The **FLASH**

The Official Newsletter of the Mad River Radio Club

April/May 1995

MRRC WINS MEDIUM CLUB CATEGORY IN THE 1994 ARRL 160M CONTEST!

The April QST said it loud and clear - MRRC had won the gavel in the medium category of the Affiliated Club Competition for the 1994 160M Contest, doubling our point total over 1993. No doubt, the MRRC 160M Challenge intra-club challenge had a lot to do with our success (see results elsewhere in this newsletter), and MRRC leading the charge that weekend on "top Band". Congratulations to the club single-op winner AA8AV (operating K8CC), to the crew at multi-op KN8Z, and to all the MRRC stations who participated. WELL DONE!

NEXT MRRC MEETING

The next meeting of the Mad River Radio Club will be on Saturday, April 29, 1995 at the Dayton Hamvention. The meeting will be in the bleachers of Hara Arena above the Cushcraft exhibit starting at 12:00 Noon and running for about an hour. Important club business will be conducted, including the election of officers and establishing the club meeting schedule for 1995-96. Please be sure to make the most important MRRC meeting of the year!

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.

From the 'Big Fish'

By Goose Steingass, WD8LLD

Hello again fellow MRRC'ers! Well April is here and that means Dayton! Things are progressing nicely on the suite and we have almost all of the bartender slots filled. Don't forget to bring pictures of your station to the suite! Being that this is my first time trying to organize a project of this nature, I want to thank the club members for their support, particularly to **Jeff, KU8E**.

Congratulations are in order to all the club members that participated in the ARRL 160 Contest and helped us **WIN THE GAVEL** for the medium club category. This was a tremendous effort and one that we can all be proud of. The League has already shipped the gavel to us, which we will have on display in the MRRC Suite at Dayton.

In other business concerning the ARRL 160 Contest, it appears that the Ohio guys beat the Michigan guys in the Michigan-Ohio Challenge. As you may recall, we set up a competition last September between Michigan and Ohio in the ARRL 160 test to foster increased operating incentive. The results are tabulated elsewhere in this edition of the *FLASH*. Now all we have to do is determine the prize and make the presentation.

I would like to propose that we make this year's club project the winning of the gavel for the medium club category for SS. We have come very close in the last couple of years and can easily get over the top with a good effort from the club. Plus, we know we can do it as evidenced by our effort in the ARRL 160 test. Think about it and let's discuss it at the Dayton meeting.

Field Day will also soon be upon us. About three years ago, we reinstated the Mad River 1A Field Day Competition. There is a traveling trophy that is presented at the Dayton meeting to the winner of the previous year's competition. The K8MR crew has won this trophy for the past three years. Now is the time to start thinking about planning your Field Day team to make a run at these guys. Besides, it is great way to keep in shape during the contest lull that comes with the summer months and is also a nice break from all that antenna work.

The other order of business at Dayton is the yearly "Mad River Radio Express" to railroad in the "fish" that you want to lead the club for the next year. I am very grateful to have had the chance to lead the club in the past year and am very proud of this group. We have an extreme amount of operating and creative talent in this club. Be thinking of your candidates. Do I hear the train in the distance?

Well that about wraps it up for this issue. Don't forget, put those creative juices together and write something to contribute to the *FLASH*. This is your newsletter and a good place to air ideas that can help fellow contesters in our club. Hope to see you all at Dayton!

73, **Goose, WD8LLD**
Packet: WD8LLD @ W0CG
Internet: gooster@delphi.com

From The Editor

By Dave Pruett, K8CC

No, MRRCers, you memory is not failing you, and neither did the US Postal Service lose the last issue of the ***FLASH***. There was no February/March issue, for a variety of reasons. We all know the antecdote about excuses, so I hesitate to offer one here. Nonetheless, the missing previous issue points out the importance of sticking to a schedule.

For many years, MRRC had a rather ad hoc schedule for publishing the ***FLASH***. Sometime during the KE8OC tenure as editor, we established the goal to put out a newsletter by the middle of even-numbered months, with the deadline submittal being the first day of that month. This schedule works out pretty well for having newsletters come out right before an upcoming MRRC meeting and missing major operating events.

Producing a ***FLASH*** generally requires a certain minimum amount of material such as columns and scores. The February 1 deadline for the February/March issue came and I had ONE item to print (**AF8A**, you are a prince). The remaining basics arrived up to several weeks later. At that point, two events intervened: ARRL DX CW and ARRL DX SSB. I'm sorry, but preparing for and operating these two major contests takes priority at K8CC. Once these were done, we were almost to the middle of March and WPX SSB was rapidly approaching. By this time, the deadline for the next issue was only a couple weeks away...oh well.

Certain contributors have been pretty good about letting me know when stuff will be arriving late, but virtually nobody is very good about getting stuff here on time. I realize that people are busy, and I have strived to be flexible and to accomodate late submissions, but the loss of the February/March issue shows that things can go too far.

To better help people submit stuff on time, here are the guidelines. If you can get stuff to me by the first of the month, you will receive huzzahs and praise from the editor, no matter what form it is in or if artwork needs to be generated. If your stuff arrives by the eighth, it will most likely make the newsletter if it is in electronic form and all artwork is complete. You should also let me know it is coming in a timely manner, either by landline or via packet if you're SURE of the path to K8CC, so that I can plan for its arrival. After the eighth, it will only make the newsletter if we delay publication.

It has been my observation that although MRRC has over 80 people on the roster, only about a dozen contribute to the ***FLASH***, which tend to be the same people who make it to the Monday Night Net on 3825. MRRC's club philosophy allows that there are no minimum requirements to be a member (other than for ARRL Affiliated Club Competition), so if you want to simply belong to MRRC and watch the goings-on, that's OK. However, if you're doing something interesting in contesting or DXing, **WE WANT TO HEAR ABOUT IT!**

On a related topic, attendance on the Monday Night Net has been down over the past several months. We had some really putrid band conditions for several weeks straight on 75M which occasioned occasional QSYs to 160M. Band conditions appropriate for intra-MRRC communication have improved in recent weeks, and the usual attendees are again well over S9. (Editor's note: It's my suspicion that Paramount Network's scheduling of *Star Trek Voyager* at 8 PM has an effect on net participation - I know its a factor at K8CC.) Nonetheless, *everyone's* participation is welcome - stop by on Monday nights!

Your editor has recently applied for an Internet address, so I should soon be reachable by yet another medium. If someone in the club would take it upon themselves to compile a list of Internet addresses for MRRC members, we will publish it in the ***FLASH.***

By the time this issue reaches you, Dayton will be just around the corner. Be prepared to attend the MRRC meeting at noon on Saturday, and also drop by the MRRC Hospitality Suite at Stoffer's. I hope to see everyone there!

73, **Dave, K8CC**

The CQ-Club Internet Reflector

By Jeff Clarke, KU8E

Bob Cox, K3EST and the CQWW Contest Committee have started a new reflector on Internet whose purpose is to interface with contest clubs around the world. I have volunteered to represent the Mad River Radio Club on the reflector.

By having our club connected directly by Internet to the contest committee we will 1) be privy to information which we would otherwise not have concerning CQ for club discussions, 2) will be passed along the latest considerations of the contest committee, 3) can submit club rosters to CQ electronically via Internet and 4) can forward our concerns electronically to the committee via the Internet. In other words life will be made easier for the contest committee with the help of the Internet connection.

Anyone that has any issues that they want to bring before the CQWW Contest Committee can e-mail them to my Internet address, **KU8E@aol.com** or via packet via **KU8E@KC8MK**. If you have neither of these write me a letter. I will be able to forward these issues directly to the CQWW Contest Committee.

ADDITIONAL PROSIGNS FOR CW CONTESTING

(Or, How to Fill CW keyer memories in the next CW contest)

By Gary Mitikin, AF8A

There can be no argument that CW contesting has benefitted from the advances in electronics over the past two decades. Remember the first time you used a WB4VVF AccuKeyer with *four* memories? How about the first time you used NA, with seven memories? Well, have you pondered what the future might bring, when PCs come equipped with 64-bit Septium processors, 2 gigabytes of RAM, read/write optical storage, the much awaited EIEIO bus and brain wave interfaces (no more keyboard cheat sheets)? The number of keyer memory locations could be limitless - the problem is, what to put in these memories? **Jim, WB8WTS** and I have developed a few new CW prosigns that you might find useful. We've often wanted to use one of more during the last few multi-op efforts at W8EDU and WD8LLD. If we only had a few more function keys on the keyboard...

F13 **LHTS** (Learn How To Send) - Perfect for the station that first calls us W8LU, then W8AIU, and finally, W8EDU.

F14 **PUAA** (Put Up An Antenna) - For the joker running Q class in CW SS, working 80 meters only, on a night when the A index is hovering around 16, and your ears are bleeding in your Heil Pro-Set from the rain static on the Hy-Tower.

F15 **QCMA** (Q Class My Ass) - For the WB0 running Q class in SS, but is 20 over 9 on 40 meters at 0300Z (antecedent of PUAA - see above).

F16 **BMABD** (Bring Me Another Brewski, Doug) - Not actually sent over the air, but used in "gab" mode between PCs running CT at a WD8LLD multi-op effort.

F17 **TFTDXL** (Time For The DX Latrine) - Sent to all stations on frequency after too many brewskis (see BMABD above) and the pile on you has gone on for too long.

F18 **LHTT** (Learn How To Type) - For the guy sending (badly) in the "keyboard mode" of his logging program (for casual ops only).

Note: The prosigns may be send in rapid succession, for emphasis and for stress relief (LHTS LHTS LHTS OM) before moving on to the next QSO. And remember, when appropriate, send these prosigns AFTER you've got him in the log, in case the other op doesn't take kindly to the ribbing you're dishing out!

1995 WPX SSB Shootout from Michigan

By Dave Pruett, K8CC and Bruce Lallethin, AA8U

Amateur radio contests are about competition. Much has been written about the fairness of the competition - the East Coast has the advantage in DX contests, while Texas seems to have the edge in domestic contests, etc. Perhaps the fairest competition exists at the local level, where two stations in a particular geographic area strap in and go at it head-to-head, experiencing the same conditions and an equal playing field.

Such was the case in Michigan during the 1995 WPX SSB contest where two groups, each with past WPX success under their belts, accepted the other's challenge in the multi-single category. The two groups had a history of competing against each other - both had won (and lost) to each other in the past, so either team had a good chance of winning. The stations each would use were somewhat different, which would add further interest when the results were analyzed.

Station **KT8X** was operated from the QTH of **Bruce Lallethin, AA8U**. The AA8U station is designed for single-op and multi-single competition. The antenna farm is impressive - one 130' tower has a 5L triband quad on top, a second 130' tower has a 2L 40M rotatable quad on top, while a third 80' tower supports a 4L triband quad. The main 80M antennas consist of a 5L quad aimed NE and a 3L quad aimed SW, both strung between the two tall towers. For 160M two of the towers are used as shunt-fed verticals, and there are other auxilliary antennas and receiving beverages. Inside, there are two positions: a Kenwood TS950 with a Alpha 87A, plus a Yaesu FT990 with a TenTec Titan. Both stations have access to virtually any antenna not in use by the other. The operating crew included **AA8U, AA8AV, K8MJZ, KC8EK, KG8CW, KF8DF, KT8X, NU8Z, and WX3M**, several of whom were not full-time.

Station **NE8T** was operated from the QTH of **Dave Pruett, K8CC**. The K8CC station is designed for multi-multi operation, hence bands are divided into separate systems. The antenna farm has four towers ranging from 90' to 120'. Each of the three high bands has a 5L/5L yagi stack and a 4L yagi fixed on South America. 40M has a 3L full-size yagi while 80M has a "four-square" array consisting of wire verticals. Inside, the station was configured with two operating positions, each with a ICOM IC765 transceiver that could drive single-band 3-1000Z or 4-1000A amplifiers, or a Henry 2K3. The operating crew consisted of **N8CXX, N8BTU and NE8T**, all of whom were essentially full time.

The WPX scoring rules demand subtile considerations of strategy. Use of the CQWW QSO point rules (doubled on 160/80/40) induce North American stations to focus on running DX as much as possible. At the same time, the "mother lode" of available USA prefixes require that some time be spent where these QSOs can be made.

Band conditions looked reasonably promising, with quiet conditions and flux in the mid-nineties. This raised hopes that Europe would be reasonably good on 21 MHz, but this did not turn out to be true. Local weather conditions did not produce any storms, so neither atmospheric noise or rain static were major factors.

On the next page are tables showing QSOs and mults per hour, plus graphs of accumulated QSOs and multipliers by hour for both KT8X and NE8T. This information contains interesting data describing how the two teams each attacked the contest differently.

Both stations started similarly, primarily focusing on 20M for the first four hours although KT8X made a few QSOs on 40M in the first hour. By 04Z, 20M was closed and both stations were down on 80M/40M. At this point, NE8T had a slight lead on QSOs, but KT8X had a 20% lead in multipliers.

From 04Z-11Z, both stations were grinding out QSOs on 75M with occasional forays up to 40M for six point QSOs. During this period, there were concerns at NE8T that their wire four-square array would be no match for the big 80M quads of their competition for making both DX and North American QSOs. However, the 80M tallys show 182 QSOs for KT8X vs. 169 for NE8T during this period. Overall, the totals at 11Z were 528/330 for KT8X and 544/315 for NE8T.

After sunrise, 20M opened but was extremely crowded since there were no high bands open and everyone was there, including the big Caribbean stations. KT8X started rolling first on 20M, and out QSO'd NE8T 212 to 114 in the 11Z to 13Z hours. After that, KT8X started splitting time between 20M/15M, while NE8T stayed on 20M almost exclusively. During the 14Z to 21Z hours, NE8T out QSO'd KT8X 502 to 449. Once JA opened up, the rate improved on 20M, and the day finished with KT8X at 1361/640, and NE8T at 1324/616.

Saturday evening was pretty much a copy of Friday, with NE8T concentrating on 20M and running slightly better rate. KT8X held on longer on 20M with some decent rate in the 03Z hour while NE8T was in low-band S&P mode. Again, by 04Z both stations were completely off 20M, running on 80M with 40M S&P. However, this evening NE8T discovered split-frequency CQing and had some decent rate running EU during the 04Z hour. For the night, NE8T had 140 80M QSOs while KT8X had 134. By the end of the second night the score was KT8X 1745/732 vs. NE8T 1659/698.

Sunday AM started out with some sort of a disturbance that upset the bands. The effects slowly dissipated, but neither station could generate much rate until about 15Z when things more or less returned to normal.

Sunday afternoon was somewhat of a strategy reversal between the two stations. KT8X stayed on 20M mostly while NE8T made more excursions to the higher bands. Again, a 20M strategy paid off, as KT8X made slightly more QSOs (404) than NE8T (383) from 15Z - 24Z.

When it was all over, scores were swapped over the PacketCluster link. The finish was really close, with the final margin of victory being less than 70K out of four million points:

KT8X: 2207 - 828 = 4,184,712

NE8T: 2108 - 799 = 4,115,649

Looking over the results, it can be seen that the two teams indeed followed different strategies. While both kept a close eye on the rate meter, KT8X seemed to be more willing to work zero point QSOs while NE8T fought the QRM for DX QSOs. It shows in the results - KT8X made more 99 more QSOs, but NE8T made 97 more QSO points.

Ultimately, multipliers won the contest for KT8X. We did not attempt to break down the multiplier types (DX vs. domestic), however there is one interesting spin on the statistics. Both teams worked slightly less than three QSOs for each multiplier. If you take the KT8X QSO margin (99) and divide by their mult advantage (29), the result is slightly over three QSOs per each additional mult, not much different from their overall QSO/mult ratio. Since KT8X made fewer QSO points despite making more QSOs, we may assume that most of these extra QSOs were zero pointers. This shows that you won't hurt yourself working domestic stations as long as you can keep up a good multiplier rate.

A couple of weeks after the contest, AA8U and K8CC got together to compare notes. Bruce felt that things went pretty well at KT8X, the only real problem being some busted cables from the FT990 to the DVP at the start. With nine operators, they were always able to put a fresh operator on the radio.

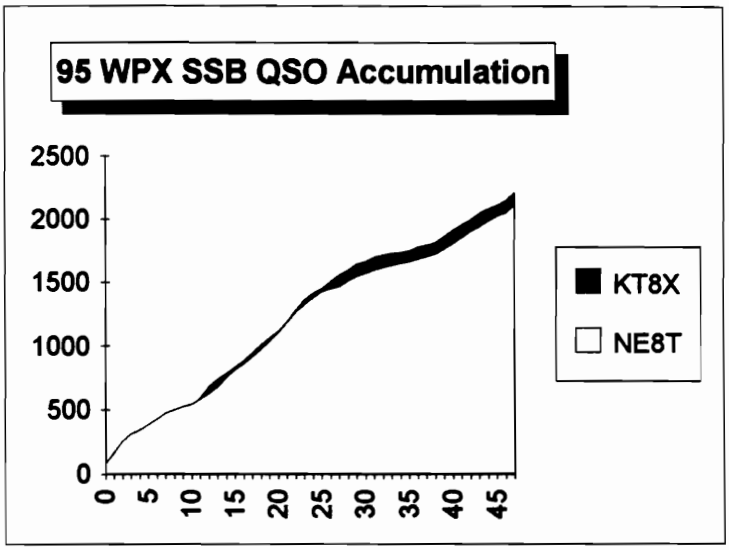
Dave felt that there were two problems at NE8T. First, there were only three operators so fatigue was a factor. Although all three were experienced and had run several contests at K8CC before, none had been actively contesting in the past two years and all had difficulty establishing run frequencies on 20M in the early AM. The second factor is the IC765 transceivers used at K8CC. These are good CW radios, but have mediocre speech processors and wider than optimum RX filters for SSB. It was felt that a higher-end radio like an FT1000 or TS950 would have improved operation in the crowded 20M condx.

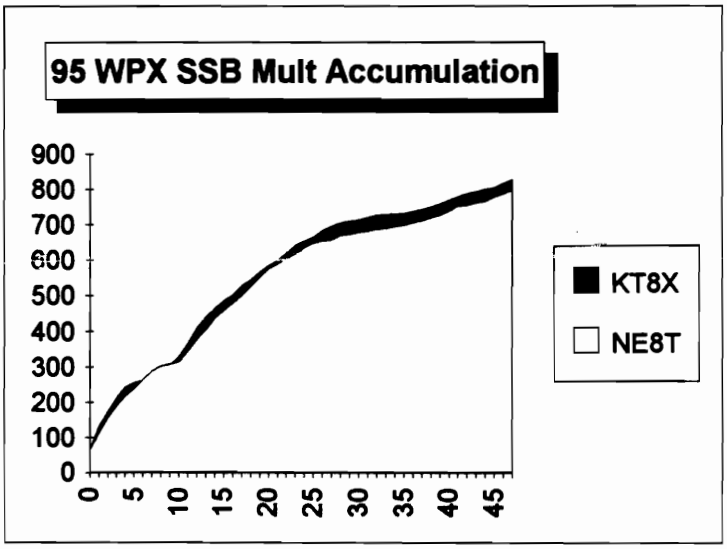
One particular frustration for both teams was 40M. Although both stations have "big" antennas at good heights, neither had much success running DX stations. On phone, it's just not the same band as on CW.

After all is said and done, the result was a great competition between two fine stations. I think we'll do it again next year!

1995 WPX SSB
KT8X vs. NE8T

	KT8X		NE8T	
hour	QSOs	mults	QSOs	mults
0	76	66	83	66
1	94	64	84	47
2	77	42	87	43
3	58	39	56	32
4	39	31	34	28
5	23	13	36	22
6	11	7	48	26
7	25	15	44	24
8	45	16	28	14
9	26	10	24	6
10	54	27	20	7
11	68	36	40	28
12	90	44	47	35
13	54	30	50	25
14	45	23	72	34
15	49	23	63	22
16	52	16	47	19
17	58	25	55	22
18	66	17	57	25
19	52	22	63	26
20	55	17	70	23
21	72	15	75	15
22	94	21	83	14
23	78	21	58	13
24	51	13	56	19
25	35	11	43	12
26	58	17	25	7
27	52	13	17	3
28	36	9	46	13
29	48	7	34	3
30	20	3	23	6
31	34	7	27	3
32	18	6	18	5
33	13	2	18	2
34	6	1	17	6
35	13	3	11	3
36	34	5	20	7
37	14	5	22	6
38	20	7	21	9
39	51	10	38	8
40	49	11	45	11
41	42	9	49	14
42	40	9	47	2
43	49	4	38	7
44	34	8	42	3
45	28	3	42	13
46	38	14	24	9
47	63	11	61	12
total	2207	828	2108	799





Multiplier Antenna Easy Access Switch

By Goose Steingass, WD8LLD

Have you ever been stuck in this situation? You are hosting a multi-operator operation. The 20 meter operator is running them hot and heavy into Europe and a needed VP5 multiplier comes on the band from the Caribbean. The station is equipped with a triband antenna of some type pointed at the Caribbean but the 15 meter operator has it hooked to his station at the present time. What's a contester to do? Does the 20 meter man turn his run antenna toward the VP5 which will take about 20 seconds and cause him to lose his run frequency in the process or does he yell for someone to grab the coax for the mult antenna from the 15 meter station to hook up to his station which could take even longer? In the meantime, the valuable VP5 multiplier decides to QSY. This is not an uncommon problem for many multi-op stations.

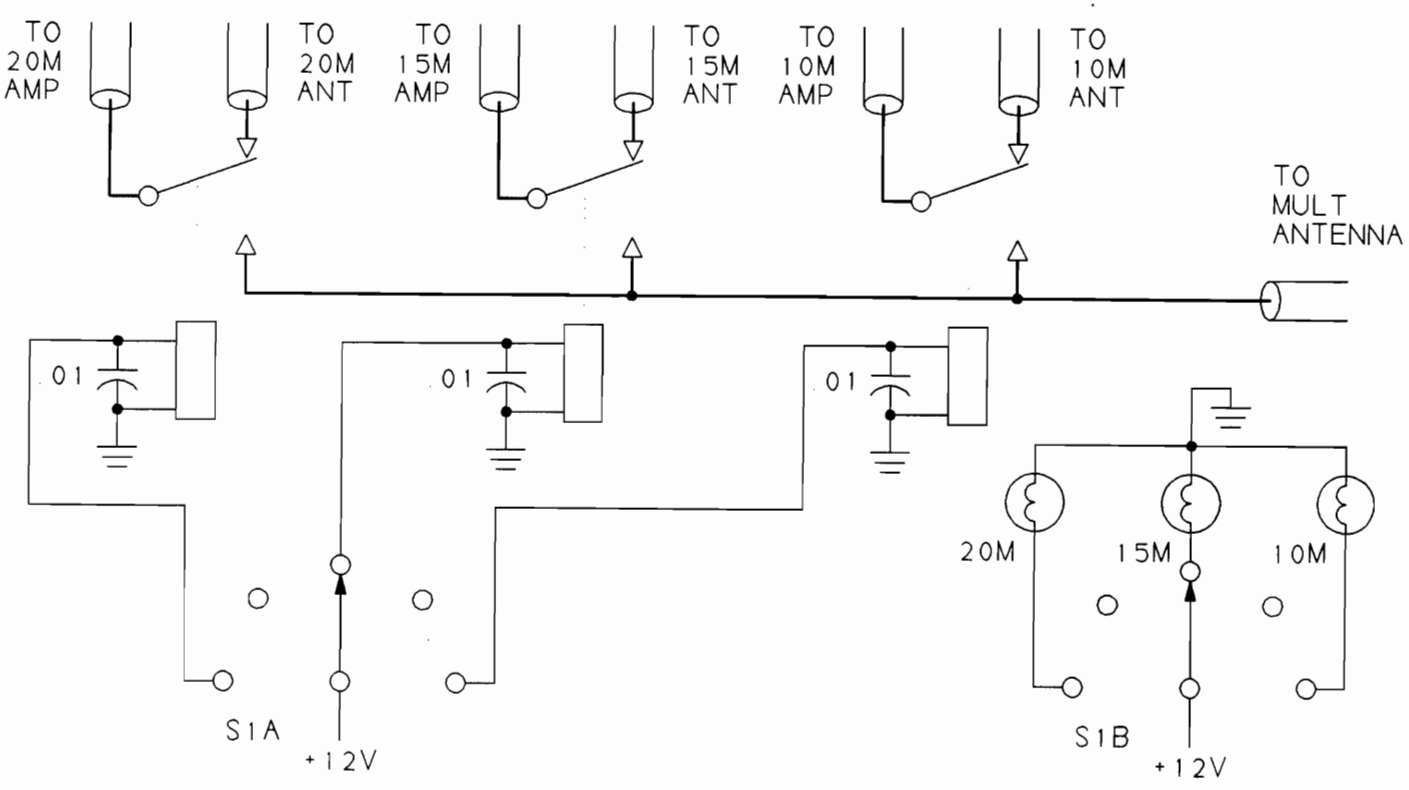
A couple of years ago, there was a general consensus here at WD8LLD that we needed a Caribbean multiplier antenna for the station. A 2 element triband quad was constructed and raised on the newly installed 50 foot multiplier tower. The antenna was just what the doctor ordered but the above problem was encountered when this wonder antenna was not available at the instant the desired multiplier appeared on a needed band. After a couple of weeks of head scratching, an idea for a switch box was born that would make the multiplier antenna instantly available to any of the high band ops for use in grabbing the fresh counter.

The circuit consists of a set of three relays wired as shown in the figure. Voltage to the coils of these three relays is controlled through a rotary =switch (SW-1). When the switch is thrown to the 20 meter position, for example, the 20 meter radio and amplifier are disconnected from the main 20 meter antenna and routed to the multiplier antenna. This allows the 20 meter op the ability to quickly QSY, snag the mult, and return to his original configuration usually without losing his run frequency. The relays are housed in a shielded box made from good quality double-sided pc board. This material was chosen for the box since it is relatively cheap, easy to work with, and provides excellent rf shielding capabilities. The relay box was mounted in an area away from the computers and radios to keep the RF circuitry as far away from these delicate pieces of equipment as possible. Proper care was taken during the construction phase to adequately bypass the coil leads of each relay thereby keeping unwanted RF out of the power supply. The rotary switch is housed in a separate box and is located in an area that conveniently accessible to each of the high band operators. All parts used in the construction of this unit are readily available from Radio Shack or at any hamfest.

There was some concern during the construction phase of this project about possible adverse coupling through the denergized relays of rf energy from common lead for the multiplier antenna. It was felt that this adverse coupling might possibly cause unwanted desense and overload in the adjacent receivers. Testing of the unit revealed no additional overload problems in any of the receivers other than those that normally occur in a multi-operator environment. In fact there have been several recent NCJ articles describing that very good isolation is achieved between open relay contacts.

As shown by the Figure 1, there are open slots on SW-1 between the various band positions. These open slots are intentional to allow the feedline for the multiplier antenna to be parked in an open position during the times the antenna is not in use. This also eliminates the need to disconnect the 12 volt d.c. power supply after each use thus allowing the multiplier antenna to be readily available for the next operator. Care must be taken however to avoid "hot switching" the unit though a band that is currently being transmitted on. If the need arises to dial the unit through a hot position, it will be necessary to remove DC. power to the unit long enough to dial the switch to the proper band. Due to the simplicity of the circuit, however, the addition of a "hot band" lockout circuit should be quite easy by adding several additional relays. Future plans wa WD8LLD include the addition of such a circuit to this unit.

This antenna switch has been used quite extensively in the all of the recent major cw contests and has been well received by the operators at WD8LLD. The unit has performed flawlessly and has also provided each of the high band operators with easy and instant access to the multiplier antenna at their stations.



Frequently Asked Questions About The CQ-CONTEST Internet Reflector

By Trey Garlough, WN4KKN

What is CQ-CONTEST?

CQ-CONTEST@TGV.COM is an electronic mail reflector dedicated to hams interested in all types of amateur radio contesting. This is a good place for score reports, expedition rumors, and other contest-related discussion or announcements. This forum is more like the NCJ than QST; INFO-HAMS@UCSD.EDU and rec.radio.amateur.misc are good places to look for a more rounded discussion of the hobby.

Although there is overlap between contesters and DXers, CQ-CONTEST is not a DX-oriented group. DX@UNBC.EDU is an electronic mail mailing list dedicated to the discussion of DXing.

Each message you send to CQ-CONTEST@TGV.COM will be sent out to all the other subscribers, kinda like a 2-meter repeater that has a coverage radius of 12,000 miles or so. Think of sending mail to the list as the equivalent of an ANNOUNCE/FULL message on PacketCluster. Use regular email to send a message to a specific individual.

Electronic mail is also different from packet radio, in that many subscribers receive their email through ommercial services such as CompuServe and MCImail. In essence, many people are paying for each byte of every message sent to CQ-CONTEST. In order to minimize spurious messages, follow the operating hints detailed below.

How do I join CQ-CONTEST?

Subscription management is handled automatically by a program that answers mail sent to CQ-CONTEST-REQUEST@TGV.COM. Send a message to CQ-CONTEST-REQUEST@TGV.COM that says SUBSCRIBE if you wish to join the group, or UNSUBSCRIBE if you want to drop out. The Subject: line is ignored. Messages sent to CQ-CONTEST@TGV.COM are broadcast to *all* readers, so don't send subscription requests there.

What are the suggested "operating practices" for CQ-CONTEST?

Put your name and call sign on every message you send. We don't all know everyone by just a call or a nickname.

Use a subject line that indicates the true subject of your message.

Wait a while before answering someone's question. Six other people have probably answered it already. Most answers should go directly to the person who posed the question, rather than to the list.

Unlike PacketCluster, many people pay $$$ when they receive messages. Some people pay per message, some per byte. Therefore, please take this into consideration when writing a response. Would you pay $0.50 to read the message that you just wrote?

Eschew flamage. If someone sends a flame to the list and you can't bite your tongue, send your flaming reply directly back to the flaming individual, not back to the list. No one wants to pay $1.00 to read these messages (the original flame + your reply). Treat flamers the way you would 2-meter repeater jammers - ignore them.

Make sure there is something of value in each message you send to the list. Avoid messages that are a complete reprint of someone else's message, with nothing but "I agree" or "Me too" added to the bottom - not much value there.

Some people pay by the byte, so when following up to someone else's message, be sure to include only the essential pieces or thread of the note. Don't include those 20 extra header lines that your mail gateway tacked onto the original message.

How can I get CQ-Contest in digest form?

Tack, JE1CKA (je1cka@nal.go.jp) has graciously offered to redistribute CQ-Contest messages in digest form. This means that all messages posted to CQ-Contest on a given day will be bundled together and resent as a single message to the subscribers of Tack's list. This is useful for people with Internet providers that place a limit on the number of messages you can have in your mailbox at once. This is the case for many of the JA subscribers.

To subscribe to JE1CKA's CQ-Contest-Digest list, send a message to Contest-Request@DUMPTY.NAL.GO.JP that says:

SUBSCRIBE cq-contest-digest your_callsign <your_email_address>

If you are subscribed to CQ-Contest, remember to send the a message to CQ-Contest-Request@ TGV.COM that says

SET NOMAIL

Since you will be getting the messages in digest form, you won't need to get them directly from CQ-Contest@TGV.COM, but you will need to remain subscribed if you still want to post messages.

How can I find out the email address of a particular contester?

Two ways: John Pescatore, WB2EKK pescatore_jt@ncsd.gte. com), and George Fremin, WB5VZL (geoiii@bga.com), maintain fairly current lists of contester email addresses. Send a note to them asking for their lists. You can also get a list of registered CQ-Contest subscribers by sending a message to CQ-Contest-Request@TGV.COM that says REVIEW.

Submitting Logs Via The Internet

By Jeff Clarke KU8E

I had heard somewhere that you could submit logs electronically to the ARRL for contests. I had never done it before and was not sure if it was a safe way to send logs after hearing stories on the contest reflector about logs being lost. After CW SS, I decided to take the plunge and give it a try. The online service I subscribe to, AOL, has an ARRL forum which contained the procedure to follow. The process to e-mail logs turned out to be pretty easy and I also sent an e-mail to KR1R just to make sure he got everything OK. A few days later I received the conformation that my logs were received.

I now regularly e-mail my logs and I have not have had any problems as of yet. If you follow the guidelines that are given it is pretty painless. What follows are guidelines and e-mail addresses for some of the major contests during the year.

ARRL Sponsored Contests: When submitting contest entries electronically via internet, you should include an ASCII format summary sheet and log. Hard copies, dupe sheets, or other breakdown files are not needed. With the most popular logging programs the summary sheet is usually named *****.sum. You should name the log file <your call.log>. You can merge these two files into one file if you wish using your favorite word processing program. E-mail this file as a text message to contest@arrl.org . I also e-mail Billy Lunt (KR1R) just to check if he receive my file OK. His e-mail address is blunt@arrl.org .

NA Sprints: For best results the log should be in an ASCII format. Send a merged file that contains the summary sheet and log. CW logs are to be sent to N6TR at tree@cmicro.com. SSB logs are to be sent to K7GM at aoniswan@ecuvm.cis.ecu.edu

NAQP Contests: Use the same format as the NA sprints and send it to W9NQ at: selbredb%csc.edw@hhs.elan.af.mil .

CQ WPX Contest: This is the only CQ contest at this time that will accept logs electronically. You should send an ASCII file that contains the summary sheet, prefix list and log to N8BJQ at sdb@ag9v.ampr.org . Steve will also accept logs in a binary format. E-mail him for instructions on the procedure to use.

As you can see the format used by all the major contest sponsors are pretty much the same. I have found by sending an ASCII log/summary sheet with your e-mail address included on the summary sheet is a good idea just in case they need to reach you about any problems. After you send your log follow up with an e-mail to the person accepting logs to make sure they got it. Good Luck !

Results: The MRRC 160M Challenge

By Dave Pruett, K8CC, and Ted Rachwal, K8AQM

For the past few years, an idea circulated throughout MRRC that, in order to win the Club Competition in an 160M contest, we would have to join forces with another club. This idea was somewhat unsatisfactory to many of the members, who felt that our W8 location and MRRC history of 160M success we could do it alone. Last year at the Findlay Hamfest MRRC meeting, **Ted Rachwal, K8AQM** concocted the idea of an intra-club Michigan vs. Ohio challenge for the ARRL 160M contest to stimulate interest and activity. Everyone present thought it was a great idea, so the gaunlet was thrown and the challenge was ON!

MICHIGAN

K8CC(op. AA8AV)	1399- 98	284,788
K8MJZ	608- 72	87,552
K8CV	282- 56	31,752
W8UA	180- 45	16,470
KG8CO	205- 44	18,172
K8DD	134- 45	12,330
AA8U (+KC8EK, KF8DF, KF8QE, WX3M)	1320-101	283,305
K8AQM (+AA8HZ, NU8Z)	1003- 82	166,706

Michigan Total: **901,075**

OHIO

K9ALP	884- 75	133,500
W8FN	557- 86	100,964
K8MR	505- 76	78,128
AC8E	125- 41	10,250
KA8D	100- 33	6,600
KN8Z (+N8JEC, NZ8O, WA8YVR, WU8A, WX8T, WM9M)	1456-108	338,796
WD9INF (+N8AAT, N8ABL, W8IQ)	1170- 96	235,008
KC8MK (+NZ4K, K8ES, KV8Q, WR8C)	1071- 96	216,576
WA8OSE (+NET)	301- 64	39,488

Ohio Total: **1,159,310**

Big scores were compiled from both states. **AA8AV, operating K8CC** set a new Great Lakes Division record in the single-operator high power category, while **K9ALP** set the new mark for low power and the crew at **KN8Z** set the new division record for multioperator entries. It's interesting to note that MRRC stations **K8CC** and **KN8Z** had *the highest QSO totals of any station in their categories.* It shows that W8 is a great place to do this contest.

After much discussion between **K8AQM** and **K8CC**, we have decided that we will commemorate this occasion with a special patch to be awarded to all of the Ohio operators who submitted scores (including guest and multioperators). Ted is working right now to have the patches made, so unfortunately these will not be ready for Dayton.

The Michigan Mad River contingent congratulates our Ohio brethren for their victory. Cherish these patches highly, and may these bolster your spirits when you fail to repeat this accomplishment in 1995...

AHA! The gauntlet has again been thrown down. Will the mighty Buckeyes rise to the occasion, or will those sneaky Michiganians prove victorious the second time around? Tune in (and make some QSOs!) in December and see...

High IRQ Serial Port Cards

By Dave Dawes, N3RD
(From the Frankford Radio Club Newsletter)

There has been much written in the past about how to handle "IRQ squeeze" as it related to serial ports needed for CT. The industry keeps coming out with new hardware products, however, which makes anything written over a few months ago ancient history. In this article, I'd like to describe briefly two add-in cards which may be of interest, one from SIIG and the other from Sealevel Systems.

The **SIIG I/O Expander 4S** is a card which comes with two serial ports installed with the ability to add two more for a total of four. The benefits of this card are:

1. High IRQ capability. Any serial port can be configured on any of the following interrupts: 3, 4, 5, 7, 9, 10, 11, 12 or 15.

2. Any serial port can be configured as COM1, 2, 3 or 4. Both IRQ and COM configuration jumpers are plainly marked, and a snap to set up.

3. 16550 high speed UARTs are used for you high speed external modem types.

4. High availability. I bought one at The Micro Center, and I know they are available at Computer City.

5. Windows compatibility with high IRQs.

6. Reasonable price tag at $49.95.

Sealevel Systems (P. O. Box 830, 102 West Main Steet, Liberty, SC 29657, telephone (803) 843-4343) markets a two port, high speed, high IRQ board. The benefits of this board is that it can be configured for COM5, 6, 7, and 8, which the SIIG unit can not do. Why is this an advantage? For CT work in a multi-computer station, you need four COM ports (network IN, network OUT, radio, and mouse).

I plan to acquire a Sealevel #3088 and set it up as COM5 and COM6, which I'll use for the two network connections. (CT9 comes with COMTSR5.EXE through COMTSR8.EXE for just this purpose.) The radio and mouse will use COM1 and/or COM2, and my internal fax modem will reside on COM3. No more will I have to do surgery on my computer before and after every contest! The downside of this board is the relatively high cost of $89.00.

For external modem setups, the SIIG board seems ideal. Another $39.95 gets you the upgrade kit with the third and fourth ports.

Editor's Note from K8CC:

In mid-April, I was at an electronics industry trade show in Atlanta and encountered Sealevel Systems offering their wares. I explained who I was, and how I had heard of their COM cards. I was surprised when they recognized amateur radio, and acknowledged how amateur needs and the requirements of some of our logging packages had driven the development of these cards. The stuff looks first rate, and judging by the attitude displayed by the Sealevel folks, I would not hesitate to buy one of these cards to solve your COM port needs.

DON'T FORGET!

We need YOUR contributions for the next MRRC Flash - start working NOW on an article!

Deadline for publication: **JUNE 1, 1995**

Treasurer's Report

By Tim O'Sullivan, KE8OC

The big expense this month was finally squaring up with K8CC for his out-of-pocket expenses printing the *FLASH*, the 1994 Dayton suite, plus the deposit for 1995. We head into this year's Hamvention with a positive balance sheet, and only the April newsletter as an outstanding expense.

Balance reported 12/94	$788.32
Income	
Dues collected	$12.00
Expenses	
Check to K8CC for Flash, Dayton 1994, & deposit for 1995	$550.00
Checking Account Maintenence (Jan-Apr)	$12.00
Balance 4/95	$238.32

Remember, dues ($12) are due at the Dayton meeting. Folks who pay dues on time will be sure to make the MRRC roster that will be printed this summer in the *FLASH*.

Respectfully Submitted, **Tim O'Sullivan, KE8OC**

MRRC Activities at Dayton

Friday, April 28

1:00 PM - Antenna Forum

8:00 PM - 2:00 AM
MRRC Hospitality Suite, Room 425 at
Stouffer's Dayton Plaza Hotel
Fifth & Jefferson Streets, downtown

Saturday, April 29

9:00 AM - DX Forum

12:00 Noon - MRRC Meeting
Hara Arena Stands above Cushcraft

1:00 PM - Contest Forum

6:30 PM - Contest Dinner
Stouffer's Van Cleve Ballroom

8:00 PM - 2:00 AM
MRRC Hospitality Suite
Stouffer's Dayton Plaza Hotel

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ALWAYS USE ZIP CODE

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