

THE BLACK HOLE

THE OFFICIAL JOURNAL OF THE SOCIETY OF MIDWEST CONTESTERS

Volume #2, Issue #5

May - August 1987

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The Society meets every Saturday Morning at 10:30 A.M. local central time on 3858 KHZ +-2 KHZ. Society dues are \$5.00 per year. Material from *The Black Hole* may be reproduced providing proper credit is given to the author and *The Black Hole*.

FROM THE EDITOR

The SMC is still alive and well. I suppose many of you were wondering if the SMC was still alive since the last newsletter was sent out about 4 months ago. I volunteered to have a crack at the next newsletter after Steve, NA9D, said that the last one was his last for awhile. Steve has done a super job with the *Black Hole* the last two years, and I hope I can do half as well as Steve has. K1TMM and WB9TIY have also agreed to act as editors in a revolving editor system.

It is time to renew your membership again. This issue contains a renewal form with a biography form on the back. Please note the dues increase to \$5 per year. This was necessary because our previous source of free copying dried up. A very very large percentage of the SMC budget goes towards copying costs and postage. Be sure to fill in the part about what contests you operated in last year. This information is used to determine club awards.

Elections should be held now, but everyone has been too busy to organize them. If you want to run for any of the offices, let AH2U know, or write in the nomination on your membership form. More on this in the next issue.

The National Contest Journal has a new look. The ARRL is taking care of printing and mailing the magazine, with Randy K5ZD and Dave K8CC as editors. The subscription rate is 6 issues (1 year) for \$10.

Send to : NCJ Circulation, ARRL, 225 Main St., Newington CT 06111

Congrats to W9XT who conducts the 'Contests Tricks and Tips' column, and to Dave AH2U whose article 'Ten Efforts from the Black Hole' was reprinted in the latest NCJ.

According to the latest propagation report in *The DX Bulletin* we are past the bottom of sunspot cycle 21 and have started ramping up with cycle 22. The minimum probably occurred in Sept. of 1986 and the maximum is predicted for 1991. Looks like it's time to get active in the DX contests again..

73 de Mike AC9C

THE PREZ SEZ

Well, I think you all can consider yourselves a part of an established, successful, big-time contest club. The past year saw the SMC place in all major contests with our members' scores spread everywhere. We've

won two SS's in a row with our members sweeping the central division standings, and claiming a victory over a super effort by the medium-class-winning Mad River Contest Club. We've won the last two February Phone Sprints with young, upstart teams and vaporized the 160 band with big Midwest signals. We've co-sponsored two extremely successful hospitality suites at Dayton, sponsored a plaque in the ARRL DX contest and filled many a station's nine-land dupe sheet spaces. Best of all, we've met a lot of people like ourselves who have similar interests and respects for our hobby. The heartiest of congratulations and thanks for making much of it happen during my tenure as President of this fine group. And if it shall be, I will be honored to do it again.

Dayton again was terrific and sported a lot of SMC'ers for one meeting of credit toward next years SS- -37 in fact. Those who were in attendance are listed below:

AC9C, AG9E, AH2U, AK9N, K1TMM, K4VX, K9's CAN, EC, HDE, HMB, IKP, RS, SD, VV, ZO, KA9CJG, KB9S, KG9Z, KI9G, KM9L, KR9R, KR9S, KS9K, KS9O, KV9S, NA9D, N0BSH, W9's DUB, RE, RW, W0AIH, WB9's JKI, TIY, TOC, WD9IIC.

Welcome to new members:

K9CAN	Dick Scarvaci	K9IKP	Gene Duncan
KA9CJG	John 'Wanjo' Kay	K9LJN	Gary Hilker
W9DUB	Frank Kashinski	KB9S	Mark Seyffer
WD9IIC	Dick Beers		

Honored guests of the SMC at Dayton this year included Joel Chalmers KG6DX and Jeff Steinman KR0Y. They both subscribe to the Black Hole and certainly will look favorably upon nine-land QSO's. I must admit it was fun being one of the three Guam calls attending Dayton this year (myself, Joel, and Lee, AH2W were in the suites)!

Unfortunately, as with everything else in life, the SMC is getting expensive. I really didn't want to think about raising the dues but our experienced man-with-the-plan Steve, NA9D, did a heck of a job keeping us in the black last year. Possible costs of printing the newsletter necessitate the dues increase to \$5/year. This is the equivalent to sacrificing approximately 3 cold 807's during the course of the year, but for most of us it's worth it. I am also promoting family memberships. \$5 per family will cover it. This will go into effect with this newsletter.

This year we are adding a couple of things to the renewal. First, we are adding multi-year renewal options. Please, don't renew for more than three years in advance this time. (i.e. \$15 will cover dues thru June of 1990). If postage rates change drastically in the three years we may ask for donations, otherwise I think this will be a good thing. Should you move out of the 'Black Hole' and not desire to remain a member or receive the Black Hole, the balance will be refundable.

Also on the renewal form we are leaving an option for you to include your phone number for publication on the membership list. This has been requested by many of our members. On the back of the renewal form is a Biographical questionnaire. I would like whatever information you're willing to give me on yourself for future publication in the Black Hole. I will put them together and do 2 or 3 an issue similar to the K9JU bio of last year. It will be enjoyable for everyone so don't neglect it!!

SS. We did well period. Congrats to K9KM and WB9HAD for taking the CW and SSB titles in the central division this year. AC9C is going to have to get a sweep to beat Howie. The K4VX station took the club title this year while plugging in 377 thousand points to the total. Congrats to KM9P (op of K4VX on the Phone weekend) on his marriage. It couldn't happen to a nicer guy and a better operator. K9WA pulled out all the stops to take the low power title on CW. It's nice to have you in the club Jim. Meanwhile, I lucked out to take the SSB low power title. Congrats to the following who contributed outstanding efforts: K9ZO (306K), AC9C(282K), WB9JKI (182K low power), K9JU(89K/sweep l.p. cw), W9LNQ(142K,sweep l.p. cw), K9HDE(167K), W9IL(105K), the NJ9Q crew(+KG9Z,N9AX 165k), W9XT(204k), W9WI(104k), WA1UJU(165k), WA4TWB(86k), WB9HRO(104k) and to the many others who submitted entries which pushed us over the top! Also congrats to the W0AIH crew who, although they cannot submit their scores for the SMC, took the #2 spot nationally on CW while sweeping both modes in the Central Division multi-op category.

It appears that we will have a rotating editor system for the Black Hole, and I want to thank K1TMM, WB9TIY, and AC9C for being the willing and able volunteers. NA9D, who did a super job as editor the last 2 years, will relinquish the job to pursue his Masters degree.

Special Announcement: Next years Field Day ('88) will be the first SMC F.D. effort-2A,3A,25A ?? Any volunteers to act as coordinator please take one step forward (or everyone else take one step back). This is about it for me for this one.

73 de Dave AH2U

NEXT MEETING

The next meeting will be on **Sunday August 30** starting at about **1 PM** at the K9ZO QTH in Bloomington Illinois. In addition to being an official meeting, this will also be a party/picnic. Remember that if you live outside the magic circle, you must attend half of the meetings (2 of the 4 yearly meetings) to be eligible for ARRL club competition.

To get to Ralph's house (as told by AH2U):

From North I-55 or West I-74 go to RT.9 (Market St.) . Head west (away from town) 1.25 miles. Go to light and turn right. You will pass Ralph's antennas on way to the light. Sound confusing?? If so talk In will be on 34/94. Plan on attending even if you live inside the circle as this will be a social event that shouldn't be missed. See you all there.

The last two meetings of the year will be officially announced later. They will *probably* be one at the Grayslake Hamfest and another in the Milwaukee area. Stay tuned.

SPRINTS

The dates of next sprints are **CW 0000Z Sept 13** (Saturday night)
PHONE 0000Z Sept 20 (Saturday night)

If you are interested in being on a team for either or both contests write to me at my address (on the first page), or call me at (312)-310-9826 (home) or (312)-576-3289 (work). Please let me know at least 1 week before the contest so I have time to register the team(s).

The SMC won another Phone Sprint Team competition!! Congrats to the winning team in the February Phone Sprint: KR0Y, N0BSH/9, AH2U/9, WB9HAD, W9XT, KS9O, KB9S, WA1UJU/9, W9WI, AC9C. We won this sprint by having a full team (10 stations) and taking advantage of rough conditions. Congrats to the SMC#2 team of K9ZO and KI0F. Maybe someday we will have 2 full SMC teams competing against each other??

1987 ARRL DX PHONE DIARY by Bill KM9P & Mike W9RE

The following is a diary of a DX contest as seen by two SMC members. Conditions during this weekend were not normal, even for the bottom of the sunspot cycle. I would rate them poor at best. It is my hope that members of the club will benefit from this information presented here in their next DX contest operation.

<u>K4VX/0 (KM9P op)</u>				<u>W9RE</u>			
Hour	Q's	Band(s)	Comments	Q's	Band(s)	Comments	
0000	55	15	1-JA, LU, HK	36	15	LU,PY,ZL,XE,YS,VK	
		20	Ran JA, DU,UA0		40	I,DL,HB,ZS,9Y	
		40	I,EA,ZS,CT		20	First JA @ 0049 did I miss 49 min worth? YB & KH2	
0100	31	20	S.A. & KH6,1-JA	74	20	JA's & HL,UA9,BV call me! This is fun.	
		40	S&P EU & SA. no run		40	PJ, CT	
		80	Same as 40 but sounds better!				
0200	26	20	6-JA's & KL7	33	20	8 b changes,few JA	
		40	9Q5NW & Carib.		40	6Y5,YS,D44,V31,HR,XE only 1-EU-thats bad	
		80	Few EU, SA		80	I,HA,VP2V,YV,XE,LZ,EU	
		160	FM5WS		160	KP4 & CT	
0300	15	40	KH6 & HA.This stinks	20	160	FM & VP2V	
		80	5 Mults. Nothing exciting		20	PY	
		160	VP2V, CT, ZF		80	VP9,UB,OK,CO,V3,6Y5	
					40	KH6 & few Eu	
0400	16	40	D44BC & Carib.	16	40	HK,LU,ZF,YV-only I's	
		80	6Y5		160	J7, HR, V3, VP9	
		160	J74A, HR6A, LU				
0500	16	40	Worst I've ever heard it!	11	80	Carib. and 1-F	
			Only southern Eu so far		160	Carib & EA 8 of 11 Qs are mults. Slow.	
		80	9Q5NW,F,CT2,KH6.Lots				

K4VX/O (KM9P op)

W9RE

Hour	Q's	Band(s)	Comments	Q's	Band(s)	Comments
			of work for little reward			
		160	XE,VP9,VP2M,PJ. Seems to play well this weekend!			
0600	15	40	Hope rate slows to catch up on dupe sheet!	21	160	YV,6Y,ZF
		80	FM & 3-Eu		40	CO and finally EA
		160	YV,6Y5,V31CV,CO		80	KH6,8P,CT2,KM,HC
0700	15	40	Surprise- TZ	12	160	CO
		80	KX6,CT,OA,ZL Where do I point the beam? Ya right!		40	8P,TZ,HC,J7
		160	ZL2BT		80	ZL and HR
0800	13	40	ZL,VK, & SA	14	80	Pacific
		80	KP4,C6A,VK		160	ZL, XE
		160	OA4SS		40	VK, JA bent path & weak
0900	15	40	1st JA 0954Z, KH0-	14	80	Pacific
		80	KH9,FS. Very grim..		160	KH6
		160	VK & KH6		80	JA,KH9 & SA mults
1000	18	40	VK run! (10)	14	40	P29 & VK. no JA's
		80	PZ		160	KH6 but getting noisy
1100	15	20	Carib.		80	Mainly SA
		40	Where are JA's??	19	40	Finally a ZL, few VK's
		80	few JA's. VK9NS		80	Finally a VK
1200	32	20	S&P Eu. No CQ's		40	2 Q's
		40	2-JA's skew path	55	20	2 SA Q's @ 1105-lots better @ 1139. First EA @1149. Few SA.
1300	43	20	CQ's work barely		15	1st SA @ 1217
1400	57	20	Eu,5B4.		20	finally some Q's.Start CQing@1238
			Can't believe QRM	78	15	a few SA mults but 20 so good don't check 15
1500	43	20	More CQ's. Low 5el yagi is best (60ft)		20	LX, OH0. its fun
		15	7-mults. SA	111	20	Gee just think only 100/hr shy of being on east coast!
1600	64	20	Good Freq.		20	Hate to check 15 cuz I'll lose this freq
		15	More Carib.	57	20	Gee, a 4S7 calls
1700	37	15	ZS only one not SEast		15	4 Q's SA only
		10	18/8 this hour.SA,VP2M&V		10	LU @ 1647, 1st Q
1800	18	20	UL,LA,l's. Wonder what its like out east?	43	10	SA and Ca
		15	ZS3,7P8,CO		20	KL7. Thats early
		10	HK0, HK, 6Y5, ZF		15	12 band changes
1900	16	20	move HP1XOR from 10 to 15 to here	34	15	HI,HC & 1st TI
		15	A35 & ZL		20	UL @ 1828 1st of 14 dupes 5H. J2 (try to move him to 15 no luck)
		10	8P6, HP, OA	34	15	KH3 & KH6
2000	17	20	5X5, TR		10	CX,YS 7 Q's here
		15	KL7LF/KH3, YS.		20	ZS3,TU,7P,9Q,5Z,ZS. guess I missed the easy AF's on 15. Tomorrow?
			CQ beaming AF & PAC	29	15	VP9,HR. 7Q's-not much
2100	35	20	CQ JA		20	5N, CT3
		15	Move friend WL7E here. (ESP QSO)	29	20	CO,TR,TF-first JA @2114

K4VX/0W9RE

Hour	Q's	Band(s)	Comments	Q's	Band(s)	Comments
2200	44	20	More JA	29	15	P29 & V2 - 10 Q's
		15	Run VKs, P29		20	DU, few Carib mults
2300	50	20	Japan! 1st OH	29	40	This 29Q's is gettin to be a habit - EA9,few Eu not much
		15	few SA QSO's		80	GC,GW,DL,G,EA9
					20	YV,OA - Pacific
0000	24	20	JA's, OA, ZP	19	40	AF, SA, EU but no mults
		40	5N0 - should have been here sooner		20	KH9, only 8 JA's
		80	VP2E			
0100	24	20	JA's, 9M, KH3	11	20	KH3-where are the JA's?
		40	V31CV.Where's EU?		40	HH
		80	J74A		80	Finally a KP2
0200	6	ALL	HH-160M only mult	3	160	Tried 80 & 40 too. Going to bed till 0415
0300	4	ALL	WL7E on 40M	0		
0400	5	20	ZL for mult!	9	40	F, 9Q, 3D6, CT2
		40	3D6, ZP, KH3		80	ZP, 9Q
		80	HR6A & ZP mvd from 40M			
0500	8	40	YN	8	80	Y, UQ
		80	KH3, LU		20	Nab a ZL in the noise
					160	YU & 2-l's
0600	6	80	Y	11	40	YN, CE, TI ??
					80	Couple of EU, CT
0700	6	40	EA8	8	20	VK but will wrk one LP tmrw
		80	EI, EA8, 9Y4		40	GW for mult 1 of only 8 Eu tonite
					80	J74 & other SA/CA
					160	C6
0800	5	ALL	5 Q's no mults I'll sleep !!	5	160	also 80/40-nothing. I am tired! Bedtime.
0900	0		SLEEP	0		SLEEP
1000	0		SLEEP	0		SLEEP
1100	1	160	KH6.slept 0845-1130Z	0		SLEEP
1200	9	20	SA, ZF for mult	61	40	listen but only a VK
		40	moved V2AJ from 20M for a mult		20	No mults but a least a 60 hour keeps me up
1300	38	20	I'm awake!	68	20	T7. Lets spot on 15
					15	VS6DO LP cant believe it, looking for AF I missed ystd.
1400	47	20	More Eu. YB0ARA..	27	20	UG - far from 111 hour
		15	Looking but nil..		15	tuesday. Listen 15
					15	FM,EA9,8P-30min for 4 mults
1500	30	20	I hate 20M. No place to go & everyone is a big gun	44	20	0 for mults but Q's
		15	SA & Carib		15	2 Q's spotting - CQing
1600	20	20	few Q's	49	20	EA9 - 14 band changes
		15	FS & PJ		15	Finally AF- ZS, A2
1700	5		1/2 hr break to shower and wakeup !	24	15	9Y4AA even tho he is single 40
					20	no mults - need 9Y4
1800	6	15	I, 9J, 5H	21	15	CP,CN,ZS3 & I5NPH & EA3EBN for only Eu on 15
1900	15	20	5 eurpeans	28	10	16 Q's - OA, 9Y4AA, FS
		15	More SA & Carib		15	PZ, OA, VP8
2000	11	20	Move CX here.5N,5H3BH	43	20	9H, SV, Z2, TZ
		15	CP & YN on 10M.			

K4VX/0				W9RE			
Hour	Q's	Band(s)	Comments	Q's	Band(s)	Comments	
2100	16	20	More EU & 2 JA's	19	20	Wk JA @ 2109 but no quantity	
		10	HC		15	ZP	
2200	21	20	JA's & BV2B	13	40	6 EU & OK, GC for mults	
		40	GJ(can't believe I broke thru)		20	KL7 but no JA's	
2300	13	ALL	5N on 80M for only mult	21	40	More EU but only UP2	
					20	CX, ZP, YV, CO	
	160	80	40	20	15	10	TOTAL
KM9P	34 / 22	104 / 53	105 / 48	617 / 87	131 / 48	36 / 18	1072 / 276
W9RE	34 / 22	96 / 51	117 / 51	989 / 107	122 / 49	39 / 13	1397 / 293

W9RE Closing Comments: This summer put up an additional 20 meter stack at a lower height but during the contest I almost always used the bigger higher stack. Conditions were very unusual on 20 as I was able to maintain a frequency and have a decent morning rate, where Bill was unable to. It is amazing how close we were on the other bands. 40 and 15 were very bad. I thought I would do much better on 75 with the new phased bobtails but no real score improvement. I am really looking forward to the higher sunspot years as it makes it a little more incentive to knock yourself out for the whole weekend.

KM9P Closing Comments: 20 meters is the difference! The rhombic doesn't make up the difference of a few thousand miles. I CQ'ed only a few hours the entire weekend, the rest was S&P. I couldn't believe how good 75 meters sounded from here (This is the first time I've been on 75 in a DX contest). 40 meters was the worst I have ever heard it, luckily it was bad for everyone. On the positive side there is nothing like experience. I learned a great deal this weekend.

REDUCING VCR TVI by Chuck W7MAP (from North. Cal. DX Foundation Newsletter Winter 85)

Many of us are concerned about TVI. A particularly troublesome form of TVI is that which finds its way into home VCR's. After three early withdrawals from contests, I resolved to do something about my VCR interference, and hopefully find a solution that would keep both my kids and my neighbors happy.

After five or six false starts, I discovered that most of the RFI was getting into my VCR from the shield on the 75 ohm coax. Most newer homes are wired for cable (as was mine), and the three or four hundred feet of shielding makes a perfect antenna.

To test for this kind of interference, simply remove the antenna connection from the VCR and (with a tape playing) gradually put more power into your antenna system. In my case, if the cable distribution from my house was connected to the VCR, I had interference while watching normal TV, but found that the picture was destroyed during record and playback. In my neighbors case, I destroyed regular TV as well as VCR recording and playback with any power level above 100 watts. I also discovered that if I disconnected the cable system, I could run any power level and watch VCR tapes.

I first tried to get the RFI off the shield by using all the published methods, i.e., ferrite, hi-pass filters, grounding, etc., etc. Nothing worked, until one day I figured that in a balanced system, both leads could be filtered. To accomplish this, I used two Radio Shack coax to 300ohm baluns and a six dollar balanced TVI filter.

To use the set-up, simply hook the balun to the filter, to the balun and place it into the line in the front of the VCR (see the diagram which follows). The results were very gratifying. I can run full legal power and simultaneously playback or record tapes on the VCR, in addition to watching regular TV. Somewhat more gratifying is the fact that my neighbor with the VCR hasn't had any interference after installing the same configuration.

TVI can take a lot of fun out of our hobby and cause a lot of bad publicity. I hope this simple, inexpensive remedy helps some of you put the fun back in contest weekends.



SOCIETY of MIDWEST CONTESTORS INFORMATION FORM

CALL _____ EX/OTHER CALLS _____

DATE LICENSED _____ AGE (optional) _____

OCCUPATION _____

OTHER HOBBIES & INTERESTS _____

FAVORITE CONTEST _____

THE CONTEST I WOULD LIKE TO WIN THE MOST _____

HIGHEST RATES PER HOUR EVER: CW _____ CONTEST _____
PHONE _____ CONTEST _____

FAVORITE/MOST MEMORABLE CONTEST EXPERIENCE _____

NUMBER OF QSO'S LAST YEAR _____

MAGAZINES SUBSCRIBED TO _____

DXCC: TOTAL _____ CW _____ PHONE _____

THE ONE PLACE IN THE WORLD I WOULD LIKE TO OPERATE THE CQWW DX

CONTEST FROM _____

CONTEST GOALS IN THE FUTURE _____

STATION: EQUIPMENT _____

ANTENNAS _____

FAVORITE BEER _____

MEMBERSHIP/RENEWAL FORM - THE SOCIETY OF MIDWEST CONTESTERS

NAME _____
 ADDRESS _____ DON KEROUAC K9NR LE
 1377 NW CIRCLE DR
 KANKAKEE IL 60901
 CITY _____
 PHONE NUMBER _____

ARRL MEMBER? _____ OTHERS WHO MAY BE INTERESTED IN JOINING THE SOCIETY:

DO YOU SUBSCRIBE TO THE NCJ? YES NO

PLEASE ENCLOSE \$5.00/YEAR PAYABLE TO BRUCE HERRICK AND SEND TO:

Bruce Herrick K1TMM
 P.O. Box 13722
 Milwaukee WI 53213

FOR THE PURPOSE OF CLUB AWARDS, FOR ANY OF THE FOLLOWING CONTESTS YOU PARTICIPATED IN PLEASE CHECK THE CATAGORY OF THE STATION YOU OPERATED AT, EVEN IF YOU WERE PART OF A MULTI-OP EFFORT OR DID A SINGLE BAND EFFORT. CATAGORIES ARE:

- Catagory 3 - 200 watts or less, no directional antennas
- Catagory 2 - 200 watts or less, unlimited antennas or
 More than 200 watts, no directional antennas
- Catagory 1 - More than 200 watts, single tribander and no 40/80 beams
- Unlimited - Anything you can imagine within the law

<u>Contest</u>	<u>Cat. 3</u>	<u>Cat. 2</u>	<u>Cat. 1</u>	<u>Unlimited</u>
1986 CQWW CW	_____	_____	_____	_____
1986 CQWW Phone	_____	_____	_____	_____
1986 SS CW	_____	_____	_____	_____
1986 SS Phone	_____	_____	_____	_____
1987 CQ 160 CW	_____	_____	_____	_____
1987 CQ 160 Phone	_____	_____	_____	_____

If you wish to donate to either of the following funds, please add the amount to your dues and indicate where you want the money to go here:

PLAQUE FUND _____ (\$1.00 to \$2.00 suggested if you wish to help sponsor plaques)
 DAYTON SUITE FUND _____ (\$1.00 to \$3.00 suggested if you attend the suite)

SOCIETY OF MIDWEST CONTESTERS MEMBERSHIP LIST

CALL	NAME	ADDRESS	CITY STATE AND ZIP	STAT	CALL	NAME	ADDRESS	CITY STATE AND ZIP	STAT
AC9C	MIKE TAYLOR	1185 MEADOW LANE	HOFFMAN ESTATES IL 60194	LE	KR9R	STEVEN LINDSTROM	789 S WASHINGTON DR	HOWARDS GROVE WI 53083	D2
AG9A	MARK OBERMANN	6713 FORESTVIEW LN	NILES IL 60648	LE	KR8S	JULIAN JETZER	6408 HAWTHORN RD	SHEBOYGAN WI 53081	D2
AG9V	JOHN ACKERMAN	4565 HILLTOP DR	LITTLE SUAMICO WI 54141	DE	K9SK	PAUL HELLENBERG	3326 S GREENBAY RD	RACINE WI 53403	DE
AH2U	DAVID C PATTON	526 WALNUT	STREAMWOOD IL 60107	LE	K990	KEVIN MILHORN	1110 WHITE ROCK DR	DIXON IL 61021	LE
AJ9U	BOB RUNKELS	3700 S ALABAMA	MILWAUKEE WI 53207	D1	KV93	KEI HAMADA	1624 COLUMBINE DR	SCHAUMBURG IL 60194	LE
AK9F	HOWARD DYBEDOCK	443 SOUTH ALMA	KANKAKEE IL 60901	LE	NB93S	MIKE TESSMER	2525 S 32ND ST APT 6	LACROSSE WI 54601	DE
AK9N	EUGENE MELTON	2901 BILLIE RD	ROCKFORD IL 61109	D1	NS9LC	J SCHERKENBACH	1701 W 101ST STREET	CHICAGO IL 60643	DE
K1TH	BRUCE HERRICK	PO BOX 13722	MILWAUKEE WI 53213	DE	NS9M	PHIL ZMINDA	5952 SO ELAINE AVE	CUDAHY WI 53110	DE
K4VX	LEW GORDON	POB 105	HANNIBAL MO 63401	DE	NS9X	MIKE MCGINLEY	1700 MOLITOR APT 2E	AURORA IL 60505	DE
K8CA	DICK SCARVACI	371 PORT WASHINGTON	GRAFTON WI 53024	DE	NB9BM	DAVID R PATTON	355 W NEWPORT	HOFFMAN ESTATES IL 60195	LE
K9CC	GEORGE ZURBOCHEN	10515 HILLCREST DR	PALOS PARK IL 60464	DE	NB9IA	WAYNE JOHNSON	520 WALNUT	STREAMWOOD IL 60107	LE
K9EC	MICHAEL ZEUG	1114 S PRESIDENT	MILWAUKEE IL 60187	LE	NB9JA	STEVE DUBBERSTEIN	333 S LINCOLN AVE	MUNDELEIN IL 60060	D2
K9GL	BOB JOHNSON	1427 VALLEY LK #1003	SCHAUMBURG IL 60195	LE	NB9K	STEVE DUBBERSTEIN	3511 CAMPBELL STREET	ROLLING MEADOWS IL 60088	LE
K9GS	GARY SCHWARTZ	1160 LYNX APT 3	BROOKFIELD WI 53005	D2	NB9T	BRIAN NAVES	5470W MILITARY #3010	SAN ANTONIO TX 78242	DE
K9HE	JOE MANN	2158 RIDGE	HOMERWOOD IL 60430	LE	N19U	KENT WINRICH	214 E COLLEGE AVE	WAUKESHA WI 53186	DE
K9HU	FRANK MILLER	27087 NIPPERSINK RD	INGLESIDE IL 60941	DE	N19Q	JOHN SCHWALBACH	125 N UNION ST	LINCOLN IL 62636	DE
K9JF	WILLIS BOUSER	15200 EAST HICKORY	KANKAKEE IL 60901	LE	NK9G	RICK MCGARVER	6026 S NEW YORK AVE	CUDAHY WI 53110	DE
K9JK	GENE DUNCAN	6832 N KNOLL	MONROE CENTER IL 61052	LE	NK9H	TERRY GORDON	POB 105	HANNIBAL MO 63401	DE
K9JU	BOB LOWING	408 AUDUBON RD	HEBRON IN 46341	LE	NK9I	PAUL BITTNER	1616 SOUTH STREET	EAU CLAIRE WI 54701	DE
K9KJ	NICK LASH	458 W 900 S	HEBRON IN 46341	LE	NK9J	FRANK KASHINSKI	RT 1 BOX 130	DELANAV WI 53115	DE
K9KL	HOWIE HUNTINGTON	65 S BURR OAK DRIVE	LAKE ZURICH IL 60047	DE	NK9K	NATHAN WILLIAMS	6815 PRAIRIE DR	MIDDLETON WI 53562	D2
K9LN	GARY HILKER	884 OTTO RD	ROCKFORD IL 60901	LE	NK9L	A BIESENDORFER	424 ANITA DRIVE	BOURBONNAIS IL 60914-1032	DE
K9NR	DON KEROUAC	1377 NJ CIRCLE DR	KANKAKEE IL 60901	LE	NK9M	BILL LITTLEWOOD	PO BOX 194	WAUKESHA WI 53187	DE
K9RS	BILL GRAF	4120 N VICTORIA DR	HOFFMAN ESTATES IL 60195	LE	NK9N	LOUIS HODGES	ROUTE 1 BOX 62A	CENTRALIA IL 62801	LE
K9RS	RAY SOKOLA	1633C HANDBALL LN	INDIANAPOLIS IN 46260	DE	NK9O	ANTHONY TRUHLAR	1701 W 101ST STREET	CHICAGO IL 60643	LE
K9SD	SAM EFFINGER	1820 PARIS DR	GODFREY IL 62035	DE	NK9P	GEORGE ZIELINSKI	9 WILD CHERRY CT	PALOS PARK IL 60464	LE
K9SH	STEVE HART	RT 1 BOX 13013	FOUNTAIN TOWN IN 46130	D2	NK9Q	MIKE WETZEL	7880 SHELBYVILLE RD	INDIANAPOLIS IN 46259	D2
K9UI	VIC SHIELDS	324 E EMPIRE ST	FREEPORT IL 61032	D2	NK9R	WILLIAM RUSS	1501 S CUYLER AVE	BERLYN IL 60402	LE
K9WA	JIM ROUNDS	1055 MELODIE LANE	COLONA IL 61241	DE	NK9S	RICHARD HARPER	RR 1 BOX 164B	MONEE IL 60449	LE
K9XR	AL BROOKS	15903 HAVEN	WESTHAVEN IL 60477	LE	NK9T	JAMES FLEMING	521 RUMPLE LN	ADDISON IL 60101	LE
K9ZO	RALPH BELLAS JR	RR4	BLOOMINGTON IL 61701	DE	NK9V	HAROLD GREENFIELD	9501 N LOREL	SKOKIE IL 60077	D2
K9CJG	JOHN KAY	1105 STRAITFORD LANE	HOFFMAN ESTATES IL 60107	LE	NK9W	DOUG SMITH	6832 SCHROEDER #30	MADISON WI 53711	DE
K9CJF	JANE MCGINLEY	355 W NEWPORT	HOFFMAN ESTATES IL 60195	LE	NK9X	GARY SUTCLIFFE	W2463 OAKLAND RD	NEOSHO WI 53059	DE
K8BAC	TOM DRAKE	679 SLALOM LANE	VALPARAISO IN 46383	D2	WA1UJ	GLENN RANTALA	N7148 SHADY LANE	MENOMONEE FALLS WI 53051	DE
K89S	MARK SEYFFER	RT 1 BOX 110	PEPIN WI 54759	DE	WA1TB	GARY RYAN	9500 W STANFORD	MENOMONEE FALLS WI 53052	DE
K89K	KEN NAESE JR	RR 1 BOX 134	BONFIELD IL 60913	DE	WA1TJ	JAMES AKRE	1795 SPRUCE CT	SOUTH MILWAUKEE WI 53172	DE
K89L	GREG GOBLEMAN	PO BOX 201	LINCOLN IL 62656	D1	WA1TQ	JERRY ROSALIUS	RR 5 BURR OAK DRIVE	LAKE ZURICH IL 60047	DE
K89M	JOEL CHALKERS	93 GARDENIA AVE	LATTE HEIGHTS GUAM 96913	DE	WA1TQ	JERRY HUNTINGTON	65 S BURR OAK DRIVE	LAKE ZURICH IL 60047	DE
K89N	CHUCK VAN HOORN	BOX 57	GOODFIELD IL 61742	DE	WA1TQ	JAMES FITZPATRICK	488 RUSHMORE LN	MADISON WI 53711	D1
K89Z	SCOTTY MEYER	PO BOX 362	LINCOLN IL 62656	DE	WA1TQ	JOHN SIKORA	8747 NORTHCOTE	MUNSTER IN 46321	DE
K19G	CAROL MELTON	2301 BILLIE RD	ROCKFORD IL 61109	D1	WA1TQ	PHIL RICE	425 N MONTANA	MORTON IL 61550	DE
K19L	DEANN CHESTNEY	1212 DOGWOOD	BLOOMINGTON IL 61701	DE	WA1TQ	LYLE TEN PAS	ROUTE 1	CEDAR GROVE WI 53013	D1
K19M	BILL FISHER	2321 HUNTERS CLUB LN	MORCROSS GA 30093	DE	WA1TQ	KEITH MOREHOUSE	W124 CIRCLE DR SOUTH	MUNDELEIN IL 60060	D1
K19N	JAMES GORDON	R 4 BOX 145A	MORCROSS WI 53566	D2	WA1TQ	DOAN DETMEL	512 LISA RD	WEST DUNDEE IL 60118	DE
K19Y	JEFF STEINMAN	1208 NICOLE APT 2215	FORT WORTH TEXAS 76112	DE	WA1TQ	WILLIAM WALTERS	409 W HILLSIDE DR	MUNDELEIN IL 60060	DE
K19A	BILL BERG	174056 HAWTHORN	BESENWILLE IL 60106	LE	WA1TQ	DICK BEERS	PO BOX 7	GLENVIEW IL 60025	DE

SHUNT FEED YOUR TOWER ON 160 METERS by Mike Taylor AC9C

I have always wanted to have a good 160 meter antenna, but when I moved onto a very small city lot I thought I would have to let that wait for a different, larger QTH. One day I decided to try shunt feeding my 75 foot tower. In this article I will describe my installation and outline the method I used to arrive at my shunt feed arrangement. But first a description of my tower.

My tower is 75 feet tall, and has mast extending 17 feet above the top of the tower. The antennas are a 3 el. 20 @ 75 feet, 4 el. 15 @ 80 feet, 2 el. 40 @ 90 feet, and 2M and 440 verticals at 92 feet. The area I have to lay radials is about 50 feet long by 20 feet wide. The tower base is at the corner of this area.

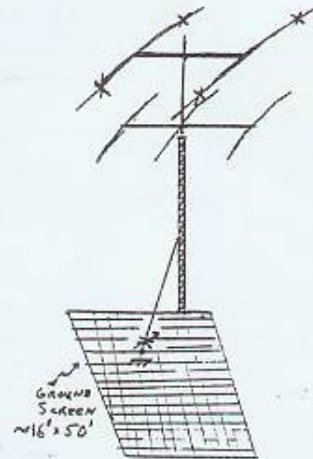
GROUNDING The size of my yard is less than optimum for a ground system for a 160 meter vertical, so I decided that what I couldn't do in quality, I would make up for in quantity. In other words, blanket this small area in radials. I hate burying radials, so the ground screen consists of 4 rolls of welded, galvanized fencing, which has 4 inch squares, and is 4 feet wide by 50 feet long. The feedpoint for the gamma match is located near the center of the ground screen, which is about 20 feet from the base of the tower. This grounding system seemed to work very well, probably because a majority of the ground losses occur near the feed point where the current density is highest.

MATCHING The gamma wire slopes up to the tower from a point about 20 feet from the base of the tower and attaches to the tower at the 40 foot level. A series air variable 250 pF cap (you may require a bigger cap) is at the bottom of the gamma wire. The height at which the gamma wire attaches to the tower (gamma tap point) is determined with the aid of an antenna noise bridge. I brought my transceiver and antenna noise bridge out to the feedpoint, and adjusted the variable capacitor until the reactance was zero, and adjusted the height of the gamma wire until the real part of the impedance was near 50 ohms. Generally the real part of the impedance will go down as the gamma tap point gets lower on the tower, and vice-versa.

PERFORMANCE The vertical seemed to perform quite well compared to other stations in the area in the recent ARRL 160 meter contest. UZ1OWA (Franz Josef Land) answered a CQ, and I was told I had many European stations calling, although I only heard a few. The shunt fed tower is not a very good listening antenna. As a matter of fact, I found that my 40 meter beam consistently out heard the vertical.

CONCLUSIONS 1) The gamma wire does not have to be parallel to the tower. It can run off the tower at an angle. This will result in a different tap point and capacitor value than for a parallel gamma wire.

2) A vertical can work well with a small radial system if the density of the radials is increased. This is because the current density, and therefore the ground losses, are greatest near the feedpoint.



DAVE PATTON AH2U
520 WALNUT DR.
STREAMWOOD, IL 60103



DON KEROUAC K9NR LE
1377 NW CIRCLE DR
KANKAKEE IL 60901

