

HIGHLIGHTS

The weekend of Jan. 7-8, 1967 will go down as one of the best in v.h.f. contest history.

W3MFY, Trevose, Pennsylvania using 50-432 Mc. made 647 contacts in 27 sections for 47,804 points — the highest score for one operator. Pres broke the all-time record for high-scoring single operators previously held by W3KKN who, in 1963 ran up a 31,968-666-14-ABC total. However, W3KKN still holds the all-time record for most contacts turned in by a single operator station — 666! Not far behind W3MFY was K3IPM/3 operating portable on Bowman's Hill 35 miles Northeast of Philadelphia. Stan used 50, 144 and 220 Mc. to make 605 contacts in 25 ARRL sections for 42,350 points.

Top multi-op. score was submitted by K8MMM, manned by K8MMM and WA8OXC. These fellows ran up 517 QSOs in 35 sections to just barely slip by their neighbors at K8UQA; 46,530 to 44,896. However, K8UQA's section multiplier was 36 and it becomes the all-time record in the sections worked category, formerly held by WIHQD who had 32 sections — single-op. in 1958.

W8QOH, Ohio award winner and Great Lakes Division leader set a record which may stand for quite a while; 25 sections worked on 144 Mc. W2ORI formerly held the spot for most sections worked on 144 Mc. only, with 18 sections made in 1959.

59 stations reported activity on 220 Mc., an increase of 5 over last year. It should be noted that W3OZP operated 220 Mc. only and made 30 QSOs. 45 stations listed activity on the 420 Mc. band. Quite an increase over the 18 reported to be active last year! K2ACQ of Lockport, New York is still operating 432 Mc. only and has kept the band alive during most ARRL v.h.f. contests in recent years. W4LTU in Virginia operated 144 Mc. c.w. only and racked up 49 QSOs in 20 sections. Note to aspiring multiops: high multiop. score was made by WA2FGK in 1965 with a 53,816-868-21-ABC total. . . . One of the few records to survive after this year's aurora.

Possibly the best indication of the relative success of a v.h.f. contest would be a comparison of the *total* points scored by *all* participants. Last year, 1104 entrants made 2,807,947 points. This year, 1123 contestants polled 3,437,484. Anyone out there want to add up the remaining 8 of the last 10 years so we could make a graph? — hi.

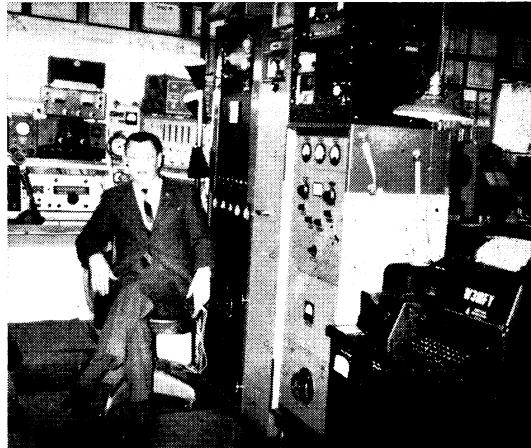
Awards are scheduled for mid-June mailing.

Soapbox

"We at ARRL headquarters now believe that there is sufficient evidence to state categorically that an auroral disturbance may have taken place on Saturday, January 8, 1967. . . ."

"I wish that I had been able to go on the aurora Saturday night. It was the best I had heard it. Sunday morning,

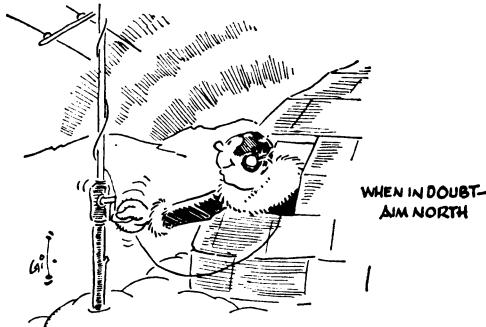
The "shack" at W3MFY, 50 Mc.: 4-400A final running a kw. to 11 elements at 65 feet; 144 Mc.: 4X250 Brunning 350 watts into a 15-element yagi at 85 feet; 220 Mc.: 63360 running 40 watts (blower used) to an 8/8 J-slot; 432 Mc.: 5894 running 125 watts to an 8/8 J-slot. For receiving, converters feed a 75A-4, SS1-R, SP-600 and Interceptor.



NOVICE CERTIFICATE WINNERS

WN1GAQ	WN3GHL
WN1GFG	WN8UOS
WN3FCN	WN8VHG
WN3FLN	WN9RNQ

I installed a key jack, but . . . see you in the June contest." — *WA1DPU* (*op. at K1JMQ*). "The aurora made it an exciting contest, but activity still seemed to be down." — *W1EUJ*. "The aurora was terrific and we worked as



far south as Virginia. . . ." — *WA1FUS/1*. "In spite of a snow storm we operated portable at Deering, New Hampshire Saturday afternoon. When I got home, I heard an extensive aurora opening lasting until approximately 11 P.M." — *WA1FSZ/1*. "That aurora gave a little bit of spice to it but only worked one." — *WA1GGB*. "Good opening on 6 Saturday night, but too much QRM. No luck here." — *W1IAU*. "Aurora boosted scores for s.s.b. and c.w. operators, but very few a.m. stations were readable. Side-banders didn't need to switch receivers to a.m. during the aurora. Heard 2, 3, 4, 8, 9 and Ø call areas, but was unable to work them without sideband or c.w. 144 Mc. was unproductive this time. Local activity was high for a January contest." — *K1TPK*. "Lots of fun! Band very shifty. Fifteen QSOs or so on aurora c.w., 144 Mc." — *K2DNR*. "Aurora conditions noted all of Saturday night. The Illinois, Ohio, Michigan, W. Pa., W.N.Y., E. Mass. and W. Mass. sections were worked on s.s.b. (finished the 400-watt rig Friday night before the contest). Bands

did not open for decent groundwave at any time to my knowledge. C.w. was good on 6 and 2. In general, a very good contest with the aurora conditions." — *W2EIF*. "All 72 contacts were made using s.s.b. The aurora Saturday night and Sunday morning was excellent and very easy to work with sideband. Enjoyed getting my feet wet in the contest again." — *WA2EYIY*. "The aurora was one of the most spectacular we've heard on the v.h.f. bands. Phone contacts were easily made, thank goodness, since we were without our c.w. capability on 6 meters (of all times). The activity really passed the night away quickly. This was one of the most rewarding contests our club has participated in. We all give 3 cheers to *W2OW* (our rival club) who beat us again for the umty-umpty time. *W2OW* — wait till next contest!" — *K2ERQ, IBM Radio Club*. "We all enjoyed the contest and feel that we are picking up skill in this, our third co-operative team effort. We are still puzzled about our poor performance during the extended aurora. Operating from one of the best v.h.f. locations in N.N.J. we have always enjoyed excellent groundwave contacts. Because of this, we ultimately made up for many of the sections we heard but did not work during the aurora. Still, it would have been nice to have added VE1, VE2, Ill., Ind., Maine and Wisconsin sections we heard and repeatedly called. Wait till next time!" — *W2GKR/2*. "If every noisy car that passed was a contact, I wouldn't have missed a QSO with the whole Hudson Division. Never heard so much noise and couldn't copy aurora sigs because of it. Next year I'm heading for the hills." — *WB2KLD*. "Fine aurora heard from New England and Midwest, but need s.s.b. or chirpless v.f.o. to work it." — *WB2LZW*. "Missed most of the Saturday night aurora as I had to work. Lost another steak dinner to *K2DUR* — people keep telling me that I should bet with someone else!" — *WA2SOO*. "Checked 220 Mc. and

432 Mc. for aurora sigs, but none were heard." — *K2LME* (*op. at WA2WEBB*). "Lost a '9' on aurora on 2 meter c.w. Stations were not consistent in using GMT and they confused their dates." — *WA2WIL*. "That aurora did wonders for the contest score; now know that I need a v.f.o." — *K2RTH/3*. "Aurora first heard 0020 GMT Jan. 8, first worked 0109 GMT, last station worked via aurora at 0742 GMT, last heard 0750 GMT Jan. 8." — *K3LNU*. "Tried to work the aurora with 600 watts to my 3-element beam on 50 Mc. but when we were hearing aurora stations, the entire central east coast was coming in just as strong. Solution: do not attempt to work a contest under crowded band conditions with a 3-element beam on top of a 1900 foot mountain. The power and height help but so does a more directional beam." — *K3ARR*. "It's always surprising how the band can open for a contest. This was the best aurora since the 50s. Had only 70 watts p.e.p. s.s.b. but have no complaints — it was a swell contest." — *WSBWU* (*op. of WA3BAK*). "On 6 meters, most sections were worked by aurora although groundwave was passable and some scatter was worked to Okla., Fla., Kansas and almost Nebraska, darn it!" — *W3ZGI* (*op. at W3KWH*). "Too many fellows are refusing to tune off their transmitting frequency. The v.h.f. bands are too wide for this type of nonsense. During the aurora this was particularly bad." — *W3LUL*. "Only heard scattered signals from the 8th and 9th call areas. Several 9s called me late Saturday night but couldn't pull them through." — *K4WHW*. "Activity on both 6 and 2 was the worst ever experienced here in Virginia. I heard many call areas Saturday night during the aurora but my 25 watts failed to break into the melee." — *K4FJW*. "Missed the aurora Saturday night by going to bed early. However, I did make contacts via 'E' backscatter. Six meters was open

CLUB SCORES

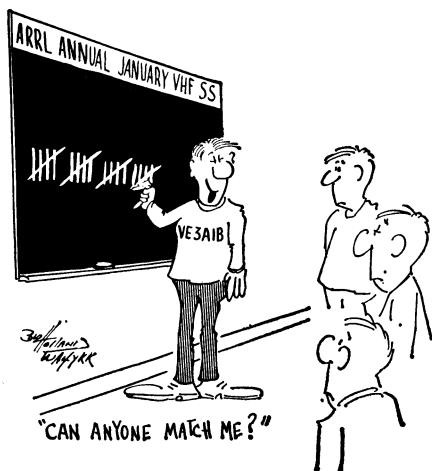
Club	Aggregate	Valid Entries	Certificate Winner	Club	Aggregate	Valid Entries	Certificate Winner
Mt. Airy V.H.F. Club (Pa.)	771,320	96	W3MFY	Hartford County Amateur Radio Assn. (Conn.)	16,222	3	W1HDQ
South Jersey Radio Assn.	270,242	54	WA2EMB	Communications Club of New Rochelle (N. Y.)	16,150	3	.....
Rochester V.H.F. Group	245,218	105	K2YCO	Penn Wireless Assn. (Pa.)	15,275	8	K3HNP
Cleveland 50 Mc. DX Club (Ohio)	103,428	3	.....	Lawndale Chicago Boys' Club Amateur Radio Assn. (Ill.)	14,474	16	K9YHB ²
Midwest V.H.F.-U.H.F. Amateur Radio Assn. (Ill.)	90,998	37	WA9OUU	San Diego V.H.F. Club	12,859	14	W6NLQ
Albany Amateur Radio Assn. (N. Y.)	77,675	49	WA2DTE	Connecticut Wireless Assn.	12,586	3	K1HTV
Greater Pittsburgh V.H.F. Society	63,474	31	K3ZVB	Ottawa Amateur Radio Club	12,200	9	VE3CUA
Mobile Sixers Radio Club (Pa.)	59,665	18	W3IZU	Scarborough Amateur Radio Club	11,900	11	3C3EZC
Hampden County Radio Assn. (Mass.)	58,841	33	K1ANF	Central Michigan Amateur Radio Club	11,778	8	W8CKK
Dayton Amateur Radio Assn.	56,393	30	WA8AKK ¹	Willimantic Radio Club (Conn.)	11,699	3	W1RJA
6 Meter Club of Chicago	51,495	20	WA9FIH	Fulton Amateur Radio Club (N. Y.)	7418	6	K2DUR
Reading Radio Club (Pa.)	51,122	34	W3BN	Huntsville Amateur Radio Club (Ala.)	7009	11	WA4DBQ
1200 Radio Club (Mass.)	49,186	21	W1QIB	Mid-Island Radio Club (N. Y.)	5365	4	W2SEU
East Coast V.H.F. Society (N. J.)	42,212	12	WB2KPD	6 Meter Club of Dallas	5263	9	K5IVB
Germantown Radio Club (Pa.)	35,340	7	WA3BKP	North Penn Amateur Radio Club (Pa.)	5122	3	W3ZGG
Rock Creek Amateur Radio Assn. (Md.)	33,176	21	W3LUL	Irving Amateur Radio Club (Tex.)	4066	3	.....
V.H.F. Hillbillies Amateur Radio Club (Pa.)	30,142	4	K3LNU	University of Maryland Amateur Radio Assn.	3948	4	WA3EOP/3
Central New Jersey V.H.F. Society	27,892	10	WA2WIL	Syracuse V.H.F. Club	3866	5	W2JVD
6 & 2 Ham Club (Ill.)	25,486	10	W9EET	Argonne Amateur Radio Club (Ill.)	3804	3	K9HPW
Delaware 6 Meter Net	23,408	6	K3UHU	Springfield Amateur Radio Club (Ohio)	3802	4	WA8IKN
Dutchess County V.H.F. Society (N. Y.)	22,588	6	K2DNR	Greater New Orleans Amateur Radio Club	3264	3	WA5DXA
Gloucester County Amateur Radio Club	21,424	8	WB2RVE	Lake Success Radio Club (N. Y.)	1674	3	W2TUK
Bergen Amateur Radio Assn. (N. J.)	20,202	11	WA2ZWB	San Fernando Valley Radio Club	1537	6	WB6GFD
Skokie Six Meter Indians (Ill.)	18,455	11	WA9ERB	Fidelity Amateur Radio Club (R. I.)	1368	3	WA1BJS
Hamfesters Radio Club (Ill.)	18,416	5	WA9MSZ	West Jersey Radio Amateurs (N. J.)	1114	3	K2QIJ
Southern California V.H.F. Radio Club	17,940	10	WA6WKF	W8UU, opr.	.....	.....	.....
Rancocas Valley Amateur Radio Assn. (N. J.)	17,312	4	WB2LWZ	WA9EJD, opr.	.....	.....	.....



Top score in the contest was amassed at K8MMM, a familiar call to most 50-Mc. enthusiasts. This station was operated as a joint effort by Neil, WA8OXC and Tom, K8MMM. Their total was an almost unbelievable 46,530-517-35-AB. The six-meter transmitter (left), ran 1 kw. input to an Amperex 6076 in AB₁ linear for s.s.b. and also class C for a.m. work. The two meter station at K8MMM ran 125 watts with a 75A-3 and crystal converter for receiving. Antennas in the right photo show the pair of 5-element beams up 125 feet, used on 50 Mc., and the 15-element yagi up 35 feet used on 144 Mc. Tom's station certainly made an impression with ON5DS from Belgium, who visited Tom last summer. A complete description of this outstanding v.h.f. station appears in a recent issue of CQ/QSO, a Belgian amateur radio magazine. This interest in the 50-Mc. band on the part of Belgian amateurs is significant mainly because the Belgians do not, at present have any 50-Mc. privileges! If someday, you hear an ON5 on six meters, you can thank Tom, K8MMM (left) and Neil, WA8OXC (right).

to old Mexico so I turned the beam toward the 'hot' spot and worked 3 North Texas stations. I also worked W. Pa. on Iono-scatter." — *W5WAX*. "My first v.h.f. contest and I worked 3 new states. That aurora Saturday night sure helped the section multipliers." — *WA8ASV*. "I really had a ball! The aurora opening was sure something. Many stations were good copy on a.m. I worked and confirmed 3 new states. Thanks for putting on these contests!" — *WA8EOW*. "Was a great contest. The aurora really helped things out on 50 Mc. I was real glad to hear all the c.w. stations on 6." — *WA8FTA*. "The biggest aurora I ever heard comes along and I just sit back in awe to see how extensive it was. However, I did get 5 new states including Del., but not many QSOs." — *W8HQL*. "A good aurora opening hampered by an obstinate antenna rotor!" — *W8IBB*. "A good contest with the aurora opening providing the stimulus to keep more stations on the air. During the height of the opening, the first 100 kc. (of the phone portion) was all s.s.b." — *W8RPA*. "W8QOH gave me the 'ha, ha!' with his NR 91 when I had only 45. High winds damaged the antenna, so had to take it down, make repairs and put it back up after the contest started.

I got back on in time for the aurora but several of the stations worked were so excited, they OKed my message without sending theirs." — *W8WEN*. "Auroral opening here was terrific. Worked W3HC in Delaware for a new state on 144 Mc." — *W9BRN*. "Band conditions on both 6 and 2 excellent during aurora opening." — *WA9JFM*. "Heard my first aurora Saturday night with stations coming in from New England to the Plain states." — *WA9ONV*. "Best aurora in years. Heard VE4RE and a VE3 but could not work them. Also missed Arkansas again, but one of these days!" — *WØPFP*. "Nice aurora Jan. 8. Worked more Illinois stations than Minnesota stations." — *WØRLI, Minn.* "Very mediocre contest until the aurora opened the 2-meter band Saturday evening. This condition gradually tapered off around midnight." — *VE3EVW*. "Couldn't get U.S.A. stations to answer 3C call in aurora. Had to use VE to get answers on c.w." — *SC3EZC/VE3EZC* (Canadians holding VE licenses may substitute 3C in honor of the Canadian Centennial which began January 1, 1967 and ends December 31, 1967. VO stations may substitute 3B). "I operated from my home QTH for this contest with a new call sign (formerly VE2BZH) and a new rig on 2 meters,



"VE3AIB has been in all 20 ARRL VHF Sweepstakes contests"

DIVISION LEADERS

Single Operator	Multioperator
W3MFY	Atlantic
WA9OUU	Central
K0DTA	Dakota
WA4YKN	Delta
W8QOH	Great Lakes
WA2WZP	Hudson
W9ECV/Ø	Midwest
W1MEH	New England
WA7BTG	Northwestern
WA6GYD	Pacific
K4SUM	Roanoke
WØAJY	Rocky Mt.
K4WHW	Southeastern
WA6WKF	Southwestern
K5IVB	West Gulf
VE3CUA	Canadian

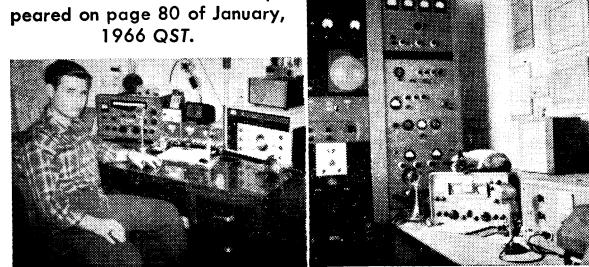
A very good aurora opening was experienced in the area which accounted for most of my multipliers." — VE2BU.

"Would you believe skateboard mobile with a Lafayette HA-650?" — K3QMK/3. "Best contest — heard more people!" — K8UVH. "220 Mc. activity in the Washington D. C. area is nil. Only one station was worked with 65 watts output to a 26-element array." — WA3EOP/3. "I further swear that I'm either going to get some high-powered s.s.b. gear or spend the next contest in the nearest convenient gin mill!" — K3LNZ. "No 'E' skip observed from this QTH. Groundwave was poor for most of the contest." — WA5LWV. "Love contests." — W8MOW. "It's the first time Albany High School's club station has entered a contest, but it won't be the last!" — WB2PUH (*op. at W2YPN/2*). "My first 6-meter experience — going to get better gear and give it a go. Very thrilling to hear W1HDQ consistently, c.w. and phone on 6 and 2." — W2GKZ. "My first contest. I never thought there could be QRN on 2 meters." — WB2YZE. "A very good contest. Six meters was just as active as 2 meters. Looking forward to another contest from the S.J.V." — WB6HIL. "Sure was a far cry from September, but I had to work this weekend. So, to be a sport, I ran 2 watts output and had a ball!" — WA4LTS. "The activity was fair. Not as good as I wanted but better than last January." — WA6GYD. "I had a wonderful time working the contest. I wish I had gotten on the air earlier." — WA8JFA. "Does everyone have generator trouble?" — W6LXS/5. "I may not win, but I tried real hard!" — WA3GYI. "Biggest thrill was working

KØPWR in Minnesota with my Clegg 66'er." — WA9OFF, Wisc. "This was my first contest and I hope the first of many more to come. Worked a new state in the SS." — WA8RUO. "A t.v.i. complaint kept us on 144 Mc. only Saturday night or else the score would have been much higher." — W2ATT/2. "This was our club's first contest and even though we may not have done so well, the members have learned a lot and gained experience." — WB2LZM (*op. at WA2THR*). ". . . do say thanks to my OM, WA8JYK, who climbed to the top of our 50 foot tower in snow with 35 mile an hour winds to hang a 3-element 2 meter beam under the 10-element 6 meter beam. We are looking forward to the QSO party in June." — WAØPOY (Ed note: we wonder if the OM is looking forward to June?). "Just let me say 'thanks' for the fine job — you can count on our continued support of the League." — WA1CLR. "All operation mobile on street about a block from my home (antennas down) using halo on car and 12 volt transistor transceiver (*QST*, Dec. 1964)." — W1OOP/1. "None of us slept a wink during the contest as the contacts rolled in." — WB2QJN/2. "I had a very enjoyable time in the contest." — WA1CWG. "We all enjoyed the contest and intend to participate in more." — WA1FUS/1. "Despite low activity and high noise levels, this was the best contest yet for me." — WB6PHO. "I do regret hearing and working only one other Novice here in R. I." — WN1GPG, "I called and called but heard only a few W6s and 7s. Sure wish the W7s would turn their beams during contests!" — VE7AXM.

In the tabulation on the next pages, scores are listed by ARRL divisions and sections. Unless otherwise noted, the top scorer in each section receives a certificate award. The highest-scoring Novice also receives a certificate in each section where at least three such licensees submitted valid contest logs. In sections with fewer than 3 Novice entries, a certificate will be awarded to the highest scoring Novice . . . displaying exceptional effort; asterisks denote these winners. A double asterisk denotes a headquarters staff member, ineligible for an award. Columns indicate final score, number of contacts, number of different sections worked, and the bands used. A represents 50 Mc., B 144 Mc., C 220 Mc., D 420 Mc. Multi-operator stations are shown at the end of each section tabulation.

ATLANTIC DIVISION	W3CJU	K3EPB	5550-185- 5-AB	K3ECF	3536-104- 7-A	K3ZLL	2240- 80- 4-AB	
	10,836-301- 8-ABCD	K3IJ	5434-143- 9-AB	W3BRU	3444-123- 4-A	W3IMW	2240- 70- 6-BC	
<i>Delaware</i>	W3HAB	K3ACR	5372-158- 7-A	K3BHK	3434-101- 7-B	W3WIJ	2210- 85- 3-AB	
K3UHU	10,836-301- 8-AB	W3FQG	5310-177- 5-AB	WN3GHL*		W3DPB		
K3VKS	10,412-274- 9-ABC	W3SMK	5256-147- 8-B	W3QAS	3420-114- 5-	WA3BXR	2160- 72- 5-A	
W3HC	10,080-252-10-A	K3HQX	5238-146- 8-AB				2040- 85- 2-A	
W3MCH	4646-101-13-AB	K3HN	5100-150- 7-A	K3BNS	3390-113- 5-AB	K3YJG	1988- 71- 4-AB	
W3CGV	4066-107- 9-	ABC	4960-155- 6-A	K3IGO	3384- 94- 8-AB	K3IOJ	1976- 76- 3-AB	
	ABCD	W3EHD/3	K3MXM	W3IA	3332- 98- 7-B	WA3BRO		
K3URP	2528- 79- 6-A	9658-284- 7-ABC	4732-169- 4-A	WA3ERQ		K3ZWO	1932- 69- 4-AB	
W3BDP	2088-43-14-AB	K3UCI	9408-226-11-AB	K3VEU	4648-166- 4-A	K3AA	1904- 69- 4-AB	
K3NYG	1184- 37- 6-AB	K3NMM	9060-302- 5-AB	K3YEL	4592-168- 4-A	W3ACR	1890- 63- 5-A	
K3FFD	1050- 35- 5-A	W3GEW	8576-268- 6-AB	K3IFL	4480-140- 6-A	WA3EOR		
		K3GQJ	8246-217- 9-	K3PXT	4480-140- 4-A	W3BHA	1859- 72- 3-AB	
<i>Eastern Pennsylvania</i>		ABC	W3GEC	4428-123- 8-A	K3ABK	3164-113- 4-AB	W3BHA	1848- 66- 4-AB
W3MFY	47,804-647-27-ABCD	K3GOZ	8058-237- 7-AB	W3AJF	4386-129- 7-	W3ACG	3094-119- 3-A	
		K3HSS	8032-251- 6-	ABC	WA3CND	WA3BHE		
		ABC	WA3EVQ			W3BGM	1800- 60- 5-AB	
K3P1M	47,350-605-25-ABC	K3ARR	7791-185-11-A	4104-108- 9-AB	W3HYO	2890- 85- 7-B	WA3BGM	
	49,350-605-25-ABC	K3P2Q	7208-212- 7-AB	W3NSI	3990-133- 5-	W3HYO	2890- 85- 7-B	
WA3AG	33,600-495-24-ABC	K3RBZ	7077-169-11-A	ABC	K3TEF	2782-107- 3-AB	WA3BPM	1742- 67- 3-A
	33,600-495-24-ABC	K3BOY	7072-221- 6-AB	W3AWA	3960-133- 5-A	W3BRV	2782-107- 3-AB	
W3LTF	27,520-430-22-ABC	W3BN	6840-190- 8-AB	W3SLW	3780-126- 5-A	K3GXY	1680- 56- 5-A	
K3IUV	23,240-415-18-ABCD	W3ELI	6800-170-10-AB	W3ZGG	3780-106- 8-AB	W3RAV	1536- 64- 2-AB	
	W3CL	K3FYU	6732-198- 7-A	W3JSD	3752-134- 4-	W3GII	1440- 60- 2-AB	
	19,632-409-14-ABC	K3QML	6681-197- 7-AB	ABC	K3FOC	2436- 87- 4-AB	K3YIZ	1428- 51- 4-B
W3MXW	18,290-297-21-AB	K3LNV	6240-195- 6-A	K3VEQ	3744-117- 6-	K3WQO	1408- 64- 1-AB	
K3MTK/3 (W3ABCD, opt.)	17,577-332-17-AB	W3BBC	6144-192- 6-AB	ABC	WA3ETM	K3ESL	1320- 55- 2-A	
K3DUW	17,282-411-11-AB	K3KUB	6120-170- 8-AB	W3OBY	3640-130- 4-	WA3FYR		
W3HFY	16,320-272-20-ABC	W3HIX	5916-174- 7-	ABC	WA3FPK	1300- 50- 3-A		
	15,714-296-17-AB			2310- 83- 4-AB	K3DLS	1274- 49- 3-BC		
K3AUH	15,408-321-14-ABC			W3TPM	2280- 76- 5-AB	W3GS	1230- 41- 5-A	
K3JJZ	14,858-391- 9-ABCD			W3FEY/3	2268- 63- 8-BD	W3GXC	1128- 47- 2-BC	
	W3CXU				K3S2Z	1080- 45- 2-AB		
	14,196-273-16-AB				W3BQU	1064- 38- 3-AB		
WA3EPS	14,184-394- 8-AB				W3Y1T	1056- 44- 2-A		
	13,568-212-22-AB				WA3ETI	984- 41- 2-B		
K3LX	13,456-237-19-AB				W3MB	968- 44- 1-B		
WA3TDE	12,924-359- 8-ABC				WA3GXY	924- 41- 2-B		
K3GAS	12,060-335- 8-ABCD				W3XKH/3			
K3ZVD	12,024-334- 8-AB				WA3GXF	912- 38- 2-A		
W3HKZ	11,676-278-11-ABCD				WA3GXU	880- 40- 1-AB		
WA3CQO	11,254-331- 7-ABC				W3EYN	836- 38- 1-B		
K3UJD	11,196-311- 8-ABCD				W3OZP	780- 30- 3-C		
K3EOQ	11,160-310- 8-AB				W3MPX	756- 27- 4-A		
					W3NFKM			
						715- 28- 3-B		
						WA3GXF	882- 31- 1-AB	
						K3ALK	676- 26- 3-A	
						WA3GTR	638- 29- 1-AB	
						K3GQJ/3	600- 25- 2-A	
						W3MFT	600- 15- 10-B	
						K3YNN	550- 25- 1-B	
						K3ATL	546- 21- 3-A	
						WA3BTB	546- 21- 3-A	
						W3ZRA	528- 22- 2-B	
						W3GCY	528- 24- 1-B	
						W3CDS	506- 23- 1-B	
						K3EGP	494- 19- 3-AB	
						K3FPV	484- 22- 1-B	
						WN3FXE	462- 22- 1-B	
						WA3CND/3		
							456- 19- 2-A	
						WN3GJR	440- 20- 1-B	
						K3ALQ/3	432- 18- 2-AB	



Below, North Texas' WA5OTR with 12 watts to 5 elements on 50 Mc. managed to work K8UQA in Ohio during the contest. Wiley, WA5OTR heard XE1PY in Mexico but missed the rare foreign multiplier this time. At the right is a photo of the XE1PY operating position. Rusty handed out "Mexico" to three lucky contestants in North Texas: K5AVT/5, WA5BMK and K5IVB. A view of XE1PY's 102-foot tower appeared on page 80 of January, 1966 *QST*.

K3CBE	41S- 19- 1-B	WA2EMB	WB2UEY
K3KBG	41S- 19- 1-B	21,330-356-20-ABCD	1326- 51- 3-B
K3ESL/3	39E- 18- 1-A	WA2HSP	K2EJW 1288- 46- 4-A
WA3EHD	38A- 16- 2-A	20,940-349-20-AB	WB2WKV
WN3FYL	38A- 16- 2-B	W2AXU	1176- 49- 2-A
WA3FFA	36A- 14- 3-B	20,480-320-22-ABCD	WA2NPD
K3ROK	28E- 13- 1-A	W2REB	1170- 45- 3-A
W3TXO	240- 10- 2-A	19,314-333-19-AB	WB2VFW
WA3BPW	198- 9- 1-B	W2BV	1148- 41- 4-AB
K3ZFD	182- 7- 3-B	16,830-255-23-B	WA2EPB
K3QMK/3	154- 7- 1-A	W2NSF	1144- 44- 3-A
WA3DKZ	120- 5- 2-A	12,720-265-14-AB	K2MKD
W3EFK	110- 5- 1-B	WB2NOK	1092- 42- 3-B
K3JQH	96- 4- 2-B	11,590-305- 9-AB	K2MZP
K3ZDI/3 (ops.)	18,186-433-11-AB	10,480-262-10-AB	WB2LZA
W3CCX (K3ZPN, W3SAO)	12,636-351- 8-ABC	W2ZUL	1064- 38- 4-BC
W3SAO (K3ZPN, W3SAO)	12,600-350- 8-ABC	9724-738- 7-AB	WB2NPY
K3YFD (8 oprs.)	9465-320- 5-AB	WB2BLV	840- 35- 2-B
W3CLQ (K3DLS, W3CLQ)	9200-230-10-AB	9600-150-22-B	K2IEO/2
K3WGJ (K3'S WGJ WGK)	6444-179- 8-ABC	WB2CDP	816- 34- 2-B
WA3DMT (WA3's DMT FEM)	5852-154- 9-ABC	WB2RVE	WA2MGV/2
WA3ELA (K3's WGJ WGK)	4800-150- 6-A	7820-230- 7-AB	WB2WVC
Md.-D.C.	4464-124- 8-ABC	7056-196- 8-AB	K2PZF
W3LUL 5350-107-15-AB	6300-175- 8-A	WB2JET	720- 30- 2-A
WA3ELA	5180-185- 4-AB	6764-178- 9-B	K2QJQ
WA3CBC	5168-136- 9-AB	W2JAV	WB2UEY/2
WA3FPE	4009-106- 9-AB	6588-183- 8-AB	672- 24- 4-B
	3600-120- 5-AB	W2EWN	6477-191- 7-AB
		6464-202- 6-AB	WB2PLQ
		WB2SZK	644-23- 4-AB
		6444-179- 8-ABC	WB2LXA
		WB2LWZ	504- 21- 2-A
		WB2MMN	WB2RRA
		4000-125- 6-A	504- 21- 2-B
		WB2EYI	WB2WAK
		3600- 72-15-A	468- 18- 3-A
		WB2SIF	WB2IGC
		3570-105- 7-AB	420- 15- 3-A
			WA2HJF
			372- 16- 2-A
			K2SEV
			336- 12- 2-A
			W2SDB
			336- 14- 2-B
			W2SDO
			330- 11- 5-B
			WB2QAL
			312- 13- 2-A
			K3ESL/2
			288- 12- 2-A
			K2SQS
			22- 1- 1-A
			WB2PAU (W2's ESX PAU)
			29,614-437-24-AB
			WB2QLQ (multiopr.)
			10,188-283- 8-AB
			WB2PZT (2 oprs.)
			5328-148- 8-A
			WB2SPJ (WB2's MNM SPJ)
			4110-137- 5-A
			W2BAY (W2's BAY DAJ)
			4080-136- 5-AB
			K2AA/2 (5 oprs.)
			4048-127- 6-B
			WN2YCY (WN2's YCZ ZMF)
			1196- 46- 3-B



The K2PSX/4 crew rented a cabin for the VHF SS with all the comforts of home.

K3LNZ	3434-101- 7-AB	WB2YEH	WB2UEY
W3HB	3234- 77-11-AB	3556-127- 4-A	K2KND
K3RWY	2262- 87- 3-AB	W2GQO	5356-104- 7-AB
WA3EOQ/3	1800- 75- 2-ABC	WB2ONB	5508-162- 7-ABD
K3GMB	1696- 53- 6-AB	WB2JGA	3420- 90- 9-A
K3PPB	1596- 57- 4-AB	WB2JGF	3280-103- 6-AB
W3PIH	1484- 53- 4-B	K2DFE	3211- 85- 9-AB
W3AIR	1480- 37-10-B	WB2EEH	3150-105- 5-ABC
K3LFN	1404- 54- 3-AB	WB2MGV	3024-108- 4-AB
WA3GBK	1360- 40- 7-B	WB2VFX	2856-102- 4-AB
K3VWY	1260- 45- 4-A	WB2YHF	2800-100- 4-AB
WA3EQO/3	1080- 36- 5-B	W2OZA	2704-104- 3-A
K3OSZ	962- 37- 3-AB	K2BPK	2604- 93- 4-AB
W3KUH	936- 36- 3-B	WB2OAD	2560- 80- 6-AB
W3CPM	888- 37- 2-B	WB2YOU	2380- 85- 4-A
W3RGX	720- 30- 2-B	WB2FOC	2210- 85- 3-AB
W6UQP/3	702- 27- 3-B	WB2YXP	2132- 82- 3-B
K3ZOD	676- 26- 3-A	WA2WGB	2100- 70- 5-A
W3MNE	588- 21- 4-B	WB2TDI	1846- 71- 3-AB
W3FWP	462- 21- 1-B	WB2YCF	1846- 71- 3-A
W3AEA	456- 19- 2-B	WB2HVS	1530- 51- 5-B
W3FNU	432- 18- 2-B	WB2UVO	1512- 63- 2-B
W3BNL	330- 15- 1-B	WB2TEN	1400- 50- 4-A
K3LZX	312- 13- 2-A	WB2LZW	1352- 52- 3-A
WA3AJD	312- 13- 2-B	WA2SFY	1344- 48- 4-A
WN3FCN*	240- 10- 2-B		
W3JEH	216- 9- 2-B		
W3YAG	192- 8- 2-B		
WN3FYZ	130- 5- 3-B		
WN3GLZ	130- 5- 3-B		
K3UVH (K3UVH, W3JJJ)	13,266-214-21-AB		

Southern New Jersey
W2EIF

25,200-504-15-ABCD

WB2UEY	WB2VFW	WB2WVC
1326- 51- 3-B	1148- 41- 4-AB	K2PZF
K2EJW	K2QJQ	WB2ZNC
1288- 46- 4-A	720- 30- 2-A	1584- 72- 1-AB
WB2WKV	WB2UEY/2	WB2NOG
1176- 49- 2-A	720- 30- 2-A	1568- 56- 4-A
WB2NPD	K2AA/2	WB2RVV
1170- 45- 3-A	(5 oprs.)	1562- 71- 1-AB
WB2REB	WB2PZT	WB2YJH
19,314-333-19-AB	5 (2 oprs.)	1760- 80- 1-AB
WB2BV	5328-148- 8-A	WA2ZNC
1148- 41- 4-AB	WB2SPJ (WB2's MNM SPJ)	1738- 79- 1-AB
WB2NSF	4110-137- 5-A	WB2FAR
1144- 44- 3-A	W2BAY (W2's BAY DAJ)	WB2QXB
WB2TEN	4080-136- 5-AB	1450- 65- 1-A
1144- 44- 3-A	K2AA/2 (5 oprs.)	WB2QFL
WB2CDP	4048-127- 6-B	1392- 58- 2-ABD
WB2RVE	WN2YCY (WN2's YCZ ZMF)	WB2FAN
7820-230- 7-AB	1196- 46- 3-B	1680- 60- 4-A
WB2RVE	WB2PZT	WB2IUM
7056-196- 8-AB	5 (2 oprs.)	1650- 75- 1-AB
WB2JET	5328-148- 8-A	K2OPC
6764-178- 9-B	WB2SPJ (WB2's MNM SPJ)	1342- 61- 1-A
WB2EYI	4110-137- 5-A	WB2UVF
3600- 72-15-A	W2BAY (W2's BAY DAJ)	WB2DCC
WB2SIF	4080-136- 5-AB	1650- 75- 1-AB
3570-105- 7-AB	K2AA/2	WB2RIY
	WB2PZT	1608- 67- 2-A
	WB2VZH	WB2INN
	1606- 73- 1-AB	1276- 58- 1-AB
		K2MGT
		1144- 52- 1-AB



The operating position at **WA6GYD**. This station is located on Mount Hamilton (4200 feet above sea level), in the Santa Clara Valley section. Don worked 50, 144 and 220 Mc. to obtain a 7596-211- 8-ABC listing, a truly outstanding score for a station on the West Coast. **WA6GYD** is looking for 220 Mc. skeds and has sent a good deal of information concerning activity out his way on the 1 1/4-meter band which appears in "The World Above 50 Mc." column, elsewhere in this issue.

WA2SOO2100- 70- 5-AB	WA2ZNC
WB2MAC	1988- 71- 4-A
WA2KMI	1848- 84- 1-AB
WA2TJS	1804- 82- 1-A
WB2LZM	1760- 80- 1-AB
WA2ZYH	1738- 79- 1-AB
WB2QXB	1738- 79- 1-ABD
K2GMZ	1716- 78- 1-AB
K2YRZ	1712- 54- 6-B
WB2FAN	1680- 60- 4-A
WB2NFT	1650- 75- 1-AB
W2MPM	1650- 75- 1-ABD
K2CEH	1690-132-15-ABD
WA2TEY	6720-160-11-AB
W2UTH	5880-140-11-ABD
WA2AJB	5550-111-15-A
W2QY	5542-163- 7-AB
WB2KND	5508-162- 7-ABD
W2ALL	5184-108-14-ABD
WA2GCF	5100-150- 7-AB
WB2OEU	4944-103-14-AB
K2W2W	4844-128- 9-AB
WB2MAB	4796-109-12-A
WA2KVN	4370-115- 9-AB
K2JA	4186-161- 3-AB
WA2THS	3960- 90-12-AB
WB2BPE	3900- 78-15-B
WB2BOC	3840- 80-14-A
K2DUR	3800- 95-10-AB
WA2LHM	3570-106- 7-AB
WA2YPT	3344-152- 1-AB
K2RQU	3396- 86- 8-AB
K2RHS	3048-117- 7-AB
K2LGJ	3040- 60-15-AB
WB2WFT	2976- 93- 6-AB
WB2JFL	2964-114- 3-AB
K2RZI	2816-128- 1-AB
WB2HLI	2574-117- 1-AB
WA2HWC	WA2HWC
WB2TDI	2486-113- 1-ABD
K2BBJ	2352- 98- 2-AB
WB2YTK	2288-104- 1-AB
WB2RIS	2280- 76- 5-A
WA2ADN	2272- 71- 6-AB
WB2WGL	2204- 38-19-B
W2YBK	2178- 99- 1-AB

W8QOH of Cincinnati, Ohio worked 25 sections on two meters. With a final score of 12,810, Paul is the Great Lakes Division high scorer (single-op.). The rig at W8QOH ends up with the 6N2 Thunderbolt 1000-watts input class C on c.w. Paul will be active this summer (beginning with the June meteor showers) at his second station in Arkansas, **W5BAU**. Skeds anyone?

WA2GIA

1020- 34- 5-A
 WA2JMH 990- 45- 1-A
 K2YMM 946- 43- 1-B
 W2JVD 944- 30- 6-A
 K2IWS 924- 42- 1-A
 K2MBJ 924- 42- 1-A
 WA2UGE 902- 41- 1-AB
 K2DHA 880- 40- 1-B
 WA2AQW 880- 40- 1-A
 WA2IYZ 880- 40- 1-A
 WA2YFM 880- 40- 1-A
 WA2AII 858- 39- 1-B
 WA2IEL 858- 39- 1-AB
 K2AVA/2 840- 35- 2-AB
 K2SAV 840- 35- 2-AB
 WB2BGZ 841- 37- 1-AB
 K2PFDZ 792- 36- 1-AB
 K2AOQ/2 792- 36- 1-AB
 K2QWG/2 748- 34- 1-B
 WA2EIX 726- 33- 1-AB
 K2PEY 704- 32- 1-AB

K2BRE 682- 31- 1-B
 K2UCI 638- 29- 1-A
 K2ZIF 638- 29- 1-AB
 WB2EIV 638- 29- 1-A
 K2PKK 624- 26- 1-B
 WA2WSE 624- 26- 2-AB
 W2RHQ 600- 25- 2-AB
 WB2KU/Y 594- 27- 1-B
 WB2KQZ 594- 27- 1-AB
 WB2SER 572- 26- 1-AB
 WN2ZEO 572- 26- 1-B
 WA2PWT 506- 23- 1-A
 WB2YHD 506- 23- 1-B
 WB2JUI 418- 19- 1-AB
 K2UXF 396- 18- 1-AB
 K2VYH 396- 18- 1-A
 WA2UTM 374- 17- 1-A
 WA2ZXU 374- 17- 1-AB
 WA2GVH 352- 16- 1-AB
 WB2SMD 352- 16- 1-B
 WB2RSD 352- 16- 1-B
 W2EEB 330- 15- 1-B
 WB2NJE 308- 14- 1-AB
 WB2KCI 300- 25- 2-AB
 K2HDY 286- 13- 1-A
 W2UZB 264- 11- 2-B
 K2ACQ 234- 9- 3-D
 W2ZPL 234- 9- 3-B
 K2MAJ 220- 10- 1-A
 W2REC 220- 10- 1-A
 WA2ZXT 220- 10- 1-A
 WA2ZUG 176- 9- 1-A

WB2MCP

176- 8- 1-B
 W2OW (14 oprs.)
 10,692-198-17-AB
 K2ERQ (8 oprs.)
 8303-181-13-AB
 WB2VPY (19 oprs.)
 4520-113-10-A
 W2TRS/2 (W2TRS,
 WA2YGG, WB2IFW)
 3248-116- 4-AB
 WN2ZEA (2 oprs.)
 550-25- 1-B
 WA2CEC (WA2CEC,
 WB2VEN)
 276- 12- 2-AB

Western Pennsylvania

K3ZVB 11,286-172-23-AB
 6400-128-15-AB
 K3FGQ 2366- 91- 3-AB
 WA3ANO 2108- 62- 7-AB
 K3WNZ 1890- 63- 5-AB
 K3EDO 1846- 71- 3-AB
 K3AQB 1122- 51- 1-A
 WD3JM 1092- 39- 4-A
 WA3FIE 1092- 43- 3-A
 K3WOD 960- 40- 2-A
 K3WNY 952- 34- 4-A
 WA3DYL 910- 35- 3-A
 K3TP 858- 33- 3-AB
 WA3FMU 726- 34- 1-A
 K3RGU 696- 29- 2-A
 K3TRN 672- 28- 2-A
 K3AZT 683- 29- 1-A
 K3VN 580- 23- 1-A
 K3AGCUP 484- 22- 1-A
 K3TDW 352- 17- 1-A
 K3LTHL 352- 16- 1-A
 K3LWT 242- 11- 1-A
 WN3FYJ 132- 6- 1-B
 K3EHK 108- 5- 2-A
 W3KWH (W3ZGI,
 WA8QVD)
 16,341-210-29-AB
 K3HKK/3 (4 oprs.)
 12,555-203-21-ABD
 W3WLF (2 oprs.)
 44- 2- 1-AB

CENTRAL DIVISION

Illinois
 WA9OUU 16,384-257-22-A
 W9IPO/7 8550-171-15-B
 K9RVG 6800-200- 7-B
 WA9JKT 9456-177- 4-
 ABC
 WA9FIH 6552-182- 8-AB
 WA9FII 5264-188- 4-AB
 K9ZWU 4984-178- 4-
 ABC
 K9ZVW 4956-177- 4-
 ABC
 WA9OZC 4806-134- 8-B
 K9YHB (WA9EJD,
 opr.) 4746-113-11-AB
 WA9A 4664-106-12-A
 W9EET 4608-128- 8-B
 W9YYF 4420- 85-16-B
 WA9JBZ 4298-154- 4-B
 WA9TMC 4256-152- 4-AB
 W9WVY 4068-113- 8-B
 WN9RNQ* 3930-131- 5-B
 WA9MSZ 1034- 47- 1-A
 W9TOY 990- 45- 1-B
 K9TSN 960- 40- 2-B
 WA9KQD 924- 33- 4-B
 WA9NTC 924- 42- 1-AB
 WA9RCO 924- 43- 1-B
 K9VTU 840- 35- 2-A
 K9IOA 832- 32- 3-AB
 K9DKI 792- 33- 2-A
 WA9IRZ 792- 33- 2-B
 K9FBZ 770- 35- 1-B
 WA9LPT 770- 35- 1-B
 K9VUR 756- 27- 4-B
 W9CVX 754- 29- 3-B
 WA9QOI 748- 34- 1-B
 K9QKB 704- 22- 6-AB
 WA9HIV 696- 29- 2-B
 WA9SQX 672- 28- 2-B
 K9TSU 660- 30- 1-A
 K9AMG 594- 27- 1-A
 WN9SOC 572- 26- 1-B
 WA9QZG 540- 23- 2-B
 W9BOD 528- 24- 1-A
 WA9BRE (WA9EVE, opr.)
 2352- 84- 4-B

WA9NVB 528- 22- 2-B
 2324- 83- 4-B
 WA9FIY 2250- 75- 5-A
 WA9JIL 2232- 93- 2-AB
 W9EHU/9 2106- 81- 3-B
 WA9TJJ 1968- 82- 2-B
 K9DTB 1960- 70- 4-A
 K9ECZ 1960- 70- 4-B
 WA9SKJ 1848- 66- 4-A
 WA9BXT 1800- 75- 2-AB
 W9CEK 1794- 69- 3-A
 WA9OKO 1768- 68- 3-A
 WN9SLD 1764- 64- 4-B
 W9FVB/9 1752- 73- 2-A
 WA9AIS/9 308- 14- 1-A
 WA9EMD 1716- 66- 3-AB
 WA9HIR 1716- 66- 3-B
 W9RPH 1708- 61- 4-AB
 WA9NNG 1708- 61- 4-B
 K9RCN 1608- 67- 2-AB
 K9HLJ 1606- 73- 1-AB
 WA9RLA 1586- 61- 3-B
 WA9FYB 1430- 65- 1-A
 WA9PAI 1404- 54- 3-A
 W9PMJ 1320- 55- 2-AB
 WA9JMA 1320- 55- 2-B
 WN9SPA 1296- 54- 2-B
 WA9KUX 1276- 58- 1-A
 WA9KJX 1248- 48- 3-AB
 WA9BBZ 1244- 51- 2-B
 WA9KAN 1216- 39- 6-A
 K9SZT 1200- 50- 2-AB
 W9YOW 1200- 50- 2-B
 WA9IUY 1196- 46- 3-A
 K9SYA 1190- 35- 7-A
 K9KLI 1170- 45- 3-A
 WA9SEQ 1144- 52- 1-A
 K9QYT 1128- 47- 2-A
 WA9AXT 1092- 42- 3-B
 WA9EEG 1092- 42- 3-AB
 WA9GAV 1092- 39- 4-A
 K9BBN 1080- 36- 5-AB



Michigan Novice Award winner with 47 QSOs in 5 sections is **WN8VHG** of Jackson, Michigan. Brian runs a TX-62 to an 8 element beam at 58 feet. The receiving system consists of an Ameco CN-144 ahead of an HQ150.

Wisconsin

WA9JFM 7560-210- 8-AB
 WA9CBP 4860-135- 8-A
 WA9OFF 1425- 49- 5-AB
 W9TQ 408- 17- 2-B
 K9IFF (4 oprs.) 10,368-192-17-AB
 WA9RMV (4 oprs.) 2920- 73-10-AB

DAKOTA DIVISION

Minnesota

K9DTA 2948- 66-12-AB
 WA9QCZ 2232- 62- 8-A
 W9RLI 1320- 34-10-B

DELTA DIVISION

Louisiana

WA5DXA 1508- 58- 3-AB
 WA5OZH 1204- 43- 4-A
 WA5LWV 728- 28- 3-A
 WA5KBB 552- 23- 2-AB
 WA5PWV 88- 4- 1-A
 MississippI
 W5CKY 338- 13- 3-B

Tennessee

WA4YKN 4992-104-14-AB
 K4EQJ 252- 9- 4-B

GREAT LAKES DIVISION

Kentucky

WA4AAJ 5668-100-16-A
 WA4YFK (K4MEE,
 opr.) 3264-102- 6-A

Michigan

W8RPA 8856-123-26-A
 WA8FTA 7080-118-20-A
 K8VEX 5550-113-15-A
 WA8ASV 3738- 89-11-B
 W8QOI 1668- 89-13-A
 W8CKK 2460- 82- 5-AB
 W8CVA 1380- 70- 7-AB
 W8HQI 1975- 40-15-B
 WA8EOW 1881- 50- 9-A

WN8VHG*

1410- 47- 5-B
 WA8MOA 1296- 36- 8-AB
 K8WVGX 1248- 48- 3-AB
 W8ATDY 960- 40- 2-B
 WA8JIE 780- 26- 5-AB
 WA8QBG 638- 29- 1-A
 W8IBB 480- 15- 6-B
 WA8KZY 352- 16- 1-AB
 W8FSZ 264- 12- 1-AB
 WA8MGO 176- 8- 1-A
 K8HKM/8 132- 6- 1-A
 K8BZY 32- 1- 1-B
 W8TJQ (K9HXW, W8's
 BQD T1Q) 6520-163-10-AB
 W8ZHO (7 oprs.) 5742- 99-19-AB

The hazards of a multielement array! This WAS the antenna that **WA9OUU** used to work the contest and several stations on scatter. It consisted of 2 9-element 50-Mc. yagis with 36-foot booms spaced 25 feet apart with the top one at 70 feet. John's 6-meter total, 16,384-257-22-A won the Illinois section award and was high score for the Central Division. Looks like **WA9OUU** follows the Sam Harris rule: "If your antenna stayed up all winter, it wasn't big enough!"

WA8UHI (WA8's NSJ PWZ UHI) 4200-105-10-A	W2LWI 5994-111-17-B WA2DTE 4640-116-10-AB	W2TUK 624- 24- 3-B W2TN1 602- 22- 4-B	K0TLM 1568- 49- 6-AB WA0HKP 1442- 52- 4-AB	Maine
W8BHF (KS8's RXF ZZF, W8SHB) 2560- 64-10-AB	WB2SIH 4608-145- 6-AB WA2ZPD 4480-140- 6-B	W2NBI 448- 16- 4-B W2VX 392- 14- 4-B	WA0FLL 312- 13- 2-AB	W1GKJ 1408- 32-12-AB <i>New Hampshire</i>
<i>Ohio</i>	WB2VYQ 3465-116- 5-AB	WB2NGZ 253- 12- 1-B WB2AZ/2 (4 opns.) 8568-238- 8-ABC	WA1MEH 17,516-303-19-AB W1HDQ* 11,780-191-21-ABD	WA1EBV 5832-162- 8-AB
W8QOH 12,810-183-25-B WA8AKK (W8UW, opr.) 12,550-251-15-AB	WB2YRF 2520- 84- 5-AB WA2MCP 2380- 70- 7-AB	WB2ZNG (WA2's YHS ZBJ, WB2ZNG) 5632-177- 6-AB	W1RJA 11,610-215-17-AB WA2THR (4 opns.) 2295- 77- 5-A	K1MFQ/1 4120-103-10-A W1ALE 1764- 49- 8-AB W1EAL 640- 20- 6-B WA1FSZ (WA1FSZ, WA3DCV) 1292- 38- 7-A
W8SMOW 10,848-226-14-AB WA8EHI 9840-120-31-A	WB2VQ 2380- 85- 4-A WA2KUL 2272- 71- 6-B W2CTH 2160- 54-10-AB	Northern New Jersey K2GCH 1824- 48- 9-B WB2WSY 1820- 65- 4-AB	WB2WZP 15,064-269-18-AB WB2KPL 10,120-230-12-AB	Rhode Island
W8WEN 7755-119-23-AB W8ODN 4896-144- 7-AB	WB2WBZ 1820- 65- 4-AB K2UKE 1760- 40-12-B	WA2WII 8610-205-11-ABD WB2OKU 7686-183-11-AB	WA1WHL 6050-121-15-AB K1YON 4728- 93-13-ABC	K1TPK 9051-216-11-AB W1POP 3536-104- 7-AB WN1GFG/1
W8SHV 4560-120- 9-AB K8OWB 3848-148- 3-AB	WB2WWZ 1820- 65- 4-AB WB2WSY 1820- 65- 4-AB	WB2KPL 3980-100-10-AB WB2WZP 11,710-72-10-AB	WA1GYL 3116- 82- 9-AB	2736- 88- 6-B
K8HRR 3744-104- 8- ABC	WB2WWZ 1820- 65- 4-AB WB2WSY 1820- 65- 4-AB	WA2KRX 8610-205-11-ABD WB2QPA 7686-183-11-AB	K1KKK 2310- 77- 5-AB	W1HQY 750- 25- 5- A
K8YRN 3718-143- 3-AB WA8PRB 3520-110- 6-AB	WB2DSK 1612- 62- 3-AB WA2OYY 1694- 38-12-B	WB2QPA 6612-174- 9-B K2LCI 5644-166- 7-AB	WA1CWG 2278- 72- 7-AB	WA1BJS 660- 22- 5- A
WA8SJL 3200-100- 6-AB WA8GQQ 3016-116- 3-AB	WB2DSK 1612- 62- 3-AB WA2OYY 1694- 38-12-B	WB2WI 5216-164- 6-AB	WN1GAQ* 2130- 71- 5-B	K1NQG/1 (WA1EEJ, opr.) 120- 5- 2- A
WB2RN 2940-105- 4-AB WA8LWX 2899-112- 3-AB	WB2RWR 1378- 53- 3-A WB2YQU 1300- 50- 3-AB	WB2KLD 5080-127-10-AB WB2ZWB 4900-123-10-BD	K1AOY 1326- 51- 3-B	Vermont
WA8AUW 2800- 88- 6-AB K8KTX 2400- 51-14-B	WB2YQU 1300- 50- 3-AB WB2ZWB 4900-123-10-BD	WB2KLD 888- 37- 2-B	WN1GTJ 588- 21- 4-B	K1BKK 1334- 29-13-B K1GYT 1230- 41- 5-AB
K8GCV 2088- 87- 2-AB WA8IKN 2080- 80- 3-AB	WB2ZWB 4800-120-10-AB WB2MZH 4125- 83-15-BD	WB2KLD 588- 21- 4-B	WA1FTM 338- 13- 3-B	WICHF/1 96- 4- 2-A
W8SSK 2016- 84- 2-AB WA8TYF 2016- 64- 6-AB	WB2PZB 3672-108- 7-AB	WB2MZH 338- 13- 3-B	WN1GSS 276- 23- 2-B	Western Massachusetts
WA8BNW 2002- 77- 3-AB W8MOH 1824- 76- 2-A	WB2OGN 1020- 30- 7-A	WB2HFL 3200- 80-10-A	W1BGD** 192- 8- 2-B	K1ANF 6552-126-16-AB
W8SKSE 1540- 55- 4-AB K8ADI 1512- 54- 4-AB	WB2OGN 1014- 39- 3-A K2ACB 988- 38- 3-AB	WB2SWE 3030-101- 5-AB	W1BKG 78- 3- 3-B	W1STR 4800-100-14-AB
WA8DTU 1512- 63- 2-AB WA8DRC 1456- 56- 3-A	WB2ACB 988- 38- 3-AB WB2GXW 1020- 30- 7-A	WB2LDE 888- 38- 3-A	W1HNA 11- 1- 1-B	WA2QGS/1
WB2ESM 885- 31- 5-B WB2VEQ 870- 29- 5-B	WB2ESM 885- 31- 5-B WB2VEQ 870- 29- 5-B	WB2LDE 2130- 71- 5-B	WN1GAQ* 2278- 72- 7-AB	3852-107- 8-B
WN2WVY 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WA1FTM 2130- 71- 5-B	K1PYX 3444- 82-11- A
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WA1FTM 2130- 71- 5-B	K1RPB 3358- 73-13-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WN1GSS 3204- 89- 8-BD	W1QWJ 3204- 89- 8-BD
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1BGD** 3209-103- 5-AB	K1ULZ 3209-103- 5-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1BGD** 3209-103- 5-AB	WINY 3024- 84- 8-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1BGD** 3209-103- 5-AB	K1NJC 2295- 77- 5-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W5NWG/1 2244- 66- 7-B	W5NWG/1 2244- 66- 7-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1LUU/1 (8 opns.) 6000-150-10-ABC	W1FAB 2100- 75- 4-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1LUU/1 (3 opns.) 2124- 62- 8-AB	W1MDM 1596- 42- 9-A
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1LUU/1 (3 opns.) 2124- 62- 8-AB	W1UPF 1530- 51- 5-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1LUU/1 (3 opns.) 2124- 62- 8-AB	W1BCI 1528- 37- 7-A
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1LUU/1 (3 opns.) 2124- 62- 8-AB	W1ALL 1248- 52- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1GIV/1 2124- 51- 2-B	W1GIV/1 2124- 51- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1UPH 2040- 63- 4-B	W1UPH 2040- 63- 4-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1WLE 1176- 49- 2-B	W1WLE 1176- 49- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WB2SCD/1 1144- 44- 3-B	WB2SCD/1 1144- 44- 3-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1RVW 1064- 38- 4-BD	W1RVW 1064- 38- 4-BD
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1IC 1040- 40- 3-B	W1IC 1040- 40- 3-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WAIDNB/1 1	WAIDNB/1 1
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K1CZZ 984- 41- 2-B	K1CZZ 984- 41- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K1LJH 960- 40- 2-B	K1LJH 960- 40- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1VNE 910- 35- 3-B	W1VNE 910- 35- 3-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1ESA 864- 36- 2-B	W1ESA 864- 36- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1UCB 806- 31- 3-B	W1UCB 806- 31- 3-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WAIBTU (K1PMK, opr.) 972- 33- 2-B	WAIBTU (K1PMK, opr.) 972- 33- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K1PMK 768- 32- 2-B	K1PMK 768- 32- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K1LDT 744- 31- 2-B	K1LDT 744- 31- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1VNH 672- 28- 2-B	W1VNH 672- 28- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	KIESN 546- 21- 3-A	KIESN 546- 21- 3-A
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W1MNG 504- 21- 2-B	W1MNG 504- 21- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WAIDVU 2126- 67- 7-B	WAIDVU 2126- 67- 7-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	NORTHWESTERN DIVISION	NORTHWESTERN DIVISION
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	Alaska	Alaska
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	KL7SF 330- 15- 1-B	KL7SF 330- 15- 1-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	Oregon	Oregon
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K7OGK (K7ZCB, opr.)	K7OGK (K7ZCB, opr.)
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	Washington	Washington
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WA7BTG 1904- 56- 7-A	WA7BTG 1904- 56- 7-A
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K7DBR 1740- 55- 5-AB	K7DBR 1740- 55- 5-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WA7FHG 1272- 53- 2-B	WA7FHG 1272- 53- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W7AZU 192- 8- 2-B	W7AZU 192- 8- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	PACIFIC DIVISION	PACIFIC DIVISION
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	East Bay	East Bay
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	K6JHV/6 (4 opns.)	K6JHV/6 (4 opns.)
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	9376-293- 6-AB	9376-293- 6-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WB6PFJ/6 (WB6's LRV PJF) 2595- 86- 5-B	WB6PFJ/6 (WB6's LRV PJF) 2595- 86- 5-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	Sacramento Valley	Sacramento Valley
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WB6LFD 1568- 56- 4-AB	WB6LFD 1568- 56- 4-AB
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W6TEE 1120- 40- 4-B	W6TEE 1120- 40- 4-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WA6QGT 949- 37- 3-B	WA6QGT 949- 37- 3-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	WA6XB 264- 12- 2-B	WA6XB 264- 12- 2-B
WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2ZWB 888- 38- 3-AB WB2ZWB 888- 38- 3-AB	WB2LDE 2130- 71- 5-B	W7BYF/6 196- 7- 4-A	W7BYF/6 196- 7- 4-A

<i>San Francisco</i>	<i>New Mexico</i>	<i>WA6ARC</i>	<i>WB6JLC</i>	<i>684- 29- 2-B</i>	<i>3C3EZC</i>	<i>4646-101-13-BD</i>
WA6YYM 448- 16- 4-B	WA5ETF 374- 17- 1-BC W5LXS/5 (W5's IXR IXS) 198- 9- 1-AB	WB6IMV 1932- 69- 4-A	K7ZLJ/6 682- 31- 1-B	3C3DSQ 3468-102- 7-B	K6GAO 506- 23- 1-B	VE3HW 2112- 66- 6-B
<i>San Joaquin Valley</i>	<i>Utah</i>	WA6KIK 988- 38- 3-A	WB6EAX/6 958- 23- 3-A	VE3ATT	K6HJG 1776- 74- 2-AB	
K6UJG 672- 24- 4-AB	K7HEN/7 (K7's DOT HEN) 748- 34- 1-AB	WB6GFD 462- 21- 1-B	K4AFS/6 297- 14- 1-B	3C3GAF 1568- 56- 4-AB	WB6CSF 264- 12- 1-B	VE3FOF 1344- 56- 2-B
WB6RDG 360- 15- 2-B	WB6HIL/6 (K6GSS, WB6HIL) 3876-114- 7-AB	WA6NP 432- 18- 2-A	WA6TAD 198- 9- 1-B	VE3CIU	WB6KGK	Santa Barbara
<i>South Clara Valley</i>	<i>Alabama</i>	K6LDM 264- 11- 2-A	W8DH/S/6 1092- 39- 4-AB	VE3AIB 1320- 55- 2-BD	WB6LMA 216- 9- 2-B	VE3AQG 1296- 54- 2-B
WA6GYD 7596-211- 8-ABC	K4WHW 2040- 68- 5-AB	K6UMV 198- 9- 1-B		VE3ENJ 1224- 51- 2-B	WB6BMB	3C3BBC 1104- 46- 2-B
<i>ROANOKE DIVISION</i>	WA4DBQ 1056- 44- 2-A	WA6VEP 156- 9- 3-A	WB6RP	VE3BDX	K4TUT 840- 35- 2-A	1066- 42- 3-B
<i>North Carolina</i>	WA4RBH 912- 38- 2-A	WB6BIA 110- 5- 1-A	K5IVB 1320- 55- 2-A	3C3DRX	KH6EVT/6	Northern Texas
W4HJZ 2024- 44-13-AB	WA4EBS/4 88- 4- 1-A	WA6JOK 66- 3- 1-A	WA5RBP	1044- 44- 2-AB	K6BPC (K6QPH, W6FNE)	1116- 47- 2-A
W4GG/4 (5 oprs.) 484- 22- 1-AB	WA4KMA 572- 22- 3-AB	WB6FNE 6048-168- 8-AB	WA5OTR 960- 40- 2-A	VE3EIJ 1008- 42- 2-B	W4YRN 552- 23- 2-AB	K5YKX 748- 34- 1-A
<i>South Carolina</i>	WA4DZF 624- 26- 2-AB	WB6SLG (K6UMV, WB6BNST)	K5YKX 594- 27- 1-A	VE3FOE 840- 35- 2-B	WA4YFN 506- 23- 1-A	WB6PNW 768- 32- 2-A
WA4LTS 840- 28- 5-A	WA4VQI 506- 23- 1-A	WB6PHO 384- 16- 2-AB	WA5KVM	VE3CWR 768- 32- 2-B	WA4JSM 462- 21- 1-A	3C3CJU 688- 29- 1-B
WA4OMM 284- 12- 1-AB	K4EAQ 451- 21- 1-AB	WB6PHO 1092- 42- 3-A	K5CMC 187- 10- 1-A	VE3DAB 612- 26- 2-B	K4AAQ 288- 12- 2-A	K5ZAM 132- 6- 1-A
<i>Virginia</i>	K4KJD 120- 5- 2-A		K5ZSB 44- 2- 1-AB	VE3DAY 432- 18- 2-B	K4KJM 120- 5- 2-A	WB6FNS 22- 1- 1-A
K4SUM 5700-150- 9-ABD	<i>Georgia</i>		K5AVT/5 (14 oprs.)	VE2BHM/3	K4NMQ 432- 18- 2-B	WB6RPC 4000-135- 6-AB
W4LTT 2910- 49-20-B	WB4DFF/4	WB6NLO 2640- 88- 5-AB		VE3ZZZ (VE3's ABG BQN) 7506-139-17-AB		WB6ZQU/6
W4GEY 520- 20- 3-B	K2PSX/4 (6 oprs.)	WB6SML 2100- 70- 5-A	WB6UAH 1820- 65- 4-AB	Quebec	K2PSX/4 (6 oprs.)	WB6ZQU/6
K4FJW 280- 10- 4-AB	WA4QPL/4 (multiport)	WB6UAKD 1316- 47- 4-A	WB6UAKD 1316- 47- 4-A	CANADIAN DIVISION	WB6UAKD 1316- 47- 4-A	WB6UAKD 1316- 47- 4-A
<i>West Virginia</i>		WB6UAKD 1196- 46- 3-A	WB6UAKD 980- 35- 6-A	British Columbia	WB6UAKD 980- 35- 6-A	WB6UAKD 980- 35- 6-A
W8AEC 4368- 78-18-B	<i>Western Florida</i>	WB6UAKD 910- 35- 3-B	WA6OSB 910- 35- 3-B	Manitoba	WB6UAKD 888- 37- 2-B	WB6UAKD 888- 37- 2-B
WA8JFA 840- 30- 4-B	<i>Los Angeles</i>	WB6UAKD 832- 32- 3-B	WA6SKT 832- 32- 3-B	Ontario	WB6UAKD 768- 32- 2-B	WB6UAKD 768- 32- 2-B
K8WVP 576- 18- 6-B	K4NMZ 432- 18- 2-B	W3WDX/6	VE4RE 78- 3- 3-A	Quebec	VE3CUA 6510-105-21-AB	Quebec
W0AJY 1584- 66- 2-AB	WA6WKF 5792-181- 6-A		VE3CUA 6510-105-21-AB	FOREIGN	XE1PY 66- 3- 1-A	VE3CUA 6510-105-21-AB
WA0KOQ 154- 7- 1-A				Mexico		

Parasitics in the HBR Receiver R.F. stage

BY TED CROSBY,* W6TC

ARE you one of those who plan to build an HBR Communications Receiver in the near future? Or, are you one of those now in the process of building such a receiver? Do your plans include the installation of the low-loss No. 2102 Polar capacitor in the receiver's r.f. stage? Perhaps you are the owner of an earlier version of an HBR design, and are contemplating the substitution of the 2102 for the original 1461-BS tuning-capacitor, or perhaps the substitution already has been made. To all of you, I would have a moment or two of your time.

As discussed in "HBR Developments," October 1965 QST, the Polar 2102 three-gang capacitor is so extraordinarily good electrically that its extremely low losses in the v.h.f. range become something of a curse when combined with the short leads and high-Q coils used in a straightforward HBR tuned-r.f. stage. Such a combination tends to be the most persistent generator of u.h.f. parasitic-oscillations of the tuned grid/tuned plate variety that I've ever seen.

The parasitic-suppression methods described in the October 1965 issue were not as universally infallible as I would have liked them to be, but represented the best solution I had to offer at that time. Only quite recently did I finally come up with the following completely fool-proof arrangement:

1—Eliminate the chassis ground connection at the rear end of the Polar capacitor frame by making the rear stud chassis-mounting hole slightly oversize and installing insulating washers on top and underneath the chassis. This will break up the ground loop formed by the original double connections between the capacitor frame and chassis and eliminate possible instability at v.h.f. arising from that

source.

2—Remove the 15-ohm resistor from the grid lead of the r.f. tube and replace it with a solid No. 18 wire. The gain of the r.f. stage will be improved, especially on 10/15 meters.

3—Discard the original RFC_1 and replace it with a completely new choke consisting of 8 turns of No. 26 enamelled wire wound on a 100-ohm $\frac{1}{2}$ -watt noninductive (carbon) resistor. Space-wind the coil to the length of the form, with the two ends of the winding soldered to the resistor leads at their exit points from the resistor body proper.

4—Remove the original RFC_2 , throw it into your "hope-chest", and replace it with a 47-ohm $\frac{1}{2}$ -watt non-inductive resistor.

Mount both RFC_1 and the 47-ohm resistor directly to the r.f. stage tube-socket lugs with the shortest possible leads, being certain that the 0.02- μ f. bypass capacitor in the screen circuit is connected as close as possible to the high-voltage end of the resistor.

This new parasitic-suppressor arrangement has been installed in my prototype HBR-11/12/13 receiver, as well as my larger "Granddaddy" model of the HBR-13C, both of which are equipped with the 2102 capacitor, with equally stable results in both cases. There was not the slightest hint of parasitic oscillation on any band in either instance. However, I now discovered that in practically every one of the L_2 mixer coils the original primary/secondary coupling was insufficient, and these couplings had to be tightened up considerably before the much-to-be-desired regenerative effect in the r.f. stage was restored. Undoubtedly the same thing will be true of every operational receiver undergoing this modification treatment.

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