

**Mt. AIRY V.H.F. RADIO CLUB, INC.**



"Tower tasks before turkey tastes!"

**CHEESE BITS**



**W3CCX CLUB MEMORIAL CALL**



ARRL Affiliated Club



Volume XLV

November 2003

Number 11

**PREZ SEZ**

Wow! It's been a very busy few weeks for us Packrats. The conference ran very smoothly and everyone I spoke with had a terrific time. The auctions put us into the plus column. We actually made some instead of breaking even. The speakers were great and I would like to thank each and every one of them for their prep time spent and attendance. Thank you John for one of our best conferences. See p2 & 8 for pictures and story

Hamarama was enjoyed by all of the attendees. We need to entice more vendors to show up next year. Just a few more would make the selection what it should be. I scored a NC-300 receiver for my boat-anchor collection. Very nice selectivity. Everyone showed up on time and did their jobs well. It's nice to see support from all of our club members when we really need it. Thank you Ed for taking care of Hamarama even with your difficult work commute.

It's never too early to think about ( and actually do ) antenna work for the January contest. Bill Lentz AA2UK has agreed to head up our contest effort again this year.



Paul WA3GFZ

We have new members who may be adding a band or two and need some help. Jim Antonacci WA3EHD needs his antennas put back up. One of the many storms we've gotten completely wiped out his antenna system. Sounds like a party soon at Jim's! Please email the reflector with any contest preparation needs so we can coordinate some action. Also let us know if you are available to help.

We still need a Vice President. Rick, Brian, and Drex have been helping with the programs. November's talk will be on radar systems. Others have also made program suggestions, but someone is needed to help me out and take over if I am not available for meetings. Let me know if you are interested in this executive position.

Thanks to all for your hard work with our events. See you on the bands. 73s Paul Sokoloff WA3GFZ



John, KB3XG

**Monthly Club Meeting— Thu, November 20th, 8PM—Bring a Friend!**  
**Southampton Free Public Library 947 Street Road**  
**Featured Speaker: Marv Foral W3QGC**  
**Radar & Sonar Development; Magnetrons, Amplitrons and Stablitrons**

**11th International EME Conference**  
**August 6,7,8, 2004**      **Trenton NJ**  
**<http://www.qsl.net/eme2004/>**      **open to all amateurs**



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**PACKRAT 222 MHz REPEATER - W3CCX/R**

222.98/224.58 MHz, Churchville, PA

**OFFICERS: 2001-02**

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W3GAD (2 yr) "Doc" Whitticar

WA3DRC (1 Yr) Ed Finn

OPEN (1 Yr) opening to be filled

**COMMITTEE CHAIRMEN**

January Contest AA2UK  
 June Contest "I'm not the contest chairman"  
 HAMARAMA: WA3DRC  
 VHF Conference: KB3XG 610-584-2489  
 Awards Chairman WA3GFZ 215-884-3116  
 QUARTERMASTER: K3IUV, Bert Soltoff, soltoff@uscom.com

**PACKRAT BEACONS - W3CCXB**

FM29jw Philadelphia, PA  
 50.080 144.284 222.065 432.295 903.071 1296.251 MHz  
 2304.037 3456.220 5763.190 10,368.140 MHz (as of 3/1/01)

**MONDAY NIGHT NETS**

TIME	FREQUENCY	NET CONTROL
7:30 PM	50.150 MHz	WA3EHD/K3EOD
8:00 PM	144.150 MHz	N3ITT
8:30 PM	222.125 MHz	W2SJ/N3EXA
8:30 PM	224.58R MHz	W3GXB
9:00 PM	432.110 MHz	W3RJW FN20le
9:30 PM	1296.100 MHz	WA3NUF FN20le
10:00 PM	903.125 MHz	AA3GN FN20ig
10:30 PM	2304.085 MHz	W3KJ, & go to 3.4G & up after FN20hg



N3FTI and the Reflock Board; knows his freq

W2PED on 47GHz filter design

## Editor's Column

Yes, it has been chilly for a while, and that must mean it's tower-climbing season. But the weekend of the VHF Conference and Hamarama were just perfect. The speakers at the conference and the general organization was a delight. As a non-engineer, I was fascinated with every presentation—because the speakers gave them the broad quality to appeal to every attendee. Their subjects, preparation and A-V materials were comprehensive, stimulating and challenging. It was also great to hook up with so many VHF friends from beyond the club. N4HY was there next to me for the day as we caught up on the 20 recent years that separated us since our joint VHF activities in Providence, RI on the roof of the physics building at Brown University. Now our interests are again parallel as rovers. Kudos to John, KB3XG, for great organization, and to all the 'rats who helped make this a memorable event.

Hamarama was comfortable, with a warm breeze and cloud cover, with a nice display of goodies and a happy crowd of buyers and sellers. Again, the team of support, ably organized by Ed, WA3DRC handled the myriad of tasks to make the day a success. A

round of appreciation to Ed and to all who served their duty to pull it off.



I came home with all the BNC jumper cables I need for my next project, in addition to a few 18 pole switches for the new 20 pole BNC relay sets. What did you get for your shack?

Several club members met with Al, K2UYH and Marc, N2UO to discuss a role for the Packrats in technical support at the EME Conference next summer. With the conference location in Trenton, it is sure to be a big draw for many of the area VHF'ers, and a possible merge of the VHF Conference for next year with it also. Having attended last year's EME Conference, this appears to be a unique opportunity of which we should all take advantage by attending and supporting.

The Fall Sprints always seem to be a bit lighter in participation than their Spring equivalents. As always, for me, it was a chance to try another roving spot close to home. The van is feeling quite comfortable lately, and bit by bit, improvements are added to ease the operating and improve the signals. I am grateful that there are others available to work, as it can be pretty quiet at times on 903 & up.

Ah, so much to enjoy in the Fall, so much to do before the January Sweepstakes. Pace yourself! Lay out a timetable, and add extra time to get stuff done, given the unknowns of life events, equipment problems and weather.

As we go to press this month, a board position has opened up, as well as the Vice-President position. The club depends on all of the members to assure the vibrancy and strength of our activities. Say "Yes!" when you're called to serve, and yes, again, you only get interest on what you invest.

As we round the corner of the last quarter of the year, I want to again appeal to those who are not yet PDF email subscribers to Cheesebits. Printing, stapling, folding and postage can be saved when you get your copy of Cheesebits on the web. Not only will you save yourself and the club financially, but you also save a tree, and the wear and tear on your combined editor, publisher, deliveryman. Lets take a few minutes to remember all the things that we are thankful for as we enter this holiday season. Let us all continue the international friendship generated by amateur radio, the great camaraderie of the Packrat club, and pray for peace in the coming year.

73, Rick, K1DS

**SUBSCRIBERS: RENEW PROMPTLY FOR 2004 PLEASE— DON'T LAPSE!**  
**MEMBER PACKRATS: DUES ARE DUE IN JANUARY 2004**

**Important Dates and Events—Be Radio-Active!!**

**Mondays, Nov 3, 10, 17, 24**                      **Net Nights**                      **Start @7:30PM, see p2**

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**Thursday, Nov 14**                      **LEONID METEOR SHOWER**  
**Wednesday, Nov 19**                      **DOUBLE PEAK!!**

An unusual double Leonid meteor shower is going to peak next month over parts of Asia and North America. **FULL STORY** at [http://science.nasa.gov/headlines/y2003/10oct\\_doubleleonids.htm?list69501](http://science.nasa.gov/headlines/y2003/10oct_doubleleonids.htm?list69501)

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**Hamarama Door Prize Winners:**  
1st prize: K2DEQ, Ted Dillenfofer of Morris Plains, NJ  
2nd prize: WA2FQF, Charles Hewitt of Galloway, NJ

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**Thurs, Nov 13th PACKRATS BOD MEETING 8:00PM**  
**QTH –TBD-Watch the Reflector-Open to All Packrats**

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**Thurs, Nov 20th— PACKRATS MEETING—8:00PM**  
**Southampton Free Library, 947 Street Road**    **Speaker-Marv Foral W3QGC**  
**Radar & Sonar Development; Magnetrons, Amplitrons and Stablitrons**

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• ----- cut on the dotted line -----

**Packrat VHF Contest Information Sheet-for ALL members**

**Name:** \_\_\_\_\_ **Call:** \_\_\_\_\_

Check here  if you use VHF Log or KM-Rover computerized logging programs

Active on the following bands for January Contest: (circle)

50 144 222 432 903 1296 2.3 3.4 5.6 10.3 24 47 Light

This next section is optional but recommended:

Equipment needed (rigs, transverters, antennas, rotors, etc):

Assistance Needed:

Equipment I can lend, share or sell:

Clip and mail to Rick Rosen, 206 Kimberton Dr; Blue Bell, PA 19422 or send email message to: rick1ds@hotmail.com

# Building a Laser Communications System for Real DX: Part 1

## Andy Flowers, K0SM

(Reprinted from the May 2003 issue of The Journal of the RVHFG)

Microwavers have had a unique idea of "DX" is, but living in Nebraska for most of my radio career I never really thought much of laser communication. I can understand using them in a contest, but I lived a hundred miles or more from the nearest serious contester. Line-of-sight communication seemed rather boring to me since you can work the other person if and only if you can see them. It was a sort of "why bother?" situation to me.

My outlook changed recently when I stumbled across John Yurek's (K3PGP) website. He experimented with low-power lasers on *non-LOS* paths in the late 90's. As it turns out, both cloudbounce and troposcatter can be usable propagation modes on in the IR and visible light spectrum without using high-power lasers. As an example, John has been able to detect his 3mw IR laser pointing straight up into *clear air* from a distance of nearly 30 miles! Impossible you say? Just remember that we can see the beams of advertising spotlights from a long distance even on a clear evening—this is the same scattering mechanism just using less power, a smaller beam, and a wavelength to which our eyes are much less sensitive! It occurs to me that this could lead to "DX" on the order of magnitude we are likely to experience in the next few years as many of us explore the EHF bands. I won't spoil you with all the interesting discoveries John has made since you can go to his website and look at them yourself, but given the growing interest in portable operation on the high microwave bands this seems like something that may be of interest to the RVHFG.

Why not add another band for under \$50? Given the simplicity of a converting a laser pen into an MCW transmitter (Figure 1, for example, more on this to come), the real attention needs to be paid to receiver performance. There are many ways to go about detecting light waves: CdS cells, phosphorous screens, LEDs (believe it or not!), photodiodes, phototransistors, and photo multiplier tubes (PMTs) to name a few. Of these, the PMT and PIN photodiode stand out as the best for having the quickest responses, highest sensitivity, and lowest noise figure. The PMT is the most sensitive detector for 650nm and shorter wavelengths, but given that we are going to be interested in portability, the kV power supply is a rather large drawback. Also, the price of a typical PIN photodiode is a small fraction of a new PMT. The last receiver cost me under \$5 in parts and about an hour of assembly!

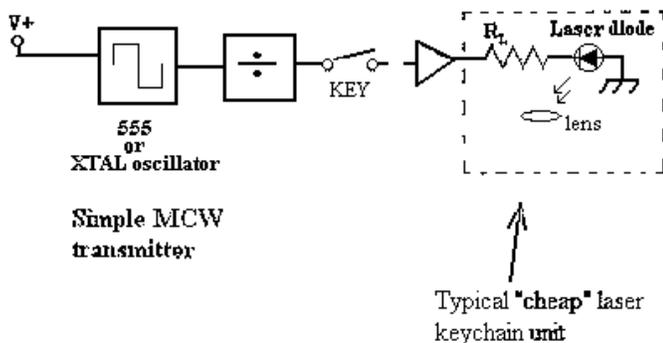


Figure 1

I am working toward a complete receiver system shown in Figure 2.

This system will allow for aural reception of amplitude-modulated light, as well as interfacing with a computer for weak-signal DSP detection and integration. The idea is that this system

is flexible enough for the rover who is working across the grid line on an "easy" path, as well as person attempting "clear-air scattering" QSOs with computer integration. A modular design such as this (optics, front-end, filters and amp) will allow for easy switching among components for different purposes.

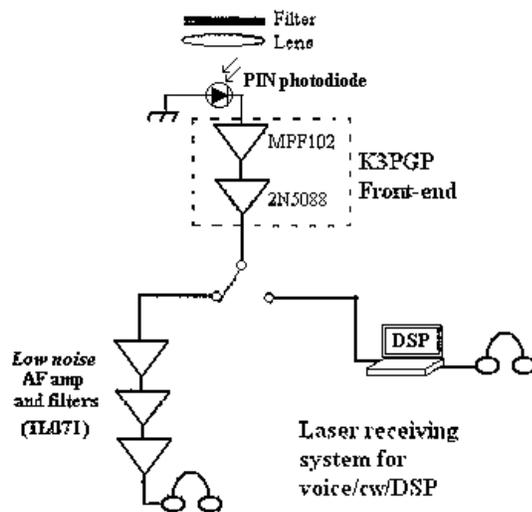


Figure 2

### The first step: The Front End

K3PGP offers two versions of the front end—one for daylight and one for nighttime. The reason for this is that sunlight will easily saturate the detector. I have assembled three K3PGP front-ends

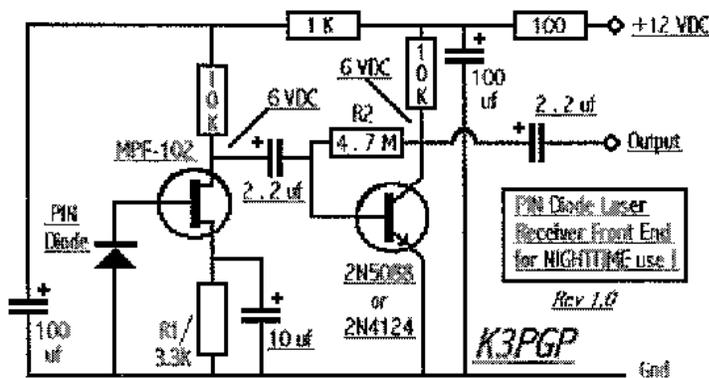


Figure 4 – Design by K3PGP

(See Figure 4)—two "nighttime" and one daytime version (yet untested). It is little more than an extremely sensitive audio amplifier hooked up to a photodiode (I imagine you would be able to connect it to ½ mile of wire instead of the photodiode if you wanted to listen to whistlers on VLF!) The gate of the JFET has an extremely high impedance, so the circuit needs to be well shielded unless you want to hear broadcast radio stations and power lines. Keeping the leads short between the photodiode to the MPF-102 is probably a good idea also. Given the small number of parts, point-to-point wiring may be the easiest construction method, but you will want to think about how you are going to mount your receiver before you solder it all together. You can see a schematic of the mounting in Figure 5. **Figure 5**

The receiver is built "dead-bug style" on a piece of single-sided PC board with the photodiode peeking through the blank side. When pressed together, the aluminum cans provide a suitable shield while letting only the photodiode peak through the bottom of the front can. I am using the CLD-142 photodiode made by Clairex (available through Mouser), but I have no idea how this device compares to others. Fortunately for me, I can just switch the diodes with a minimum of hassle if something better comes along. K3PGP has more extensive notes on his website regarding the construction and testing of this circuit. Figure 6 shows a possible mounting arrangement. The photodiode is placed at the focal

MOUNTING OF K3PGP FRONT END  
IN TWO ALUMINUM SOUP CANS

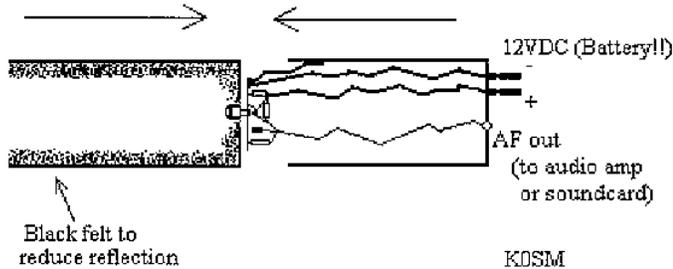


Fig 5

point of the lens so that the maximum amount of light hits the detector. The tripod will allow for azimuth and elevation control, which will be necessary for LOS or non-LOS paths. It would probably be unwise to connect headphones or other "movable" cables directly to the receiver since it would be easy to pull it off of alignment or cause microphonic vibration. This is why the battery and amplifier are placed on the ground. The inside of the frame should be painted black, or better yet, covered with black felt to absorb light (i.e., noise) from hitting the detector from the sides. I'm really looking forward to getting outside the city where it is dark to do some cloudbounce and troposcatter tests once I get my transmitter working. The nighttime receiver is extremely sensitive and it is easily saturated by the streetlights here in downtown Rochester, so I need to find a "quiet" location. Right now I am feeding the front end directly to my laptop's soundcard to explore the possibilities of DSP for detecting *extremely* weak signals. I won't go into this here, but so far the results look *very* promising for long-haul, non-LOS paths (granted that the propagation thus far has been limited to "apartment scatter"). I have thought about this quite a bit in the last month and I have many ideas that I can't wait to try. I know of six or seven people in the Rochester area who are working on systems right now, and it would be great to have more people join the project. By the way, nobody has yet claimed VUCC for "300+ GHz" or any DX records by anything other than LOS, so the frontier is wide open!  
(Ed's note: The first VUCC for 300GHz and up has been recently awarded)

K3PGP website: <http://k3pgp.org>

KOSM's junk page (progress updates and other junk):  
<http://mail.rochester.edu/~af006m/index.html>

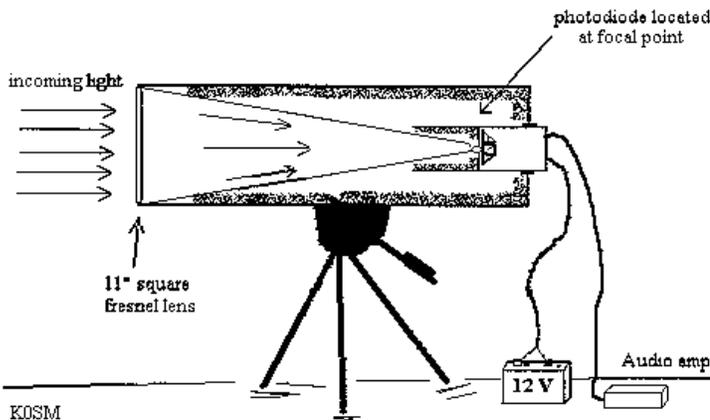


Figure 6

## Fall Microwave Sprint & EME Reports

Great to work you and all the others on the three bands I had active: 1296, 2304 and 3456. Praise be the rovers! Didn't get started until late in the Sprint and didn't get 903 or 10G running. I had been planning on going with a DEMI 903 transverter for a while now, but a friend I work with had given me his old 903-28 MHz transverter to try out. Of course, when I fired it up earlier in the week, the only thing I could copy was the baby monitor next door - no beacon. I didn't really want to use a 10m IF anyway and couldn't spend time troubleshooting it, so I bought a DEMI kit with the "overly optimistic" hope that I could get it built in time for the Sprint! Needless to say, that didn't happen. At least I should have it going soon and for sure by January. I heard from others that propagation conditions were much better at the start of the Sprint. The early birds got the worms. My best QSO was working Buff WB2SIH in FN31dd riding the QSB "waves" on 1296. Really popped up out of the noise as we were finishing. Overall, I managed to work 11 QSOs in 4 grids. I am now concentrating on setting up the station for the January contest. **73, Joe W3KJ**

It was a bad day from FM29, 1st no CW: the new keyer was not properly hooked up to microwave rig, next I fried my switching circuit on my 2 meter FT-736, the final straw was when I broke the control off the rotor box for 5.7 & 10 GHz dish. I am happy to say the rotor control box and rig are fixed but they have to be taken back out to the tower and re-installed. **73 Bill AA2UK**

Band	QSOs	Mults..
903	5	4
1296	6	5
2304	5	4
3456	3	3
5760	2	2
10368	2	2
TOTALS	23	20

Appreciate all who got on--my selection of a hilltop was problematic due to tall trees, buildings and cell RFI-IMD. New cable for 10G helped get better sigs from amp to feed, **73, Rick, K1DS**

Glad you had some good contacts in the microwave sprint. I really wish I had been able to operate. However I was already committed to operate the EME contest this weekend. I went out to W2DRZ QTH in FN02 and worked 1296 EME with the 16 foot dish and 200 watts. We worked the following:  
Saturday: HB9BBD, K5JL, G4CCH, G3LTF, LA8LF, OK1CA, K2UYH, SM3AKW, OE9XXI, F6CGJ, OH2DG, DL1YMK, F2TU, OZ6OL, PA0SSB, K5GW, WA6PY, JA6AHB.  
Sunday: F6KHM, ZS6AXT, PA3CSG, OE5EYM, HA5SHF, OZ4MM, DF3RU, OE9ERC, F5VHX, W2UHI, HB9SV, IK2MMB, W7GBI, W9IIX, JH1KRC, W7BBM. For a total of 34 contacts.

It was a lot of fun but with two eight hour driving trips out and back it made for a loong weekend. There just is not enough weekends for all the ham contests and activities any more. But perhaps the microwave sprint could have been put off one weekend so as not to clash with the EME contest???

### Movin' Your Cheese (Buy-Sell)

WTB: I am looking for a Johnson Ranger or Viking Valiant. Paul WA3GFZ 215-884-3116

Selling: 8410A Network analyzer with 8620 sweep generator. Different frequency modules available. Contact me if interested. Paul WA3GFZ 215-884-3116

Wanted: Plug and Play dish mounted 10 GHz transceiver for FM28. Keep the ad running. Tnx Ron Allen W3OR 302-875-1100 w3or@aol.com

## A Day For Marconi

January 20<sup>th</sup>, 2003 by Paul R. DePetrillo, W1PRA  
(Copyright protected-reprinted with permission from the author)

Our journey began at noon on the 18<sup>th</sup> of January 2003, my brother Frank DePetrillo, W1EYH, and myself headed for Cape Cod for what turned out to be the experience of a lifetime.

An hour and a half into the trip and we arrive at the site of the original Marconi Station where Marconi broadcast his first trans-Atlantic message between the United States and Europe exactly 100 years ago. We were as excited as Theodore Roosevelt when in his first wireless message told His Majesty King Edward VII that Marconi's invention was a "wonderful triumph of scientific research and ingenuity". Although the sea reclaimed the original site long ago, you could sense the crackle of static that filled the air.

Continuing on our way while experiencing some of the most beautiful winter scenery one can imagine, we visited station WCC, one of the early Marconi sites in Chatham where we enjoyed a video of Marconi's early days as an inventor. We also had the pleasure to see some historic relics, which at one time adorned Marconi's original station.

While driving north, I couldn't help but think about the personal invitations we had to the big reception that evening, and that we would soon be seeing the honored guest, Princess Elettra Marconi, the youngest daughter of the father of radio, Guglielmo Marconi. Along the way, we were to meet The Hon. Michele Frattallone and Vincenzo Frattellone, two brothers with whom I had the pleasure to serve with on the Marconi Committee the year before. The Honorable Michele Frattellone is the President of the New England delegation, Comitato Tricolore of Boston.

This story began early in the year 2000 when as the President of the Providence Radio Association, I was asked by Mayor William R. Macera of Johnston, Rhode Island, also a friend of the Princess, if I would like to be a member of the Marconi committee. He went on to explain that we would erect a monument in Marconi's honor at Rt.5 Atwood Avenue and Rt.14 Plainfield Pike in the Thornton section of Johnston, and rename the square to "Piazza Guglielmo Marconi".

When I inquired as to who else would be on this committee he replied "well, myself and of course Princess Elettra Marconi". Well, I certainly could not pass this up. I immediately said yes. Shortly thereafter the entire committee was formed to include Princess Elettra Marconi, Mayor William R. Macera, Frank DePetrillo W1EYH, Hon. Michele Frattellone, Vincenzo Frattellone, Joseph Muratore, Dr. Vincent Delasandro and me. I finally had the pleasure to actually meet Princess Marconi when she came to America in December of 2001 to dedicate a beautiful brass plaque in honor of her father which now hangs in the Alitalia Terminal at Logan Airport in Boston. The large brass plaque was sculpted by artist Henry Zunino. At that time, my brother Frank and I had our copies of her book "Marconi My Beloved" signed by the author Princess. She wrote a beautiful message for each of us inside the front cover and in her classic regal style as the daughter of the father of radio, followed our names with our call signs. Within the first few minutes in her presence, one could clearly sense that she was a warm, wonderful, and very gracious person well deserving of the title "Princess".

Continuing our road trip north, we arrived at the Eastham Coast Guard Station where special event station KM1CC (Kilo-Marconi-one-Cape-Cod) was bubbling with activity. Members there marked the centennial with a weeklong special event communicating with other enthusiasts the world over, and in space. Providence Radio Association (PRA) Club member Mark W. "Brown" Beezer was one of the visiting operators as KM1CC made over thirteen thousand radio contacts during the special events week.

After spending some quality time at the station, Frank,

W1EYH identified a number of great old rigs (radios) presently in use at the station, most of which he presently owns. After meeting some wonderful people and exchanging some great stories, we continued on our way to the Sheraton Four Points Hotel in Eastham where we were to meet up with Dave Tessitore K1DT, a long-time member of the Providence Radio Association, and Paul Stockman, Commodore of the Connimicut Point Yacht Club. Among the notables present were ARISS International Chairman Frank Bauer who works for NASA at the Goddard Space Flight Center in Maryland. At the reception he presented Princess Marconi with a QSL card confirming her radio contact earlier that day when she sent "cordial greetings, and good wishes" to ISS Commander Ken Bowersox, KD5JBP, while he was operating NA1SS from the International Space Station.

During the reception, at exactly 1900 hours, a message was broadcast worldwide by President George W. Bush marking the 100<sup>th</sup> anniversary of Marconi's transmission. As we sat with the Princess we could clearly see that she was moved by the President's words honoring her father. At the same time, her son, also named Guglielmo Marconi, was at the family's ancestral home in Bologna, Italy waiting to receive the message.

At the reception, I showed the Princess my cellular phone to which I had an internet connection set up with a web cam running live in my living room back in Cranston RI. As the princess looked into the display of the phone, she saw my daughter Caroline waving to us live, and in living color. I told the Princess that this is just a small example of how her father's dreams of wireless communication had evolved. She had not seen this before, it was a proud moment for her.

We then had a wonderful conversation about the monument to her father which we had erected for him back in Johnston, RI, and how our radio club, The Providence Radio Association W1OP, was a trustee of this monument. I promised her that as long as we were here on this earth that her father's monument would be properly maintained. She must have thought that this was a sight that she must see before returning to Italy.

The next day I received a call from Mayor William R. Macera confirming that the Princess would be arriving around noon to see the Marconi monument. In the excitement of the moment I knew that I had to convince the Princess to also visit the Providence Radio Association clubhouse.

When the Princess arrived at the site of the monument, we greeted her in true royal fashion. She appeared quite elegant as she stood with us in the damp cold. She appeared quite taken by the sight of the monument with its pyramid base of blue pearl marble and the tower antenna mounted on top with the blinking red beacon.

I explained to her how the voice of her father is constantly broadcast out of the monument to automobile radios tuned to an AM station as they pass by. She stood there in absolute astonishment saying that she had never seen anything so wonderful. We stood there for a moment, arm in arm in the twenty-degree weather as I pointed out both of our names on the side of the monument, which lists the committee members. She responded by saying how beautiful our names looked carved into the blue

**Joel Knoblock W3RFC**

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marble of this wonderful tribute to her father and that she would never forget the moment. Nor will I.

I was aware that the Princess had to be back in Boston by 2:30 PM. I thought that if a trip to the PRA clubhouse were going to happen, it would have to be very soon. I took that opportunity to ask her if she could make the trip, which was only two miles away. As the people in her group were pointing to their watches, she turned to me and said "Paul, I am with you. Wherever you go, I go". She definitely has that giving quality that makes one feel very special.

The caravan had the look and feel of a royal procession as we made our way to the PRA clubhouse. Members including Dave Tessitore K1DT, Dave Smith WA1UWU, John Winman KZ1K, and Bob Mancini K1HGC were on hand to crank up the heat and turn on the station FT-1000MKV and amplifier in anticipation of the arrival of our royal guest. They also alerted station KM1CC on Cape Cod to remain on standby on 7250Mhz at 1800 hrs GMT.

I kept the club informed as to our route position via the club 223.980 MHz repeater frequency. As the procession headed toward the clubhouse, I called out the name of each street on the route so they would be aware of our arrival. As we turned down the driveway to the clubhouse, the members were already outside awaiting the Princess' arrival.

As I opened the car door for her, she stepped out into the freezing cold and gazed up in amazement at our very impressive Collins 237B-1 log periodic antenna looming huge over the clubhouse, which was pointing east towards Italy. In her soft high-pitched voice she said, "My father lives here." We were all very moved.

Inside the PRA clubhouse, Tess, K1DT made contact with KM1CC Station on Cape Cod, that was

standing by for an important message. We can only imagine their surprise when the message they received was from Princess Elettra Marconi making contact from the Providence Radio Association W1OP. Lots of pictures were taken as the Princess skillfully handled our HF rig like a pro and completed the historic contact with the KM1CC station and proceeded to log the call sign into the club's log book. This was an historic log entry, to say the least.

While this noteworthy radio contact was in progress, PRA club member Roland Daignault, N1JOY was at his home station in Westport Mass. hosting the January VHF contest with Dave Neal, W2DAN. They dropped everything to digitally record the entire conversation between Princess Marconi at W1OP and KM1CC on Cape Cod. This recording will be a great addition to the digital slide show, which is being assembled at this writing.

PRA Club member Paul Gosselin, N1RHS was somewhere over the Atlantic on his way back from France when the events were taking place at the club. We were sorry he had to miss the Princess' visit.

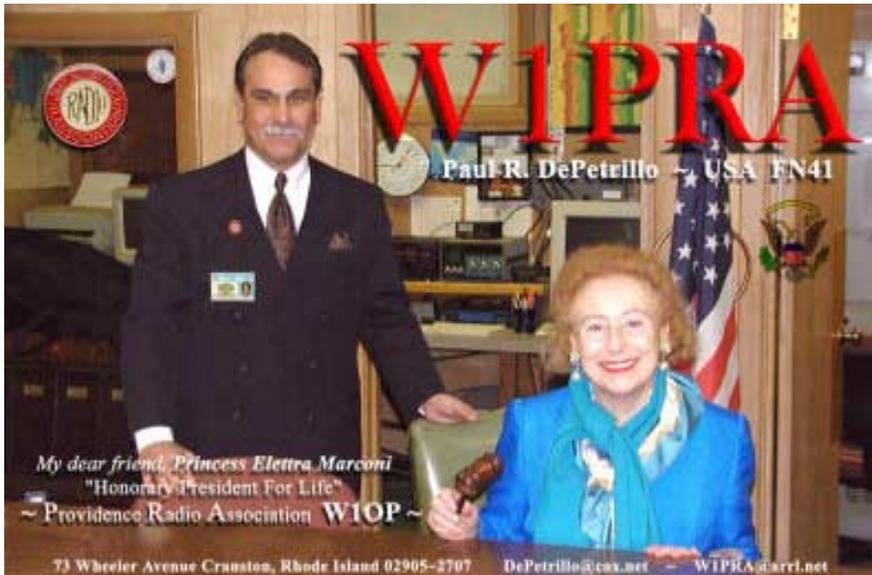
By now the day was passing, though we did not want it to end. We thanked the Princess for gracing our clubhouse with her presence and presented her with some small gifts such as our classic PRA pin (she is an avid pin collector) and mementos from the PRA. In return, she signed some of our Marconi memorabilia

and tirelessly posed for more pictures with all of the club members. From what I have seen her accomplish in just the last two days, she has shown herself to be a woman of great strength and nobility, and The Providence Radio Association is proud to have hosted her even for a short time.

At this time I kindly asked the Princess to sit down at the head table in the President's chair, and with one bang of the gavel, I bestowed upon her the title of "Honorary President For Life of the Providence Radio Association". In return she bestowed upon us the title of "Marconista" a term reserved for the elite in Italian Amateur Radio. She reminds us that she comes to America every year and that she will not forget the Providence Radio Association or its members. As you can imagine this was quite a moment for all of us at the PRA, and speaking for the membership at large, we couldn't have been more appreciative.

When we consider the future historic value of all of this material, our greatest hope is that it will encourage young people to become more involved in the hobby and to see the immense value in Amateur Radio. My own son Nicholas DePetrillo, N1CKD, a computer science major at the University Of Rhode Island and Amateur Radio operator, agrees that the Amateur Radio community needs to grow and become stronger. He feels that young people today are "more into computers". This may be true but I think

they are starting to see the wave of activity in Amateur Radio that includes the use of computers and in fact adds a greater visual effect that makes the hobby even more fun than ever. Participation in the art of Amateur Radio certainly builds character and says something about young people on the right track. As it came time for the Princess to leave, I wondered when we would see her again. It all seemed surreal, as if a portal from a time long past had opened and was now about to close. She continued to wave to us and throw kisses all the way



down the driveway until she was out of sight.

Princess Elettra Marconi left us all with the feeling that we were certainly in the presence of someone very special, someone who would not forget who we are or what we stand for. I told her that we would stay in touch, and I will try to maintain contact with her at least a couple of times a year.

I must say having the Princess present at the PRA Clubhouse was like seeing Guglielmo Marconi himself working DX in Studio A. **Paul R. DePetrillo, W1PRA**  
Vice President, Providence Radio Association, W1OP

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## ARRL "LOGBOOK OF THE WORLD"

From: The ARRL Letter Vol. 22, No. 39 October 3, 2003

Logbook of the World" (LoTW) <<http://www.arrl.org/lotw>>--the League's new QSL-cardless awards and contact credit system--has proven to be a huge hit with the amateur community. Since opening September 15, LoTW has acquired more than 2200 registered participants. Another 2400 or so applications are pending, and the QSO database of 4900 uploaded logs had topped 8 million contacts at week's end. "Certainly the number of Qs that we've gotten is well above what we expected at this point," said ARRL Membership Services Manager Wayne Mills, N7NG, who has been sharing duties with Assistant to the CEO David Patton, NN1N, as point man for LoTW. ARRL Web and Software Development Department Manager Jon Bloom, KE3Z, has been handling software development and updating for LoTW.

LoTW is open to all, and applying for a digital certificate is the first step toward taking advantage of the system. The digital certificate authenticates the user's identity. ARRL will maintain the ballooning repository of log data from casual operators, DXers, contesters and major DXpeditions. LoTW will be able to provide quick QSO credit for awards programs by identifying contact matches within submitted log data. There have been 51,000 such matches to date. Registered participants then will be able to apply LoTW-confirmed QSO credits toward ARRL awards, such as DXCC, WAS and VUCC. Work continues on the last major LoTW component--the Web pages to apply LoTW confirmations toward ARRL-sponsored awards. Mills expects that LoTW also will one day provide contact credits for non-ARRL programs. "Major award sponsors have expressed interest in using LoTW records, and details are pending," he said. The key to the ultimate success of LoTW is for users to upload as much log data as possible. The more contacts in the database, the better the chances of a QSO match. LoTW eventually will be able to search users' DXCC records and find new credits automatically. The program also will provide full viewing of users' DXCC records, automatically alert users to new awards achieved and offer comprehensive support for many other awards.

Mills cautioned new users that LoTW permits just one digital certificate request per call sign. He advised that once users apply for a certificate, they should not attempt to alter it or create another request. Any errors, he points out, can be corrected later. For US users, the first certificate has to be for a current call sign that's in the FCC database. After you get the certificate, you can request additional certificates for formerly held call signs. While the digital certificate is free, LoTW will charge on a per-credit basis to apply credits toward awards. "Logbook of the World is an alternative to collecting QSL cards by mail," Mills said. Fees <<http://www.arrl.org/lotw/fees>> range from 25 cents for a single credit to 15 cents per credit in lots of 500. Users may purchase credits in advance, but LoTW fees do not also cover award fees. "It turns out that this is a much cheaper way to collect credits for DXCC," Mills asserted. "Overall, we are very happy with the progress and user acceptance." This week, EchoLink <<http://www.echolink.org>> announced that it would accept ARRL's LoTW's digital certificates to authenticate new users as an alternative to providing a copy of their amateur license. News and announcements will be posted to the Logbook of the World Web site <<http://www.arrl.org/lotw/>>.

### West Coast 10GHz Contest Pictures

N6CA and the SBMS have some great 10G pix at: [http://www.ham-radio.com/sbms/03\\_testpics/03\\_test\\_pics.html](http://www.ham-radio.com/sbms/03_testpics/03_test_pics.html) And from WB8TGY and the Lake Michican stations: [http://www.geocities.com/wb8tgy/jpg\\_2003/10ghz\\_contest\\_2003.html](http://www.geocities.com/wb8tgy/jpg_2003/10ghz_contest_2003.html)

## Mid-Atlantic VHF Conference Success



52 VHF ops, spouses and friends attended the conference that featured a series of technical presentations that were extremely well received. Dinner was delicious and climaxed with KB3XG giving a spectacular exposition on reverse engineering of PCS microwave amplifiers that are finding their way to the surplus market and junk bins. Not only did he show us the gear that is



available, but he also used a host of references to enable the savvy ham to know what they might have and how they might get it operational in amateur service. Manufacturer references, microstrip design programs, Smith charts (don't be intimidated) and parts identification were all carefully explained, so even the least technically capable (like me) could understand. To complete the evening, John auctioned off a working 100W 2304 amplifier that he converted for the project and talk.

The day had a series of mini-auctions, door prizes and give-aways, and at dinner, everyone got to select a door-prize or two from the vast array of donations that was assembled by Gary, WA2OMY. Devices, cables, transverters, DEMI gift-certificates and kits were hot items for the early door prizes.

For those unable to attend, there was not a published proceedings for purchase, but we will attempt to capture the essence in a series in subsequent issues of Cheesebits. Make sure you have a current subscription. (see p2 for details)

### Looking to Buy or Borrow

For the January contest 15 - 25 watt (or more) 2304 amplifier.. (currently have either 1 or 5 watt drive.) also 30 watt or more 1296 amplifier, currently have 10 watts of drive.) Please let me know what you have and if you want to sell it and for how much. Thanks Al K3EOD - k3eod@juno.com

## September Comments from K1JT & K3EOD

Just back from VK-land followed by "sun and sand" in Rhode Island. The weekend of September 6-8 will be one to remember for tropo conditions! My log contains the following, starting on Friday evening. All QSOs were on 2 meters unless otherwise noted.

Date	UTC	Call	Grid	State	km
Sept 6	0212	W8JKS	EM89	OH	739
	0215	KD5TGM	EM15	OK	2035
	0219	WA0I	EM47	MO	1449
	0229	K5SW	EM25	OK	1883
	0258	K5UR	EM35	AR	1702
	1335	WA5UFH	EL19	TX	2372
Sept 7	0026	K9MRI	EN70	IN	901
	0036	K8TQK	EM89	OH	744
	0251	N8OB	EN80	OH	720
	0409	K5YY	EM26	AR	1753
	0415	W5VHF	EM25	OK	1883
	0418	WA0SJR	EM56	MO	1334
	0420	W7FG	EM26	OK	1893
	0514	N5OSK	EM25	OK	1913
	0540	NL7CO	EM04	OK	2176
	1416	WA9KRT	EN61	IN	1028
	1436	W8DQ	EM79	OH	871
Sept 8	1556	K5CM	EN61	OK	1861
	1156	W8MIL	EN74	MI	971

It was a terrific opening, for sure. Interestingly, for much of the time I was hearing stations at 1500+ km distance without hearing much at shorter distances. WA5UFH in EL19, 2372 km, was a real treat. Signals were too weak for CW, but we worked fairly easily on JT44. NL7CO in EM04 was also quite special. Together with several new grids worked on meteors recently -- W0GC in EN14 (SD) and KC0LBT in EN35 (MN) -- these goodies brought my 2m VUCC total up to 178. It was a blast! **73, Joe, K1JT**

THIS IS THE BEST SCORE I EVER HAVE HAD SINCE MOVING TO NEW JERSEY. THE TEAM OF - K3EGE BILL, WR3P RALPH,

W2SJ BOB AND MYSELF HAD A GREAT TIME DURING THIS SEPTEMBER CONTEST, AND ARE LOOKING FORWARD TO NEXT YEAR'S CONTEST FOR EVEN A BIGGER AND BETTER SCORE.. EVEN WITHOUT ANY BAND OPENINGS AND VERY LITTLE ENHANCEMENT AND WHAT SEEMED TO BE A LACK OF ACTIVITY, THE ROVERS ESPECIALLY BILL W3IY MADE THIS ONE THE BEST SEPTEMBER CONTEST I HAVE EVER OPERATED IN, AND THE SCORE OF 106,642 POINTS PROVES IT. **73, AL K3EOD**

## 2004 INTERNATIONAL EME Conference Trenton, NJ *(from Al Katz, K2UYH and Marc Franco, N2UO)*

The 2004 EME conference, being held in Trenton, NJ on Aug 6-7-8, 2004, has a web page. It's a little sparse at the moment. <http://www.qsl.net/eme2004/>

Work on the EME2004 Conference is moving along. Hotel details are now up on the web-page under Travel Information with a link to the hotel. [Reload if you have already visited the web page]. Hotel reservations should be done directly with the hotel. The conference registration form is still not yet up on the web-page, but it should be there before the end of the month. We have been working on the budget and can report that the registration fee including banquet will be less than \$80. We are still waiting for the price of printing the Proceedings before setting the final figure. To ease the problem of funds transfer, we have arranged for Dominique, HB9BBD to be the conference's European Treasurer. The registration fee can be sent to him by check in Euros or other appropriate European currency. If you are coming to the conference please let Marc or me know. We want to put a list on the web page of those planning to attend.

**N3FTI:** Steven [n3fti@yahoo.com](mailto:n3fti@yahoo.com) updates the status of his 10 GHz EME project -- The dish mount is now at the fabricator for some modifications. I am hoping to get it back within a couple of weeks. I'd like to be QRV for at least the 2nd part of the ARRL EME Contest, but things are taking longer than first anticipated. *(from EME News, Oct '03)*

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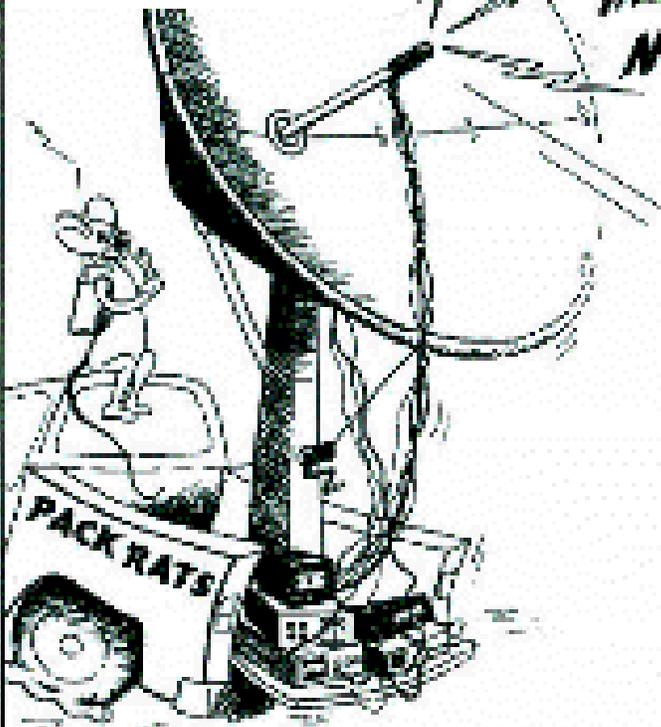
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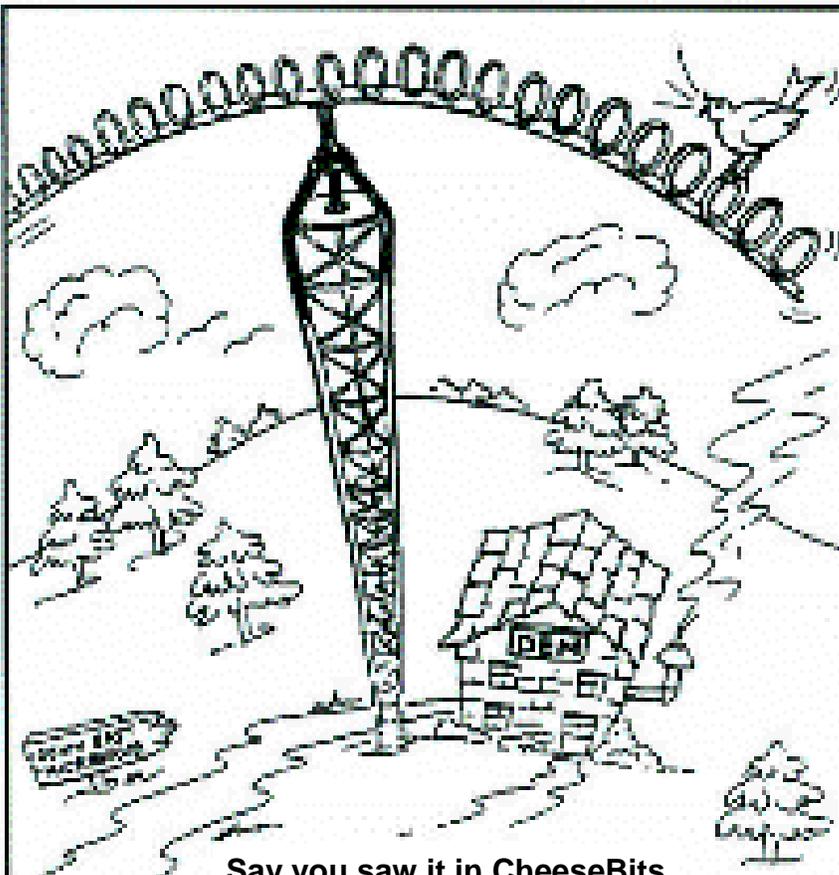
**MEETING  
NOTICE**



- P3- Packrat Member Contest Questionaire
- P4-5 Laser Project
- P5-Sprint & EME, Buy-Sell
- P6-7 "A Day for Marconi"
- P8-ARRL Logbook of World, VHF Conference Report
- P9-September Reports

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