Ole Virginia Times

The OVH ARC Newsletter

"OLE VIRGINIA HAMS" AMATEUR RADIO CLUB, INC.
Post Office Box 1255, Manassas, VA 22110

Repeater -- WA4FPM -- 146.97/224.66
OVH Nodes -- 145.03/223.54
BBS -- BBSHRG/N4WJN

SEPTEMBER 1993

TECH TIPS
Candles for Heat Shrink Tubing
by Larry Albert
(from TV TECHNOLOGY, JULY 1993)

The ready availability of heat shrink tubing has allowed easy solutions for many engineering problems. Some ancient engineering specimens actually claim that a product known as spaghetti was used for similar purposes. It required no heat. But it did not shrink either. Such claims are of doubtful accuracy. Shops now use electric heat guns to shrink tubing. These heat guns are fine for big jobs or when several shrinking jobs are planned. However, there are times when engineers wish for an easier shrinking tool to use for those small and quick jobs.

A quick repair on an audio cable probably has only three conductors that have been cut, stripped, spliced and soldered and that are in need of shrinking. The typical procedure is as follows: you get out the heat gun, untangle the cord, wait for it to warm up, shrink the tubing, wait for the gun to cool off, and, finally, put the gun away. This seems to be "Much Ado About Nearly Nothing," with apologies to the Bard.

These jobs are perfect for the "economy portable heat shrink shrinking heat source," more commonly called a candle. The complete kit has three items: candle, candle holder, and matches. (Matches, when kept dry, will be useable for years. They don't lose their fluid by leaks.)

The preferred candles are the short fat ones called votive candles. This is because of their size and stability. These candles are about two inches tall and about one and a half inches in diameter. The low shape yields stability, with no tendency to tip or fall over during use. The candles also store easily, needing very little space. They currently cost 52 cents. An adequate candle holder can be made from a tuna fish can, a cat food can, or an ash tray. Such holders are readily available and very affordable.

Some matches will complete your kit. Some businesses still give away books of paper matches for free. (If you have to buy a box of "penny matches" they certainly will cost more than a penny today.)

Shrinking with a candle is done by holding the tubing in the heat above the flame. The object is to heat the tubing but not ignite it. When the tubing starts to shrink, move it into the heated area. This method will shrink small pieces of tubing for small repairs.

The candle will not totally replace the heat gun, which is still needed for larger jobs that require more heat. And remember to observe the usual precautions when using open flames.

Larry Albert is the television engineer at Murray State University's MSU-TV. Albert believes cheap engineering is an acceptable term and is a self-professed "cheapskate." He can be reached at 502-762-4664.

OLE VIRGINIA HAMS
AMATEUR RADIO CLUB, INC.
MINUTES OF MEETING
August 16, 1993

The OVH August, 1993 Meeting was called to order at 8:03 P.M. There were 25 members and 5 guests present for a total attendance of 30.

The Pledge of Allegiance by all members, oral roll call, and signing of the attendance list opened the meeting which was presided over by Butch, N6NSM, Club President.

Mike, WV3H, Club Treasurer, reported the August 16th account balances.

There was no program tonight.

COMMITTEE REPORTS:

Tim, KB4NR, reported that the Finance Committee would meet, to develop the next budget, in October

Tim, KB4NR, reported that he will be phasing himself out of the Technical Committee. The new chairman who will take over the committee in September will be WA2QEJ. Tim also said that the pager tones heard on the 144Mhz repeater were NOVEC load management transmissions, otherwise there were no other outstanding problems.

The Packet Committee report, given by Mike, WV3H, stated that the 220Mhz side is still turned off. The new helix coax is on order and should be in shortly and hopefully installed this week.

For Public service, Harry, W4PVA, again mentioned the Civil War reenactment the last weekend of August (8-28 and 8-29) and explained what the hams are expected to do and what to watch for (i.e. heat exhaustion). Harry said the new FCC rules are out and the club is currently operating our special events coverage within these guidelines.

There will be an Air Show at Manassas Airport on September 18 and 19. The organizers said it was OK for the Club to set up a special event station as long as the station provided a public service such as 3rd party traffic. Harry gave the info to the Club for discussion. Maybe a packet station could be set up to handle the traffic volume to an HF station. A motion was made, and unanimously passed, to set up the booth. Jay, NS5N will chair the effort.

There will be no program at the September Club meeting.

The Club newsletter was discussed. Everyone agreed that the new format was very nice. Jay, NS5N, said that he has a scanner set up now and that he can now put pictures in the newsletter.

The Computer Committee had no report.

Jim, WD4OJY, Membership Chairman, read and the following new membership applications for the first time: John, NQ4Q and Mike, N5OJM. There were no new membership applications to be voted in this meeting.

The Education Committee had no report . (downloaded to Editor via packet)
The Education Committee has confirmed the dates for the fall 1993 and spring 1994 Novice and No-Code Technician Classes. The No-Code Technician Class will begin Tuesday 5 October 1993 and finish on 7 December 1993. The class will meet every Tuesday.

The Novice Code Class will begin on 5 April 1994 and finish on 7 June 1994. We have changed the sequence in providing the code portion of the licensing courses to coincide with the OVH spring VEC testing session. This will allow the students to take the spring exam to be given by OVH VEC.

To register for the October No-Code Technician Class, please contact John (N4YOB) at the above telephone number. 73 John (N4YOB)

To anyone interested, the Club sti needs a Chairman (or several chairmen) for the 1994 Hamfest.

The Picnic Committee is still trying to determine a place, such as J.C. Long Park. They will let the Club know when progress is made.

OLD BUSINESS:

The status of the Club awarded scholarships needs to be determined from Pete, KB4RME. Butch, N6NSM, will contact him.

NEW BUSINESS:

The Club needs a new refreshment chairman for the September meeting. Mike, KD4GCX, is moving out from the area. If interested, contact Butch, N6NSM.

The 50-50 drawing was won by Larry, WA2AJQ.

The meeting was adjourned at 9:08 P.M.

Respectfully submitted,
Ron Everett, NV3S
Club Secretary

As part of a continuing effort to improve information provided by the Ole Virginia Hams, ARC, I am compiling a list of OVH Packet users to be included with the welcome package and maybe the next printing of the club roster. If you would like to be listed, please forward the following information to me at your convenience:
CALL(S): Keyboard & PBBS
Frequency you use. (e.g. 145.03 or 223.54)
HomeBBS (For most N4WJN)
24 hours?: Y/N
Autoforwarding from N4WJN?: Y/ N
PBBS Capability? Y/N
LAN-LINK>: Y/N
Responses can be left at WV3H @ N4WJN or directly into my PBBS by doing a 'C 1 WV3H' from the OVH NODE. 73..MIKE

AMATEUR EXTRA CLASS LICENSEES GET CODE CREDIT ON NEW COMMERCIAL LICENSE EXAMS!

(FROM TSRAC S.R.NEWS BULLETIN 9/93)

The FCC is fast developing a system of issuing all kinds of commercial licenses that is based exactly on the successful Amateur Radio VEC system! Fred Maia, W5YI was among the first to sign up as a VEC to give such commercial exams as the FCC, like the Amateur Service, will not be giving any more such tests. Eight other VECs, with past commercial tie-ins such as commercial schools, etc. have also been approved.

Some early details are of keen interest to Extra Class Amateur Radio operators. The code examination for a commercial radio telegraph license will be like the old days of Amateur Radio where a five minute code transmission will be ent and the applicant would have o copy solid, one minute of transmission. Since, until the present day, Amateur Radio Extra Class licensees proved they could do this at 20 wpm, the new commercial code system gives all Amateur Extra Class licensees credit for their code on these new commercial exams. However, they still have to pass three additional written test elements to be awarded the Second Class Radiotelegraph Operator's License. These tests will be redesigned under this new VEC system to be similar to passing as on Amateur exams. This class of license would make them eligible for job opportunities on ships at sea, airlines, press stations, etc.

An interesting unusual announcement came from the W5YI VEC group that said they would provide worldwide examinations tilizing both currently licensed ommercial licensees AND Extra Class radio operators as registered examiners! It is natural that priority for Chief Examiner status will be given to holders of the Commercial General Radiotelephone or Radio Telegraph operators licenses.

A by-product of all this is an expected flow of advertisements in both commercial and Amateur Radio publications. What may be a momentary holdup was the FCC, unlike in the Amateur Service, failed to set exam fee schedules but seem to be leaving it up to this new commercial VEC system to get together and work it out among themselves!

OVH CLASSIFIEDS

Wanted:

MFM Hard disk controller w/floppy drive controller for a Sea-gate drive Model #ST-251 -- A Sea-gate ST-22M is the recommended card. I would also be interested in a terminating resistor for a Seagate ST-251.

Contact:

Jim (WD4OJY) @ 369-3940 - evenings or on packet, either direct or via N4WJN.

Wanted:

Manual for Ten-Tec 252G HF Rig Power Supply. Having intermittent power problem and need manual & schematics to track it down.

Contact:

Jim (KD4AUJ) @ 369-0782.

For Sale:

Tandy DMP-132 Printer. Hard working utility dot matrix printer. Excellent for use as line printer on packet radio.

Price: $100.00

For Sale:

MFJ-1278 Multimode TNC all Software and Documentation

PLUS

a homebrewed interface for any radio configuration. This interface provides DC isolation of the audio line for those rigs that have a control voltage on the audio line. Perfect for use with ICOMs and such.

Price: $250.00

Contact:

J Edgar (NS5N) @ 330-7333

YOUR ADVERTISEMENT HERE!

For Sale:

MFJ-931 MFJ Artificial Ground $55

2 Seagate ST-277 65Mbyte drives with RLL 1:1 controller (AT BUS) $325

Genoa EGA Card Super Hi-Res 800x600 $70

Central Point Software COPY II Board $25

Adaptec RLL Controller Interleave 3:1 w/floppy support. (for XT) $15

CGA PC Board $5

Sound Board (B.G. Micro) $20

4 port I/O board (82450 UARTS) w/adaptor cable) $20

Future Domain - TMC-850MEX SCSI Controller (f/u/w CD-ROM only - no floppy or HD support) $20

286 Motherboard w/1mbyte RAM and Coprocessor $125

Contact:

Mike (KC4ZNQ) @ 335-5031 or on packet, direct (MBX KC4ZNQ-1) or via KF4TE (145.07).

FREE!

One box of Vacuum Cleaner Bags with spare NEW brush for a Bissel Electric Broom.

Contact:

Harry (W4PVA) @ 368-6050

Please remember when discussing the trade or sale of items via radio, be it packet, cw or voice that the inclusion of prices is not permitted under F.C.C. guidelines. Tnx, Editor..

Q SIGNALS OF THE MONTH

QRG

Will you tell me my exact frequency (or that of (_____)? Your exact frequency (or that of _____) is _____ KHz.

QRH

Does my frequency vary? Your frequency varies.

QRI

How is the tone of my transmission? The tone of your transmission is _____ (1. Good; 2. Variable; 3. Bad).

THE CONTESTER'S COLUMN

by J Edgar/NS5N

Last month, we covered a lot of general ground towards making your participation in a contest as painless as possible. This month, we will take it a little further into the details.

THE COMFORT ZONE:
I am sure that all of us have had the experience of sitting in one place for an extended period of time and to add to this pleasure, were many wonderful things that I will cover in this installment.

THE CHAIR:
The single most important item that you will be required to use during the contest, is your chair. You are going to spend between 12 and 36 hours with your posterior planted! This would not be an enjoyable experience even if you had your tush anesthetized for the duration and could sit on a mound of feather pillows. (Although, I must try that). Find your most comfortable chair. Make sure that the arms let your arms rest at a 90 degree angle from your body and that they come out just about table height. This is just good ergonomics. Mom said to sit up straight and that is a good idea. You start slouching over at the mic or the key and you will feel it soon!

THE CLOTHES:
Make sure that you wear comfortable clothing. Don't dress to warm or too cool. It does help to be a little on the cooler side, but not too much. Sensible shoes come into play here too. Take shower on those breaks between operating. You would be surprised how much that picks you up and helps you to sleep better when it is time. (Not to mention how much your spouse will appreciate it).

THE CLIMATE:
Where you operate will determine this one, but if you can control it, do so. And as mentioned before, keep it a little on the cooler side to keep you alert. This is not just a good operating tip, it is also a good safety tip! Be aware of what you are doing. If a rig blows in the middle of the night and you are dead tired and try to repair it, you could be just plain dead. Get some rest before attempting any major work or tower climbing!!

THE EQUIPMENT:
This should have been checked out well before the contest and in the days or hours prior to real-time. You should have adjusted that rotator so that you know that North is North and the antenna tuner drills you ran will make those band changes quicker than the competition. You should have arranged your shack in the hours before Zero Hour to eliminate clutter and have everything placed where it can be easily accessed. These don't need to be permanent re-arrangements, but you should be organized for the 24 or 48 hours of the contest. Know where the extra dupe sheets are, have that emergency radio ready to go on the air with the flip of a switch or a quick disconnect and re-connect of a cable.

REFRESHMENTS:
Have plenty of fluids close at hand. A small cooler with something to drink is a neccessity. It is amazing how much you can dehydrate during one of these things! Have your snack food sitting there too, or if you have an understanding spouse, have her bring you sandwiches at appropriate times and force feed you!

After all, this is supposed to be fun!!

NEXT MEETING

The next meeting of the OLE VIRGINIA HAMS AMATEUR RADIO CLUB will be on September 20th, 1993, in the Basement Meeting Room of the Northern Virginia Electric Cooperative, 10323 Lomond Drive, Manassas, VA. The meeting starts at 8:00 PM and all are welcome to attend.

ED's NOTES

Just the other day, I was copying traffic on the OVH node and noticed an interesting header for one of the many messages that were listed. It was entitled "EXAMS @ USA".

For those of us on packet, we recognize this as a message that has been distributed for the entire United States. I took the time to read the message and was quite impressed as to what the gentleman had to say.

In a nutshell, he was justifying the use of the @USA distribution to notify of local VE Exams. Evidently, he had received quite a bit of grief from various "packeteers" around the nation. I sent him a message, too.

I thanked him for his interest and concern in his fellow man. I am not alone in the concept that when we travel to other locations, we think about amateur radio and maybe even hope that there might be a hamfest nearby if we can grab a few moments from the "tourist" or "business" side of our trip. Since my wife is studying for her license, it would also be nice to know if there might be an exam in the area, too.

I took this a step further when replying to Bob/KE3CZ. I felt that it really should fall back on the major players (ARRL/W5YI/etc) to take the input from their various groups that are planning exams and to generate an EXAMS @ USA message themselves. Wouldn't it be nice to know at least a month in advance where the next sessions are held?

Make a twin-lead two-meter J-pole antenna

by Trigg Tabor,K8NIO, and Bill Blinn, N8POV (taken from CCRA Radiogram June 1993)

g: Here's an antenna project one can start and finish in a single day. It's easy enough that even a newsletter editor can do it, and the resulting antenna is both portable and a good performer. And it's cheap.

Bill: Better make that "inexpensive." It sounds better.

Trigg: OK, inexpensive. When it's finished, the J-pole rolls up into a coil small enough to include even in a crowded suitcase. Because it's a big improvement over the "dummy load" (rubber duck) included with most HTs, you'll find it useful when you're in a hotel. And if you put a long enough section of coax on it, the J-pole will serve you well when you hoist it into a tree.

Bill: I have one of these and take it with me whenever I go out of town. It's particularly helpful when it comes to working packet with an HT. So how does somebody make one of these antennas?

Trigg: All you need is a length of 300-ohm twin-lead television cable (54" to be precise). Use less expensive twin-lead. It works better. Make sure it's not shielded cable. You'll also need some coax, a BNC (or whatever connector your radio needs), solder, and a few tools.

Bill: Yeah, like industrial-grade wire strippers, right?

Trigg: Well, you can strip wires with a pair of side-cutters or even a knife if you're careful. In your case, maybe you'd better try the side cutters. Start by stripping half an inch of insulation from one end of the twin-lead and solder the ends together. Do nothing to the leads at the other end, except to put a bead of solder on the exposed ends.

Bill: That's easy enough. So far I still have all my fingers and I haven't set the house on fire. What's that ruler for?

Trigg: I need to measure 16.5" from where leads are soldered together and cut a quarter-inch section out of one lead of the twin-lead cable.

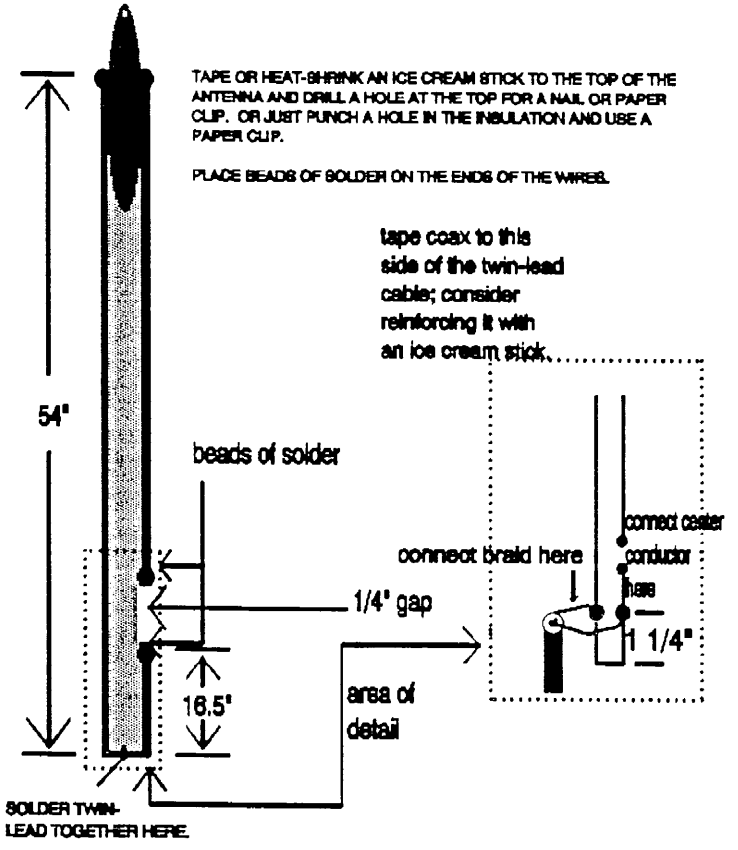
Bill: Does it matter which side?

Trigg: No. But once you've done that, it's time for the trickiest part. Measure 1.25" from where you soldered the leads together and strip about half an inch on both twin-lead conductors.

Bill: You expect me to strip back the insulation without cutting the conductors?

Trigg: Just take your time and you'll find it's not that hard. You might want to practice on some junk twin-lead first. When you're finished, attach the center conductor of the coax to the short side of the antenna (the side with the quarter-inch section cut out of the conductor). Attach the shield side of the coax to the long side of the antenna.

Bill: You want me to solder these, right?



Trigg: (Sigh.) Yes. Then run the cable from where you soldered it to the end of the twin-lead, making sure it stays near the side where you soldered the shield. Tape the connections. For added strength, you could tape an ice cream stick into the feedpoint connection. You could also tape an ice cream stick at the other end, then drill a hole in the stick to hang the antenna.

Bill: You must think I eat a lot of ice cream.

Trigg: Well, you could buy some for your kids. Attach the BNC (or other connector) to the other end of the coax. When you hang the antenna, be careful not to place it near metal. Be particularly suspicious of corners in rooms that have drywall.

Bill: That's it?

Trigg: Not quite. Check your new antenna with an SWR meter, and then enjoy it.

(SPECIAL TNX TO CCRA et al.)

OLE VIRGINIA HAMS AMATEUR RADIO CLUB
September 19 - October 16, 1993

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Sept 19 0900-1700 MANASSAS AIR SHOW 1700 10-10 NET	Sept 20 2000 MEETING-OLE VIRGINIA HAMS 2000 NET-WOODBRIDGE WIRELESS-147.84 MHz/ 223.18 MHz	Sept 21 MEETING-SPARK	Sept 22 VEC-LAUREL 2000 NET-NVFMA-146.79 MHz 2000 NET-FARA-147.165 MHz	Sept 23 2000 NET-OVH-146.970 MHz/224.66 MHz	Sept 24 VEC-STAFFORD	Sept 25 VEC-ROANOKE 1000 MEETING-MOOSE ARC 1300 OVH PICNIC-J.C. LONG PARK
Sept 26 1700 10-10 NET	Sept 27 2000 NET-WOODBRIDGE WIRELESS-147.84 MHz/ 223.18 MHz	Sept 28	Sept 29 2000 NET-NVFMA-146.79 MHz 2000 NET-FARA-147.165 MHz	Sept 30 2000 NET-OVH-146.970 MHz/224.66 MHz	Oct 1	Oct 2 VEC-COLLEGE PARK VIRGINIA BEACH HA...
Oct 3 VEC-LANDOVER,MD VEC-VA BEACH,VA 1700 10-10 NET VIRGINIA BEACH HA...	Oct 4 EDITOR'S BIRTHDAY 2000 NET-WOODBRIDGE WIRELESS-147.84 MHz/ 223.18 MHz	Oct 5 MEETNG-SPARK	Oct 6 ARTICLE DEADLINE 2000 NET-NVFMA-146.79 MHz 2000 NET-FARA-147.165 MHz	Oct 7 1930 MEETING-VA BEACH ARC 2000 NET-OVH-146.970 MHz/224.66 MHz	Oct 8	Oct 9 VSC HARRISONBURG,VA VSC CUMBERLAND,MD VSC DAVIDSONVILLE,MD VSC RICHMOND,VA VSC ALEXANDRIA,VA 0800 BREAKFAST @ MIKE'S 2100 DRACONID METEOR SHOWER
Oct 10 1700 10-10 NET	Oct 11 2000 NET-WOODBRIDGE WIRELESS-147.84 MHz/ 223.18 MHz	Oct 12 1930 MEETING-FARA	Oct 13 2000 NET-NVFMA-146.79 MHz 2000 NET-FARA-147.165 MHz	Oct 14 MEETING-AMRAD 1930 MEETING-WOODBRIDGE WIRELESS 2000 NET-OVH-146.970 MHz/224.66 MHz	Oct 15	Oct 16 VEC-LAUREL,MD

PLEASE SUBMIT NEWSLETTER ITEMS TO N5SN PRIOR TO DEADLINE. TX

BENTONITE RODS ASSURE GROUND ROD INSTALLATION IN PROBLEM SOILS

BY WARREN R. JONES
IEEE TRANSACTIONS ON POWER APPARATUS AND SYSTEMS
VOL. PAS-99, NO. 4, JULY/AUGUST 1980
(TAKEN FROM SMARC SPARKS, AUGUST 1993)

The title is a little deceptive because you don't actually sink a ground rod composed of bentonite into the ground. The paper describes a process wherein you drill a hole in the ground of some reasonable size (e.g., 4 to 6 inches), place a metallic ground rod in the hole, backfill the hole with crushed bentonite, then flood the hole with water. The bentonite will absorb a great deal of water and swell to a volume that is something around 13 times it's original volume in the process. As I understand the paper, ground rod performance can be improved if the surface area of the rod in contact with the Earth is maximized. Bentonite is itself very conductive, it apparently "artificially" increases the diameter of the installed rod to that of the hole.
The paper describes various field tests and the obtained results and is intended to address problems with soils considered difficult to achieve good grounds for various reasons. I got the idea however, that the method should improve your ground system no matter what soil you were working with.

And, finally, yes, I installed a rod as described in the paper. I needed the help of several other Hams, mostly because the hole was drilled using a portable (post-hole?) drill. The hole diameter was 6 inches and was 8 feet deep. I used a 10 foot by 5/8-inch copper-clad iron rod. I used several bags of crushed (not powdered) bentonite. The uses listed on the bags were "for ground rod" installation and some other unrelated things. The rod was loose in the hole initially, but after a day or so of soaking up water, became so tight that I could not turn it with a pipe wrench. The soil at my QTH consists of about 2 feet of clay underlain by fine sand. I have a high water table at my QTH, varying seasonally from around 5 feet to 8 feet, so I didn't have to add much water. Bentonite is very hydrophilic and will tend to keep itself hydrated. Sometime in the next year I will install another tower at my QTH, at which time I will put another rod in using the described method. I have a second rod in the ground installed the conventional way. After the third rod is in, I will make some (probably not entirely scientific) measurements to determine if the method makes a measurable difference. For now, I can't say whether I gained anything from the effort other than some baseless peace of mind. I didn't consider it that much extra effort, but I did have help (Thanks, guys!).

THE 220 NODE IS ALIVE AND WELL!!

EDITOR

A "Well Done" to all those that assisted in the recuperation of the 223.54 MHz OVH node.

It was discovered that the leading contributor to the shortcomings and the occasional intermittent signals that were being experienced, were not due to a problem with desensing, but rather to a faulty antenna. The newly acquired Diamond has a base section containing a coil and three capacitors. The primary connection from the feedline to the first capacitor had come loose (poor solder connection at the factory) and was making contact from time to time which was emulating a desense problem. This was quickly remedied with a touch of solder.

We now have a system with a new (again) antenna, new radio and new heliax feedline.

It is performing quite well. A check of its' "ears" was made while on site and everyone that should be heard is being heard and all those that should hear us, do!

The plus side is a direct connect via DCA9 into the DCA stack. This in itself is worth the time and effort that the crew has put into it.

THANKS!

OVH PICNIC REPLAY FORM

WHEN: SATURDAY, SEPTEMBER 25TH, 1993 @ 1:00 P.M.
WHERE: JAMES LONG PARK IN THE LARGE PAVILION

YOUR PART:
HOW MANY IN YOUR GROUP WILL BE ATTENDING? _____

THE CLUB WILL BE PROVIDING THE HAMBURGERS, HOT DOGS AND THE SOFT DRINKS.
PLEASE BRING A SIDE DISH OF YOUR CHOICE IF YOU CAN. THANK YOU.

EITHER BRING THIS FORM TO THE MEETING ON THE 20TH OF SEPTEMBER
OR
MAIL THIS FORM TO THE OVH P.O.BOX.

IF YOU HAVE ANY QUESTIONS OR NEED TO CALL AND CANCEL OUT, PLEASE CALL MARY LOU @ (703) 369-2877.

FIRST CLASS MAIL

Ole Virginia Hams A.R.C., Inc.
Post Office Box 1255
Manassas, VA 22110

SEPTEMBER/OCTOBER

TIME TO FIRE UP THOSE HOBBIES FOR THE FALL!!