The Black Hole

Official Journal of The Society of Midwest Contesters

Volume XIV Issue I *March 2011*

Adventures in SO2R Land - Part 13

By Bill Axelrod K3WA

Prolog. So there I was, my new antenna worked for 5 hours and now it is dead. W2GD on a plane heading home, crane back in its home, and me with a broken antenna. What do to? What to do?

Good News Department. Last fall my wife's nephew developed an interest in ham radio. With a little "elmering" from me and a lot of hard work on his part, Peter studied, got his general class license, and is now K8ACS. And, I'm pleased to note that Peter is working even harder to learn CW. Peter has gotten on the air and just worked his first DX station! Way to go Peter. Now that the DX bug has bitten, the contesting bug can't be far behind.

So, what to do about my non-working antenna? Aside from worrying about it and the probable causes that is since I really did have to get it on the air. Well the answer is easy – fix it. What wasn't so easy is how to fix it. The problem could be anything from a loose wire to a bad motor on one of the DB-18E element way up there in the air.

Some study and troubleshooting later I was able to determine that the problem was either an open in the control cable or connection box for the driven element's motor or a bad motor itself.

Since I can't climb anymore, I needed a climber, bad. A few days later I had a climber ready to go. Who, you ask? I figured my tree guy, used to heights, knowledge of rigging etc. and with all the requisite safety equipment would fit the bill. Of course, he didn't know beans about antennas. Details, details. A lot of explanation and training first, then up the tower he scampered. Good luck!

(Continued on page 3)

19th Annual
Dayton Contest Dinner

Saturday, May 21, 2011

Crowne Plaza Hotel

Bar: 5:30/Dinner: 6:30

Speaker: J. Scott Redd, K0DQ

Info and tickets: http://contestdinner.com/

Dayton Contest Forum

Saturday, May 21, 2011

Crowne Plaza Hotel

12:30 p.m. - 2:30 p.m. Room 1

Moderator: Doug Grant, K1DG

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Membership in **The Society of Midwest Contesters** is open to all persons with a bona-fied interest in amateur radio contesting. For more information contact one of the following officers:

SMC Dues

Dues are $10 a year and additional donations are appreciated.

You can make your payment two ways:

1. Send a check, money order, or cash to:

   Zig Markowski - KM9M
   50 E. Eureka Drive
   Lemont, IL 60439-3970

2. Use Paypal and email your donation to dues@w9smc.com.

W9SMC

Callsign of Society of Midwest Contesters

SMC Web Page: http://www.w9smc.com

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Badges

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Shirts

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A loose wire in the connection box was the problem. 15 minutes later he was back down and I was on the air. And a new tower climber is born.

So, how did this new antenna play? Pretty darn well, if I say so myself. The bottom line is that size really does matter. And it didn't even bother me that my XYL spent as much for landscaping around the new tower as I did to buy it. Well, it didn't bother me that much.

I did a lot of A/B testing between the antenna at 45 ft and the new one at 80 ft. I saw the following differences on receive signals:

Six meters. Except for close in local signals the 4 elements at 80 feet consistently provided 3 to 6 db improvement over my 4 elements at 45 feet. I could not discern a pattern for the difference between 3 and 6 db for a given signal.

Ten meters. The higher three element yagi provided 3 to 6 db improvement over my 4 elements at 45 feet – except when it didn't. There were times when the lower beam was better. That's consistent with current antenna theory and practice on 10 meters.

20 through 15 meters. The higher three element yagi consistently provided 3 to 6 db improvement over my three elements at 45 feet.

30 and 40 meters The three element yagi at 80 feet provided an approximate 3 db improvement over my two element vertical phased array. My vertical array provided a 2 to 3 db improvement over my dipole at 45 feet. These results were consistent regardless of whether the received signal was domestic or foreign. That latter reading was a surprise – I had anticipated that the lower dipole would better the higher antenna for mid range domestic signals. I'll be very interested in doing this compassion again during the next NAQP.

A S1 or S2 signal on the taller antenna was often unreadable or just not there on the lower antenna. The farther away the transmitting station was the more often this trait occurred.

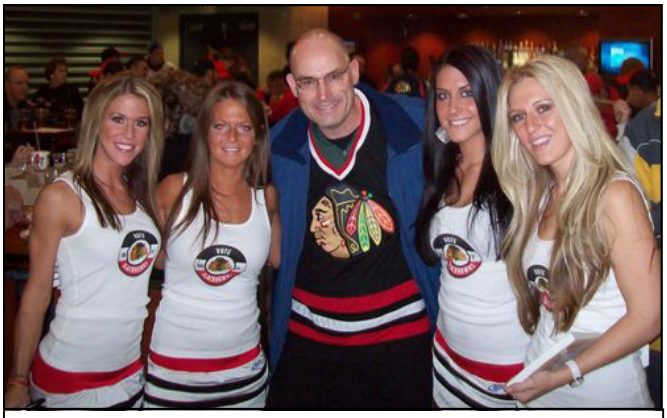
To see the differences with my transmitted signal, I used the reverse beacon network. I went high in the band and did a lot of test calls featuring my call sign prominently. I would transmit the test call until I saw a reverse beacon listing for my signal. Then I would change antennas and test again. This approach brought back results on 20 and 40 meters that were consistent with the 3 to 6 db improvement I measured during the receive signal testing. The results were better from European reverse beacon sites than from domestic sites by approximately 2 db for the same transmitted signal. Unfortunately 15 and 10 meters were dead during this period so I couldn't do any objective testing.

From that, I concluded that raising one's tower from 45 to 80 feet is definitely worth the effort and expense. Gaining a 3 to 6 db signal improvement adds another level or two to your contest station's capability. Is a 160 foot high tower next? Probably not. My neighbors still talk to me. They even came over, unasked, and help build the tower. That's a great place to leave it – until the next contest that is.

I dabbled in the IARU contest but could only play for about 3 ½ hours. The new DB-18E beam played very well. Establishing and maintaining a decent run was much easier. And it was a pleasure having a second gain antenna to use for SO2R.

But, to really judge the results, I need to do a contest with meaningful but in the chair time. Next up in the CW WAE contest in mid August. Big turn out, simple basic exchange complicated by the QTC exchanges, what else could a contester ask for? Wait – don't answer that.

Epilog. So there I was, nodding off in my chair, waiting for the 2010 CW WAE contest to start. Two radios, two gain antennas, one big contest, and one fairly incompetent operator - all awaiting the starting bell. Would my investment and hard work putting up the second tower and beam have been worth it. If not, would I ever tell my XYL?



Eric, K9GY, sent along a picture of his second favorite type of pileup. Chicago Blackhawks Ice Crew gals (Nov 30th, 2010)

SMC 100K Club—VHF Tests

By Kevin Kaufhold, W9GKA

The table to the right itemizes those stations who submitted at least 100,000 points with the SMC in VHF club competition events. The relevant time period is 1995 through the end of 2010, including all ARRL and CQ events having club competition. Of great significance we had 156 separate stations enter 691 logs for SMC totaling almost 22 million points.

In terms of statistical compilation, please note that scores submitted with other clubs are not included. Also, scores of SMC members outside of the SMC circle are not included, unless the member listed SMC anyway. Scores in non-competition events are also not included. VHF club competition scores for IL, WI, and IN contesters would be included, except that records no longer exist to find out what specific stations entered VHF club events. Also note that only the call-sign used in the log entry is given credit for the scores, not the various ops with a multi, rover, or as guest operators.

The table on the next page itemizes the most recent five year period, between 2006 and 2010. It is thought that a rolling five year period is of great relevance in determining current activity levels and club abilities. The same statistical compilation procedures discussed above were used in this table.

For any SMC club member who is interested, club aggregate information on specific club-competition events, as well as individual station activity for all club events, can also be generated. Please contact w9gka@arrl.net for more details.

All-Year Cumulative, > 100K
1995-2010

Call	SMC tests	SMC pts
K2DRH	28	5,892,807
WB9Z	16	2,726,862
K9NS	4	2,587,078
N2BJ	31	2,105,360
K9CT	10	870,335
WO9S	25	605,182
K9RN	5	418,383
W9GKA	17	365,958
N9UM	2	362,295
WA1MKE	11	286,498
N9TF	16	277,114
K9JK	12	259,517
N9AKR	7	253,547
K9ILT	5	243,403
K0PG	5	232,371
K9ZO	10	218,139
KF9US	1	211,830
NG9R	10	181,773
K9SG	4	173,177
W9XA	8	167,838
WB8BZK	5	156,425
W9RVG	10	150,172
W9SZ	23	145,547
K9HMB	1	142,552
K9EA	2	140,612
KO9A	4	138,666
KE9I	4	135,252
KA9FOX	3	116,392
W0FY	6	113,999
W9SE	23	110,960
KG9IL	8	104,853
W9IIX	11	104,559

Tot. Logs	691
Tot. Ops	156
Tot Pts.	21,873,852

Adventures in SO2R Land Part 14

By Bill Axelrod K3WA

Prolog. So there I was, nodding off in my chair, waiting for the 2010 CW WAE contest to start. Two radios, two gain antennas, one big contest, and one fairly incompetent operator - all awaiting the starting bell. Would my investment and hard work putting up the second tower and beam have been worth it. If not, would I ever tell my XYL?

Well, I didn't need to face the moral dilemma of telling or not telling the XYL anything after the WAE CW contest. My new tower and beam played well in the WAE CW contest. I didn't get to do a full time effort. I split my time between the contest and looking after my two dogs, both of which were recovering from operations. Note to self: never let both dogs get seriously ill at the same time again. Lost

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Five Year Totals, > 100K 2006-2010		
Call	**SMC tests**	**SMC Pts**
K2DRH	18	3,997,878
K9NS	2	1,211,610
WB9Z	4	1,057,276
K9CT	10	870,335
N2BJ	17	733,862
WO9S	16	424,472
W9GKA	9	313,612
N9AKR	6	224,075
K9SG	2	164,919
WB8BZK	5	156,425
N9TF	10	154,714
W9RVG	10	150,172
K9ZO	6	147,645
K9EA	2	140,612
KO9A	3	138,248
W9SZ	16	136,654
KE9I	4	135,252
KA9FOX	3	116,392
W0FY	6	113,999
W9IIX	11	104,559
W9XA	5	100,340

Tot. Logs 469
Tot. Ops 125
Tot Pts. 12,298,200

(Continued from page 4)

six hours due to thunderstorms that didn't even produce much rain for my lawn.

I learned a big SO2R lesson during this contest – you need to have two bands open at the same time to do SO2R. There were a few hours here and there when 20 and 15 were both open in the mornings and 40 and 20 in the late afternoons but that was the exception. 80 meters was a real bust here with a total of 8 QSOs. When two bands were open about 15% of my QSOs were on the second radio.

I had trouble deciding on strategy. This contest, with its lengthy QTC exchanges, makes SO2R operations more difficult. The key, for me, was deciding to chase new QSOs on two bands when conditions were right, and then dump the QTCs when only one band was open.

My QSO total was 1460. All bands seemed very noisy throughout the contest. The higher antenna at 80 ft. enabled me to work the second level of Europeans that I could not copy on the lower antenna at 45 ft. So, yes It was a good addition to my station.

With contest season kicking off now and always wanting to enhance my station, I replaced my venerable FT-1000 MP MK V with a brand new Elecraft K3 after the WAE CW contest. It seems to play very well side by side with my Orion II. Both radios have very similar specs and rock solid front ends. In A/B tests they run neck and neck. I expect they will be a good pair of radios for my SO2R adventures to come. With two great radios and two good gain antennas, the only thing getting in the way of SO2R success is my abilities. No excuses left.

The next two big contests coming up for me are the CQ WW RTTY DX contest and the November Sweepstakes. Very different contests but both are fertile ground for wanna be SO2R contesters. I'm anxiously awaiting these two to see if I have learned anything or not.

The month of October will be prime time for self training for SO2R beginners like me. With possibly four new countries coming on the air on October 10 and a number of other interesting planned DX-peditions planned, this will be a great time to practice SO2R operations by chasing DX on two bands at once. If you can get into two piles-ups at once on different bands, you should be able to make large advances in getting your SO2R timing down to an art. This could be exciting!

Epilog. So there I was, waiting for the November CW Sweepstakes to begin. Last year I was without a gain antenna. This year I have two. Last year my primary amplifier was broken. This year I have both. Last year my first QSO was VE8 getting that most difficult section in the log. My second QSO was VO1, another tough mult. What will this year bring???

SMC Stuff

SMC Clip-on Badge

by NV5A

The SMC logo appears at the top-center of the badge in black and white. Your call sign, first name and city & state appear in dark blue. The SMC name badge as shown with the slot & strap with swivel alligator clip, but there are other choices.

Price: $14.50 (includes s&h).

KC9FD

SOCIETY OF MIDWEST CONTESTERS

Club badges can be obtained by sending a check for $5.50 to:

Midwest Engraving **Ph: 414-228-8654**

6657 N. Sidney Place **Fax: 414-228-8655**
Glendale, WI 53209

Be sure to note that it is for a "Black Hole" badge and please allow a couple weeks for delivery.

Member/New Member Information/ Update Form

Name: _____

Call: _____

Address: _____

_____

Phone: _____

E-mail: _____

Please send updates to:

Zig Markowski - KM9M
50 E. Eureka Drive
Lemont, IL 60439-3970

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- ⇒ **Product reviews**
- ⇒ **Plug your upcoming DXpedition**
- ⇒ **Your idea here**

Please consider putting an article together today!

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