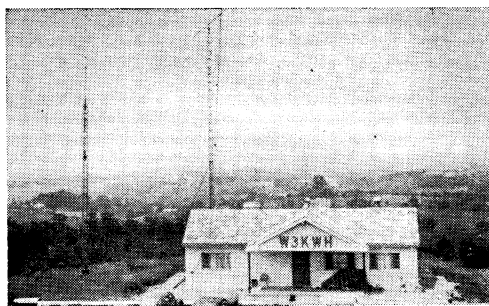
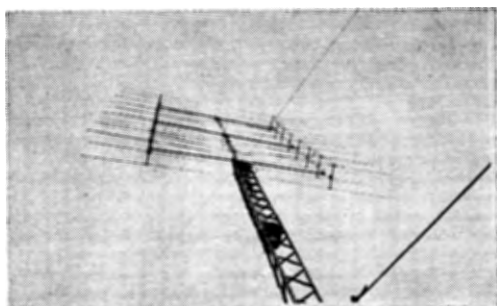


Results, June V.H.F. QSO Party

REPORTED BY BOB HILL,* WIARR



Pittsburgh is the Steel City, and it would appear as though a hefty amount of that steel winds up as antennas for Steel City ARC's **W3KWH**. At right is a view of the shack (shack?); looking west, we note (left to right) a modest 64-element collinear array for 144 MHz, an 11-element beam for 50 MHz, and a 32-element job (up about twenty feet) for 432 MHz. At left is a neck-cranning closeup of the 2-meter monster.

THIS one (held June 8-10) was very much a good, solid, typical, meat-and-potatoes Party, characterized by agreeable weather, exciting sporadic-*E* openings on six meters for many areas of the country, mediocre conditions on 2, lots of multioperator mountaintopping — you know the pattern if you're a June Party regular. Some 431 logs came in (126 of them multioperator), chronicling the efforts of a total of 930 different v.h.f.ers. We received entries from 65 sections, with 59 single-op and 18 multiop certificate awards to be mailed September 13.

In the single-operator multiband category, kudos to **K3IPM** for a record high score of **37,989** (amassed on bands ABCD). While he was unable to set new QSO or section marks (W4GJO holds the former with 598 two-ways in 1962; W2CRS knocked off 64 sections in this very Party), Stan was in a class by himself for total points! The rest of the top-10 lineup looks like this: **K3WJB** 19,440 (ABC); **W2CRS** 17,984 (ABCD); **WA2FGK** (K2LNS, opr.) 14,625 (AB); **K9KFR** 13,800 (AB); **W5WAX** 13,149 (ABD); **K3MTK** (K3LWR, opr.) 10,220 (AB); **W2CNS** 9500 (ABCD); **WA0JYK** 8688 (ABCE); and **WB4DQW** 7849 (AB). Just missing the list was Canadian champ **VE3BPR** with 7084 (ABD).

Single-band leaders were (50 MHz) **W9ECV/0** 15,822; **K5AGI** 10,105; **WA4STJ** 9870; **K5IPV** 9495; **WA5TTH** 8280; (144 MHz) **K1HTV** 2751; **W2AQT** 2052; **WA2EBT** 1760; **WA3GPL** 1584; **W3FC** 1200. In Canada, **VE3ZZZ** (VE3ABG, opr.) nosed out VE4MA with 1122 points to take 50-MHz honors; **VE3ERQ**'s tally of 207 was high on 144 MHz.

In the popular multioperator ranks, those Mt. Airy Pack Rats at **W3CCX/3** nibbled their way to a stunning top of **67,896** (ABCDE). Other solid scores were turned in by **W2PEZ/2** 43,225 (ABCE); **W2JKI** 41,607 (ABCD); **W2UFT**

35,230 (ABCD); **K1PXE/1** 33,292 (ABC); **WB2FKJ/2** 32,376 (ABCDE); **WA1IOX** 31,806 (ABCDE); **K2RTH** 30,774 (ABCD); **W2OJ/2** 29,095 (ABCD); and **W3KWH** 28,083 (ABD). **VE3FIB** topped Canada with 13,392 (ABD), and that's no lie.

Out in the Rocky-Mountain and Far-West areas, where it's like pulling teeth to rack up a decent score, **K7ICW** led single-op multiband entrants with **4068** points (ABD). AI was followed by **WA6ZQU/6** 3528 (AB); **WB6KAP** 2240 (ABCD); **VE7XF** 1890 (AB); and **K6IBY** (ABC) and **WB6DUB** (AB), both with 1260 points. Top single-band performances came from (50 MHz) **W7FN 7029**; **WA7CJO** 4995; **K7VNU** 3248; **W7JRG** 2691; **K7DBR** 2394; (144 MHz) **WB6PKA/6** 678; **WB6CKT** 445; **WA6FJJ** 272. Multiop efforts were paced by **WA0SLM/0** with **7358**; other contenders were **WA0PHZ/0** 7279; **WB6NDJ/6** 7200; **K7AUO/7** 6815; **K6BPC** 6690; **K7KOT/7** 5340; **K6YNB/6** 4928; **W7ZSL/7** 4725; **K6TJL/6** 4644; and **K6SLQ/6** 4180.

QRV for the September brawl?

DIVISION LEADERS

Single Operator

K3IPM Atlantic
K9KFR Central
K6ALL Dakota
K5AGI Delta
W8KKF Great Lakes
W2CRS Hudson
W9ECV/0 Midwest
K1ABR New England
W7FN Northwestern
K7ICW Pacific
K4SUM Roanoke
W7VDZ Rocky Mountain
WA4STJ Southeastern
WA7CJO Southwestern
W5WAX West Gulf
VE3BPR Canadian

Multioperator

W3CCX/3
K9DKW
.....
K5TYP
W8PLZ/8
W2PEZ/2
K0TLM
K1PXE/1
K7AUO/7
K6TJL/6
W4PAR/4
WA0SLM/0
.....
K6BPC
WA5KPU
VE3FIB

* Assistant Communications Manager, ARRL.

Soapbox

"The QRM on band openings was horrendous, with irrationally long calls — especially when a local station would call the DX and sign his own call five times followed by 'Go ahead, go ahead, go ahead, go ahead, go ahead' — as though the DX didn't know when to return the call! But all in all, a useful prelude to Field Day, especially for getting the s.s.b. ear tuned up." — **W3IUB**. "So much c.w. activity — too bad it isn't that good all the time." — **WA3GPL**. "My boss, a CBer, gave me the afternoon off just so I could enter the contest. Who says all CBers are bad!" — **WA3GLZ**. "We operated portable at Hilltown, Pa., which is a 700-foot hill about 20 miles NW of Philadelphia. One of the highlights was our first extended contact on 1296 — quite an achievement for us, as we had tried unsuccessfully for 4 years! A contact on 220 with a station in Maine was also among the exotic items we worked. We were rather disappointed with the apparent lack of activity on 432 in New England. S.s.b. activity on 6 meters was greatly increased over past years and gives indication that we had all better be on s.s.b. for next January's contest." — **W3CCX/3**. "New rules FB on starting and ending time." — **K3LNZ**. "Conditions were above average on 2 — give 6 meters back to the 'heathens.' Too many of the 6M group are ill-mannered, lousy operators. S.s.b. won't talk to a.m. stations and make snide remarks about a.m. calling them." — **W3LUL**. "We are thankful that you arranged the date of this QSO Party so that it would coincide with a nice little tropo; mighty nice of you, hi." — **W3HB**. "Many stations unreadable on a.m. would have been solid on c.w." — **WA3EPT/3**. "S.s.b. proved to be the only way to work sections on 6." — **K2QPN**. "This was the first time I was on 6 meter s.s.b., and it really paid off." — **WB2OEU**. "Couldn't work anyone, hardly; all the sections heard from were on s.s.b. and they don't listen for n.f.m. or a.m. stations." — **WB2ZDP**. "Low power does work out if you have an efficient antenna system." — **K3ZAP**. "We were disappointed this year with many last-minute equipment problems that plagued us. The club is planning a much-improved operation for the Fall V.H.F. Party." — **K3HKK/3**. "Shows how good 6 could be all the time." — **WA9WIL**. "Look for us with a kw on 2 and a better antenna in Sept. and Jan." — **W9YT**. "My first six out of seven QSOs were VEs." — **WA4JJY**. "Propagation on 50 MHz was most peculiar: none of the openings lasted very long (usually ten minutes or less), and signals were weak. However, the 'hot spot' kept skipping around so that most of the country was covered. We went out in a blaze of glory, our last contact being with K7ICW in Nevada, who was readable here for about one minute. The biggest disappointment was hearing one of the mountaintoppers QSL Montana and not being able to hear the Montana station. The most gratifying aspect of 50 MHz was the increase in c.w. activity. We worked several sections on c.w. which were not heard on s.s.b., particularly in the East Coast area. These contacts made Sunday morning

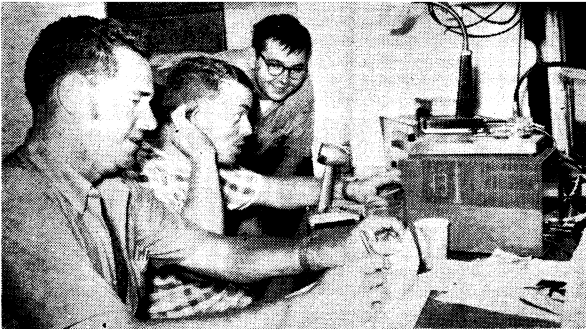


'Tis very heaven to work a Seven, especially a Seven in super-scarce Wyoming. **W7VDA** brought joy to the hearts of fifty fortunate 6-meter ops during the Party but wasn't able to raise anyone else in his own call area! Jim began his 50-MHz. career from Montana in 1956 and has been very active from Wyoming for the past eight years.



Precariously perched atop his Silver Spring QTH, **WN3ILD** contemplates the Twoer with growing frustration. Not only did Ray have to labor under the handicap of a simple antenna and a poor crystal frequency, but we suspect he also kept sliding off the roof between QSOs.

appeared to combine tropo and meteor scatter. As usual, 144 MHz was a disappointment." — **W4WOZ**. "Enjoyed contest from mountaintop in Kentucky. Sporadic-E openings were great." — **WA8LXJ/4**. "Wish more stations had used c.w. Some need new receivers. Which way do you point your antenna when stations are coming in from three directions at the same time? Skip was really something Heard Mexico, Cuba, called VE5US with no results, YV5ABF, VP5EC or DC, some stations speaking Spanish — all in all, the best V.H.F. Party I've ever been in." — **W8NOH**. "Never heard so much QRM on the low end of six." — **WA8HPY**. "As usual, I saw nothing but the highest courtesy in all contacts. This is to be expected, as two meters is the most courteous band. (Ask the converted 2-meter people who operated 75 meters!) Each year fewer people actually work the contest; the high scores by top stations may prove discouraging to some." — **K8ZES**. "Recommend extra points be given for each c.w. contact." — **WA8KPN**. "Why doesn't anyone else try 8-element 4-bay quads?" — **WA8TFO/8**. "The short-duration sporadic-E on six certainly helped the section multiplier. Some of the fellows who started early missed it, unfortunately. The most fun: working VE3BPR on 432 MHz with my varactor tripler with less than one watt to the antenna!" — **W2CRS**. "Picked up five new states on 6." — **WA2KUL**. "100% Murphy from start to finish." — **WN2BND**. "Why does everybody concentrate between 145.0 and 145.4? Lots of room on the band. I was mostly near the low end (144.26) and hardly anybody ever tuned there." — **K2QBW**. "Weather was superb, conditions on six were wonderful, but activity seemed to be off, probably because of the Kennedy funeral and day of mourning. Two-meter c.w. continues to improve; at times the low end sounded like 40 c.w. in a Sweepstakes!" — **W2UFT**. "I do not like the new time rules at all; wish you would go back to the old rules." — **W2SEU**. "Guess my 20-year-old SCR-522 is getting tired — and so am I! See you in September." — **W2KXG**. "Most people aren't very talkative during a contest because of the rush for points." — **WN2ETO**. "Some operators should look introspectively at their calling practices during band openings. Some of the things heard on 6 meters would have made even a 20-meter DX man wince!" — **WA2CVS**. "Unfortunately, I lost several very good hours of contest time — had to graduate from high school." — **WB2ECU**. "We opened the day with K2QKR stepping on a rattlesnake. Fortunately he had high shoes, and K2DJL's fast thinking and action disposed of the snake before it could strike. Conditions were average, except for some openings on 50 MHz. We had a good time on 1296 — although we made only four contacts they were lengthy and involved considerable experimenting. Contacts into Quebec and Ontario added to the 2-meter enjoyment. On 220 MHz we managed to work 9 sections.



Let's share a moment of ecstasy with (left to right) WA4HAZ, K4HGK and WA4JVD as they thrill to the prospect of another new multiplier for W4PAR/4. Forced to abandon plans for 2-meter operation when their car filled with 144-MHz. gear went off the side of the mountain, the boys stuck to 6 and made it pay off handsomely.

Thanks for the new rule (any 28 consecutive hours): it was a pleasure to break camp during daylight Sunday evening. Please keep this rule: I am sure all mountaintop stations appreciate it, especially from the safety angle." — W2PEZ/2. "We of the Interstate V.H.F. Society thank all those who helped us in our undertaking in June. In September, and from now on, you will hear our club operating under the call WB2GKE." — WB2WIK/2. "Found good signals on 6 and 2 from Sunrise Mt., northwestern N.J., where we are building our club station." — WB2QOO. "Missed working but heard North Dakota, Wyoming, and VP7DD, all on s.s.b." — W0PFP. "Sorry it is my last contest from W0-land." — K2PCG/0. "With Hurricane Abby in her death-throes, 2-meter DX was available via tropo with heavy QSB and alert c.w. just above 144 and 145." — W1DZA. "Ehto byl ochen' vozvuzhdayushchij kontest!" — KL7ELA/W1. "Preparations for the Spring contest started last September following the Fall V.H.F. contest. As a result, a 500-watt final for 144 MHz and a 200-watt rig for 220 MHz were completed and helped accumulate a good score." — K1PXE/1. "Finally made it on all bands to 10 KMHz. Why couldn't we have weather like this in January?" — WA1IOX/1. "For the record, we decided to enter the QSO Party at 1815 GMT on June 8, so we had 45 minutes to prepare!" — WA1IED. "It was Tenerife Mountain, near Milton, N.H., last year; Mount Blue Job, near Rochester, N.H., this year; and I wonder now where it will be next year. On Saturday the black flies were a constant bother, but they rested on Sunday while the mosquitoes took their place." — VE3FCH/W1. "Conditions generally fair, but use of c.w. again paid off. Highest multiplier count ever here. Tnx to K1FFE/4 for meteor-scatter QSO on 144 MHz for E.Fla. section!" — K1ABR. "Enjoyed contest, but it seems to be more and more a battle of the big guns." — WA1GFG. "We found the 2-meter activity very disappointing; hope it is better in Sept." — K1YLU/1. "I tried!" — W8KNC/-KL7. "I worked no 1s, 2s, 3s, or 6s — simply did not hear a single one. Even forgot to talk a local into getting on to give me my own section! It's great to be back on 6. (First QSO was in 1947 from Sheridan, Wyoming.)" — W7JRG. "Six would have been more interesting had the band really opened up. Two meters not as active this time." — WA7ECY. "Good 6M band openings and two new bands (2.3 and 3.3 GHz) helped us amass our highest score in the last four years. In general, we need more activity above 2M out here." — K7AUO/7. "During my few hours of contest operation I contacted and met more new hams than in a year of 'normal' operation." — WA6OWH. "Scores are low in this area this year due to lack of 6-meter openings." — WB6NDJ/6. "I was monitoring in hopes of some double-hop E! No luck." — KH6BZF. "This year's contest was the best effort accomplished by this station to date. It was very helpful to choose your own starting hour, and the 28-hour time limit should eliminate some of the inequities existing between some of the densely-populated Eastern sections and propagation-dependent, population-shy Western sections. The appearance of the June Perseids meteor shower June 9 (GMT) provided some very unusual iono/meteor scatter this year and this shower seemed to peak during the contest. C.w. provided a double-hop E_s contact with a Ga. station — don't think I could

have read him on s.s.b." — K7ICW. "Think I'll move back to Ohio — E_s much better than in the 'wild and wooly West'!" — W6DOR. "Some of the young squirts got back from school just in time." — WA6CXB. "I was amazed that I could often work the same stations as the mountaintoppers." — WB6CKT. "Can't recall when tropo propagation conditions have been so poor. Only one short-skip late Sunday morning into Washington/Oregon on six meters." — K6TJL/6. "Six was very good here Sunday: there were rapid changes geographically, but E skip was plentiful. Two was very quiet — not much going on at all." — WA6PV. "Our antenna and six-meter rig were in North Carolina and the two-meter rig about 10 feet away in Tennessee." — W4RUL/4. "One of the best QSO Parties we've ever been in. Actually, we made it into a junior Field Day and took to the hills, set up antennas, ran from emergency power and had a ball working 6 and 2. We had an excellent band opening on 6 and must apologize to all those stations we couldn't sort out of the pileups. At times, we sat for two minutes trying to get just one call out of all those calling us. It was worse than Channel 11 on CB!" — WA6SLM/0. "The best of sportsmanship displayed in a contest." — WA6PHZ/0. "The band was wide open all day Saturday, but I couldn't get on until late evening. Sunday, the band opened for about 15 minutes after I spent the whole day in front of the rig." — W7VDZ. "Band conditions were great during most of the contest period. Will be back in Illinois next contest. All the stations up there know me as KL7EBB/W9." — WB4DQW. "VP7DD sure sucked a number of fellows out of the American phone band on 50 MHz. At one time I heard 7 stations (W/K) calling him between 50.096 and 50.1." — WB4HIP. "Working 144 MHz only in southeastern Florida has its problems. Imagine having to work a 1400-mile path for one little multiplier!" — K1FFE/4. "Heard many 6s and Ariz., Nev., and other 7s, all on sideband." — K4HAV. "More contacts could have been made on scatter if some of the transeiver owners had paid more attention to getting their calls across rather than the height of their antenna, the type of rig, or the type of microphone." — WA7CJO. "Those amateurs who don't get into a v.h.f. contest don't know what they're missing." — WA6FJJ. "Our club had a very difficult time securing permission to operate from any choice mountain-peaks in the area and finally had to settle for Mount Wilson, which is the site of all television transmitters for the Los Angeles area. Careful preparation allowed operation within 100 yards of the TV towers with a minimum of ITV birdies in the receiver." — K6BPC.



WA0s SLM (left) and LVM (right) trudged up 8500 Rocky-Mountain feet, endured two inches of hail and two electrical storms, and still managed to hand out 283 QSOs as WA0SLM/0.

"We were turned away from our chosen mountaintop QTH by the Forest Service and finally got on seven hours late at a church camp, where the temperature dipped to the mid-30s inside our tent. We broke one 220-MHz Yagi driven element in raising our antennas, and then we shut down 15 minutes before a good six-meter opening to the East." — **K6YNB/6**. "I worked 47 sections on 50 MHz, and 43 of these were east of the western Oklahoma border. Only sections worked west were Nev., Ariz., N.Mex. and Mont. Worked every section east of Okla. western border except S.Dak., Ky., W.Fla. and Maine. Worked VE2 through VE5 and heard VP7. All in all, a very good contest." — **W5WAX**. "Being crystal-controlled held down my total contacts. Heard all call-areas and twice as many sections as I worked. No 2-meter-or-above activity here." — **WA5LXT**. "As usual, local participation was virtually nil. For all the v.h.f. stations in South Texas, not many ever seem to enter contests. Next year I hope to have some s.s.b. gear on and thus have a more even chance in the contest. Am curious as to whether any 2-meter Es was caught during the Party, since activity would be abnormally high." — **WA5IYX**. "I've been in every ARRL v.h.f. contest. No National Convention was going to keep me out of this one!" — **W1HDO/5**. "This station was built to get into the backs of the beams of the W stations. It worked! Some of the boys gave us 579 without turning their beams north. Would be interested to know if any stations report trying unsuccessfully to raise us on 2. We worked everything we could hear, but maybe we now need a better converter." — **VE2RM**. "Two meters open to the west (W8-land) early Sun. morning; the band finally appears to be picking up." — **VE3ERQ**. "Band conditions were very poor in this area, and it was a constant struggle to receive signals just above the noise. It was overcast and wet here and hardly the



Central-Division single-op champ (by a fat margin) **K9KFR** fondly regards his HS-type cat and perhaps ruefully considers the QSOs he missed on 2 because the kw amplifier expired. Bob's metalwork helped: for 6, it was 11 elements at 90 feet; for 2, how about 15 elements up 105 feet.

type of weather for sporadic-E openings. Most of the time only a couple of signals could be heard at any one time, and had to rotate the beam constantly because of changing conditions." — **VE4MA**. "Better condx than last year under my old call of VE7AXM. Being s.s.b. and v.f.o. helped a lot." — **VE7XF**. "We are not overly crushed with signals up in this part of the country on 2 meters. During the Arietids shower, contacts were completed with WA6MGZ and WB6VYM on s.s.b.; just missed with K6RIL on c.w." — **VE7BQH**.

Minimum Number of Sections						Minimum Number of Sections						Minimum Number of Sections						Minimum Number of Sections					
30 15 4 3 2						30 15 4 3 2						30 15 4 3 2						30 15 4 3 2					
Band (MHz.)	50	144	220	420	1215	Band (MHz.)	50	144	220	420	1215	Band (MHz.)	50	144	220	420	1215	Band (MHz.)	50	144	220	420	1215
K1ABR	21	19				WA2IRN	17	16				WB4HAP*	35					WA8HPY	34				
K1AGB	17		10			W2JKI*	36	20	9	4		WB4IED*	32	3			1	W8IDU		13			3
W1ALE	8	8	2	3		WB2KHD/2*		17				W4OJU	31					WA8LOW	35	4			
W1BCG/1*	16	10	7			W2MAU*	5	17	5	3		W4PAR/4*	41					WA8PLZ/8*	47	10			2
K1BZM/1	29	15	8	2		W2OJ/2*	29	17	5	4		K4PXE*	45	4				WA8VHG		8			3
WA1DCI		9		3		W2OW*	16	9	2	3		K4QIF*		17			6	K9DKW*	43	4			
K1HFK	31					W2PEZ/2*	34	20	9		2	WA4STJ	42					K9HMB	48				
K1HTV		21				W2QQ/2*	36	14				K4SUM	22	11			6	2	K9KFR	40	10		
WA1IED*	7	18				K2RTH*	38	18	9	4		W4TZG*	33					WA9MEF	30				
WA1IOX*	37	17	4	3	1	W2SEU	16	8	6	3		WA4VCC/4*	34	4				WA9SDC	37	3			
W1IPJ/1*	26	14	8	7		W2UFT*	34	20	6	5		W4WQZ*	35	6			1	K9VPE/9*	32	3			
K1JIX		9	6	6		K2VMR/2*	42	13	3			K5AGI	47					W9YT*	43	6			1
W1JSM	3	18				WB2VQK					2	W5BDF	30					WA0JYK	43	3	1		1
W1LUA/1*	21	16	5			WB2WIK/2*	40	21				K5IPV	45					K0MBC	35				
W1MX	17	8	4			WB2ZJR*		16				WA5KPU*	34					WA0MRH	40				
W1NBN*	16	15	4	3		K2ZRJ*	30	12				WA5TTH	45					W0PFP	42				
K1OJQ		15				W3ARW*	18	20	8	5		WA5TXI	37					K0TLM*	52	3			
K1PSR			6			W3CCX/3*	35	20	13	12	1	K5TYP*	44	1				K0YNW	33	2			
K1PXE/1*	26	20	12			W3CGV	21	5	2	4		W5WAX	47	5			1	K2PCG/0	41				2
K1SRZ	14	7	4			WA3EFT/3*	29	17				WB6AAE*	3	5			4	W9ECV/0	54				
K1YLU/1*	20	14	8	3		K3ERM/3*	30	16	4			WA6GER	7	4	3	4		W1HOY/KP4	43				
K1YON	11	2	10	3	1	W3FC		15				W6HPH		5		4	1	VE2HW		15		3	1
W9INW/1		10		3		WA3GPL		16				K6IBY	11	5	4			VE2RM*	24	15			
K2ACQ			8			K3HKK/3*	33	19	2	3		WB6KAP	8	5	4	3		VE2SH	22	11		3	
W2AQT		19				K3IPM	38	14	10	1		WB6NDJ/6*	10	5	4	5	1	VE3BGA*	25	9		4	
WA2CJ/K/2*	44	23				W3KWH*	41	21		7		K6TJL/6*	11	7	1	7	1	VE3BPR	26	15		5	
W2CNS	28	14	3	5		W3LUL		7	17			WA7CJO	37					VE3DSE		6		4	
K2CQG				7		W3PGA/3*	23	16		1		W7FN	33					VE3EVW		7		4	
W2CRS	29	21	11	3		K3WJB	33	19	2			K7ICW	30	5			1	VE3EYC		16		8	
WA2EBT		16				WA4BXZ*	30	3		1		W8AEC		18				VE3FIB*	27	19		2	
WA2EUS		7	5		3	WB4DQW		46	1			WA8BCA*	36	17			2	VE3SAU*	31	13			
WA2FGK	28	17				WB4FOX	39					W8CCI*	48	6									
WB2FKJ/2*	23	18	10	5	1	W4GDS	48					K8DOC*	42	10									

* Multioperator Station.

SCORES

In the following tabulation, scores are listed by ARRL divisions and sections. The top single-operator scorer in each section receives a certificate award. Multiple-operator scores are shown at the end of each section tabulation; in sections where at least three such entries were received, the top multiplier operator scorer receives a certificate award. Asterisk following call indicates Headquarters staff member, ineligible for award.

Columns show final score, total number of contacts, section multiplier, and bands used. A represents 50 MHz; B, 144 MHz.; C, 220 MHz.; D, 420 MHz.; E, 1215 MHz. and above.

ATLANTIC DIVISION

Delaware
W3CGV 4640-134-32-ABCD
W3FC 1200-80-15-B

Eastern Pennsylvania
K3IPM 37,989-577-63-ABCD
K3WBK 19,440-355-54-ABC
K3MTK/3 (K3LWR, opr.)
10,220-292-35-AB

WA3ADN 4268-194-22-AB
W3IUB 4160-160-26-A
WA3ASL 3484-134-26-AB
WA3AAN 3060-170-18-A

W3ETB 2600-124-21-AB
W3ICH 2096-131-16-A
K3QGQ 2071-109-19-A
W3HIT 1860-124-15-AB
W3GPI 1584-99-16-B
W3GIZ 938-67-14-A
W3KKE 660-61-1-A
W3IOB 621-69-9-AB
W3IZU 574-41-14-B
W3HET 270-30-9-A
W3JWL 78-26-3-B
W3CCX/3 (22 oprs.)
67,866-15-81-ABCD

W3ARW (K3SQO, W3GF)
11,322-193-51-ABCD
K3YFD (8 oprs.)
7192-248-29-AB
W3LP (4 oprs.)
5307-183-29-AB

Maryland-D. C.

K3LNZ 2716-97-28-AB
K3GEG 2600-100-26-A
W3LUL 2472-103-24-AB
K3YVC 1316-94-14-A
W3HB 102-65-15-ABD
K3ICH 960-64-15-A
W3GN 784-56-14-B
W3GBK 600-60-10-B
W3ILO 140-28-5-AB
WN1JHE/3 120-30-4-B

WA3HAO 90-18-5-AB
WN3ILD 9-9-1-B
K3ERM/3 (6 oprs.)
15,200-299-50-ABC
W3EPT/3 (7 oprs.)
14,536-16-46-AB

W3PGA/3 (7 oprs.)
9200-228-40-ABD

W3DFS (W3s CQH DFS,
WA3EMC) 8330-245-34-AB

WA3JMR/3 (W3SCC,
WA3s EOP FYZ) 4640-157-29-ABC

WA3HEN (K3OJI,
WA3HEN) 3650-146-25-AB

WA3JZR (4 oprs.)
2912-104-28-A

Southern New Jersey

WB2SZK 5876-212-26-ABC
W22YEH 5766-184-31-ABC

K2QPN 3750-150-25-AB
K2SQS 884-68-13-AB
K2ZJR (K2s BWR ZR.)
6846-163-42-AB

WB2ZJR (WA2BIW,
WB2FXI) 1488-93-16-B

Western New York

W2CNS 9500-177-50-ABCD
WB2OEU 4080-136-30-AB

K2CEH 2192-72-26-ABC
WA2KND 816-46-17-ABD

K2ACQ 480-30-8-D
WB2KYQ 396-36-11-B

W2WGL 153-17-9-B
WB2ZDP 114-19-6-AB

WB2CHO 44-11-4-A
W2FAN 12-12-1-B

WN2DRQ 12-12-1-B
WA2CJX (K2RKP, WA2s
CJK UJM) 27,738-414-67-AB

W2QQ/2 (K2s LGJ LWR)
11,500-230-50-AB

W2OW (16 oprs.)
5790-186-30-ABCD

WA2VMB (8 oprs.)
3900-130-30-AB

W2MAU (7 oprs.)
3510-101-30-ABCD

K2LFB (K2LFB, WA2GJA)
1872-77-24-ABD

WB2VPY (17 oprs.)
1274-98-13-AB

WA2AGT (WA2AGT,
WB2MXS) 468-52-9-AB

Western Pennsylvania

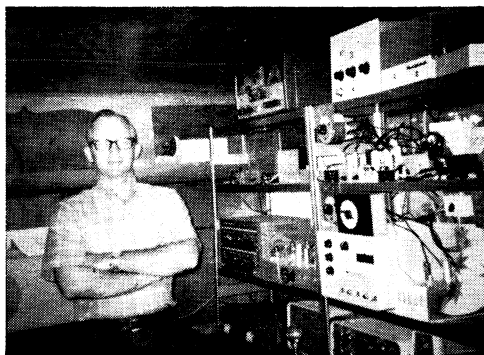
W3BWU 3550-140-25-ABC
W3ISY 2944-128-23-AB

WA3BBJ/3 1710-90-19-A
W3DJA 518-37-14-AB

W3DJM 380-38-10-A
K3ZAP 125-25-6-AB

WA3JDT 6-3-2-B
W3KWH (9 oprs.)
28,083-387-69-ABD

K3HKK/3 (9 oprs.)
14,991-254-57-ABCD



W5WAX savors sweet success — in this case, rolling up the second-highest single-op score west of the Mississippi. On 50 MHz., where he nabbed 47 sections, Sam swiveled six elements at a mere 100 feet.

K3JRO/3 (4 oprs.)
8385-215-39-AB

WA3CFK/3 (WA3CFK,
WN3JBS) 4031-139-29-AB

WA3FRU (5 oprs.)
1820-91-20-AB

CENTRAL DIVISION

Illinois

K9HMB 6096-127-48-A
W9EET 2378-82-29-AB

WA9KAN 1230-82-15-A
K9TSS 595-85-7-AB

WB9DJ 500-50-10-A
WA9PYA 495-99-5-B

WB9SDT 336-24-14-AB
WA9CUK 270-30-9-A

WA9OBQ 240-60-4-B
WA9FXH 232-58-4-B

K9DNW 228-38-6-A
WA9MSZ 144-36-4-B

K9DTB/9 140-20-7-AB
WA9NRI 132-44-3-B

WA9KQD 27-9-3-AB
WA9TCW/9 (WA9s QZE
TCW) 324-54-6-AB

Indiana

K9KFR 13,800-276-50-AB
WA9MEF 3333-111-30-A

WA9ONY 3275-131-25-AB
WA9SSX 1840-80-23-A

WA9QXZ 396-44-9-A
K9JTX 154-22-7-A

WA9YLZ 136-34-4-B
K9VPE/9 (K9s QCB VPE)
9415-269-35-AB

Wisconsin

WA9SDC 5360-134-40-AB
WA9WIL 3416-122-28-A

WA9ULK 418-37-11-ABD
WA9SZH 56-8-7-AB

WA9EZU 45-9-5-A
W9KHH 9-3-3-B

K9DKW (6 oprs.)
9917-211-47-AB

W9YT (K9OXY, WA9s
IQY LZM) 9750-185-50-ABE

DAKOTA DIVISION

Minnesota

K9GYO 270-27-10-A

North Dakota

K9ALL 602-43-14-A

DELTA DIVISION

Louisiana

K5AGI 10,105-215-47-A
WA5TTH 8280-184-45-A

W5JFB 16-8-2-AB

Mississippi

K5TYP (5 oprs.)
9270-206-45-AB

Tennessee

WB4FOX 4251-109-39-A
W4IMX 429-33-13-A

WA4JY 299-23-13-A

Michigan

W8NOH 2244-102-22-AB
WA8PST 865-62-1-B

W8BNU 832-49-16-BD
W8CVC 672-53-12-ABD

WA8VHG 594-49-11-BD
WA8PIE 584-73-8-B

WA8BOW 420-35-12-A
WA8LLY 160-32-5-B

WN8VY 2-2-1-B
WB8AOA/8 (4 oprs.)
560-56-10-AB

Ohio

W8KKF 5790-192-30-ABC
WA8LW 5494-141-39-AB

WA8PHY 4794-141-34-A

WA8WJV 2392-92-26-A
K8WVZ 2124-118-18-A

K8ZES 954-106-9-BD
WA8STX 57-14-AB

WA8KTN 720-32-5-AB
W8JRN 624-50-12-ABCD

WA8RCN 156-26-6-A
WA8MTS 8-4-2-A

WA8ZTY 3-3-1-A
WA8PLZ/8 (7 oprs.)
25,131-422-59-ABD

WB8CA 24,750-445-55-ABD
W8CCI (7 oprs.)
24,192-448-54-AB

K8DOC (7 oprs.)
21,892-421-52-AB

WA8AID (WA8s AH)
FHF 1826-82-22-A

W8VND (16 oprs.)
1612-124-13-AB

WA8SRF (WA8s SRF TNF)
468-52-9-A

WA8TU/8 (WA8s TFO
UEG) 432-48-9-A

HUDSON DIVISION

Eastern New York

W2CRS 17,984-260-64-ABCD
WA2KUL 3597-109-33-AB

WA2VAZ 798-49-4-AB
W2IP 338-26-13-B

K2CQG 196-14-7-D
WN2BND 100-25-4-B

WB2VQK 24-4-2-E
K2QBW 18-6-3-B

W2JKI (5 oprs.)
41,607-576-69-ABCD

W2UFT (6 oprs.)
35,230-509-65-ABCD

WB2FKJ/2 (12 oprs.)
32,376-508-57-ABCD

K2BGU (5 oprs.)
7339-179-41-AB

W2ZXK (6 oprs.)
2484-108-23-AB

WA2DNR (5 oprs.)
2071-109-19-AB

WB2WHW (WB2s WHW
YHE) 130-26-5-B

New York City-Long Island
WB2MZE 6169-199-31-AB

WB2QLP 6090-210-29-A
W2SEU 3201-80-33-ABCD

WB2WQE 2541-121-21-AB
WA2ZPX 2192-137-16-AB

WN2ESD 672-84-8-B
WA2EUS 660-40-15-ABD

WB2UMH 462-42-11-A
WB2JE 455-65-7-B

W2KXG 270-54-5-B
WB2UFN 228-38-6-A

WN2ETO 5-5-1-B
WB2PGR 4-4-1-B

K2RTH (6 oprs.)
10,404-423-69-ABCD

WA2CVS (WA2BCS,
WB2WOI) 2808-156-18-AB

WB2TOC (WB2s TOC ZAP)
1133-103-11-AB

WB2UCX (WB2s UCX
ZBV) 315-45-7-B

Northern New Jersey

WA2FGK (K2LNS, opr.)
14,625-325-45-AB

WA2IRN 6831-207-33-AB
W2AQT 2052-108-19-B

WB2VFX 1980-90-22-AB
WB2WEI 1827-87-21-AB

WA2EBT 1760-110-16-B
W2CVW 1312-82-16-AB

W2DZA 1062-47-18-ABC
WB2ECU 927-103-9-B

WA2ZBT 568-73-7-B
WB2RTF 378-63-6-B

WB2RTP 375-65-5-B
WN2DUH 344-43-8-B

WB2VEE 24-6-4-A

GREAT LAKES DIVISION

Kentucky

WA8LXJ/4 1554-74-21-A

WA8TYF/4 663-51-13-AB

K4QPJ (K4s QPJ WYN)
799-47-17-AB

W2PEZ/2 (7 oprs.)
43,225-624-65-ABCE
W2OJ/2 (5 oprs.)
29,095-497-55-ABCD
WB2WIK/2 (7 oprs.)
26,169-429-61-AB
K2VMR/2 (8 oprs.)
22,214-380-58-ABC
WB2QOQ (6 oprs.)
12,256-383-32-AB
WA2ANI (5 oprs.)
666J-222-30-AB
W2BSC (6 oprs.)
4,158-189-22-AB
WB2KHD/2 (WB2s GMR
KHD) 3298-194-17-B
WB2WII/2 (5 oprs.)
1365-75-15-ACD
K2RPZ/2 (K2RPZ,
W2MKN)
1128-94-12-A
WN2DQE (WN2s CUE
DQE) 330-55-6-B
WA2CEW (WA2s AQK
CEW, WN2FIG)
164-41-4-B

MIDWEST DIVISION

Iowa
W0PFP 5250-125-42-A
Kansas
W9ECV/0
15,822-293-54-A
WA0JYK 8688-176-48-ABCE
K0YNW 4200-120-35-AB
W0QDH/0
2444-94-26-AB
WA0POY 2156-72-22-ABCE
W0SPF 574-41-14-A
Missouri
K0TLM (K0TLM,
WA0IKI)
13,915-253-55-AB
Nebraska
WA0MRH
7600-190-40-A
K2PCG/0
7095-165-43-AD
K0MBC 5075-145-35-A

NEW ENGLAND DIVISION

Connecticut
K1HTV 2751-131-21-B
K1YON2655-67-27-ABCE
W1HUE
1518-69-22-AB
WN1ISD 432-48-9-B
W1ZGZ/1 387-43-9-A
W1DZA 342-38-9-B
W1ENZ 273-39-7-B
W1AIGTP 65-13-5-AB
WN1IQJ 45-15-3-B
W1AIGS 28-7-4-A
W1QVF/1 12-4-1-E
W1ACYT/1 8-2-2-AE
K17ELA/W1*
4-4-1-B
K1PXE/1 (8 oprs.)
33,292-547-58-ABC
W1AIOX (13 oprs.)
31,806-513-62-ABCE
W1LUA/1 (6 oprs.)
16,674-388-42-ABC
W1BCG/1 (7 oprs.)
815-146-33-ABC
W1AIED (5 oprs.)
2590-100-25-AB
K1MUJ/1 (6 oprs.)
2196-183-12-A
W1AIGS (W1PDI,
W1AIGS)
636-53-12-B
Eastern Massachusetts
K1SRZ 5200-193-25-ABC

W1MX (WA2KZV, opr.)
4930-157-29-ABC
K1AGB 4293-128-27-AC
K1BXA 2813-97-29-A
W1JSM 1848-88-21-AB
W1AETC 945-63-15-AB
K1OJQ 720-48-15-B
W1IAJZ 420-30-14-B
W1AIDCI 312-22-12-BD
W1AIGDR 192-24-8-A
W1AIDYU 180-30-6-A
WA2PTS/1
105-21-5-B
W1CTR/1 95-19-5-B
W1NBN (K1s JPW QDR,
W1EJU)
5206-128-38-ABCD
K1TXV (K1s PMM TXV)
2560-160-16-AB
W1AIFCD (W1s CPG DWL
FCD) 1065-71-15-AB
W1IHIE (W1IHHK,
W1IHIE)
104-26-4-B

Maine

W1IPJ/1 (12 oprs.)
26,125-428-55-ABCD
New Hampshire
K1HFK 2697-87-31-A
W1AZK 1166-51-22-BC
W1ALE 840-35-21-ABCD
W9INW/1 767-58-13-BD
K1PSR 216-18-6-C
VE3FCH/W1 (7 oprs.)
4636-244-19-AB

Rhode Island

K1ABR 5560-139-40-AB
W1AIFG 5460-182-30-AB
W1POP 1539-81-19-AB

Vermont

W1AIGYL/1
5174-199-26-AB
K1GYT 2704-104-26-AB
W1MEP 231-20-11-ABC
W1ADZ/1 (K1PYX,
W1ADZ) 672-48-14-AB

Western Massachusetts

K1ZGB 5040-168-30-AB
W1AHHN
2204-116-19-AB
K1JIX 1995-62-21-BCD
K1ULZ 924-77-12-AB
W1UCB 180-20-9-AB
K1YLU/1 (9 oprs.)
17,865-371-45-ABCD
K1BZM/1 (8 oprs.)
13,770-235-54-ABCD
W1AIFJW/1 (W1s FJW
IJX) 3584-128-28-A
W1AIAM/1 (W1s IAM
IAN) 275-25-11-AB

NORTHWESTERN DIVISION

Alaska
W8KNC/KL7
5-5-1-AB
Montana
W7JRG 2691-117-23-A
W7OIO 22-11-1-AB
W7DB 18-9-2-AB
K7LYY/7 (6 oprs.)
1040-65-16-AB
Oregon
W7A7EY 1210-110-11-AB
W7UDM
1170-70-15-ABCE
W7TYR 266-34-7-ABCD
K7UYX/7 (K7ZCB, opr.)
24-12-2-AB
K7AUO/7 (12 oprs.)
6815-222-29-ABCE
W7ZLR (K7HSJ, W7ZLR)
84-12-7-AB



Shown above is a view of the antenna setup put to work by the **WB6NDJ/6** gang to tally 7200 points on all v.h.f. bands. The 5-foot microwave dish is in the foreground; other radiators include 6 elements on 6, 20 elements (plus a ground-plane) on 2, 11 elements on 220 and 20 elements on 432.

K7ICY (4 oprs.)
62-31-2-AB

Washington

W7FN 7029-213-33-A
K7VNU 3248-112-29-A
K7DBR 2394-114-21-A
K7KOT/7 (K7KOT,
W7DNU)
5340-178-30-AB
W7ZSL/7 (K7s CAL WTG)
4725-221-19-ABE
K7MQF/7 (K7MQF,
W7AGDU)
2432-128-19-AB
K7IEY/7 (K7IEY,
W7AHEH)
1425-75-19-AB
W7HMJ/7 (5 oprs.)
1170-78-15-AB

PACIFIC DIVISION

East Bay

W6BXO 528-48-11-AB
W6AOWH 66-22-3-B
WB6NDJ/6 (7 oprs.)
7200-260-25-ABCE
WB6AAE (WA6s AGA VDC)
912-69-12-ABD
WA6DUR/6 (4 oprs.)
750-150-6-B

Hawaii

KH6BZF 1-1-1-A

Nevada

K7ICW 4068-112-36-ABD

Sacramento Valley

WA6GER 1044-49-18-ABCD
W6TEE 333-34-9-ABCD
W6DOR 231-33-7-A
WB6WBP 215-43-6-B
WA6CXB 104-26-4-B
WN6BZL 80-20-4-B

San Francisco

W6AJF 516-30-12-ABCD
WB6WLF 68-17-4-A

K6NCG (WB6KLL,
WA9LRO, WA9IKJ)
1183-91-13-AB

San Joaquin Valley

WB6JTZ/6
340-34-10-A
W6BWK/6 (4 oprs.)
1590-159-10-AB
WA6EXV/6 (WA6EXV,
WB6CWN)
522-87-6-B

Santa Clara Valley

WB6KAP 2240-98-20-ABCD
WB6DUB
1260-126-10-AB
WB6CKT 445-89-5-B
WA6FAC 150-50-3-B
W6ASH/6 26-5-2-BE
K6TJL/6 (6 oprs.)
4644-154-27-ABCE
K6SLQ/6 (6 oprs.)
4180-189-20-ABCD

ROANOKE DIVISION

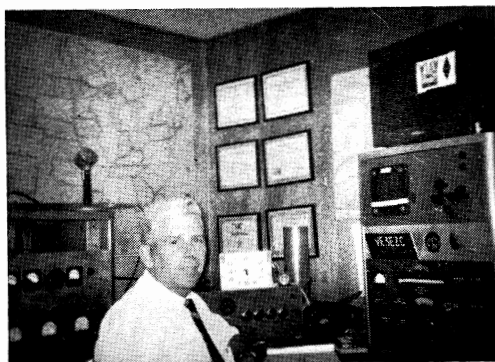
North Carolina

W4HJZ 2436-86-28-ABD
W4EPV 1512-72-21-AB
K4VAA 1196-52-23-A
WB4CES 559-43-13-A
WB4INE 260-26-10-A
W4FAR/4 (K4HGK, WA4s
HAZ JVD)
9266-226-41-A
WA4VCC/4 (K4LVV, WA4s
BNX VCC)
6878-181-38-AB
W4RUL/4 (K4s EPC MOU,
W4LYE)
4110-137-30-AB
WA4WZP (WA4s MDW
WZP, WB4EKD)
2052-108-19-AB

South Carolina

K4PXE (5 oprs.)
8085-165-49-AB

(Continued on page 154)



Happily proclaiming that "the U.S.A. gang come through like Gangbusters," QRP advocate **VE3EZC** snared 8 sections on 432 MHz. with just sixty watts.

1200mc preselector. Tuneable 1130-1190mc; but can be easily converted to cover 1200mc amateur band. Triple-cavity is coupled to built-in multiplier-mixer. With 1N21 crystal. Ideal for moon bounce, galactic noise, etc. Designed to work into 60mc IF. RF input impd. is 50 ohms. Size: 8" l x 3" h x 2" w. **\$17.50.**

60 mc IF amp. May be used with preselector (above). Gain is 120db. BW=5.0 mc (broadband) or 2.0 mc narrow band. Uses 8-6AK5s, 1 6AL5 detector, and 1 6J6. Requires ext. power. **\$14.50.**

AN/ARC-27 Maintenance Handbook. **\$2.75.**
AN/GRC-19 Instruction Book. **\$2.50.**

RD92 Facsimile Recorder, rotary drum, 60 r.p.m. Uses specially treated paper. Copy size 12" x 18 1/2". Operates 115v. 60cy. **\$275.00**

Dual-Range Butterfly Osc. Assy. Tunes 50-110mc and 110mc to 500mc. Orig. designed for use with TS-47/APR test set. Complete with 7 pin tube socket and circuitry. Requires 9002 tube. **\$9.95.**

RF Power Meter. Bridge may be used with standard 200 ohm bolometer mounts such as HP 477, etc. 50 ohms RF Z. Basic full scale is 1 milliwatt; suitable att. or directional couplers may be used to extend range. Operates from 115v, 60cy. **\$88.00**



P.J.'s

**RADIO
SHACK, INC.**

138 WATER STREET, SO. NORWALK, CONN.
TEL: 203-866-3557

**DIRECT
READING
OF FM
DEVIATION
...only \$290!**



LAMPKIN 205-A
FM MODULATION METER

Check these specs —

Indicates instantaneous **PEAK** deviation of voice or tone modulation, on fast-attack, slow-decay, analog meter.

Oscilloscope output jack for **VISUAL** monitoring, using your shop 'scope. A low-cost, highly effective test set combination.

Weight less than 10 pounds — a two-finger load. Size 7" x 10" x 7".

Continuous tuning, 25 to 500 Mc.

Meets FCC requirements for all mobile-radio services.

Proven design — thousands in use.

Want to learn more?
MAIL COUPON TODAY!

NAME
ADDRESS
CITY STATE ZIP

LAMPKIN LABORATORIES, INC.
Mfg. Div., Bradenton, Fla. 33505

manufacturer. Industrial assemblers know how time-consuming and expensive it is to trouble-shoot electronic equipment *after* the components are wired in. The scrap box is a wonderful source of electronic "goodies," but until these components are checked . . . beware! **QST**

Results, June QSO Party

(Continued from page 69)

Virginia

K4SUM 5094-144-41-ABDE
K4QIF 1955-75-23-BD
W4UIS 1880-60-23-AB
WB4GFG 1242-69-18-AB

West Virginia

W8AEC 864-48-18-B
W8KJX 432-27-16-A
WN8YHC 21-7-3-B

ROCKY MOUNTAIN DIVISION

Colorado

WA0SLM/ø (WA0s LVM
SLM) 7358-283-26-AB
WA0PHZ/ø (6 ops.)
7279-251-29-AB
WA0SKH (8 ops.)
3984-165-24-ABD

New Mexico

W5FO/5 (8 ops.)
2970-110-27-AB
W5IXR/5 (W5s LXR IXS,
WA5OOR) 960-80-12-A

Wyoming

W7VDZ 550-50-11-A

SOUTHEASTERN DIVISION

Alabama

WB4DQW 7849-167-47-AB
K4WHW 1430-65-22-A
WB4GZW 242-22-11-A

Eastern Florida

WA4STJ 9870-235-42-A
W4GDS 8016-167-48-A
W4OJU 4805-155-31-A
WB4HIP 1404-52-27-A
K1FFE/4 15-5-3-B

Georgia

WB4FMJ 2472-103-24-AB
K4HAV 1840-80-23-A
WA4ZEN 18-6-3-A

West Indies

WIHOY/KP4 7998-186-43-A

SOUTHWESTERN DIVISION

Arizona

WA7CJO 4995-135-37-A
K7IFZ 704-88-8-AB
K7NHK/7 665-35-19-AB
WA7BBM (K7SFE,
WA7BBM) 680-40-17-A

Los Angeles

WB6PKA/6 678-113-6-B
WA6FJJ 272-68-4-B
K6UMV 2-2-1-B
K6BPC (9 ops.)
6690-427-15-ABC
W6IAK/6 (W6IAK,
W6DHK) 424-53-8-AB

Orange

K6IBY 1260-56-20-ABC
WA6OUE 912-76-12-AB
W6BPH 300-21-10-BDE
K6YNB/6 (K6s DLY YNB)
4928-301-16-ABC

San Diego

WA6ZQU/6 3528-126-28-AB
WB6JLC 150-24-6-ABC

Santa Barbara

WILXE/6 338-26-13-A
WB6ZFS (WA6s SPJ ZFS)
1524-121-12-ABD

WEST GULF DIVISION

Northern Texas

K5IPV 9495-211-45-A
W5BDF 4800-160-30-A
K5IVB 4234-146-29-A
WA5CAX 2760-120-23-A
WA5DOH 1156-68-17-A
WA5RUP 630-45-14-A

Oklahoma

W5WAX 13,149-247-53-ABD
WA5TVY 2375-95-25-A
K5CBA 1725-75-23-AB
WA5DWK 1564-68-23-AB
WA5OUU 1380-69-20-AB
W5VCJ 960-40-24-A
W5LXT 264-22-12-A
W5FMC 242-22-11-A
W5LOW 230-23-10-AB

Southern Texas

WA5TXI 7548-204-37-A
WA5IXX 880-44-20-A
W5FCF 180-15-12-A
WIHDQ/5* 91-13-7-A
K2OJD/5 45-9-5-A
K5BDQ 30-15-2-B
WA5KPU (W5ZNM,
WA5KPU) 6970-205-34-A

CANADIAN DIVISION

Quebec

VE2SH (VE3RM, opr.) 5472-145-36-ABD
VE2HW 1501-67-19-BDE
VE2RM (14 ops.) 7956-204-39-AB

Ontario

VE3BPR 7084-135-46-ABD
VE3EJC 3216-116-24-BD
VE3DSQ 1456-91-16-AB
VE3ZZZ (VE3ABG, opr.) 1122-66-17-A
VE3GDD 741-57-13-AB
VE3DSE 480-34-10-BD
VE3AIB 357-45-7-BD
VE3EVR 209-23-11-BD
VE3ERQ 207-69-3-B
VE3FIB (VE3s ASO DJT
FIB) 13,392-275-48-ABD
VE3SAU (9 ops.) 8008-182-44-AB
VE3BGA (VE3s BDX BGA
GAF) 6460-160-38-ABD

Manitoba

VE4MA 1098-61-18-A

British Columbia

VE7XF 1890-90-21-AB
VE7ASM/7 (VE7ASI, opr.) 1224-68-18-AB
VE7BQH 60-11-5-BD
VE7BBG 44-10-4-BD

Check logs:

WA2CJU, K4MHS. **QST**

For the Ham with
SPACE PROBLEMS...

America's most complete line of
Free Standing & Guyed Crank-up Towers.
Write for FREE Catalog.

TRISTAO TOWER CO. P. O. Box 115, Hanford, California 93230

