



FLASH



MAD RIVER RADIO CLUB

VOLUME XI NO. 4

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EDITORS: KEN-WD9INF and TED-K8AQM

IT'S CONTEST SEASON AGAIN!! Ideally, all antenna projects have been completed and all equipment is in perfect shape! In reality, many of us are scrambling to get our projects done in time for that first "cq" in World-wide. I'm always amazed at the number of antenna projects that are completed only minutes before the contest starts. Maybe that's the nature of the contester: to excell under pressure! Anyway, like many of you, I'm trying to get all of my antennas in working order again while making plans for the upcoming contests. I know each of us has personal goals when it comes to the various contests and, while hoping all those goals are met, I hope that as a club, we can set some goals also. I hope to see higher Mad River Club scores through greater participation of our members! My personal goal this year is to participate in more contests, even if only casually, and to make sure the logs get sent in. By the way, you need also to send your scores to K8MR, especially for WorldWide, so they can be properly submitted. Last, let us know what and how you did so it can be published in the FLASH. ...de WD9INF

GOOSE INFORMS US that the meeting at his place on Sunday, October 15, begins early to mid afternoon and will be capped off by watching the Brown/Steelers game at 4PM. Goose lives on North Honeytown Road in Wooster, Ohio. Directions and a map are included elsewhere in the FLASH.

CONGRATS to ARRL DX Contest division winners Greg-NA8V, Scott-WB3KKX, and Tim-K3LR. Also, some good multi showings from Randy-W8FN and Jeff-KU8E, the K8AQM crew and the K8CC ops. SPECIAL CONGRATULATIONS to the first place, Multi-two, CW world: 6Y5L. Nice picture of Goose and Doug in QST p77!

THE MAD RIVER RADIO CLUB

PRESIDENT: Jim Stahl - K8MR
30499 Jackson Rd.
Chagrin Falls, OH 44022

TREASURER: Goose Steingass - WD8LLD
1690 N. Honeytown Road
Wooster, Ohio 44691

***** MONDAY NIGHT NET - 3.825 MHz at 0030Z (8:30 local) *****

The time of year is upon us contesters for major immersion in our pastime. CQ Worldwide and ARRL Sweepstakes are at hand, and now is the time to test our claims and dreams of the radio world. For the CQ DX contests in particular, this is the year to realize the waiting for the return of the solar peak conditions. Last year's conditions, good on CW and exceptional on phone, were with flux numbers only in the 140's on CW and 160's on phone; this year could have numbers a hundred points higher. Last year's phone contest had unusually low absorption; no guarantees of like conditions this year, although CQWW Phone always seems to hit a peak of good conditions. BE THERE - IT SHOULD BE A TIME TO REMEMBER!

This year we add a fall club meeting on October 15 at WD8LLD's QTH. Aimed at the northeast Ohio contingent, it coincides with the Browns-Steelers game (4:00 PM), and should give a chance to even get in some antenna work before coming. For the Michigan folks, keep in mind all the Michigan basketball teams we had to watch last spring, and feel free to come too. Look for directions to the Goose QTH elsewhere in the FLASH.

We extend a hearty thank-you to Bill and Tina Kelsey for another super MRRC picnic on September 9. Although attendance was smaller than in previous years, those who came had a great time and appreciated the Kelsey hospitality.

October CQ brings the club results from the 1988 Worldwide. MAD RIVER placed a respectable, though not overwhelming, seventh with a 43 million point club score. The big east coast clubs, Frankfort, Yankee Clipper, and PVRC, dominated the list, but fourth place was a reachable 12 meg away. A couple of good efforts from some of our better stations could have moved us up to fourth. There's always room for improvement for '89!

A FEW SUGGESTIONS FOR THIS YEAR:

If you aren't going all out in a specific class, consider the new single op assisted category. This is all bands, and with the PacketClusters in most areas, you'll have the opportunity to work an incredible amount of good DX. For maximum score keep in mind that you'll need a lot of QSO's from running Europe - a typical QSO/multiplier ratio in CQ WW is only about 3 or 4 to 1, which is to say one good minute with 4 DL's is as valuable as working a ZA.

Note that CQ's rules don't have the specified 2 meeting requirement that ARRL does. Although we don't want to make instant members or otherwise abuse the spirit of the rules, please participate and submit yourlogs even if you've not made the meetings this year. Then, make a point to make your presence at future meetings!

CQ does require that individual scores be submitted by the club secretary. PLEASE!!! Send your scores, after the contest, to K8MR for proper reporting.



SEPTEMBER SPRINT REPORT

One of the misfortunes of the calendar is that the September CW NA Sprint always falls on the weekend of the Findlay Hamfest and the Mad River picnic at N8ET's house. But, not to be denied the chance to have one's cake and contest too, Mad River Picnic Club was born.

After Bill and Tina's traditional feast of burgers, beans, potato salad, fruit salad, ice cream, beer, etc., we began to receive a cooling breeze from the west. Actually, cooling, darkening, and with flashing lights to boot! Rather than investigate the effects of lightning on tall towers in flat, midwestern terrain, we watched the start of the contest go past while watching the rain come down from the vantage point of Bill's kitchen.

About 45 minutes into the contest period, we decided that the lightning had at least stopped, so the contest could start. Bill got the rig tuned up on 20, K8CC connected the computer which would run his NA logging program (including my first sight of a DB-25 to 1/4 inch phone plug interface cable), and Dave took off on 20. It took Dave about 15 minutes to qualify for the award for the most sprint contacts using a 15 meter beam pointed toward Europe (8 in all!). Bill then found the right antenna and the rate went up accordingly.

Meanwhile, K8MR brought in his TS-830 and SB-200 for a 40 meter station and, in time, got it going to work the 6 people on the band at that early hour. The operating honors passed to W8FN and WD8IXE, and even to the reluctant host, N8ET himself. About 10:30 the doorbell rang and K8DD and AC8W arrived, only slightly wet, from Port Huron. Hank and Stan got their shots on 40 before retiring for the beer and ice cream downstairs. The various operators resisted the desire to take a sledge hammer to Bill's TR-7, and managed to keep the rates up until the finish at 0400Z.

The team came up just two qso's short of breaking 1K (9972 pts) compared to the 120K or so the winning team likely had. Our six man-hours of operation grossed 362 qso's in 45 different states/provinces, equivalent to a 16K score. We all had a good time in this rather unique team entry! . . . de K8MR

ODDS and ENDS

Growing Tower Department: A new hundred footer has appeared at W8FN and K8AQM's new 120 footer is temporarily stalled at the 100 foot level until the tree-trimmers come in and remove some trees. WB8VPA has obtained FAA clearance for an eighty footer at his QTH (there's a small private runway close by), and WA8BIN is rehabing a 60 foot crank-up for likely springtime erection.

Growing Family Department: Tom and Barb Lee welcomed the arrival of their first, Katherine Carmen, on September 18. All are doing FB, and best wishes to all.

Note that on October 14-15 is the Pennsylvania QSO Party. This is a contest that our east of Ohio gang gets serious about. K8AQM ran multi-multi last year and produced the number 1 out of state high score. I found that 400 qso's were not all that difficult to make and K8MR rattled off 250 or so a couple of years ago. There's a lot of activity on 40 SSB on Saturday. The contest runs from noon to 1am Saturday, and 9am to 7pm Sunday. Check it out!

Included is a multiplier check sheet designed a few years back by KJ8L. Looks good!n

ASIA		NORTH AMERICA		EUROPE		USSR	
22	AS S2 VU 4S 8Q 9N	1	KL7 VE8,VY1	14	CT CT2,CU C3 DA-DL EA EA6 EI F G GD G1 GJ GM GU GM4(SHETLAND) GM HB HB0 LA-LN LX ON OY OZ PA SM Y2-V9 ZB 3A 4U1ITU 4U1VIC	16	UK1,3,4,6 (UA,UV,UW1-6) UN1 UR(UK5,UT5,UY5) UC(UA2A,C,1,L,0,S,W) UD(UK50)
23	BY JT UA,K,M,V(9,0)	2	VE,VO	15	FC,TK HA,HG HV I IS IT9 OE OH OH(XAL) OH(MR) OK SP YI,YII,YZ,4N ZA 9A,M1 9H UA2(UK2F) UR(UK2B,P) UQ(UK2G,Q) UR(UK2R,T)	17	UA,K,M,V(9,0) UH(UKSH) UI(UK8) UJ(UK8J,R) UL(UK7) UM(UK8M,N)
24	BV BV CR9(XX) VS6	3	VE M	18	UA,K,M,V(9,0)	18	UA,K,M,V(9,0)
25	HL,HM JA-JS	4	VE M	19	UA,K,M,V(9,0)	19	UA,K,M,V(9,0)
26	HS XU XV XM XZ	5	FP VE VE1(SABLE) M VE1(ST PAUL) VP9 4U1UN	20	JY LZ UD SV SV9(CRETE) SVS(DODECANESE) SV(MT ATHOS) TA YK YO ZC4 4X,4Z 5B4	20	JY LZ UD SV SV9(CRETE) SVS(DODECANESE) SV(MT ATHOS) TA YK YO ZC4 4X,4Z 5B4
27	DU JD1 KC6(EAST) KC6(WEST) KH2 KH0(KG6R,S,T)	6	XE XF4	21	AP A4 A6 A7 A9 EP HZ J2 UD(UK6C,D,K) UF(UK6F,0,0,V) UG(UK6G) VA Y1 9K	21	AP A4 A6 A7 A9 EP HZ J2 UD(UK6C,D,K) UF(UK6F,0,0,V) UG(UK6G) VA Y1 9K
28	H4 P2 VSS YB 9M2 9M6,8 9V	7	FO HP HR TG TI T19 V3 VN YS HK0(SAN ANDREAS)	22	INSTRUCTIONS: Cross of each zone and country as worked. When counting countries be careful as several are in more than one zone. They are UK(29-30), VE(1-5), W(3-5), UA9-0(17-19,23), BY(23-24), & KC4(12,13,21,30,32,38,39) Not all countries are listed. Add as required at the appropriate zone.	22	INSTRUCTIONS: Cross of each zone and country as worked. When counting countries be careful as several are in more than one zone. They are UK(29-30), VE(1-5), W(3-5), UA9-0(17-19,23), BY(23-24), & KC4(12,13,21,30,32,38,39) Not all countries are listed. Add as required at the appropriate zone.
OCEANIA		8	CO CGA FG FM FS HH HI J3 J6 J7 J8 KG4 KP2 KP4 PJ5-8 VP2E VP2M VP2V VP5 V2A V4 ZF 6Y 8P	23	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	23	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
29	VK6,8 VK9(XMAS) VK9Y(COCOS)	9	FX HK,HJ HKO PJ2-4,9 PZ YV,4M BR 9Y P4Ø	24	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	24	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
30	VK VK(LHI) VK9(MELLISH) VK9(WILLIS)	10	CP HC,HD HCB OA	25	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	25	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
31	C2 KH1 KH3 KH4 KH5 KH6 KH7 KH9 KX6 T2 T30 T31 T32 ZM7	11	PP-PY ZP	26	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	26	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
32	A3 FK FO FM KH8 VK9N VR6 VJ ZK1(NOR) ZK1(SOU) ZK2 ZL ZL/A ZL/C ZL/K 302 SM	12	CE,3G CE0A CE0Z	27	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	27	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
SOUTH AMERICA		13	CX LU VP8(SG) VP8(SSH) VP8(SSA) VP8(FALK) VP8(SCO)	28	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	28	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
AFRICA		33	CN CT3 EA8 EA9 3V 7X	29	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	29	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
34	ST STO SU SA	34	ST STO SU SA	30	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	30	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
35	C5 D4 EL J5 TU TY TZ XT 3X 5N 5T 5U 5V 6W 9G 9L	35	C5 D4 EL J5 TU TY TZ XT 3X 5N 5T 5U 5V 6W 9G 9L	31	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	31	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
36	D2 S9 TJ TL TN TR TT ZD7 ZD8 3C 9J 90 9U 9X	36	D2 S9 TJ TL TN TR TT ZD7 ZD8 3C 9J 90 9U 9X	32	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	32	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
37	C9 ET J2 5H 5X 5Z 60 70	37	C9 ET J2 5H 5X 5Z 60 70	33	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	33	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
38	A2 Z2 ZD9 Z5 Z53 306 7P	38	A2 Z2 ZD9 Z5 Z53 306 7P	34	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	34	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R
39	D6 FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	39	D6 FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	35	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R	35	FR FH FR/G FR/R FR/T 57 JBU, 7 JBS 389 5R

TWO METER ANTENNAS

by Bill Goodman - K3ANS

Like many of you, my two meter antenna requirements have changed drastically over the last few years. It used to be that one FM radio and a RINGO mounted on the chimney was all that was needed. Not anymore! I am up to two radios and three antennas and I feel some more changes are required.

It looks like the days of the single omni-directional antenna for the home station is a thing of the past. Even with an antenna at heights of 35 to 40 feet, several repeaters can be keyed-up on almost every major FM repeater frequency. I have used a 5 element N.B.S. style Yagi pointed at the repeater for years to cut down on the interference from the NYC area. The PACKET situation is getting just as bad with its phenomenal growth in the last year or two. Clearly directional antennas are needed now more than ever.

To that end, I have been looking at various Yagi designs using the K4VX Yagi computer program. I was looking for a 4 or 5 element design that could be used on both PACKAGE and FM, which requires a wider gain and F/B range than most. I did find a good design by scaling the K8CC 5 element Yagi described in the May-June issue of the NCJ.

I have yet to build the antenna but I will get to it soon. Actually, I plan to build two of them and stack them in the horizontal plane about one wave length apart. Add a TV rotor and I should be all set for PACKET or FM.

I have provided data and dimensions for those who are interested in building the antenna. Note; the element lengths are for top-of-boom or insulated mounting. If you mount the elements thru-the-boom, lengthen each by $0.7 \times$ boom diameter. The normal VHF Yagi construction techniques should be used. For those not into building, CUSHCRAFT makes a wide-band, 4 element Yagi as part of their line of "BOOMER" antennas. It is Model 124WB and should be a reasonably versatile antenna.

 YAGINEC CALCULATION OF 5 ELEMENT YAGI USING 8 SEGMENTS/ELEMENT
 K8CC 5 ELEMENT YAGI , SCALED TO 2 METERS
 07-26-1989
 10:09

ELEMENT:	LENGTH (ft.)	SPACING FROM REF. (ft.)	ELEMENT DIA. (in.)
Reflector:	3.333	0	0.3125
Driven Ele.:	3.177	1.427	0.3125
Director #: 1	3.083	2.334	0.3125
Director #: 2	3.063	3.894	0.3125
Director #: 3	2.917	5.455	0.3125

 Normalized Radiation Resistance at 147.000 MHz is 34.84 Ohms

FREQ (MHz)	GAIN (dBi)	F/B (dB)	IMPEDANCE (ohms)	VSWR
145.000	10.62	24.88	32.99-j16.86	1.26
146.000	10.70	25.17	32.72-j12.49	1.11
147.000	10.73	23.30	32.08-j9.41	1.00
148.000	10.66	22.31	28.94-j7.96	1.12

 RUN TIME = 2 MIN

