



The FLASH



The Official Newsletter of the Mad River Radio Club

December / January 1996

MRRC CALENDAR

January 6

- MRRC Meeting at K8MR

January 13-14

- North American QSO Party (CW)

January 20-22

- North American QSO Party (SSB)

- ARRL January VHF Sweepstakes

January 27-28

- CQ 160M Contest (CW)

From the 'Big Fish'

By Goose Steingass, WD8LLD

Season's greetings to all MRRC'ers. Well, we are now about halfway through the contest season with the CQWW and ARRL early contests past us. I trust that all of your antenna projects performed up to par this year after all of the time that you spent on them. Here at WD8LLD we erected a pair of phased inverted L's for 80 meters. Although the jury is still out on their performance as a transmitting antenna, they really performed well as an 80 meter receiving antenna in CQWW CW. Hmmm, maybe we have hit on something here. As soon as we've done a bit more tweaking on them and are satisfied on their performance, I will write an article for the FLASH to let you in on the secret!

From what I have heard, it appears that we have done pretty well as a club in SS. Hopefully we won the gavel, although that remains to be seen until the results come out. I want to thank all of you that got on for SS this year and made a bunch of qso's for the club. I think that our club was well represented in both modes of the contest. Heck, even I got on in Phone SS and made a couple hundred contacts, and all of you know how I feel about SSB! I also want to express my sincere appreciation to the regional coordinators who gave their time to contact members and urge them to get on the air. Those people were Dave, K8CC; Jeff, KU8E; Dick, NZ8O; Doug, WD8AUB; and Ken, WD9INF. Without your help, guys, we would not have been able to pull it all off. Thanks for all your great work.

The Mad River membership was also active from various DX locations in CQWW CW. Doug, WD8AUB and Bob KW8N were two of the operators in the VP5FOC operation which made 9700 contacts from the Turks and Caicos. Don, K8MFO made the trip to Anguilla to operate as VP2EFO snagging over 5100 qsos in a SOAB effort. Congratulations on these fine scores. This will really pump up our club score for CQWW. It seems that I heard a rumor at the Michigan meeting that there might be some planning for a MRRC DXpedition for a future CQWW contest. Stay tuned, and start saving your shekles, it might just happen!

Don't forget!!!! Get your scores to Jim, K8MR so they get in the FLASH. In addition, don't forget to mail in your logs. By forgetting to mail you logs, you don't get to see the fruits of your labors in the results and your score doesn't count for the club. Besides, with computer logging it only takes a couple of minutes.

While in Michigan for the USCEA swap meet and MRRC meeting, Don and I had the privilege of touring the K8CC contest station. Needless to say, we were very impressed! Dave has really put together a very fine contest station. If you make the trip to the Detroit/Ypsilanti area, you really have to stop in and see this work of art!

Well that about does it for this for this time. Don't forget the K8MR Christmas Party and MRRC meeting which on January 6, 1997. Hope to see you all there!

73, de Goose, WD8LLD
gooster@delphi.com

NEXT MRRC MEETING

The next meeting of the Mad River Radio Club will be at the QTH of Jim Stahl, K8MR in Orange Village, OH on Saturday, January 6, 1996. This is the nineteenth year that Jim has been hosting this post-holiday kickoff to the MRRC calendar year, and is well worth the drive to suburban Cleveland. A map to K8MR is included in this newsletter.

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- ☆ The FLASH is the official newsletter of the Mad River Radio Club, ☆
- ☆ and is published six times per year in even-numbered months. ☆
- ☆ Submissions of material for the FLASH are welcome, and may be ☆
- ☆ sent to the editor at the address of the last page. ☆
- ☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆
- ☆ The Mad River Radio Club is an ARRL-affiliated club of amateur ☆
- ☆ radio contesting enthusiasts. The club area is centered on Findlay, ☆
- ☆ OH, and serves the surrounding states. Membership in the MRRC ☆
- ☆ is open to anyone. Dues are \$12 per year, payable to club ☆
- ☆ treasurer KE8OC. Please make checks out to Tim O'Sullivan. ☆
- ☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆
- ☆ In addition to six in-person meetings per year, MRRC has an ☆
- ☆ informal net every Monday evening at 8:30 PM Eastern time on ☆
- ☆ 3825 KHz ± QRM. Everyone is welcome to check in for the latest ☆
- ☆ club news and information. ☆
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MRRC at the World Radiosport Team Championship

In the last *FLASH*, we reported that a group of W6s led by W6QHS and others had announced plans to put on an encore to the highly successful World Radiosport Team Championship (WRTC) held in 1990. The event will be held in mid-July 1996, running simultaneously with the IARU HF Championship contest. There will be a maximum of 52 entries from around the world, each a two-man team.

MRRC and nine other major contest/DX clubs around the country were invited to nominate a captain for one of the ten American teams that would participate. The captain would then name a partner to operate on the team - but this partner had to come from outside the club that nominated the captain.

SELECTING A CAPTAIN - de WD8LLD

The call for nominations went out in the *FLASH* as well as on packet and on the Monday night MRRCnet. Although there was much interest, the fact that the participants would be responsible for travel expenses plus the reality of family and vacation pressures due to the July timeframe probably prevented some people from accepting nomination. In the end, four names were submitted for consideration:

Jeff Clarke, KU8E
Bob Hayes, KW8N
Doug Klein, WD8AUB
Dave Pruett, K8CC

Although the voting turnout was a bit light, it was a close race. By a margin of only one vote, **Dave Pruett, K8CC** was nominated to carry the MRRC colors to San Francisco.

FORMING THE TEAM - de K8CC

I want to thank MRRC for allowing me this opportunity to represent our club in the World Radiosport Team Championship. All of the four nominees are outstanding operators, and I feel very privileged to be the one chosen. We'll try our best to make MRRC proud!

After being selected, my next task was to select a team partner. It would have been my preference to pick one of the other MRRC nominees, or another club member, however the WRTC organizers were very explicit that the partner had to come from outside the club that nominated the captain. My first thought was to get with the North Coast Contesters and work out a mutual deal: the MRRC-nominated captain would pick a NCC partner, and the NCC-nominated captain would pick a MRRC partner. However, I spoke to the NCC captain (K3LR) who indicated that he had already picked a partner and that they were not interested.

After some discussions with the "Big Fish", I have selected **Stan Stockton, K5GO** of Harrison, AR as my team partner. I have known Stan for almost twenty years, dating back to my college days in W5. He has been active contester/DXer throughout that time, running up a long string of Sweepstakes top-ten finishes in the high-power CW category. He has also been at the far end of the pileup, signing P40GO/P40M, VS6WO and 4S0AA in the DX contests, as well as handing out DX QSOs from places such as V5, 9M, and 8Q7SS. Also, for some time Stan has had an "unofficial" tie to MRRC, having logged time in several of the K8CC operating chairs during some of our multi-op efforts, as well as attending our Dayton Hospitality Suite most years.

Now that the team is selected, we're waiting for further information from the WRTC committee. In the meantime, Stan and I are talking about maybe going on a contest-pedition or two to hone our skills, much like Olympic athletes prepare. In any case, I expect to see a bunch of contest participation from K8CC and K5GO through the rest of the contest season to crack any remaining rust off our keys and mics. (It was only after he accepted that Stan realized he would have to operate SSB in the WRTC!) I wonder which logging program they will let us use?

The clock is on seven months and counting...

The Effects of Insulation at RF

As told to K8CC by Jeff Benson, N8CC

I have often wondered what effects wire insulation has on the electrical length of an antenna. While discussing this one day, **Jeff Benson, N8CC** told me the story of how he and some of his ham buddies set out to get to the bottom of this mystery. They built a dipole for the fifteen meter band made of #14 THHN insulated house wire. The antenna was fed with coax and hung approximately ten feet in the air and had a minimum SWR at 21.1 MHz. Then, they took the antenna down, and with a sharp knife removed all of the insulation. When the antenna was re-installed in the same spot, the frequency of minimum SWR was 21.5 MHz - the frequency of minimum SWR had moved **HIGHER** in frequency by 2% simply by removing the the insulation.

These results might explain some of the discrepancies I have seen at K8CC when translating wire antenna designs from the computer to the antenna field. Several carefully modeled wire antennas for eighty meters constructed with insulated wire have required length adjustments to get to the desired resonant frequency. I had always attributed these discrepancies to errors in the modeling program - it had never occurred to me that the insulation was the culprit.

You say 2% is not a very big effect? Consider this - 2% is enough in many cases to make a resonant element into a reflector! At the very least, it can distort the results of antenna analysis. This was the case for N8CC - Jeff has had a big 4L 20M quad up for a number of years which was built using element lengths derived from the classic quad articles done by W0AW and others. The quad performed very well, but when it suffered wx damage, Jeff decided to see if it could not be improved through computer modeling. The modeling results were shocking - the antenna peaked up at the top of the band which did not jive with experience using the antenna (Jeff operates virtually 100% CW). The insulated #12 wire used on the quad had moved the resonant frequency down (2% is approximately 300 KHz on 20M).

When Jeff went to rebuild the quad for 20M and 15M, he first modeled it on the computer, then added 2% to the element lengths when he strung the the wire. He recently got the antenna back up in the air and reports that the 20M quad is right on frequency, while the 15M job is actually about 35 KHz low. Performance is judged to be as expected, which reinforces the observations concerning insulated wire.

Perhaps this information will be useful to someone in their antenna engineering efforts.

CW Keying Circuits

By Dave Pruett, K8CC

On the next page is a drawing showing several different types of circuits for CW keying your radio from one of the popular contest logging programs - *NA*, *CT*, *TR-Log*, or perhaps others. I originally made up the drawing for the next *NA* manual, but thought others might find it useful to have all of this information in one place. Some comments on each:

LPT PORT KEYING - All three programs support the keying portion of this interface. Both *NA* and *TR-Log* support the PTT output and paddle inputs.

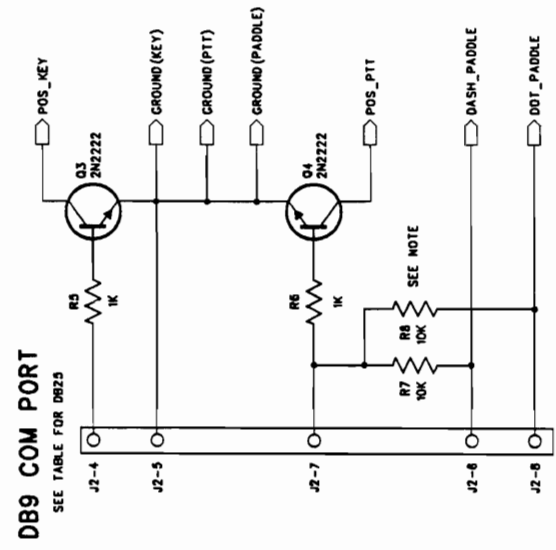
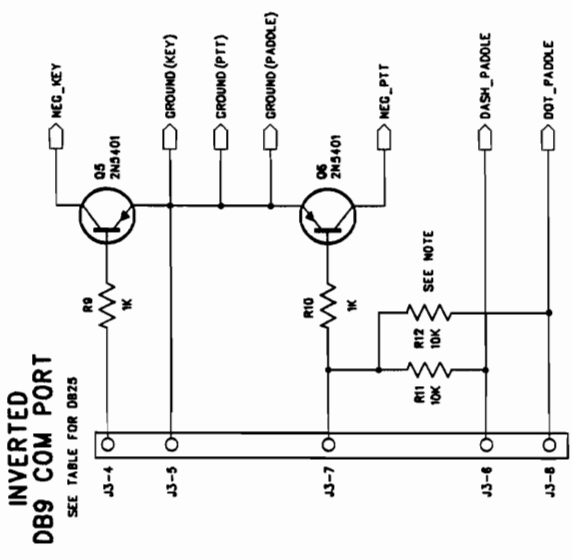
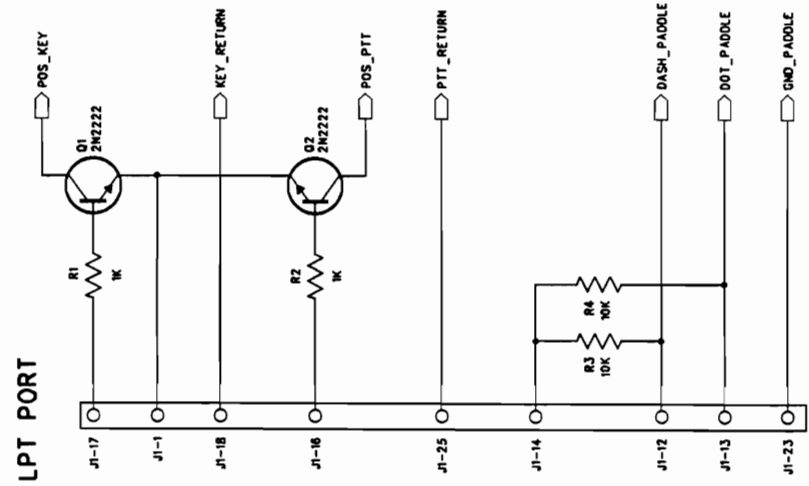
COM PORT KEYING - All three programs support the keying portion of this interface. *NA* supports the paddle inputs, while *TR-Log* supports the PTT output which *NA* will add in version 9.27 available next month.

INVERTED COM PORT KEYING - This unusual configuration is used for negative-keyed (i.e., C-Line, TS830) radios, but does not require an outboard power supply like other published circuits. First seen in the *TR-Log* program, it is not supported by *CT* while *NA* will add it in version 9.27. Both *NA* and *TR-Log* support the PTT output, while *NA* also supports the paddle inputs.

Use of either of the COM interfaces should not interfere with using the same port for a serial data connection to a computerized radio.

REVISION RECORD	
LTR	APPROVED:
ECD NO:	DATE:

SIGNAL	DB-8	DB-25
DTR	4	20
GND	5	7
DSR	6	6
CTS	7	4
RTS	8	5



DATOM Engineering

CW KEYING CIRCUITS

KEY_PORT.SCH

REV: C

SIZE: B

CODE: NONE

SCALE: NONE

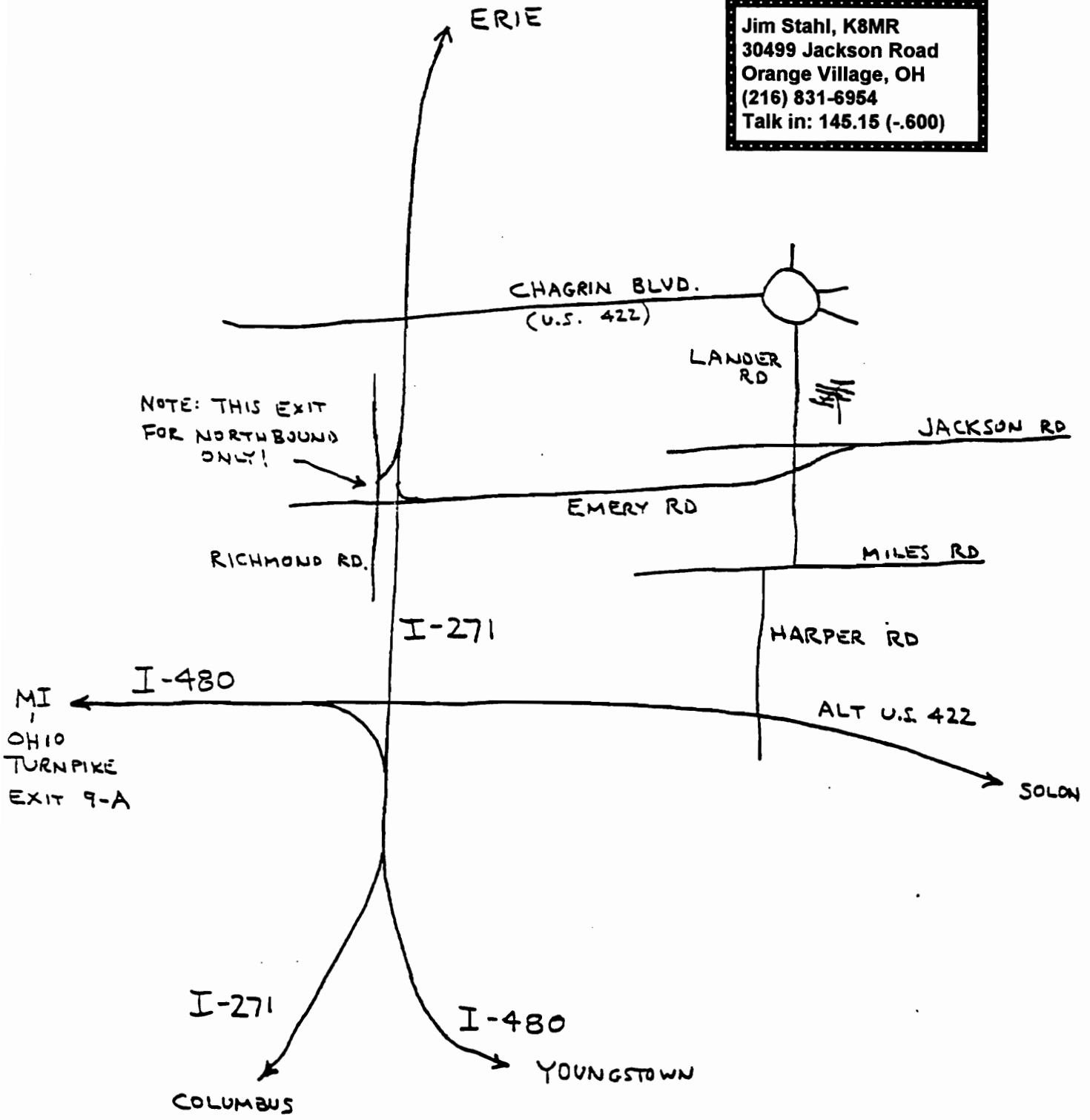
SHEET: 1 OF 1

DRAWN:	D. A. PRUETT	DATED:	26JUN93
CHECKED:		DATED:	
QUALITY CONTROL:		DATED:	
RELEASED:		DATED:	

- NOTES:**
- Q5 AND Q6 MUST BE SELECTED TO WITHSTAND NEGATIVE KEY & PTT VOLTAGES. 2N5401 PART SHOWN IS RATED FOR 150 VDC.
 - FOR COM PORTS, THE PADDLE PULLUP RESISTORS (10K) MUST BE CONNECTED TO A POSITIVE VOLTAGE RATHER THAN AS SHOWN IF CW TRANSMIT CONTROL IS ENABLED.

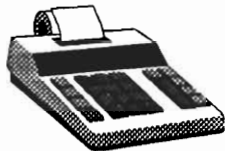
The 19th Annual K8MR Christmas Party
and MRRC Meeting
Saturday, January 6, 1996 at 7:30 PM

Jim Stahl, K8MR
30499 Jackson Road
Orange Village, OH
(216) 831-6954
Talk in: 145.15 (-.600)



Treasurer's Report

By Tim O'Sullivan, KE8OC



This is the time of year where we see if our budgeting is correct. Most people have already paid their dues for the year, and the \$\$\$ for our support of the ARRL contest plaque program comes due. We also spent some money to replenish the "badge blank bank" (try saying that a few times real fast). On the other hand, there's likely to be no big expenses left before Dayton other than printing the *FLASH*, and even have our Dayton suite registration is already paid. We should be in good shape for the rest of the MRRC year.

Balance reported 10/95	\$519.68
Income	
Dues received	\$24.00
Income from badge order	\$24.50
Expenses	
Checking Account Maint. (Oct-Dec)	\$9.00
New Badge Blanks	\$85.86
<i>FLASH</i> printing (Oct/Nov, Dec/Jan)	\$158.00
ARRL SS Contest Plaque Sponsorship	\$100.00
Balance 12/95	\$215.32

Respectfully Submitted, Tim O'Sullivan, KE8OC

Member Profile:

Nick Grgic, VA3NA

One day, the telephone rings. A cheerful voice at the other end says "Hi, I'm Nick, VA3NA, I used to be YT7WW, but now I live in Windsor, Ontario and I'm want to meet some contesters". I told him that he had certainly come to the right place, and invited him to the USECA MRRC meeting in October. He showed up, and such began my (and MRRC's) association with Nick Grgic, VA3NA.

Nick began his amateur radio experience in 1979 at club station YU7BPQ. In Yugoslavia, you must take a class in amateur radio and work at a club station in order to get your license, and in 1983 Nick received the callsign YU7MIF and later YT7WW in 1986. In 1993, he and his family moved to Toronto, Canada where he was licensed as VE3EXW, and did some operating from well-known station VE3EJ.

Nick is an electronics technician by vocation, and worked as a HF/VHF radio technician for the government back in his home country. Today he works as an industrial electronic technician for Monelco in Windsor.

Nick has a rather auspicious introduction at contesting at K8CC. In the 1995 CQWW CW, he was the main 20M operator at our multi-multi, and proceeded to pound out the best CW hour ever recorded at K8CC - a 140 hr at 13Z to Europe on Saturday.

The other members of the Grgic family are Nick's wife Svetlana, and son Sasha, age 4. They are currently living in an apartment in Windsor since they moved here in July 1995, but Nick has had no success in getting permission to install an outside antenna to go with his IC-720. At K8CC's urging, he is trying to get QRV on packet to keep in touch with other MRRCers, and to be ready for the next contest. After the fine job he did for us in CQWW, if I have any say it will be behind the mic or key at K8CC.



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