

President John Youell, WA4QDM
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Devoted To Amateur Radio Contesting And DXing From 160 Meters To Microwaves

News And Views Published For Members And Friends Of The Central Virginia Contest Club - April, 2001 Issue

Prez' sez "So much railroadin' going on, Casey Jones outta run fer office"

- De John Youell, WA4QDM

Hi All!

Sorry if you missed the FB presentation at our last CVCC meeting on the Syria DX'Pedition by Bob (W4DR), Rosalie (N4CFL) and Jim (W4PRO). We had pretty good attendance at the "Greek" with the "eat and meet" crowd, and several more joined for the actual meeting. The DXpeditioners put on an excellent show, with slides, Power Point, scrapbook and commentary. Thanks to these presenters for a FB evening!

The program at our next meeting will be the A52 DX'pedition VCR tape. I understand it is much shorter than the last VCR tape we showed at Bill (W4DAA) Cox's place (and I will verify this in advance this time). This is supposed to be a nice tape.

Other issues for the April meeting are:

Constitutional amendment re: the number of members required for conducting business (there should be an absentee ballot elsewhere in this issue – it is important that we get the required number of votes)!

Election of officers – the default slate is:

WA4QDM	President
N4ZJ	Treas.
N4NM	Sec.

(Continued on page 2)



You know it has been a quiet month when W4MYA, N4CH and W4DR cannot report a single new band country but others have been "banging the boards" so there has been some good stuff out there. For example WK4Y got 22 new ones this month to make 146 for the year. So far no one has been a repeat CVCC "DX Champion", but unless someone out there gets busy Roy may be the first. Among Roy's catches are 30: ZK2, CEØA, 5B4 20: ZD8, VP2E 17: C56, DU, 4S7, 3V8 15: CP, A52, UK8, C31 12: 5U7, UK8, 3V8 10: 4K6, CP5.

Jonathan, W4HZ has also been using his antenna farm to good advantage..his best catch 9MØM for DXCC #304 overall. What he really needs is a QSL manager...how about Nancy?? In addition some of his BC's include: FY, 5U7, EY8, A52CO on 10, ZK2, EA6, TU, CE0A, 5B4 on 12, EY on 15, BQ9,

5B4, 3V8, DU on 17, FM on 160 and 5B4 on 75. Our long lost member Chris gave this neat report..welcome back Chris (Chris's report appears later). Last month due to a huge oversight I failed to include Tony and Becky's YK9A QSOs. This was especially embarrassing since they made some of the most remarkable QSOs...YK on 75 meters with only 100 watts. In addition to that KC4AUF worked us on 10 C, S, 30, and 15S. Congrats to KS4RX and KC4AUF! Speaking of YK9A I have a ton of current issue, valid "CN 22" IRCs which would cost you \$1.20 at the local post office. Because the CVCC has provided such strong support we are making them available to club members at redemption price which is only .80 each. I will bring them to the meeting.

Looking ahead. St. Peter & St. Paul Rocks April 1-15: E4/OE1GZA till end of the year: 9N7WU SSB only April 23 to May 3: ZD7K till April 12, Malpelo by 3 HK's April 7 to May 7 and the good news is that one of them knows CW so we might get a shot on 30 meters which I believe

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would be an all time first, VK9ML, Mellish April 21-24 and last but not least TXØ, Chesterfield by several Frenchman including a dedicated 160 operator from April 27 to May 2. You may recall that the first Chesterfield operation spent about 2 hours total on 80 and did not even scratch on 160 although they had a vertical up for that band. W8UVZ tells me he has shipped a Battle Creek Special to the TXØ guys so they should be heard if conditions give us a break. May will bring us 3B6, but lets get through April first.

As I write this 3GØZ (CEØZ) a 6 meter DXpedition is working Europe, the middle east, South America, and the Southern US, but once again not a peep up here although the signals have to be flying over our heads. I wonder how far above us all of this RF is maybe a high altitude balloon could intercept it! The month wasn't all lost for me personally. BQ9P provided new band-mode countries on 12 and 10 CW and I got two prize QSL's..9M2AX to make 300 confirmed on 160 and a long awaited EH6SA 6 meter card. A 6 meter card from YU1EU and three 3Y0C WARC cards would give me 100% confirmed again.

Bob W4DR

Chris's report:

Hi Bob...input from a corner not heard from in awhile. After a relatively quiet time for me radio-wise, I have spent a little more time pursuing the DX. T32RD 15Ph D68C 15,20,40 CW; 10,20 TY; 10,15,20 Ph 5U2K 15C; 10,15 CW 3GØY 15 CW; 12,15 Ph SU/WA0VOM 10 Ph 9M6BAA 15 Ph. Really what happened for me was getting a bunch of other 10M QSOs which I had been short of to bring my totals there higher. I now have "4BDXCC" (10M-115; 15M-155; 20M-234; 40M-108) and DXCC mixed totals of 264. Now what band to work on without 80 or 160!?

Also have resurrected and refined my 2M QRP EME project and getting ready to go for the first one later this spring during a good moon: perigee with little sky noise (read: background interference from the STARS!) Have refined my filtering and preamp situation and I have made a much better, stable and easier to adjust "Armstrong" rotor which makes me less of a one-armed paper hanger. Using EME signal degradation calculations and scheduling software, I plan to go to Wintergreen at a good time to catch moonrise or moonset and take advantage of the ground gain that I can get shooting off the top of a mountain. Everything is easily packable/deployable and transportable. You'd be proud of the DXpedition setup I have created! I'll keep you posted. FYI in case you're interested and I forgot to mention, antenna is a 34.5 ft boom M² cross (not circular) polarized antenna...switchable between horiz and vertical polarization according to Faraday-rotation conditions on the rx signal. Could also do 45* with a flip of the wrist, hi. W5UN has 16 of these..I'm using one!

Progress on my plane is still of high priority and I have just arranged some hangar space in a corporate hangar where I can work, spread out and not be subject to the whims of the weather. It is quite motivating to be working on my plane next to a Cessna Citation II jet and a couple of Beech King Airs! I was very disappointed to miss your presentation of the YK9A trip. We had signed up for a drug/alcohol prevention program designed for rising middle-schoolers of which we have two...so that took priority I'm afraid. Anyway, look forward to seeing you in the near future...I'll get to a meeting one of these days. See you in the pileups!

73 de Chris NQ4E

(Continued from page 1)

Dues: April is the month to discuss dues and dues issues:

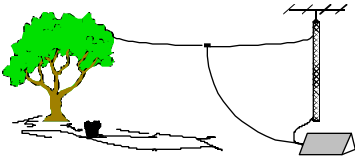
Our last Constitutional change eliminated "special" status for members, such as "Charter Members" or "Honorary Members"

I feel we should recognize the loyalty and seniority of members who have accumulated 10 years of membership with the CVCC and 80 years of age as a criteria for dues exemption.

Picnic plans, Field Day plans and any special event update news from Ronnie or Ellen should round out the agenda.

How about those sunspots? Just as we were giving up on the current sunspot cycle, here come the record SFI numbers for the cycle. We had a cycle high SFI of 274 on 3/28/01 and the largest sunspot in 10 years!

73, John



***DX*PEDITION INFO**

INFORMATION GATHERED FROM MANY DIFFERENT SOURCES

Dates	DXCC	Call	QSL	Info
03/18- 04/16	Niue	ZK2GEO	DL1EMH DARC Buro	By DL1EMH HF + 6M
03/26- 04/05	Western Samoa	5W0BQ	I6BQI Direct	By I6BQI
04/01- 04/15	St Helena	ZD7K	GWØANA	By GW4BVJ GØWMW GWØANA; 160-6 M mostly CW
04/01 04/30	Malpelo I.	HKØ?	N4AA	TBA
04/01- 04/15	St. Peter & St. Paul Rocks	ZYØSAT	PS7JN	By PS7JN Part-time Operation
04/09 04/24	St.Kitts & Nevis	V47CA	VE3BW	160-6
04/14 04/20	Aland Is.	OHØ/Homecall	Homecall	By DL2SWW and DL2VFR from (EU-002) 160-6M mostly CW and some RTTY
04/15 05/03	Saudi Arabia	7Z1AC	WA4JTK	By W5FJG mostly upper HF bands
04/19- 04/26	Marshall Is.	V73E	WF5E	By various group from Enewetak Atoll (OC-087) 160-6
04/21- 04/24	Mellish Reef	VK9ML	VK4APG	Various VK op team 80-6m (no WARC)
04/23- 05/08	Falkland Is.	VP8SDX	GM4FDM	GM Group operating from SA-002 LF, CW, WARC
04/24- 05/06	Chesterfield Is.	TXØC OR TX5C?	TBA	Various F ops including F2CW 160-6m
04/30- 05/04	S. Cook Is.	ZK1NDS/ZK1NFK	Homecall(s)	By DL9NDS and DL7NFK from Rarotonga (OC-013) HF and digital modes
05/05- 05/21	Agalega & St. Brandon	3B6RF	HB9AGH	By a multi-national team headed up by HB9BXE fm Agalega
05/05- 05/11	N. Cook Is.	ZK1NDS/ZK1NFK	Homecall(s)	By DL9NDS and DL7NFK from Manihiki (OC-014), possibly op from Aitutaki (OC-83) (S. Cook) as well. HF and digital modes
05/07- 05/17	Ascension I.	ZD8Z	VE3HO	By N6TJ - QSL request may use US stamps
05/31- 06/10	Svalbard	JW	TBA	By LA3OHA and others from Prins Karls Forland (EU-063)
06/01- 06/03	Monaco	3A/HOMECALL	HF-IK5GQK, VHF-IW5BZQ	Mostly 6-2m but some HF: By IK5GQK, IK5YOJ, IW5BZQ
06/09- 06/29	Mozambique	C93/HOMECALL	JG6BKB	By JA6SJM, JG6BKB, JJ6VOV, JR6XIW hf+6
06/16- 06/30	Dodecanese	SV5/GWØVSW	GWØVSW	Operation from Rhodes (EU-001) 40-10m, primarily CW
08/09- 08/31	Benin	TY	F5CWU	By F5CWU F5MOO F5AOV; 160-6 M; SSB CW + digital modes; quads on 20-10 M; verticals on low bands; yagi on 6M; 500 watts; suggestions for bands/modes to emphasize go to F5CWU
09/08- 09/14	Cocos Keeling	VK9CQ	PA3GIO Buro	By PA3GIO fm OC-003; 80-10 M; SSB only; IOTA + DX frequencies; exact dates may vary
09/15- 09/22	Christmas Island	VK9XV	PA3GIO Buro	By PA3GIO fm OC-002; 80-10 M; SSB only; IOTA + DX frequencies; exact dates may vary
10/09- 10/15	Lord Howe Island	VK9LO	PA3GIO Buro	By PA3GIO fm OC-004; 80-10 M; SSB only; IOTA + DX frequencies; exact dates may vary



Proposed CVCC Constitutional change

Proposed CVCC Constitutional change was discussed at the March meeting and will be voted on at the April meeting:

Reason for change:

The current wording is arbitrary and not indicative of the average attendance we have been experiencing at recent meetings. The new wording will allow for membership dynamics, either up or down, and will allow for the special case where there is not a "quorum", but when there are no dissenting votes and at least two club officers in attendance. Please note that "special" meetings require advance written notice to all members.

The following is how the current CVCC Constitution reads:

“

MEETINGS: ARTICLE IV

The By-Laws shall provide for regular and special meetings. At meetings, a minimum of fifteen members in good standing shall constitute a quorum for the transaction of any business except as provided in Article VI hereof or as otherwise specifically provided for amendment of the By-Laws.”

What is proposed is:

“

MEETINGS: ARTICLE IV

The By-Laws shall provide for regular and special meetings. At meetings, a minimum of one-fourth of the members in good standing shall constitute a quorum, or in the absence of a quorum, a unanimous vote with at least two club officers present will be required for the transaction of any business. Exceptions are as provided in Article VI hereof or as otherwise specifically provided for amendment of the By-Laws.”

**Absentee Ballot - If you will not be at the April Meeting
this ballot may be returned to:**

**Tom Ogburn
3211 Whitehorse Road
Richmond, VA 23235**

Ballet may also be returned by email to togburn@wwbt.com by certifying that you are for or opposed to the change to the CVCC Constitution Regarding Conduction of Club Business

Callsign _____

Name _____

Date _____

I am in favor of and vote yes for the proposed change to the CVCC Constitution and vote YES.

I am NOT in favor of the proposed change to the CVCC Constitution and therefore vote NO

Please return this ballot by mail or email before the April 10th Meeting

ARRL SSB DX Multi-op score rumors

-de K4JA

<u>Multi-2</u>	<u>Points (mil)</u>	<u>All</u>	<u>160</u>	<u>80</u>	<u>40</u>	<u>20</u>	<u>15</u>	<u>10</u>
K4JA	10.200	6008/566	28/23	148/64	386/85	1629/127	1942/135	1875/132
NZ1U@KB1H	5.477	3685/498	5/4	169/61	207/78	936/112	1010/121	1358/122
N5TW	5.177	3851/455	10/8	56/33	284/70	610/99	1432/125	1469/120
K2RD	5.328	3528/502	14/12	92/55	177/68	792/114	1237/127	1226/126
W6AX@W6GO	5.132	3704/462	8/8	82/29	529/73	652/109	1485/130	948/113
W6EEN	4.768	3488/456	9/7	58/36	426/69	631/105	1305/122	1059/117
N0NI	4.200	2911/410	25/19	67/48	220/72	532/114	1064/120	1004/117
AA5NT	3.625	2861/429	--	--	25/21	125/61	722/102	917/119
AE9B	3.560	2604/456	14/12	58/40	176/76	556/102	896/118	903/117
W3GNQ	3.330	2373/468	15/12	87/51	159/68	501/106	601/112	1010/119

<u>MM</u>	<u>Points (mil)</u>	<u>All</u>	<u>160</u>	<u>80</u>	<u>40</u>	<u>20</u>	<u>15</u>	<u>10</u>
KC1XX	16.900	8495/666	66/35	533/84	685/105	2169/152	2605/146	2437/144
W3LPL	15.4	7816/662						
K9NS	11.680	6454/604	34/24	193/67	436/93	1413/134	2301/146	2077/140
KRIG	8.551	5183/550	17/17	267/68	440/84	1551/130	1501/130	1407/121
W3PP	8.458	5183/544	27/22	141/62	359/81	1471/124	1680/128	1505/127
K3ANS	7.903	4775/557	33/26	208/68	431/85	1514/128	1273/128	1316/122
W4MYA	7.701	4821/539	30/24	250/69	325/78	1152/119	1684/126	1377/123
N2RM	7.673	4732/541	32/28	156/65	309/80	1532/124	1322/124	1381/120
K3NM	6.245	4110/508	18/15	114/59	252/76	1016/117	1279/120	1431/508
K3CT@K3II	5.612	3651/513	22/19	98/55	239/78	947/121	1188/122	1157/118
AK1A	3.915	2966/440	14/12	44/39	130/63	544/100	1125/114	1109/112

Va QSO Party

W4MYA - 754,578 points
 Operator List: KF4QQY, KS4RX, N4DEN, W4HZ, W4MYA, WA4QDM

N4ZJ - 18,000 points
 Small effort from Buckingham County
 N4ZJ and N4HB

Others?

WPX Phone

W4MYA Multi-multi

16,509,596
 Operator List: KF4QQY, N4DEN, N4EHJ, W4DR, W4HJ, W4HZ, W4MYA, WK4Y, WA4QDM AND LILLY

Others?



'Tenna Topics - Stacked dipoles

- de N4ZJ

Stacked dipoles? Com'n Tom are ya outta yer tree this time? Well, no, actually I'm up a tree – literally! Continuing with my series on wire antennas, let me present the results of some of my experiments, both on the computer and in the real world.

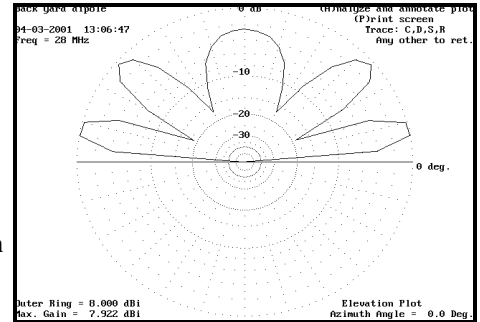
When I use to have a shack at the WRVA/WRVQ transmitter site I had up both a tribander and a 4-element 10 meter beam on chimneys. I also had up a short 40 meter vee beam, oriented to Europe, as well as an 80 meter delta loop (fed at the wrong place, as it turns out). I was used to beams, so when Elaine and I first got married and were living in a small house on a tiny lot in the city, I did virtually no ham radio from home, with the exception of 2 meter SSB and CW (the house was located at a high, clear spot, and a small 2 meter beam played well on the chimney).

One day, for grins and giggles, I picked up a Carolina Windom 40 from Jim from Radioworks at the Frostfest, primarily to, at least, listen a bit to HF. I put the antenna only about 20 feet up at one end, and about 15 at the other. Imagine my surprise when several weeks later during the ARRL CW DX contest I worked a number of stations on 40 barefoot, including a ZS6. The next day, I worked a bunch on 15 and 10, and that weekend literally changed my brain in ways difficult to describe. I suddenly realized that I COULD have some fun in contests without having up a beam, so when we moved to our new house about 8 years ago, I never quite seemed to get around putting up a tower, but instead got the wire “bug”. Our property has lots of trees, and is fairly high in elevation, so antenna experiments proved to be a lot of fun!

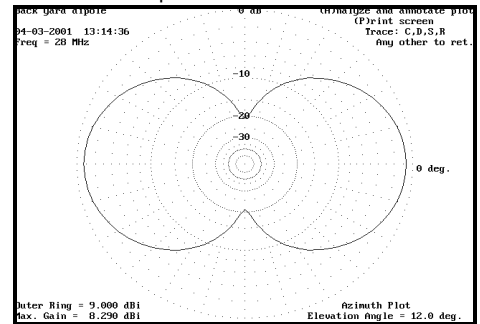
Now, after the commercial, let me get back on topic. I have had up a variety of antennas since then, including the Carolina Windom and a Carolina “Beam”, two of the best all-band simple antennas I've played with to date. I got interested in building wires with gain, remembering back to my short vee beam I had up on 40M years before. The first gain antenna I put up was a 20 meter dipole with reflector, cut to the dimensions I found in an old antenna book. It's still up, but I don't think it has much gain or front-to-back. Using computer modeling I've looked at (and put up) the following dipole-with-gain arrays.

The simplest “stacked” dipole array is 2 dipoles end-to-end, separated by 1/2 wavelength and fed in phase. This arrangement has gain, is easy to put up and matches fine to 50 ohms with fairly low swr. The computer modeling shows 2 problems with this arrangement. First, there is still substantial high angle radiation as shown in figure 3. In fact, the high angle lobe is identical to that found in the dipole, shown by comparison in figure 1. Second, the horizontal beamwidth is narrowed, compared to the dipole. This can be seen by comparing the differences between figures 4 and 2. So, for a fixed antenna, the coverage is more limited then with the dipole even though there is gain. The high angle lobes could be a problem on the “back” of the antenna as domestic QRM could be a factor in DX contests. Let me mention here that, in some regards, having a bi-directional antenna can be a plus, (compared to a single rotatable beam that must be rotated 180 degrees) when conditions exist like in the late afternoon, when both JA NNW and Caribbean/SA SSE are coming in at the same time.

A second method for stacking dipoles is vertical stacking. From my modeling, it looks as if 5/8 wavelength spacing is about ideal for low dipoles. As you can

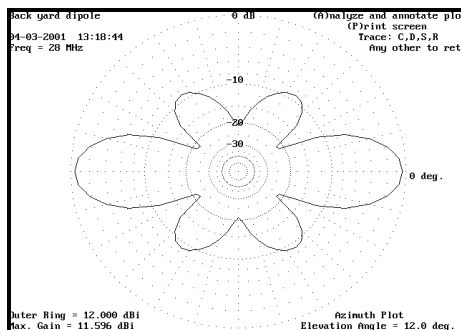
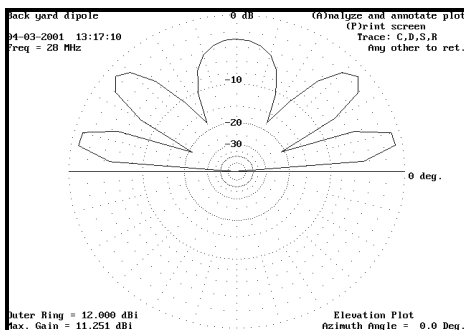


10 Meter Dipole@40 feet Vertical Pattern



10 Meter Dipole@40 feet Horizontal Pattern

see from figures 5 and 6, the pattern has improved considerably over the horizontal stack. 5/8 wavelength stacking is ideal on 10 meters, amounting to about 20 ft of vertical separation. This is practical for dipoles in trees on 10 and 15, but it starts getting unmanageable for 20 meters and lower. The 20 meter separation needs to be about 40 feet, and the lower dipole should be about 30 feet off the ground, putting the high dipole around 70



10 Meter Horizontal “Stack” - Vertical and Horizontal Patterns
There is 3db of gain but with considerable high angle energy and a narrow beamwidth

feet up. This is tough to do, unless you've got exactly the right high trees in exactly the right places! Notice that the high angle lobes have vanished, leaving a clean vertical pattern, and the horizontal beamwidth is as broad as the dipole, but with gain, especially at lower angles. Now we are getting somewhere for 10, 12 and 15 meters! In fact, I have 2 of the vertical stacks up on 10 meters, and I can attest to their effectiveness. The first pair is broadside JA and Caribbean/SA and the other pair is broadside Africa and Pacific. Notice I didn't mention Europe – more on that later.

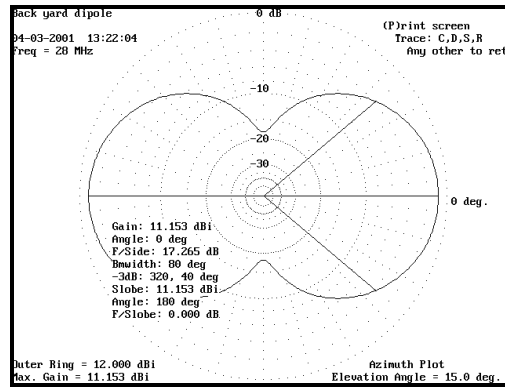
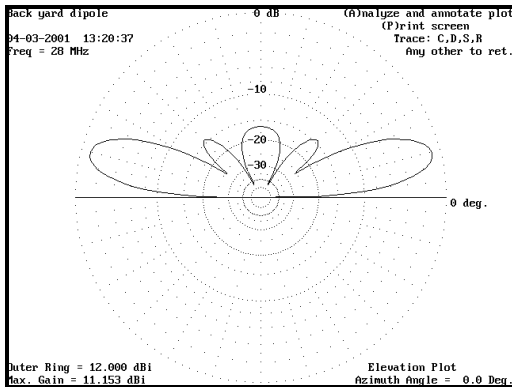
I got the stacks up the week before the 10 meter contest last year and they worked very well. They were fed in 2 different ways to check out the various feed options. Option number one was having the feedline from the transmitter go to a point halfway between the 2 dipoles and then feeding identical lengths of coax to each antenna, in phase. The second feed method was to run coax from the transmitter to the lower dipole, and then run a one wavelength (remember velocity factor) piece of cable to the higher dipole. For some reason, in my situation, this feed method resulted in a lower swr than the center feed method, plus it was easier to implement.

What about the bands below 15? Well, there is a third method of doing phased dipoles that you can use that gives the

better pattern without vertical stacking.

This method will be presented next time, along with details of my "big array" broadside to Europe on 10. Until then, have fun getting them lines over the limbs!

- Tom

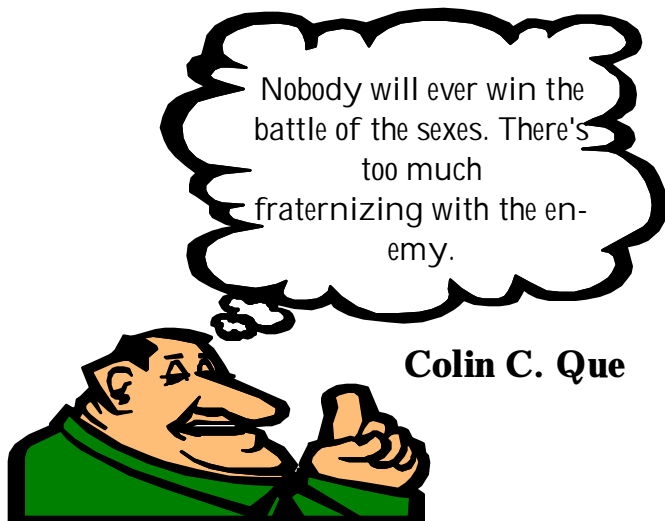
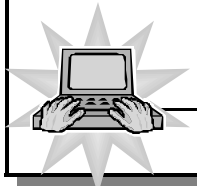


10 Meter Vertically Spaced Dipole Stack - Vertical and Horizontal Patterns
Note the same 3db of gain, but with smaller vertical secondary lobes and a broad horizontal pattern

599 Virginia available electronically.

The CVCC newsletter is now available electronically. Some of you have received it as a .pdf file the past two months via email as an experiment. If all goes well, that will be the primary means of distribution, in order to save CVCC lots of mailing costs. I haven't heard from some folks I sent it to last month. Please let me know if you received it and found it OK for your use. If I don't have your email address, please get it to me ASAP to:

togburn@wwbt.com



599 VA is published monthly by the Central Virginia Contest Club, and is edited by Tom Ogburn, N4ZJ.

If you would like to get in touch with one of the club officers, please contact:

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Treasurer A.J. Szumski, W4NM - 288-0312

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The deadline for submission of news or articles for the May newsletter is May 2, 2001.

Special Events

April 2001

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

- 04/07 - 04/08 EA RTTY Contest
- 04/07 - 04/08 SP DX Contest
- 04/08 Raleigh, NC Hamfest
- 04/10 CVCC April Meeting at First Mennonite
- 04/21 Chesapeake, VA Hamfest
- 04/21 - 04/22 Ontario QSO Party
- 04/21 EU Spring Sprint - CW
- 04/21 - 04/22 Michigan QSO Party
- 04/21 - 04/22 YU DX Contest
- 04/28 - 04/29 HB9 (Helvetia) Contest
- 04/28 - 04/29 Florida QSO Party
- 04/28 - 04/29 Nebraska QSO Party
- 05/05 - 05/06 ARI Int'l DX Contest
- 05/06 Hagerstown, MD Hamfest
- 05/18 - 05/20 Dayton, OH Hamfest
- 05/26 - 05/27 CQWW WPX Contest - CW
- 06/01 Manassas, VA Hamfest
- 06/09 - 06/11 ARRL June VHF QSO Party
- 06/23 - 06/24 ARRL Field Day



Central Virginia Contest Club

Tom Ogburn
3211 Whitehorse Road
Richmond, VA 23235

THIS MONTH.....

599 VA

- Meeting April 10th - Elections and a video
- By-laws change to be voted on - Absentee ballot enclosed
- Stacked dipoles
- DX News, DXpedition info