Mauldin-N7NGM
Newsletter Editor–Hal Tritel-N6OVE



Let's Get to Know Club Members Better—Say "Hi"

In lieu of an expected front page story that didn't arrive, I am taking this opportunity to invite club members to send photos and some words about themselves. I will then make a regular column featuring one or more members every month.

Tell us when and how you first got interested in amateur radio, ham activities in which you participate, and the equipment you use. What are you doing now (*working, retired, or student*)? Send a photo of your shack, too. Everyone wants to know you, *so don't be shy.*

I introduced myself several months ago, or was it years ago, and it didn't hurt a bit, so suck it up and start writing.

The picture above was taken at the St. Valentine's Day party at the China Buffet where I won a Radio Shack gift in the drawing for prizes.

Minutes of August 26, 2004 Meeting



Rex, N7NGM, called the meeting to order at 1900. The Pledge of Allegiance was recited. Pat Savage, KC6VXR,

and Jack Crabtree, W7JHLC, were visitors. Pat said he would be handing the photography duties for the Prescott Rally in October. There were no new members or new/upgraded licenses. John, WB9VGJ, moved that the approval of the July meeting minutes be postponed until the September meeting, as the June newsletter hadn't yet been published. Bob, WA7YUL, seconded the motion and the motion was carried. John moved that the June meeting minutes be approved. Bob, WA7YUL, seconded the motion and it passed. Committee Reports: Emergency/public service: Lee Cunningham, KC7CBK gave the emergency/public service report.

1. AZ state RACES is developing a statewide net to be conducted via IRLP (Internet Radio Linking Project). It is tentatively scheduled for Wednesdays at 2000 Hrs. on IRLP note 9255. The length and format have yet to be determined, as well as the starting date.
2. The 2004 ARRL Southwestern Convention is August 27th thru 29th at the Sheraton Wild Horse Pass Resort & Spa, 15 miles south of downtown Phoenix.
3. A driver and rider are needed to enter the Comm Van in the 18th annual 1st Territorial Capital Days parade in Chino Valley on Saturday, September 4th. Registration is between 0800 and 0930 Hrs. with the parade starting at 1000 Hrs.
4. Two volunteers are also needed to explain and operate the radio station at the Red Cross Open House on September 10th from approximately 1530 Hrs to 1900 Hrs. The open house starts at 1600 Hrs. with the ribbon cutting ceremony. A dedication of the new flagpole will be at 1715 Hrs with a BBQ to follow.
5. The DHS (Department of Homeland Security), along with many other agencies and organizations, including the ARRL, are launching "National

Preparedness Month" in September, the actual date not yet decided. In addition, September 11th is the ARRL's Amateur Radio Awareness Day. The two events offer great opportunities for Amateur Radio to showcase its valued service to the nation. ARRL affiliated clubs and the Field Organization should take advantage of this national event and set up demonstrations in public arenas, such as schools, malls and fairs, to present and explain to the public, under the banner of National Preparedness Month, just what the Amateur Radio service provides to their community. This is also an excellent opportunity to recruit prospective hams for licensing classes that you may be forming for the fall season.

6. A driver for the Comm Van and volunteers are needed to man the water/rest stops at the Tour de PeeVee Marathon to be held September 11th, from 0700 to 1200 Hrs. Contact Lee, KC7CBK, or Doug, KV8TD.
7. A communications exercise has been tentatively scheduled for the week of September 26th. The exercise's objective is to test the communications between the EOCs of La Paz, Mohave, Yavapai and Yuma Counties, the State of Arizona and the cities of San Luis, AZ, and San Luis, Mexico. The exercise, "Operation REACT," is scheduled for November 12th and 13th. Mohave, Yavapai and Yuma Counties will participate in the exercise on Friday, November 12th. Yavapai County's exercise will be in conjunction with Yavapai County Health Services. The Comm Van will be used in the exercise so a driver will be needed for that date.
8. The HF antenna has been installed and tested with the thanks of Lloyd, WA6ZZJ, Lee, KC7CBK, Jim, N5RO and a future ham, Tom. A few modifications still need to be completed in the "new" radio room next to the ready room at the Commerce EOC.
9. A driver and a couple of operators are needed to make a communications survey of the area around Yarnell and Congress. The object is to test if a repeater can provide a path from Mt. Union to the repeater on Smith Peak (146.680- MHz or 443.774+ MHz) for the upcoming REACT exercise.
10. The Prescott Road Rally will be Friday, Oct. 1st and Saturday, Oct. 2nd.

Contact Bob Rosevear, WB7RRQ, or Frank Horneff, WA6JBV, to reserve your location.

11. Volunteers are needed for the Walk for Diabetes to be held Oct. 16th on the Yavapai-Prescott Reservation to man the water/rest stops. Contact Lee, KC7CBK, or John Broughton, WB9VGJ, to volunteer. Newsletter: Hal advised he needs more items for the newsletter. He advised the August newsletter was not available for the meeting due to equipment problems at Insty-Print.

Treasurer's report: Al, KD7MTJ, gave the treasurer's report.

Old Business: Rex brought up the issue of the need for a net control operator for the weekly club net. There were no volunteers. David, K6UWV, discussed his experience as net control and the check-in sheets he prepared. John, WB9VGJ, had the remaining club brochures that Lloyd, WA6ZZJ, had gotten printed and asked who should be in possession of them. Lee, KC7CBK, took them. There was discussion about updating the brochures to remove officers' names and correct the URL for the club Web site. The consensus was there should be no specifics in the brochure that would need changing due to changes in officers, meeting date, etc. Hal, N6OVE, mentioned the ARRL has information clubs can include in brochures. Discussion was also held about having more brochures be printed, as the supply is low. Al, KC7MTJ, advised it cost \$78.00 for 60 brochures to be printed at Insty-Print. Bob, WB7RRQ, made a motion that the brochures be updated. John, WB9VGJ, seconded the motion. The motion carried. Lloyd, WA6ZZJ, will be asked to do this when he gets back from vacation. Hal, N6OVE, volunteered to get estimates from different printers for printing up a larger quantity of brochures. Rex brought up the issue of club patches. Attendees were very positive about having club patches. John, WB9VGJ, made a motion to pay \$30.00 for three sample patches. Doug, KV8TD, seconded the motion. Bob, WB6ODR, will be advised of the motion and obtain the sample patches.

New Business: Rex brought up the issue, originally requested by Jim, N5RO, of the YARC meeting on the third Thursday of the month (*See page 4 – Minutes*)



I was going to have Lee send in a column, but maybe he ran out of time too and now he is out of town. I am on the road and in North Dakota at this time. I

guess if you want go ahead and run last month's column to fill space. I will be back the end of September to get next month's column in.

(Hurricane)

In advance of the storm, SKYWARN teams were active the Hurricane Watch Net and WX4NHC at the National Hurricane Center cooperated to gather ground-level weather data and damage reports.

“It seems as if the Amateur Radio world is listening and waiting to help when an event such as this occurs,” observed SATERN National Director Pat McPherson, WW9E, “and it's edifying to realize the positive impact of their dedication to the task of helping others.”

Source: The ARRL Letter Vol. 23, No. 33 August 20, 2004

ARES/RACES

Training Exercise

There will be an Arizona State Terrorism Exercise on Friday and Saturday, November 12th and 13th. Counties in Arizona and California as well as Mexico will be involved in this two day event. On Friday the 12th Yavapai County Community Health Services (YCCHS) will be having a Bio-terrorism exercise in conjunction with the State event. There could be extensive use of ARES/RACES personnel during this exercise with communications within the County as well as to the State EOC and other County EOCs. I will have more information on this as the time draws closer.

Public Service Communications

As of this writing, I have been unable to contact the March of Dimes organizers on a date for the March of Dimes Walk America. It has been held in September the last couple of years and I assume it will be again, but it is unknown for sure at this time. As soon as we get a date we will start calling for operators.

The Prescott Road Rally will be Friday and Saturday, October 1st and 2nd this year. The word I have from Bob Rosevear is that the course will be much the same as last year so for those who want the same positions they can get their name on them. Contact Lee, KC7CBK, or Frank, WA6JBV, to get your name on the list. This is probably the largest single event that we provide communications for and thus takes the most operators.

The Americas Walk for Diabetes will be held on Saturday, October 16th this year and will once again be on the Yavapai Indian Reservation. We will begin taking commitments for this around the middle of September.

Lloyd, WA6ZZJ

A Silent Key

Marbrey L. Rogers, 69, of Prescott Valley, born Oct. 25, 1934, in Atlanta, Ga., died Wednesday, Aug. 18, 2004, at the Good Samaritan Regional Medical Center, Phoenix.

(Minutes from page 2)

conflicting with the meetings of the Yavapai County Sheriff's Search & Rescue team. He advised there are active hams on the team who are unable to attend YARC meetings due to the conflict. John, WB9VGJ, pointed out this situation also exists with the Sheriff's Jeep Posse. A lively discussion ensued.

Many attendees felt it would be beneficial to change the meeting night in order to offer the opportunity for active hams in the area to attend YARC meetings and join the club. The fourth Thursday was ruled out due to probably holiday conflicts. The second Thursday was ruled out due to the fact that the S&R team has training meeting on that night.

A different night of the week was not well accepted by attendees. A consensus was reached that the first Thursday of the month would be a good meeting time. Doug, KV8TD, made a motion to move the meeting to the first Thursday of the month for a three-month trial period beginning with the October 2004 meeting. David, K6UWV seconded the motion. The motion carried.

John, WB9VGJ, announced the club is sponsoring the second special event operation to celebrate the birthday (133rd) of the NRA (National Rifle Association) on Nov. 17th. The information has been given to the ARRL so the information will be in the Nov. issue of QST. The information is also on the club Web site. John asked anyone interested in participating in this event to contact him.

Rex gave a report on his efforts to get an article in the Daily Courier about the pre-Field Day event the club held at the Prescott Library in June. He was originally promised a reporter and photographer would attend the event, but only a photographer showed up. He pursued the issue with the Courier and his efforts resulted in a reporter contacting him and writing a very good article in the paper about the event. Rex also advised a ham had a tower available if someone would come and get it. He advised another ham, KC7FPK, had a 2M and 6M beam, tower and rotator he wanted to donate to the club. Rex has all the equipment except the tower. Contact Rex for more information on the equipment.

Doug, KV8TD, advised that he had a

sign-up sheet for the Tour de PeeVee and asked for volunteers.

The meeting adjourned at 2005.

The meeting reconvened for the program at 2019.

Rex gave a short talk on his trip to the East Coast, particularly his visit to ARRL headquarters and his chance to operate the W1AW station, and his visit to the home of Samuel FB Morse. The drawing was held,



Jack Crabtree, W7JLC

and Doug, KV8TD, won \$14.50.

Jack Crabtree, W7JLC, gave the program. It was about ANSR (Arizona Near Space Research), an organization that promotes science and education through high altitude balloons and amateur radio. He showed a very interesting video about the organization's balloon launches. More information can be found about this organization at the ANSR Web site at <http://www.ansr.org/html/index.php> and KD7LMO Web site at <http://www.kd7lmo.net/ansr.html>.

The program ended at 2054.

*Respectfully,
John Broughton, WB9VGJ
Secretary*

Summary of YARC Meeting Attendance 09/03 – 08/04

I had an action item from the August board meeting to create a matrix of meeting attendees for the past year. The board wanted an idea of how many members usually attend the club meetings. I created the matrix along with some summary data. I thought the club in general might be interested in the summary data.

Club membership entities: 73
(number of roster entries)
Individual members: 76
(including spouses)
Courtesy members: 4
(club, ARRL officials)

Total individual members: 72

56 local members attended a meeting in the last year, 13 did not:

Individual members living in Tri-City area: 69 (95.8% of total individual members)

56 attendees in past year = 77.8% of total individual members

56 attendees in past year = 81.2% of total individual members living in Tri-City area

13 non-attendees living in Tri-City area = 18.8% of individual members in area

*John Broughton, WB9VGJ
Secretary*

“Only Reliable Communication We Have Here Is Amateur Radio”

Once again, Amateur Radio has proven its value in an emergency. With conventional telecommunication systems unreliable and power still out after the Category 4 Hurricane Charley blasted across the Florida Peninsula August 13, Amateur Radio has proven to be a communication mainstay.

“The only reliable communication we have here is Amateur Radio,” ARRL West Central Florida Section Manager Dave Armbrust, AE4MR, told ARRL earlier this week. He was one of the three dozen ARES volunteers at the Charlotte County command post. “We’re out in the field trying to handle so many different things that it’s almost overwhelming,” he said five days into the activation.

By week’s end, the need for additional ARES volunteers in the Hurricane Charley relief and recovery effort had stabilized. Communications and Warning Officer John Fleming, WD4FFX, of the Florida Division of Emergency Management (FDEM) told ARRL that ham radio volunteers already on duty in the five most severely affected counties were holding their own in maintaining necessary emergency communication. But he advised Amateur Radio volunteers to remain at the ready, just in case, and recommended that ARES teams, clubs and individuals work through their ARES Section Emergency Coordinator.

The FDEM says Hurricane Charley caused two dozen deaths and nearly 4000 injuries, and almost a quarter-million residents were still without power at week’s end. Other reports indicate that as many as 10,000 homes were badly damaged or destroyed.

The most severely stricken communities are in largely rural areas of western and central Florida made up of smaller towns. Among other storm relief duties, hams have been part of an effort to check on residents and determine what they need and to “make sure everyone’s okay,” Armbrust said.

Amateur Radio operators have been handling emergency traffic and assisting the Federal Emergency Management Agency (FEMA) in setting up HF communication to the state emergency operations center in the capital of Tallahassee. ARES also has provided communication for search-and-rescue teams and supported American Red Cross and The Salvation Army humanitarian relief efforts.

In addition, ARES operators handled outgoing health-and-welfare traffic from storm victims now taking refuge in shelters, provided or supplemented public safety communication and even took on some dispatching duties. Amateur Radio volunteers also deployed to hospitals, some of which have experienced spotty com-

**YARC TREASURER’S REPORT
August 2004**

INCOME

Renewals:

18 Aug	W2JKG	Tom Gregory	Ck. 587 (5/05)	\$20.
18 Aug	W7GWM	G.W. Miller	Ck. 4623 (7/05)	20.
20 Aug	KC7TIN	Fred Shefflette	Ck. 5309 (8/05)	20.
26 Aug	K6OVE	Hal Tritel	Ck. 1940 (8/05)	20.
26 Aug	KV8TD	Doug Freeman	Cash (8/05)	20.

50/50 Drawing				29.
		Total Income		\$129.

EXPENSES

1 Aug	Insty-Prints	Jul Newsletter	Ck. 771	\$39.42
50/50 Drawing	KV8TD	Doug Freeman		14.50
		Total Expenses		\$53.92

Cash Flow + \$75.08

FISCAL STATUS

Previous Balance	\$1714.44
Checkbook Balance	1789.52



Al Crook Treasurer
August 27, 2004

munication. Several VHF and UHF repeaters have been buzzing with emergency traffic all week.

Armbrust emphasized that Hurricane Charley cut a broad swath across Florida, and the devastation was widespread. “This looks like a war zone,” he remarked. Hot, humid weather has aggravated the relief effort, especially for emergency medical service personnel who not only are dealing with storm-related health issues but with those resulting from the heat.

ARES teams from Florida Miami-Dade, Martin, St Lucie, Broward, Okeechobee and Palm Beach counties deployed to relieve or assist the amateur operators on duty in the affected communities.

In Sarasota County, Ron Wetjen, WD4AHZ, has been working at the county EOC and assigning volunteers to assist in neighboring

Charlotte County, where Armbrust has been holding down the fort.

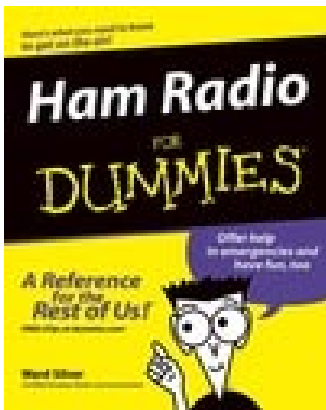
“We’ve had offers of help from guys in Montana, Ohio, and New York!” Wetjen said August 19. “We have a couple from Tennessee here now, with two more on the way for the weekend.”

The Salvation Army Team Emergency Radio Network (SATERN) on 14.265 MHz spent nearly five days in continuous operation. It’s also used Amateur Radio for its logistical communications. The Salvation Army has been providing meals, household necessities and other assistance to residents displaced by the storm and has been relying on its own Amateur Radio resources. SATERN also has taken on responsibility for health-and-welfare inquiries, both via Amateur Radio and through its Web site <http://www.satarn.net>. (see pg.3, hurricane)

Ham Radio for Dummies

You may be aware that my new book, "Ham Radio for Dummies" has been released by Wiley Press. It has been receiving good reviews, such as the one by Rick Tavan N6XI on page 62 of the July QST. Other reviews will be forthcoming in CQ and WorldRadio later this summer.

I wrote the book for new hams as a "Desktop Elmer" and for people interested in becoming hams. Even so, experienced hams will also find new items to pique their interest. There is a sample chapter at <http://www.dummies.com/WileyCDA/DummiesTitle/productCd-0764559877.html> as well as a substantial "bonus content" package on the technical details of operating and a large list of Web references. All can be downloaded free. The book is available both on-line and in bookstores at prices from \$15 to \$22.



Thanks for your interest and assistance!

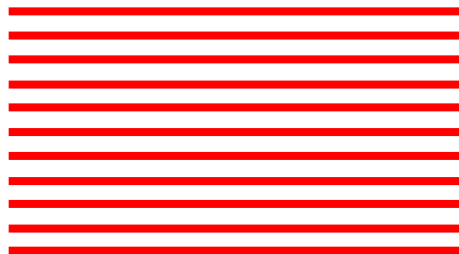
73, Ward Silver N0AX

Computer Savvy

A woman was helping her computer-illiterate husband set up his computer, and at the appropriate time she told him he would need to choose and enter a password - something he would use to log on. The husband figured he would be Mr. Cool and try for the shock effect to get his wife's attention. So, when the computer asked him to enter his password, he made a show out of keying in the word "p.e.n.i.s".

His wife fell off her chair laughing, when the computer replied:

"PASSWORD REJECTED - NOT LONG ENOUGH".



The Power of Coffee

An Irish woman "of a certain age", visited her physician to ask his help in reviving her husband's sex drive.

"What about trying Viagra?", asks the doctor.

"Not a chance," she said. "He won't even take an aspirin."

"Not a problem," replied the doctor. "Drop it into his coffee. He won't even taste it. Give it a try and call me in a week to let me know how things went."

It wasn't a week later, but what she rang up the doctor, who directly inquired as to progress.

The poor dear exclaimed, "Oh, faith, bejaysus and begorra! 'Twas horrid. Just terrible, Doctor."

Strong Man

The local bar was so sure that its bartender was the strongest man around that they offered a standing \$1000 bet. The bartender would squeeze a lemon until all the juice ran into a glass, and hand the lemon to a patron.

Anyone who could squeeze one more drop of juice out would win the money. Many people had tried over time (weight lifters, longshoremen, etc.) but nobody could do it.

One day this scrawny little man came in, wearing thick glasses and a polyester suit, and said in a tiny, squeaky voice, "I'd like to try the bet." After the laughter had died down, the bartender said OK, grabbed a lemon, and squeezed away. Then he handed the wrinkled remains of the rind to the little man.

But the crowd's laughter turned to total silence as the man clenched his fist around the lemon and six drops fell into the glass.

As the crowd cheered, the bartender paid the \$1000, and asked the little man, "What do you do for a living?"

The man replied, "I work for the IRS."

"Really? What happened?", asked the doctor.

"Well, I did as you advised and slipped it in his coffee, didn't I?"

The effect was almost immediate. He jumped himself straight up, with a twinkle in his eye! With one swoop of his arm, he sent the cups and tablecloth flying, ripped me clothes to tatters and took me then and there, making wild, mad, passionate love to me on the tabletop! It was a nightmare, I tell you!"

"Why so terrible?", asked the doctor. "Do you mean the sex was not good?"

"No, no, no, Doctor. The sex was fine. Indeed, 'twas the best sex I've had in 25 years. But I'll never be able to show me face in Starbucks again!"

Intriguing the Physicists, Radio Buff Shrinks an Antenna

While a lifetime in ham radio played a role, it was love that ultimately led Rob Vincent to develop what he says is a way to make antennas significantly smaller but still efficient.

“About 1995 I had met a sweetheart and we fell in love,” Mr. Vincent, now 60, recalled. “I went to live with her, but the only problem was that she lived on this postage stamp of a yard in a congested neighborhood.”

The real estate owned by Carolyn Hardie, the woman Mr. Vincent later married, was an issue because his amateur radio interests had turned toward frequencies in the 160-meter band. That band is close to broadcast AM radio. And, like an AM station, operating on it requires a tall antenna, in Mr. Vincent’s case, one that is 140 feet high. Aesthetic and zoning questions aside, the 50-by-100 foot lot was not big enough to accommodate the guy wires needed to stabilize a tower that high.

So Mr. Vincent, a technician with the University of Rhode Island’s physics department, began thinking about ways to make antennas smaller. The end result is a system that he claims can produce antennas that are one-third to one-ninth as high as normally required. He has spoken to other ham operators in over 80 countries on the 160-meter band through his relatively new, self-supported backyard tower, which is one-third of the conventional minimum size.

Mr. Vincent said his improvements were not just applicable to ham radio towers. They could be used to either further shrink the tiny antennas in cellphones, he said, or boost their efficiency.

Small yet efficient antennas have long been a goal for radio researchers, said R. Dean Straw, the senior assistant technical editor for the American Radio Relay League, an association of amateur operators. “The holy grail is an antenna the size of a grain of salt that produces big signals,” he said.

Generally the size of antennas increases with the wavelength of the frequencies they are transmitting or receiving. While there are several formulas for determining optimum height, the height of most antennas is one-quarter to one-half the wavelength. At 140 feet, for instance, Mr. Vincent’s ham tower would have been

slightly higher than one-quarter of the wavelength of 160 meters, which is equal to 525 feet.

Smaller antennas can be used, but with a trade-off. “When you get below a quarter-wavelength, efficiency drops off dramatically,” Mr. Vincent said.

Before arriving at the university in the early 1990’s in a still-unfulfilled quest to complete his undergraduate degree, Mr. Vincent spent about 30 years in radio-related engineering jobs, mostly with a radar division of Raytheon. But his tinkering with antennas dates back to when he obtained his first amateur radio license at the age of 14.

“I’ve always had a natural understanding of radio - maybe it’s from a prior life,” Mr. Vincent said. “But in those early days I could not fathom how an antenna worked.”

The relationship between antenna height and efficiency was so well established that he initially kept his antenna-shrinking work a secret. Mr. Vincent also acknowledged that he had relatively little idea of what might work when he began the project.

“When I started out to do this it was 10 percent theory and 90 percent black magic,” he said. After reviewing much of the literature, Mr. Vincent started designing antennas with special simulation software on a personal computer.

From the most promising of those virtual designs, he ran tests using antennas that were about 18 inches high and fashioned from copper-covered Plexiglas rods. One model seemed particularly successful until it lost its signal during a high-powered broadcast test. When Mr. Vincent went outside, he found only a lump of molten metal and plastic.

Gradually, he said, potential areas of improvement became apparent. He began confiding in some friends from the ham radio world and faculty members in the physics department. One friend allowed Mr. Vincent to build a 46-foot-high experimental antenna at his country home, which includes a salt marsh.

Saltwater is an antenna builder’s dream. By providing a highly conductive base for the antenna, the water improves reception.

The big prototype improved upon conventional designs in many ways. But one crucial one involved the placement of devices known as load coils along its length. Load coils are commonly used in cellphone antennas to alter their current patterns.

Conventional broadcast antennas, Mr. Vincent said, generally have a lot of current at the bottom and very little if any at the top. With his design, current is more evenly distributed.

To avoid suggestions that saltwater, not his design, was the magic, another 46-foot prototype followed, built on rock. It offered 80 to 100 percent of the efficiency of an antenna three times its size.

About three years ago, the University of Rhode Island became interested enough in Mr. Vincent’s work that it gave him office space. After a review by engineering and physics professors, it began the process of patenting and selling the technology. Mr. Vincent has turned over all his rights to the university.

“We’ve seen test data from Rob Vincent and it sure is attractive,” said Quentin Turtle, the director of industry research and technology transfer for the university.

Mr. Straw of the radio relay league said he was impressed with Mr. Vincent’s work ethic. “But I remain somewhat skeptical,” he said. “I’d like to see some validated field test measurements.”

Mr. Vincent said he was aware that would-be buyers of his technology would demand better test results, although measuring the efficiency of antennas is difficult. But given the scrutiny his project has received to date, he said he was confident that his antennas would pass muster.

“I’m part of the technical staff to a whole bunch of Ph.D.’s,” he said. “You can’t fool these people.”

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Just a reminder that the Prescott road rally is coming up on Oct. 1st. And 2nd.... Still a few spots open if you would like to help.. Please contact Bob Rosevear wb7rrq at 928-772-2180 or rosevear520@cableone.net Your help would be appreciated by the racers..... Bob wb7rrq

Weekly Information Net

Wednesday Nights @ 7:00 pm 146.880 (100 PL)
 If you don't have PL, transmit on 146.880 simplex
 when the repeater drops out.
 All amateurs welcome

Monthly Meeting

3rd Thursday at Granite Middle School @ 7:00pm
 (N 34°34'22.6" W 112°29'45.1")

Next Meeting Thurs. Oct.16, 2004 @ 7pm

Wednesday morning breakfast–Iron Horse Cafe
 S. Hwy 89 in Chino Valley
 (N 34°43'56.5" W 112°27'15.4")
 Informal –All are invited

Thursday morning breakfast–Michael's Restaurant
 in the Safeway Shopping Center,
 Hwy 69 Prescott Valley
 (N 34°35'13.33" W 112°19'44.6")
 Informal–All are invited

Location data provided by Fred Zimmermann N7PJN, per WSG84



YAVAPAI AMATEUR RADIO CLUB
P.O. BOX 11994
PRESCOTT, AZ 86304

Visit us on the web at: <http://www.w7yrc.org>

Many thanks to Bob Smith, WB6ODR, our Webmaster



AREA REPEATERS

Frequency	PL	Location	Notes
52.560-	100.0	Mt. Union (-500 KHz)	CARS N7NGM
53.040-	C/S	Prescott Airport (-1Mhz)	KC7WBE
145.350-	C/S	Wildflower Mtn.	DAWN
145.370-	C/S	Towers Mountan	MMRG
146.780-	91.5tt	Bill Williams Mtn.	BWARC
146.880-	100.0	Prescott	YARC
146.980-	162.2	Flagstaff-Elden	CARC
147.000+	162.2	Mingus Mountain	MMRG
147.040+	100.0	Prescott Heights	W2YAV
147.140+	162.2	Flagstaff-Elden	ARA Link to Ord
147.220+	162.2	Mingus Mountain	VVARA
147.260+	103.5	Mt. Union	YC Emerg.Svcs.
223.960-	127.3	Chino Valley	NW7AZ*
442.150+	100.0	Mingus Mountain	Northlink
442.350+	100.0	Glassford Hill	N7KPU
448.475-	100.0	Flagstaff-Eldon	ARA
448.500-	100.0	Prescott	KB7TWC
448.875-	100.0	Flagstaff-Eldon	Northlink
449.175-	100.0	Towers Mountain	Northlink
448.5250-	127.3	Payson	K2YAW
927.3875	?	'P' Mountain	WB7BYV
			*off the air until further notice.