

23rd ARRL Sweepstakes Results

Part I—C.W.

ONE THING about the SS: the rules are simple as mud and you can learn the ropes in thirty minutes on the air. You swap NR4 W6XXX 579 SF NOV11-type preambles as often as possible. For the two points per contact (before any multipliers) the five "message" elements must be rogered for in both directions. Which means you have to *communicate*. Now every amateur worth his salt loves communicating and so you never run out of customers, even when you stick at it for the 40-hour maximum. And coming in 15th or 25th can be as much fun as leading the section, provided one lands new states or doubles his code speed or makes the "clean sweep"—and there are 101 other ways to get your feet wet in the SS and have a whale of a time.

Inasmuch as every recent SS has been bigger than the one before, followers of contests will scarcely swoon at the news that the 23rd smashed all past records with 1960 entries (1435 c.w., 525 phone) present and accounted for. The facing tabulation identifies the 73 brasspounders who came, saw and conquered in their respective ARRL sections in 1956. If you were a winner, FB and congratulations! If not, maybe you'll want to study the meat in this report and enhance your chances of becoming one in November, 1957. For one thing, take note of the wide play that ten and 15 meters are getting as the solar-peak days approach.

Scorewise, the prevailing winds were from the South, it would seem, as just three entrants registered scores of 200K-plus and all were Fours. They have thousands of SS manhours behind them and you will recognize their calls: W4KVX, W4KFC, K4LPW (better known as ex-W3DGM). Their scores were 227,213, 219,000 and 204,660. You will also recognize these others who netted above 150,000 points: W6BJU (W6CUF keying) 198,000, W3EIS 185,670, W8FGX (W8EZF opr.) 182,568, W9YFV 180,720, W9OCB (multi-

If you found Nevada, the odds are ten to one that this is the fellow who made it possible. Las Vegas' W7KEV held sway in his call area and always-rare section with a withering 173,649 points, the U. S. A.'s 11th best code total. Ed's formidable forward gain derives from this antenna farm: a 40-meter zepp.

operator) 178,588, W9APY 176,138, W8LQA 174,600, W7KEV 173,649, W1BFT 172,885, W4YHD 165,710, W3VOS 162,360, W9RQM 161,350, W6YMD 157,096, W3JNQ 156,023, W3EIV 155,845, K6JQJ 153,658, W3MSR 153,270, W3AEL 152,575, K6CEF 151,840. Canada's champs proved to be VE3DSU 110,513, VE3VX 85,593, VE3EAM 85,090, VE3ES 74,725, VE2ADD 64,417.

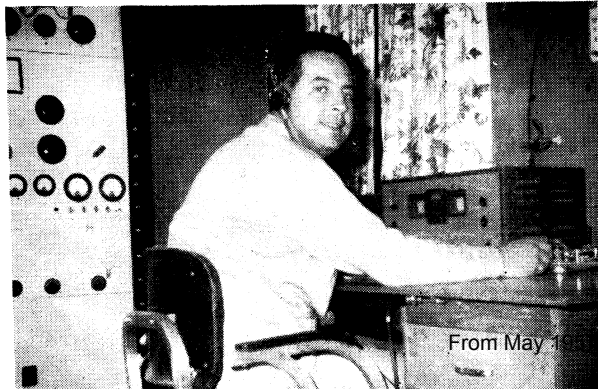


VE8JW assumes the fighting stance with which he salted away 64,253 points, no cinch from aurora-ridden Whitehorse, Yukon. Earl, ex-VE4ALE-VE7ALE-VE7MW, anticipates more steam come next SS thanks to 14-Mc. horizontal and 7-Mc. vertical beams just completed.

The following call-area comparisons reflect the peak of competitive effort geographically:

W1BFT	172,885	KP4DH	100,328
W2CQB	134,575	KZ5BC	19,796
W3EIS	185,670	VE1CU	220
W4KVX	227,213	VE2ADD	64,417
K5CAW	138,006	VE3DSU	110,513
W6BJU	198,000	W3MCG/VE4	11,019
W7KEV	173,649	VE5DZ	39,329
W8FGX	182,678	VE6MA	51,975
W9YFV	180,720	VE7JO	47,250
W0CDP	129,666	VE8JW	64,253
KH6MG	92,140	VO6N	19,550
KL7MF	17,325		

The rarity of Vermont, Mississippi, and certain Canadian multipliers notwithstanding, these 27 amateurs contacted all 73 sections: W1s EOB HX JYH VG, W2IVS, K2KCE, W3s GRF MFJ PZW VAN, W4s BEY CVI IHN KFC KVV LJV YHD, W6s BIP BVM HOC PYH TT YMD, K6CEF, W7s KEV, TKB, W0CDP. It should be recorded for posterity that, by dint of placing diligent section-searching above all else, W4IHN swung the "clean sweep" in a measly 108 QSOs, W1HX did it in 130, and W7TKB in 212.



We should call attention to 17 bright-eyed newcomers who earned special Novice awards in their first crack at SSing: *WN1s* IUU IWQ,

KN2s RCC RHQ SRA UPD, *WN3FNH*, *KN4IEX*, *KN5EZV*, *KN6s* PKJ QYG, *KN8s* AHO CPM, *KN9s* BJZ DWK, *KN0s* DSC EGJ.

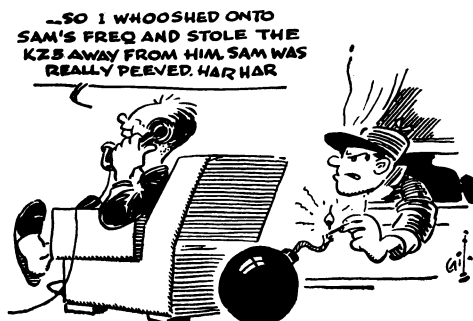
C. W. WINNERS, 23RD A.R.R.L. SWEEPSTAKES

Section	Call	Score	Transmitting Equipment	Receiving Equipment	Bands Used
E. Penna.	W3JNQ	156,023	Lysco 600-813	HRO60	80, 40, 20, 15
Md.-Del.-D. C.	W3EIS	185,670	Command Sets-813	BC342, Q5er, c.c. conv. (10, 15)	80, 40, 20, 15, 10
S. N. J.	W2HDW	110,773	DX100	HQ140X	80, 40, 20
W. N. Y.	W2SSC	124,783	Ranger	75A3	80, 40, 20, 15, 10
W. Penna.	W3VIW	128,240	Sig. Shifter-813s	HQ129X, R9er, Q multiplier	80, 40, 20
Illinois	W9YFV	180,720	5100B	75A4	80, 40, 20, 15
Indiana	W9APY	176,138	VFO-807-4-125A	NC300	80, 40, 20, 15
Wisconsin	W9RQM	161,350	VFO-807-813	HRO50T	80, 40, 20, 15, 10
No. Dakota	K0CNC	32,745	Heath VFO, 6146	NC88, HQ100	80, 40, 20, 15, 10
So. Dakota	W0TLD	46,384	Ranger	NC183	80, 40, 20, 15, 10
Minnesota	W0RLI	127,925	Viking VFO-6AG7-6BQ6-811As	NC173, Q multiplier	80, 40, 20, 15
Arkansas	W5BYJ	48,400	Bud VFO-6AG7-1625	HQ129X	80, 40, 20, 10
Louisiana	W5YDC	127,090	HT20	NC183	40, 20, 10
Mississippi	W5FPI	49,500	TBS50C	S76	80, 40, 20, 15, 10
Tennessee	K4LPW	204,660	VFO-Viking I	HRO50T1	80, 40, 20, 15, 10
Kentucky	W4KVX	227,213	Meissner VFO-813	75A3	80, 40, 20, 15, 10
Michigan	W8OCK	125,650	VFO-Viking I	75A3, DB23	80, 40, 20, 15, 10
Ohio	W8FGX	182,678	310B-4-125A	HRO60 (mechanical filter)	80, 40, 20, 15
E. N. Y.	K2PIC	113,750	5100B	75A4, DB23	80, 40, 20, 15
N. Y. C.-L. I.	W2IVS	129,758	Ranger	NC300	80, 40, 20, 15, 10
N. N. J.	W2CQB	134,575	VFO-807-812s	NC300	80, 40, 20
Iowa	W0FZO	127,736	Cyclemaster-813	HQ129X	80, 40, 20, 15, 10
Kansas	W0IUB	113,693	VX101-813	HQ129X	80, 40, 20, 15, 10
Missouri	K0HEM	107,726	Ranger	NC300	160, 80, 40, 20, 15, 10
Nebraska	W0BUR	94,013	Viking I; 12AT7-2E26 (6 meters)	HQ129X, c.c. conv. (6)	80, 40, 20, 15, 6
Connecticut	W1TYQ	138,510	Viking II	75A4	80, 40, 20, 15
Maine	W1BCD	51,345	DX100	SX25	80, 40, 20, 10
E. Mass.	W1DDF/1	113,750	32V1	75A3	80, 40, 20, 15
W. Mass.	W1JYH	135,123	VFO-4-250A	Homebuilt	80, 40, 20, 15
N. H.	W1BFT	172,885	32V3	75A4, DB23	80, 40, 20, 15, 10, 6
R. I.	W1CJH	80,063	Viking II	75A1	80, 40, 20, 15, 10
Vermont	W1QMM	47,530	6AG7s-6L6-813	Homebuilt (triple conv.)	80, 20, 15
Alaska	KL7MF	17,325	AF67	SX25	20, 15
Idaho	W7WMO	53,520	DX35	NC45	40, 20, 15
Montana	W7VGZ	54,653	VFI-AT1-813	BC348P	80, 40, 20
Oregon	W7TML	101,010	VFI-AT1-813s	SX71	80, 40, 20, 15
Washington	W7GWD	114,210	VFO-2E26-814	Super Pro	40, 20, 15
Hawaii	KH6MG	92,140	Ranger	75A2	40, 20, 15, 10
Nevada	W7KEV	173,649	VFO-807-4-65A	HQ129X	40, 20, 15
Santa Clara V.	W6UTV	134,750	VFO-4X150B	HRO60	80, 40, 20
East Bay	W6PYH	129,666	32V3	75A4	80, 40, 20, 15, 10
San Francisco	W6BIP	107,164	VT127As p.a.	SX28A, Q5er	80, 40, 20, 15, 10
Sacramento V.	K6ORT	93,100	6AG7s-6V6-1625s	BC348, Q5er	80, 40, 20
San Joaquin V.	W6EFV	87,774	32V2	75A3	20, 15
No. Carolina	W4LYV	111,599	32V3	75A1	80, 40, 20, 15
So. Carolina	W4HGW	86,933	Viking I	HQ129X	40, 20, 15
Virginia	W4KFC	219,000	VFO-807-4E27	75A4	80, 40, 20, 15
W. Virginia	W8KWI	81,680	HT18-813	SX100	80, 40, 20
Colorado	W0CDP	129,666	DX100	SX71	80, 40, 20, 15
Utah	W7BAJ	67,538	DX100	SX100	40, 20, 15, 10
Wyoming	W7HYW	64,470	VFO-813-810s	75A3	20, 15
Alabama	W4WOG	58,823	5100	BC348N	80, 40, 20
E. Florida	W4SHW	83,573	Ranger	SX100	80, 40, 20, 15, 10
W. Florida	W4WKQ	103,125	Lysco 600-813	HQ140X	80, 40, 20
Georgia	K4BAI	100,969	6L6-807s-100THs	SP400X	80, 40, 20, 15
West Indies	KP4DH	100,238	6AH6-6C4-5763s-Viking II (modified)	HROM	40, 20, 15
Canal Zone	KZ5BC	19,796	813 p.a.	NC100, HF10-20	20
Los Angeles	W6BJU	198,000	Sonar XEC-4E27	75A2, DB23	80, 40, 20, 15
Arizona	W7CJZ	119,680	6BH6s-6AG5-5763s-807s-813s	Homebuilt (dual conv.)	40, 20, 15, 10
San Diego	W6ZVQ	107,100	PTO-6AG7s-2E26-814	BC348, SX28	40, 20
Santa Barbara	W6ERB	100,554	Viking II	75A4	40, 20, 15
No. Texas	W5BLU	114,665	DX100	HRO5	80, 40, 20, 15, 10
Oklahoma	W5EQT	103,360	811s p.a.	HQ150	40, 20
So. Texas	W5BTS	108,205	6AC7-5763-6146	Homebuilt (50 kc. i.f.)	40, 20
New Mexico	K5CAW	138,000	5100	75A4	80, 20, 15, 10
Maritime	V06N	19,550	VFO-807-813	HQ129X	20, 15
Quebec	VE2ADD	64,417	VFO-6N7-6AG7-6146-813	NC125	80, 40, 20
Ontario	VE3DSU	110,513	DX100	HRO7	80, 40, 20, 10
Manitoba	W3MCG/VE4	11,019	32V2	51J4	40, 20, 15
Saskatchewan	VE5DZ	39,329	6AG7-6L6-807-803	HRO	40, 20
Alberta	VE8MA	51,975	6V6-6L6-807	SX23	40, 20, 10
B. C.	VE7JO	47,250	6AC7-6AG7-6L6-807s	AR6, Q5er	40, 20
Yukon	VE8JW	64,253	802-807	75A2	40, 20

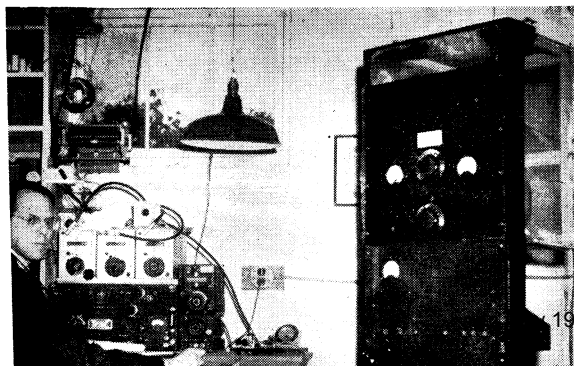
Contest Quotes

"Despite necessary school work, made 200 more contacts in my first SS as a General. Expect to represent No. Dak. often in the future and hope ARRL always keeps up this great contest." — **K0CNC**. . . "Used four watts input to a 50L6 oscillator and four 40-meter crystals. This peanut whistle won't win a certificate but it's fun to see what can be done with it." — **W4SAS/5**. . . "Bet W4SAS/5 was the lowest-powered station in the SS. He gave me NR 70, not bad for four watts." — **VE3DUS**. . . "Pickings got rather lean on 20 c.w. towards the end. Was seeking a 14-Mc. WAS but where were Vt. and Miss.?" — **W5JPC**. . . "Bands in order of importance were 20, 40, 10, 80 and 15, but ten meters proved by far the hottest in QSOs per hour." — **W6YMD**. . . "The 1956 SS, c.w. style, was terrific. Operating techniques seemed better than ever and conditions superb." — **W6SRT**. . . "A miserable score but enjoyed listening to the OM (W1SAD) rack up a much better one." — **W1COL**. . . "First time in 27 years of hamming that I was successful in working all 73 sections in the SS, although there appeared to be very little activity in VE5, VE6, VE1, and heard only one station in KL7, KP4, VE4, So. Dak., W. Va., Miss. and No. Dak." — **W7TKB**. . . "Open letter to 800 of the 926 stations worked: 'R5 does not mean QSZ.' There's absolutely no reason for a guy to send everything twice or three times after receiving RST 579 or better." — **W1JYH**. . . "Raised my skyhook the second week end and got out worse." — **K8CNE**. . . "W7TKB gave me my 48th state." — **W1AMY**. . . "Made ten times my '55 score." — **K4DWF**. . . "First SS and I'll settle for 64 sections and 47 states in every future one." — **W8IBX**. . . "47 states and couldn't find Vermont." — **W3BQA**. . . "Thought I would try for all sections this year but ran into the law of diminishing returns." — **W8DWP**. . . "Enjoyed testing antennas and flexibility of rig. Suggest that you tabulate the lazy man's SS — the most sections with the least contacts." — **W9REC**. . . "Don't know when I have enjoyed an SS more. Let's always have this excellent contest." — **K4HAA**. . . "Great fun but my parents are fed up with hearing odd noises all night, my brother is fed up with being awakened by said noises, and my neighbors are fed up with hearing diddit-didit on Channel 4." — **W3CCQ/5**. . . "Although repeat QSOs cut my score by 3500 points, learned much during my first all-out effort. Doesn't everyone?" — **W6FTP**. . . "A real thrill to work VE7AKI, my first DX." — **KN9CIC**. . . "What a time! A lot of tries and not many contacts, but the Q multiplier was a great help in the QRM. Don't see why more hams don't enter; they just don't know what they are missing." — **K0BMQ**. . . "A real pleasure to almost double the amount of stations worked, although I wore out three ball-point pens in the process." — **VE2ADD**. . . "Best contest in ham radio." — **WN1EF**. . . "No wonder I'm tired! Just checked the log and find that I changed bands 101 times during the contest, each operation involving two plug-in coils, numerous switches and knob twisting. Guess I must have been the guy everybody heard tuning up right smack on the frequency. . . 15 meters paid off with two sections (VE4 and KL7) worked on no other band." — **W4KFC**. . . "Enjoyed every minute and was amazed at how well the 8-foot whip performed." — **W1ZVG/7**. . . "A great contest and the prevailing sportsmanship was outstanding. Thanks especially to K4HAA for taking time to explain the rules. Got four new states." — **K2PSE**. . . "First chance to give my one-knob band-switching rig a real workout." — **W3RYX**. . . "Used a new rig completed an hour before the SS started. An intermittent in the v.f.o. developed but

managed to find the trouble and keep going. Somehow missed three easy sections: No. Dak., Maine and VE4." — **W9RQM**. . . "Can't hope to top whatever millions W4KFC sends you but doubled last year's Novice score in one-fourth the time. The new VR-tube added to the oscillator really paid off when someone turned on a hot-plate next door. My lucky QSO No. 13 was Nevada; that makes 13 Nevadans toward a goal of 25 hopefully sought." — **K4CQA/4**. . . "93 QSOs as a WN8 in '55 and 279 this year with same rig plus v.f.o." — **W8BVF**. . . "How about the guy that must explain the SS to his wife? May I suggest that the League formulate a letter in nontechnical language aimed toward nonham wives? This letter, available in October, might begin, 'Dear Madame: Your husband is about to embark on a great adventure in skill, action, travel, and proficiency, right from your own home. Please bear with him.' Maybe then the XYL would be able to understand my fascination for the SS." — **W4SHW**. . .



"Eight new states! Thanks for a couple of wonderful week ends." — **W7ZOL**. . . "More thrills in the SS than I've had from the time of my first QSO." — **K2MBU**. . . "Although conditions were very good to all W0 on several bands, I failed to hear a single No. Dak. station. VE1 was tough too." — **W9RKP**. . . "Noticed the usual clean, snappy operating but there were also a number of signals of questionable quality consisting of rough notes, chirps and clicks. Trust these do not indicate a trend toward sloppiness or carelessness. Perhaps we should all make an effort to give honest reports so that the op on the other end will be made aware of how his signals sound and take steps to cure the difficulty." — **W4CVI**. . . "Thanks for a great contest but the meltdown afterwards is awful. A year is a long time to wait for the next one." — **W0TDR**. . . "As a new member of the 'frat,' I learned more in a few hours than I could have in weeks of casual operating. My sincere thanks for a swell exercise in amateur communications and sportsmanship." — **KN2RQU**. . . "Vt. has always been a millstone around my neck in any contest and this one was no exception. Are all Vt. hams on 420-Mc. n.f.m.? . . . First time ever worked VE1 through VE8 and heard all parts of Canada including Yukon, N.W.T. and Labrador. Three cheers for Canada, especially VEs 6MA 2YA 7AGN 7ANQ 7AKI 5DZ 1EX 8JW 3EU 3DSU 4YZ and 3VX. VE6MA and VE8JW send perfect c.w. and had particularly outstanding signals." — **W4WQT**. . . "A world of fun and finally nailed Wyoming." — **KN2SDE**. . . "Finished off my WAS and had two wonderful week ends." — **K5ARR**. . . "Hope everyone had half as good a time as I did." — **W9VAY**. . . "First Stateside SS and was surprised at results with an all-band dipole using homemade loading traps. Previous operation was from KL7AOL where I used a 680-foot long wire directed on the



In hotly-contested Md.-Del.-D. C., the chap to beat is W3EIS, holder of five of its last seven awards. This time Don, a Potomac Valley Radio Club prime mover, shoehorned 185,670 points and 1032 QSOs into 40 hours for the nation's fifth-ranking tally and top W3. Between Novembers, Don sets a sterling example in Field Day's Class B with another pretty fair op, W4KFC.

QST for

Prowl for new countries is favored but W9YFV is also a Sweepstake of the first water. Ed was seventh among all brasspounders, leading Nine, and Illinois topper with the 5100B pushing a long wire, 20-meter rotary, or 7-Mc. vertical dipole, latter sporting 32 buried radials. P.p. 4-400As provide additional db. when needed, have helped shore up the W9YFV DXCC standing to 242.



U. S. A. — W8IZS. . . . "Sections were hard to come by. Never heard VE1, VE5, VE7 or VE8 and had to go to 21 Mc. for VE4 and VE6. My ambition was to score over the 100,000-point mark and was able to do it only by getting greater QSO quantity to make up for missing sections." — W4OMW. . . . "Plenty of good sigs, excellent conditions and courteous operating. Knocked off the last four for 3.5-Mc. WAS but missed So. Dak. for WAS on 20 in spite of good short skip. Was shooting for 110,000 but illness the first period and a football game the second botched that." — W0BUR. . . . "First contest and enjoyed the stick-to-itiveness of fellow hams. Picked up two more states and VE2. Thanks for two perfect, competitive week ends." — K2SEK. . . . "FB test but missed Miss. and where was W9IOP?" — W0RLI. . . . "Didn't realize that 39 hours could go so fast." — W9ESK. . . . "Lots of valuable experience in my first try at SS. Will have to do more work on my homemade rig which broke down three times." — W5FCX. . . . "Afraid I wasted too much time chasing sections, resulting in a low QSOs-per-hour average. Didn't hear No. Dak., Utah, KL7 and VE4." — W2EMW. . . . "Experience gained in '55 resulted in a score six times higher. Being limited to 40 meters kept my section total down but that situation will have been corrected by the next SS." — K2MWM. . . . "Very enjoyable although the senior class play interfered with time on air." — W3ZHQ. . . . "FB SS but has Miss. seceded from the Union?" — W9WBL. . . . "The contest taught me the fundamentals of operating and I now have six more states confirmed." — W3DVM. . . . "After winning the Miss. award in '55, I missed that section in '56. We need a Q signal to tell a fellow that he has been worked before. Also wish everyone would use ARRL Operating Aid No. 6." — W9APY. . . . "Evidently many were not keeping a duplicate check sheet. My total could have been increased by a large margin if I had accepted all the second and third calls received. The amount of second callers was so staggering toward the end that I resorted to calling 'CQ SS NEW STNS.'" — W2HMJ. . . . "Finished WAS but score was poor with 25 watts input. How about an extra multiplier, say at 50 or even 30 watts, to give us low-power boys a better chance?" — K6OVJ. . . . "The new 150-watt power multiplier is excellent and hope it will stay. Wish more VE1s and KZ5s would take part. How does W4KFC make so many QSOs?" — W6JVA. . . . "Yipes! Just found out limit was 150, not 100 watts. Better read the rules next time. . . . The guys at ARRL sure pick week ends with good conditions. Sigs were very strong and it's remarkable what a few watts can do when the bands are just right." — W0IUB. . . . "After years of the 100-watt multiplier, many fellows, myself included, have built special rigs for the SS. Why bow to the 'commercial' guys? This is Amateur Radio." — W9ZRG. . . . "I demand an additional multiplier for undernourished stations running ten watts or less. Hi!" — K2EWR. . . . "Second year that Utah was the last section worked. How about a multiplier of five for those who live one block from a multioperator station?" — W2HBE. . . . "Beam rotator failed, power line noise was SS, rig blew condenser, company dropped in, XYL accepted a dinner engagement the second Saturday, and even the electronic key quit. Don't I rate a handicap multiplier of about five?" — W8DUS. . . . "A swell time and already looking forward to next year's get-together." — W3VAN. . . . "Wow, never heard such activity! Looking forward to the '57 SS." — W6NHA. . . . "The contest spurred me to set up my rig on 7 Mc., a new experience. I learned procedure fast and I'll be back next year on three bands with bells." — K6LZU. . . . "Raised two new states and KP4DH but W1QMM (Vt.) wouldn't come back. Can hardly wait for the next SS." — K6LSG.

. . . "Very enjoyable as always. Arrival of stork limited time but next year, oh boy!" — VE3FT/W2. . . . "It has been nearly 20 years since I tried the contest. Maybe it's old age but got ten times the bang out of it that I did way back then. Outside of the genuine pleasure of breaking through the roar and the thrill as each new section was contacted, I am now completely convinced that crystal control is not the FB device it was in the thirties. I fought it out with crystals the first period and then, aided by QST, the Handbook and the junk box, I feverishly threw together a v.f.o. and got it going — no fooling — one minute before the start of the second week end. Vast improvement was noted. . . . All in all it was just grand, wonderful, swell, and the old ham bug has bitten me again in the worst way. Surely do appreciate the ARRL-sponsored contests and the extra-good dope in QST. With your help I'll be back with a better rig to double my score next year." — W7POU. . . . "My first SS and thoroughly enjoyable but I'm going to devise a better method of eliminating those pesky duplicates. Hope to erect an efficient antenna for each band and boost my power from 35 to the 150-watt limit. I'm gonna take that Tennessee sheepskin. Just wait till next year!" — K4CWS. . . . "Bloodshot eyes, angry XYL, hungry OM, jr. ops thinking Dad off his rocker, but I promise to do as well or better next year." — KN9CAZ. . . . "Really enjoyed hearing all the big guns and upcoming Novices, although an attic antenna was a handicap. Looking forward to next year." — W1FSJ. . . . "Worked 45 stations last time as a KN9 and 490 in '56. Just wait 'til next year!" — K9AKS. . . . "My second SS and it was a dilly. Bettered previous score by 600%. Glad to see KZ5BC, W7KEV, W6BIP, W4KFC, W4KVX and many other fine ops but missed W9IOP. Having special QSL made and can't wait 'til next year." — K6SSM/8. . . . "I'll break 100,000 points or bust next year!" — W3MWC. . . . "Biggest thrill was working my first Idaho. Just wait till next year." — K9ATY. . . . "First SS in Arizona and sorry didn't make a better showing. Will do better next year." — W7EAX. . . . "My brother served as assisting operator and better family relationships resulted. Will have better antennas next year." — K6IBE. . . . "School work crossed me up. Hope to get in the full 40 hours next year." — K5ABV. . . . "Learned much about operating and message-handling and you can count on a log from me next year." — K6BCG. . . . "Four new states and a new country. Hope to be better prepared next year." — K4EJG. . . . "Learned a lot and that's the main thing, but wait till next year." — W6JKJ. . . . "The SS really improves code ability. Can't wait until next year!" — K4BND. . . . "To coin a phrase, 'Wait 'til next year.'" — W1UGW. . . . "To use an old, dog-eared worn-out expression, 'Wait 'til next year.'" — WN1MTX.

All those cheery "Wait till next year" mumblings prophesy another biggest-ever Sweepstakes in November, with oodles of good, healthy QRM, huge QSO and sections-worked totals, and incredible scores from around the field organization. For the nonce, please stand by for the scoop on the radiotelephone and club winners. Just wait till next month. — P. S.



East Bay leader W6PYH pays this tribute to his chief operating aid, "a tolerant XYL who kept me constantly nourished." Pete wouldn't be without his t.r. switch for perfect break-in and, at DXCC-222, is another prominent prefix-pursuer who takes an annual fling at SS-ing.

C. W. SCORES

Twenty-Third Sweepstakes Contest

Scores are grouped by Division and Sections. . . The operator of the station first-listed in each Section is award winner for that Section unless otherwise indicated. . . Likewise the "power factor" used in computing points in each score is indicated by the letter A or B. . . A indicates power up to and including 150 watts (multiplier of 1.25, c.w.), B over 150 watts (multiplier of 1). . . The total operating time to the nearest hour, when given for each station, is the last figure following the score. . . Example of listings: W3JNQ 156,023-880-71-A-39, or, final score 156,023, number of stations 880, number of sections 71, power factor of 1.25, total operating time 39 hours. . . An asterisk denotes Novice certificate winners in sections where at least 3 Novice logs were submitted. . . Multioperator stations are grouped in order of score following single-operator station listings in each section tabulation.

ATLANTIC DIVISION

Eastern Pennsylvania

W3JNQ 156,023-880-71-A-39
W3CPS 141,440-855-68-A-40
W3GEM 125,493-712-71-A-36
W3BES 123,251-715-69-A-28
W3HHK 110,863-636-70-A-39
W3ALB 107,654-607-71-A-25
W3NOH 106,756-700-61-A-30
W3LEZ 105,840-675-63-A-33
W3ARK 105,600-640-66-A-36
W3LVF 98,115-633-62-A-36
W3EAN 97,580-574-68-A-36
W3MDE 96,300-535-72-A-38
W3ISE 88,943-603-59-A-30
W3MWC 86,960-547-64-A-39
W3DVC 85,275-572-60-A-39
W3BOH 84,175-518-65-A-38
W3WKX 82,500-600-55-A-35
W3KFG 80,978-531-61-A-40
W3EOA 80,325-464-70-A-33
W3WFG 76,555-502-61-A-40
W3HTR 71,195-491-58-A-40
W3VDV 69,431-405-69-A-32
W3MDO 68,796-546-63-A-40
W3CGS 64,600-380-68-A-30
W3RRJ 64,152-486-66-B-36
W3ADZ 62,125-350-71-A-35
W3EVV 60,375-350-69-A-23
W3YLL 56,363-418-54-A-37
W3BQA 55,945-334-67-A-29
W3JSA 55,890-400-56-A-35
W3ADZ 53,215-367-58-A-32
W3IXN 53,213-387-55-A-34
W3DUQ 53,200-380-56-A-22
W3DAO 46,450-308-60-A-39
W3KDF 41,340-312-53-A-40
W3GRS 39,890-271-59-A-14
W3ZSX 39,000-328-48-A-18
W3KFK 38,500-380-50-A-33
W3CLM 36,960-336-55-A-30
W3DFI 32,035-299-43-A-30
W3DBF 30,500-307-40-A-30
W3ORU 29,983-252-59-A-12
W3GHD 25,515-162-63-A-2
W3YTM 25,223-177-57-A-23
W3NHX 24,300-203-48-A-30
W3AFF 23,834-315-31-A-33
W3WHK 21,000-234-49-A-32
W3JFW 19,646-202-39-A-28
W3YSH 19,440-146-54-A-20
W3UOE 18,478-196-38-A-10

W3QLZ 16,380-182-36-A-10
W3OCU 14,520-132-44-A-8
W3DYL 14,062-158-45-B-12
W3CSD 13,800-184-30-A-20
W3FNNH 12,210-127-44-A-39
W3HUS 11,248-152-37-B-6
W3BUR 10,973-117-38-A-13
W3EYT 10,815-103-42-A-23
W3WHJ 10,438-167-25-A-16
W3ZON 8,330-119-28-A-22
W3BAN 5,440-80-34-B-14
W3ZVY 5,330-82-26-A-8
W3EMH 4,830-85-23-A-14
W3DVB 4,225-85-19-A-21
W3PXX 3,701-71-21-A-6
W3YHL 3,465-66-21-A-8
W3ZXR 2,275-46-20-A-10
W3CHH 2,250-40-15-A-10
W3GYP 2,093-47-18-A-17
W3QEZ 1,900-40-19-A-17
W3IGO 1,825-43-17-A-19
W3PNL 1,553-35-18-A-6
W3NFE 1,470-28-21-A-2
W3ZTJ 1,350-37-15-A-10
W3BWI 585-26-9-A-4
W3ZNN 572-22-13-B-3
W3NSGM 535-24-10-A-11
W3ZMB 495-18-1-A-6
W3FHG 413-16-11-A-6
W3QOS 403-23-7-A-4
W3CBH 384-16-8-A-6
W3ZJD 260-15-8-A-5
W3ZCL 255-7-5-A-4
W3RNF 45-5-4-A-8
W3KTK (W3s K SKQ) 125,901-700-72-A-38
W3EBG (W3s BES EBG) 77,699-510-61-A-39
W3WJD (W3s WJD YIK) 18,532-288-41-B-31
W3VXP (2 ops.) 1600-41-41-A-9

Mid-Del.-D. C.

W3EIS 185,670-1032-72-A-40
W3VOS 162,360-902-72-A-39
W3EIV 155,845-878-71-A-40
W3MSR 153,270-853-72-A-40
W3ACL 152,575-898-68-A-39
W3TMZ 145,550-820-71-A-33
W3GRF 141,438-777-73-A-40
W3KLA 140,498-860-66-A-40

W3JTK 138,345-802-69-A-32
W3VAN 133,006-911-73-B-36
W3PZW 132,495-727-73-A-40
W3MEI 120,359-662-73-A-40
W3KDP 119,160-664-72-A-40
W3IYE 115,740-643-72-A-34
W3GAU 112,525-650-70-A-25
W3DVO 108,113-699-62-A-37
W3UE 78,720-492-64-A-40
W3PZ 75,046-471-64-A-30
W3HVM 72,735-24-69-A-35
W3WV 67,320-374-72-A-27
W3HXX 61,000-488-50-A-40
W3DRD 57,575-329-70-A-26
W3RYX 56,350-405-56-A-4
W3DYM 41,477-352-59-B-21
W3WG 39,730-274-58-A-19
W3VKI 39,000-300-52-A-24
W3HDV 38,857-330-61-B-30
W3HXA 36,438-292-50-A-24
W3FDJ 33,750-338-40-A-32
W3ZSR 25,840-152-68-A-5
W3HH 25,800-209-48-A-14
W3WU 24,795-174-57-A-4
W3WLO 21,730-164-53-A-36
W3ZGN 20,171-247-33-A-30
W3DYM 19,500-200-39-A-16
W3TN 16,931-158-43-A-15
W3ARB 15,960-170-38-A-26
W3IBX 15,215-179-34-A-20
W3TXY 13,428-131-41-A-24
W3CLI 12,150-108-45-A-17
W3DVB 11,698-126-34-A-32
W3TSL 9,581-110-35-A-8
W3IKN 9,184-119-31-A-8
W3BKE 7,590-115-33-B-1
W3HB 6,589-63-37-A-14
W3UDO 5,145-100-21-A-10
W3VCD 4,290-13-47-A-4
W3ZMT 2,132-41-26-B-11
W3DNW 1,913-51-15-A-3
W3CMX 1,706-53-13-A-8
W3RYV 1,580-40-16-A-9
W3ZQA 1,448-36-16-A-5
W3DVB 1,296-31-37-A-4
W3N3FYL 473-26-9-A-6
W3BFW 270-12-9-A-1
W3FQE 140-8-7-A-4
W3EPX 23-3-3-A-2
W3LHJ 13-23-3-3-A-1
W3FYS (W3FYS, W6HOH) 149,310-830-72-A-37
W3CVE (W3CVE, K6DGB) 25,155-281-45-B-23

Southern New Jersey

W2HWD 110,773-755-59-A-40
K2CPR 104,939-627-67-A-37
W2SHM 100,958-641-63-A-39
K2ERC 99,990-607-66-A-40
W2ILN 61,991-407-61-A-29
W2HBE 61,646-349-71-A-39
K2OMT 58,000-400-55-A-38
W2TPJ 55,069-401-55-A-26
W2EXB 54,000-360-60-A-36
W2QDY 53,750-430-50-A-28
K2CJW 51,000-401-51-A-27
K2KZO 47,586-405-47-A-32
K2KFJ 40,300-310-52-A-40
K2SWZ 33,935-309-44-A-30
W2DAJ 29,868-262-57-B-23
W2QKJ 27,652-224-62-B-35
K2HJY 21,986-228-33-A-25
K2MIO 21,486-107-21-A-4
W2LY 21,818-125-41-A-24
W2PNA 11,520-144-32-A-14
W2APD 10,369-123-35-A-15
K2BG 9,900-110-36-A-8
K2PP 9,940-161-24-A-21
K2LWR 8,515-107-21-A-4
W2TBD 5,565-74-29-A-13
W2DMU 5,005-77-26-A-14
K2PPV 3,320-83-16-A-15

K2IHW 3250-65-20-A-10
K2OE 2695-39-28-A-6
K2AIM 1863-35-19-A-10
W2X 870-370-12-A-5
W2PAU (W2PAU, W3LTC) 112,283-683-66-A-40

Western New York

W2SSC 124,783-703-71-A-29
K2KCE 114,154-628-73-A-40
W2PGU 91,586-585-63-A-33
K2HVN 81,550-466-70-A-35
W2FEB 75,970-536-71-B-40
K2LWR 73,710-546-54-A-40
W2EMW 72,104-418-69-A-34
W2FXA 69,190-407-68-A-31
W2GSJ 66,895-394-68-A-40
W2VJO 66,120-464-57-A-35
W2TFL 56,313-425-53-A-32
K2JAE 54,720-572-48-B-38
W2WOE 53,331-403-53-A-33
W2TUP 52,215-362-50-A-38
K2EVP 48,668-309-63-A-33
W2RUJ 44,713-256-70-A-27
K2MWK 41,918-311-54-A-23
K2LMX 40,495-312-52-A-31
W2UIR 35,103-370-12-A-5
W2TPO 33,800-294-40-A-25
K2KID 33,696-234-72-B-21
K2GWN 32,175-286-45-A-30
K2JAD 31,710-303-42-A-36
W2KKT 25,645-273-46-A-29
W2NEP 22,523-273-33-A-17
K2MWM 19,950-214-38-A-22
K2VGN 19,350-198-40-A-28
K2GVN 17,400-145-48-A-16
K2GIG 16,188-175-37-A-20
W2CJQ 15,960-152-42-A-15
K2MIL 15,295-161-38-A-22
K2BWK 14,588-197-30-A-24
W2FFW 12,623-153-33-A-15
VE3FT/W2 12,420-138-45-B-17
K2OFE 11,681-170-44-A-11
K2JEY 10,355-109-38-A-15
W2DRN 8,515-131-26-A-11
K2PFC 8,280-92-45-B-7
K2GHD 7,470-83-36-A-11
K2PJS 7,130-108-19-A-25
W2ZAC 6,270-101-28-A-4
W2RHQ 4,270-61-28-A-4
W2OVP 1,885-58-13-A-6
W2MTA 840-24-14-A-6
KN2RHQ* 825-30-12-A-21
W2QBB 555-19-15-B-3
KN2RYP 335-15-10-A-12
KN2RYP 248-11-9-A-5
KN2SKB 248-11-9-A-3
K2MTW 225-10-9-A-5
K2OSN 140-8-7-A-3
KN2RLP 125-6-2-A-2
KN2RPA 88-7-5-A-3
W2EWT/2 (11 ops.) 15,164-224-34-A-24

Western Pennsylvania

W3VIV 128,240-812-64-A-36
W3GJV 104,913-600-70-A-40
W3PWN 99,775-614-65-A-40
W3ZBK 76,250-500-61-A-35
W3NRE 75,625-550-55-A-34
W3YDK 67,650-414-66-A-32
W3BOA 61,520-385-64-A-40
W3RHH 50,490-306-48-A-25
W3ZAO 48,300-350-69-B-28
W3EPM 37,056-305-49-A-19
W3BZR 34,615-310-46-A-35
W3YOZ 31,483-257-49-A-32
W3ZHO 30,013-254-49-A-16
W3RHH 24,930-306-48-A-25
W3AVY 21,930-215-41-B-27
W3KQD 19,238-171-45-A-21
W3TFI 15,660-175-36-A-14

W3ZDA .13,950-126-45-A-13
W3EFW .13,035-160-33-A-25
W3FMP .5810-83-28-A-26
W3ZUG .3465-50-28-A-8
W3N3FEY .2584-46-25-A-9
W3LXE .140-7-7-A-1
W3YA (18 oprs.)
55,893-494-57-B-39

CENTRAL DIVISION

Illinois

W9YFV .180,720-1004-72-A-40
W9ZAB .134,811-761-71-A-38
W9AMU .128,610-715-72-A-40
W9WBL .126,613-724-70-A-40
W9NUL .126,140-742-68-A-40
W9ZQC .124,069-767-65-A-40
W9PZT .115,403-690-69-A-40
W9WFS .92,250-514-72-A-26
W9LKS .91,679-521-71-A-40
K9AKS .78,000-490-64-A-31
W9YYG .74,425-448-65-A-40
W9MAK .67,600-423-64-A-37
K9EWB .64,320-680-67-A-40
W9AGM .48,750-300-65-A-21
W9DUA .46,690-32-58-A-20
K9ARN .41,938-306-65-A-24
W9RCJ .40,641-260-61-A-20
W9CMO .30,873-233-53-A-26
W9QGG .28,756-270-43-A-19

K9BMH .2205-49-18-A-4
K9NDBT .2205-46-21-A-9
W9SBS .1800-40-18-A-19
W9FDY .1783-32-23-A-6
W9LOC .1598-36-18-A-5
K9EGH .1538-41-15-A-7
W9TQR .1083-23-19-A-6
W9VOK .885-30-15-B-6
K9AXT .715-22-13-A-2
K9DOY .645-22-12-A-11
W9YJP .600-25-10-A-11
K9AQV .480-20-12-B-4
K9BLY .281-15-9-A-2
K9NCTC .163-5-4-A-4
K9CDI .13-5-1-A-1
K9DFT .13-5-1-A-1
W9UBW .3-1-1-A-1
W9OCB (W9S DWD JSO OCB)
178,588-1034-70-A-40
W9ECY (W9S JCT IRI)
70,718-451-63-A-40
W9YH (5 oprs.)
60,121-516-59-B-39
K9CAZ (K9N8 CAZ DTH)
33,480-262-54-A-40
K9NDJQ (K9N9DJQ, K9N9ELC)
29,998-57-22-A-31
W9NGV (W9NGV, K9BCK)
510-17-15-B-3

W9FZC .25,438-185-55-A-15
W9SZR/9 .24,133-197-49-A-13
W9PFA .20,524-211-39-A-30
W9FDX .20,280-156-52-A-6
W9DGB .18,143-123-59-A-6
W9AQD .17,483-130-54-A-6
W9DPN .16,900-130-52-A-22
W9WAN .14,910-144-42-A-9
K9AEC .13,680-148-37-A-20
W9HCA .9,120-115-32-A-9
W9WUQ .6,750-101-27-A-26
W9IUQ/9 .4,000-80-20-A-35
W9HCX .2625-50-21-A-10
K9BCB .1575-32-20-A-8
W9WAT .1485-35-17-A-4
K9AEC .1200-32-15-A-4
W9CFL .633-23-11-A-2
K9NCBE .304-15-9-A-5
K9CPF .175-10-7-A-5
K9WELT .140-11-7-A-8
W9LUC .63-5-5-A-4
W9JBF .3-1-1-A-1
K9NDGE (K9CAH, K9NDGE)
1556-43-15-A-23

DAKOTA DIVISION

North Dakota

K9CNC .32,745-222-59-A-12
K9ADI .13,904-117-49-A-23

South Dakota

W9TLD .46,384-295-63-A-24
K9NHM .5899-74-33-A-21
W9JLI .1125-25-18-A-3
K9BMM .1069-24-19-A-29
W9RRN .225-10-9-A-1

Minnesota

W9RLI .127,925-754-68-A-40
W9WDW .97,600-615-64-A-35
K9BTT .63,000-501-63-B-40
K9DHH .28,069-251-45-A-30
K9AUS .3188-52-25-A-4
W9DQL .2560-32-32-A-7
K9NEEN .1388-38-15-A-4
K9CAZ .1063-32-17-A-10
W9JLI .715-26-11-A-13
K9NECY (K9CAZ, K9NECY)
23-3-3-A-1

DELTA DIVISION

Arkansas

W5BYJ .48,400-306-64-A-35
W5WUR .44,685-331-54-A-36
K5DET .42,315-278-62-A-37
W5KJG .39,585-273-58-A-29
W5MY .17,802-207-43-B-8
W4SAS/5 .6680-84-32-A-22
K9N5GRT .120-10-6-A-7
K9N5EJ .55-6-4-A-7

Louisiana

W5YDC .127,090-717-71-A-33
K5DGI .114,800-718-64-A-38
W5JAW .87,506-542-65-A-40
W5BUC .67,800-341-68-A-32
W5GAI .40,184-265-61-A-16
K5ARH .39,473-277-57-A-34
K5GWZ .35,819-263-55-A-36
W5NDV .28,815-228-51-A-27
K5AGI .24,240-203-48-A-17
W5JFB .10,973-118-38-A-11
W5EKF .9225-124-30-A-23

K5BWZ .3480-60-24-A-8
K9NEJL .465-16-12-A-8
W5TVW .225-10-9-A-2

Mississippi

W5FPL .49,500-300-66-A-27
K9N5HFM .1995-39-21-A-33

Tennessee

K4LPW .204,660-1138-72-A-40
W4NBV .110,880-678-66-A-40
W4WQT .100,975-578-70-A-40
W4YMG .96,931-600-65-A-39
W4CVM .96,030-535-72-A-39
K4BOM .81,908-489-67-A-38
W4OQG .42,625-310-55-B-19
K4AMC .23,569-213-45-A-14
K4KJWZ .18,375-161-49-A-34
K4CEJ .15,006-123-49-A-11
K4CBE/4 .14,625-132-45-A-11
K4PBN .10,710-103-42-A-11
K4CSY .5148-74-29-B-19
K4CFA .4766-66-31-A-10
K4ACG .3190-44-29-A-3
W4NPS .2200-44-25-B-8
W4CXY .863-33-15-A-6
W4KH/4 (W4S KH WELN)
41,600-321-65-B-24

GREAT LAKES DIVISION

Kentucky

W4KVX .227,213-1246-73-A-40
W4OMW .104,960-656-64-A-40
K4GEZ .101,421-606-67-A-37
W4HOJ .88,608-629-67-A-39
W4CVM .87,235-480-73-A-39
W4SUD .70,719-414-63-A-39
K4DTI .77,550-470-66-A-24
W4JBQ .64,125-450-57-A-24
W4OXX .44,700-298-60-A-25
K4DVR .23,940-205-48-A-28
K4CBE .6663-104-26-A-6
K94JGM .5895-67-36-A-19
K94PHA .743-27-11-A-11

Michigan

W8OCK .125,650-721-70-A-40
W8IRO .95,900-685-70-B-36
W8TJQ .75,905-448-68-A-38
W8SRK .71,115-433-66-A-31
W8IZS .71,040-446-64-A-40
W8PWQ .69,300-466-60-A-40
W8GTT .63,938-465-55-A-40
W8DM .59,015-407-58-A-31
W8UMX .55,125-351-63-A-36
W8HQX .55,046-352-63-A-32
W8DUS .55,025-359-62-A-22
W8GB .49,118-333-59-A-23
W8VPC .46,258-344-54-A-31
W8VPC .48,225-322-60-A-21
W8TKW .45,750-305-60-A-37
W8QZR .40,878-307-54-A-27
W8ZNN .35,500-384-50-A-25
W8RVZ .33,488-236-57-A-17
W8ONA .32,800-204-24-A-34
W8GVB .29,278-241-49-A-34
W8IXM .28,999-205-57-A-33
W8SCV .26,500-200-53-A-10
W8TRN .22,028-267-33-A-27
W8HMM .20,738-200-42-A-18
W8HAN .17,575-185-38-A-24



In Southern Texas, 16-year-old KNEZV cranked out 34,583 points, the highest score ever amassed by a Novice. Beginning in the hobby like a house-fire, Bob has already earned WAC, WAS and RCC and will bear close watching in future contests.

W9YRH .28,688-225-51-A-18
W9UBI .25,988-190-55-A-15
W9ZEN .25,006-233-43-A-26
K9BCV .8,600-238-44-A-30
W9OAN .22,069-161-55-A-17
W9IET .21,450-160-55-A-8
W9LGI .20,800-211-40-A-20
W9QXX .20,621-178-47-A-13
W9WIO .19,596-189-71-A-18
W9REC .19,500-130-60-A-20
W9NIU .18,180-152-48-A-6
W9BIN .16,920-144-47-A-16
K9BTD .16,125-155-43-A-23
W9EBV .15,803-152-42-A-23
W9YYF .15,068-147-41-A-11
W9OJL .14,720-128-46-A-13
W9DWQ .14,639-119-49-A-9
W9ZRG .14,342-101-71-B-13
W9JAT .13,500-137-40-A-14
K9BIU .12,600-115-45-A-18
K9ATY .10,325-150-28-A-29
W9YYV .10,165-107-38-A-6
W9YDQ .9095-107-34-A-12
K9BTN .8925-120-30-A-20
W9RGB .8539-107-33-A-13
W9EET .8360-89-38-A-16
W9KXD .8333-101-33-A-11
W9VOX .8000-100-32-A-18
W9CR .7030-74-38-A-20
W9UBJ .6818-102-27-A-29
W9TTJ .6300-64-40-A-10
K9BBD .6152-67-37-A-11
K9NBZJ* .6006-83-31-A-22
K9NCHZ .4640-61-32-A-21
W9EXL .4523-67-27-A-5
W9JCX .4140-90-23-B-7
K9CFQ .4043-77-21-A-6
W9ZDV .3983-59-27-A-8
W9TAL .3875-50-31-A-4
W9NGG .3613-85-17-A-7
K9BPT .3611-55-27-A-7
W9BDH .3575-55-26-A-5
W9EGV .2925-55-18-A-5
W9GCH .2250-60-15-A-5
W9EU .2218-46-24-B-6

Indiana
W9APY .176,138-1010-70-A-40
W9AZM .114,150-673-68-A-40
W9ESK .81,413-506-65-A-39
W9YSX .79,885-622-65-B-33
K9CUCY .72,773-476-62-A-40
W9YFD .64,339-411-63-A-38
W9VAY .57,855-412-57-A-38
K9BBO .51,675-390-53-A-4
W9DGA .38,028-288-53-A-13
W9DMM .37,145-323-46-A-31
W9CNG .31,465-203-62-A-18
W9WQQ .22,898-213-43-A-7
K9AUE .19,000-200-38-A-22
W9STG .18,624-160-47-A-23
W9VDB .12,578-117-43-A-12
K9NDWK* .5720-79-32-A-31
W9YXX .4875-65-30-A-4
K9NDOR .585-21-12-A-12
K9NCRS .63-5-5-A-3
W9CLY (7 oprs.)
101,238-629-65-A-40
W9YB (8 oprs.)
74,168-483-62-A-39
W9ZTD (W9ZTD, K9ADJ)
52,813-932-67-A-27

Wisconsin

W9RQM .161,350-923-70-A-39
W9KZZ .143,150-825-70-A-36
W9UDK .117,061-665-71-A-35
W9GKW .106,925-711-70-A-38
W9VOD .106,000-624-70-A-25
W9DIK .100,640-599-68-A-33
W9DYG .97,845-594-66-A-38
W9RKP .85,200-480-71-A-36
W9KXK .79,165-416-71-A-39
K9CAN .72,312-524-69-B-30
W9UFV .62,238-384-65-A-31
W9CXY .61,610-404-61-A-23
W9ZQA/9 .52,595-314-67-A-23
W9ZQA .47,713-356-55-A-25
W9VOS/9 .46,170-343-54-A-26
W9CHD .38,070-282-54-A-21
W9QGR .35,388-267-53-A-18



W0CDP riddled his Colorado opposition with rotaries, a ground plane, a Vee beam and a DX100. Harrison has previously accumulated plaudits for his work in the SS, DX Contest and the ARRL Membership Party.

W8NGO...17.420- 134-52-A-10
W8FX...13.950- 155-36-A-10
W8GP...12.400- 160-31-A-14
W8QBG...9900- 88-45-A-11
W8EGI...7040- 88-32-A-9
W8FZE/8...5808- 101-23-A-23
W8TCY...3651- 64-23-A-16
W8MSK...3500- 70-20-A-9
K8BEA...3105- 46-27-A-10
W8KTR...2616- 46-23-A-14
W8QZS...2080- 54-16-A-6
K8NCPM*...1829- 43-19-A-12
W8IVK...900- 30-12-A-5
W8NSS...900- 30-12-A-3
K8NCJX...538- 23-9-A-9
W8JEF...518- 23-9-A-3
K8NCPR...440- 17-11-A-10
W8FZG...333- 19-7-A-10
W8RTX/8...30- 6-3-A-1
W8EDI (W8s BXY EDI)
41.760- 275-64-A-40
W8YY (W8s NDE NDI RTX,
K8BKT)
10.197- 168-33-B-19

Ohio

W8FGX*...182.678-1064-69-A-36
W8LOA...174.600- 975-72-A-40
W8OYT...139.898- 811-69-A-38
W8VTF...132.175- 775-68-A-40
W8IPX...112.720- 701-64-A-38
W8EPT...110.425- 634-70-A-35
W8ETU/8108.630- 612-71-A-6
W8BOJ...81.506- 473-69-A-18
W8QDH...80.876- 515-63-A-33
W8SDJ...72.825- 487-60-A-36
K6SSM/8...69.673- 454-62-A-40



Leading the fifth call area and New Mexico was K5CAB. On the contest scene since 1936, Joe is ex-W9BNB, W3MTQ, W2EHU, W4SEB and KL7AWB, goes for the "Tattoo," a semi-automatic break-in system described in QST for last August.

W8SWZ...68.776- 393-70-A-25
W8AXX...66.000- 400-66-A-22
W8SMK...55.413- 404-55-A-27
W8VBW/8...53.400- 357-60-A-27
K8COT...52.930- 318-67-A-40
W8BEX...51.720- 339-64-A-38
W8SGQ...50.320- 318-64-A-29
W8KCK...49.925- 293-68-A-37
W8DWP...48.750- 300-65-A-31
W8VQI...48.606- 355-55-A-31
W8LOF...43.010- 253-68-A-25
W8FDC...42.593- 318-54-A-24
W8QXW...41.785- 345-61-B-26
W8BVF...41.700- 279-60-A-25
W8NMR...38.088- 277-55-A-19
W8NMR...37.950- 346-44-A-39
W8PYX...32.006- 267-45-A-27
W8BDO...31.684- 250-45-A-29
W8AL...31.165- 272-46-A-35
W8GQ...29.540- 211-56-A-27
W8CTP...29.313- 238-50-A-27
W8NPF...29.138- 259-45-A-17
W8EXI...28.875- 210-55-A-24
W8EV...28.400- 160-71-A-7
W8UMA...23.320- 241-59-B-36
W8ELB...27.875- 223-50-A-28
W8RO...26.250- 210-53-A-21
W8TND...25.771- 195-50-A-21
W8NOX...24.935- 217-46-A-17
W8TNT...24.863- 196-51-A-21
W8VZE...23.480- 184-51-A-22
W8UPH...23.063- 226-41-A-31

W8STR...20.329- 209-39-A-21
W8IDM...19.950- 200-40-A-24
W8FDN...19.900- 204-40-A-19
W8CSK...18.638- 216-35-A-35
W8ZLF...15.660- 174-36-A-12
W8ZGF...14.648- 189-31-A-27
W8QZA...14.460- 123-48-A-10
W8ZJM...12.925- 110-47-A-5
W8TZO...12.900- 120-43-A-7
W8SJU...12.710- 125-41-A-27
W8DAE...12.400- 160-31-A-9
W8HBJ...11.868- 138-43-A-10
W8VDA...11.280- 141-32-A-28
W8MXO...9.170- 131-35-B-11
W8KMF...8.284- 71-47-A-4
W8MAE...7.980- 76-42-A-8
W8UPB...7.795- 100-31-A-3
W8RSW...7.400- 80-37-A-6
W8EAR...6.844- 10-25-A-11
W8YGR...6.510- 62-42-A-8
W8PMJ...6.300- 91-28-A-11
K8SAHO*...5.950- 70-34-A-30
W8OYV...4.200- 80-21-A-20
W8YQG...4.200- 70-24-A-6
W8CSA...3.960- 60-33-B-10
W8GMK...3.875- 50-31-A-5
K8SAQS...3.760- 49-32-A-28
K8DDF...3.565- 62-23-A-5
W8LQG...3.220- 56-23-A-10
K8AZQ...3.124- 81-17-A-4
W8SWB...2.835- 55-2-A-9
W8QLJ...2.589- 55-19-A-4
K8SAA...1.975- 42-20-A-21
W8THD...1.926- 32-23-A-3
W8KHG...1.687- 37-19-A-12
W8VPV...1.050- 30-14-A-3
K8SBDZ...850- 20-17-A-5

K2RKR...9990- 112-37-A-17
K2HQJ...9075- 121-30-A-16
K2GIR...8236- 142-29-B-15
K2RDM...8120- 118-28-A-12
K2LMQ...7350- 105-28-A-12
K2OSY...6120- 102-24-A-8
K2TCV...5600- 64-20-B-7
KN2UPD...5400- 60-21-A-17
KN2SFY...2310- 44-21-A-17
W2FLI...1600- 41-16-A-10
W2IP...1375- 25-22-A-13
KN2UTV...819- 23-11-A-9
K2PRB...380- 14-10-A-3
5-4-A-3

N. Y. C.-L. I.

W2IVS...129.758- 711-73-A-38
W2KTF...124.513- 714-70-A-38
W2PRN...119.970- 667-72-A-32
W2TUK...117.386- 681-69-A-40
W2HQL...113.840- 633-72-A-33
W2HKJ...109.944- 764-27-B-40
W2MUM...108.413- 602-70-A-37
K2CF...105.963- 606-70-A-39
K2CF...98.940- 582-68-A-36
W2PZE...90.055- 582-62-A-35
K2HWD...85.928- 605-57-A-40
K2GHS...82.244- 514-A-36
W2VL...63.050- 388-65-A-29
W2GXC...60.032- 470-64-B-27
W2JBQ...57.391- 469-49-A-26
K2CMV...56.238- 409-55-A-33
W2WFL...55.645- 359-62-A-23
K2WCG...54.677- 387-54-A-38
K2GBH...50.516- 357-57-A-40
W2MDM...50.508- 414-61-B-28
W2YSL...44.370- 353-51-A-31
K2OPJ...40.005- 382-44-A-36
W2LFA...36.750- 300-49-A-36
W2ZXX...35.100- 250-56-A-21
W2UXY...32.640- 256-51-A-12
W2OWO...30.409- 232-53-A-27
W2AOD...38.320- 236-48-A-26
K2RAR...24.521- 255-39-A-31
W2DUS...24.050- 260-37-A-20
K2LKK...23.925- 218-44-A-22
W2GPG...22.478- 243-37-A-20
K2BTT...22.100- 173-62-A-23
W2PHF...20.895- 199-42-A-35
W2AE6...18.480- 133-56-A-7
K2GTC...18.145- 191-38-A-27
W2WTL...18.000- 200-36-A-21
W2BUB...16.625- 90-34-A-15
K2PRP...15.551- 63-39-A-25
W2TEZ...15.500- 200-31-A-23
W2AIZ...15.340- 236-26-A-24
W2UAL...14.945- 214-28-A-18
K2WVM...13.965- 134-42-A-18
K2SEK...11.738- 187-26-A-34
W2MZB...10.675- 122-35-A-4
K2ONP...9636- 151-33-B-16
K2PGP...8827- 107-33-A-13
K2JTW...8706- 101-35-A-11
W2DQJ...7844- 126-24-A-13
K2PZS...7680- 90-34-A-13
K2JQO...7525- 86-35-A-13
K2BH...7400- 80-37-A-7
W2UNS...7260- 88-33-A-7
W2WUQ...7215- 111-26-A-17
K2LWK...7155- 107-27-A-12
K2TAP...6971- 87-33-A-17
K2PSE...6848- 127-22-A-27
KN2RCC*...6688- 107-25-A-17
W2IAS...5040- 63-32-A-9
W2OQI...3445- 53-26-A-4
K2LDM...3088- 60-21-A-4
W2DID...2800- 53-21-A-23
KN2RCM...2730- 53-21-A-8
K2OUD...2636- 57-19-A-15
KN2STF...2310- 47-22-A-17
KN2SNM...2213- 62-15-A-18
W2ENW...1932- 46-21-B-6
W2IHE...1886- 41-23-B-6
K2UQU...1520- 41-16-A-15
K2OEG...1360- 34-16-A-6
W2IWC...1238- 33-15-A-1
K2PFP...991- 31-13-A-9
K2QBW...740- 19-34-A-10
K2KXZ...690- 23-12-A-2
K2ABW...608- 19-16-B-2
K2KND...325- 13-10-A-7
W2KLG7...175- 10-7-A-7
W2APM...63- 5-5-A-1
W2CTF...50- 5-5-A-1
K2DEV...49- 7-3-A-2
K2TCD...35- 4-4-A-1

Northern New Jersey

W2CQB...134.575- 770-70-A-40
W2OIB...122.850- 702-70-A-40
W2NDL...108.205- 641-68-A-40
W2HSE...101.258- 415-61-A-35
W2LQP...79.695- 506-63-A-30
K2KDW...74.865- 486-62-A-28
W2FZY...74.195- 419-71-A-39
K2GLQ...67.883- 431-63-A-27
K2CSC...67.481- 459-59-A-37
K2WTC...67.320- 408-66-A-24
W2LRO...66.258- 415-61-A-35
W2WSN...62.310- 372-67-A-40
K2MFF...60.538- 420-58-A-40
K2JLJ...59.210- 383-62-A-33
K2BJA...56.925- 380-60-A-31
W2HSE...56.815- 415-61-A-35
W2WOS...50.003- 319-59-A-25
W2DRV...56.691- 816-63-A-20
K2JMX...49.275- 365-54-A-34

W2EBG...49.088- 385-51-A-33
W2OXA...46.805- 362-50-A-26
W2GBY...45.250- 362-50-A-26
W2OZO...38.049- 250-61-A-27
K2RPI...36.366- 319-57-B-17
K2RPI...35.280- 289-49-A-31
K2KFF...34.063- 273-50-A-26
W2HSE...25.542- 237-54-B-38
K2JFJ...31.784- 271-47-A-39
K2BIO...30.674- 232-53-A-20
K2GAL/2...30.609- 262-47-A-26
W2JIB...30.135- 287-42-A-22
K2RAD...27.563- 221-50-A-29
K2KIB...25.422- 237-54-B-38
W2HUG...25.144- 242-45-A-7
W2CWK...24.019- 154-63-A-12
W2OAE...23.995- 177-54-A-24
W2EPB...23.690- 206-46-A-16
W2BRC...23.430- 284-33-A-20
W2EIN...23.250- 335-40-A-27
W2NEP...23.250- 187-50-A-16
K2PLF...22.040- 233-38-A-25
K2KFF...19.305- 176-44-A-14
W2GUM...18.700- 220-34-A-15
W2HTX...17.990- 129-56-A-18
W2EIS...17.520- 132-45-A-18
W2EQS...16.525- 122-42-A-14
W2WRG...13.313- 214-25-A-18
W2CFW...11.238- 155-29-A-19
K2MMK...10.605- 155-28-A-9
K2LSX...9810- 109-36-A-17
W2HSE...6805- 85-32-A-5
K2QNI...6655- 122-42-A-14
K2DN...5820- 97-24-A-11
W2BWW...5425- 70-31-A-16
K2UUT...5000- 102-20-A-6
W2RXL...4950- 100-20-A-9
W2HSE...4560- 96-19-A-7
W2ING/2...415- 51-28-A-9
K2PHP...3445- 53-26-A-9
K2UUT...3438- 63-22-A-5
W2ZVW...2780- 41-28-A-2
K2GTZ...2560- 64-20-B-6
KN2RA*...2125- 47-20-A-17
KN2SDR...2048- 72-24-A-18
W2COG...1000- 25-16-A-15
K2SKK...805- 23-14-A-2
W2KKR...683- 20-14-A-2
KN2ULB...570- 20-12-A-19
K2SWW...555- 19-15-A-4
KN2TFO...475- 9-10-A-12
K2TOU...415- 14-12-A-2
K2OAA...390- 20-8-A-9
W2IYN...371- 10-9-A-18
K2MMM...320- 17-8-A-4
W2EWZ...105- 7-6-A-1

MIDWEST DIVISION

Iowa
W0FZO...127.736- 742-69-A-39
W0NCS...125.408- 728-69-A-39
W0CXN...117.075- 689-70-A-37
K0EXT...116.263- 655-71-A-38
W0GXQ...86.955- 528-66-B-36
W0RAP...78.910- 610-65-B-37
K0DZX...63.364- 511-62-B-38
W0DSP...53.680- 352-61-A-38
W0JUC...52.762- 426-62-B-29
W0ATP/9...49.339- 338-59-A-31
K0AAH...42.540- 325-61-A-38
W0TNN...9375- 150-25-A-19
K0AKO...6780- 85-32-A-22
W0BGB...5600- 70-32-A-12
W0TLX...5528- 72-33-A-16
K0KNN...5058- 62-66-B-36
K0BLJ...2970- 54-22-A-8
K0CYF...1778- 40-18-A-11
W0JUF/9...1190- 28-17-A-12
W0JDSB*...1103- 27-18-A-18
KN0DJV...674- 28-11-A-11
K0NCE...315- 15-9-A-8
W0COD...175- 10-7-A-5
KN0HFW...10- 3-2-A-3
KN0GTF...5- 1-1-A-1
W0JUD (W0s UJD UJF)
61.850- 340-61-A-40
W0WDK (W0s WDK YSE,
K0CZC)
51.315- 314-66-A-39
K0BSK (K0BSK, KN0GTF)
32.419- 238-57-A-39
K0CLS (W0MS, K0s LLS
CUD)
32.135- 249-53-A-29
27.428- 207-53-A-18
W0QQH (W0s QQH USP)
24.681- 180-55-A-30
K0DPH (K0DPH, KN0KFR)
23.055- 123-53-A-31
W0YSE (W0YSE, K0CZC)
17.480- 153-46-A-4

Kansas

W0IUB...113.693- 737-62-A-31
W0GAX...81.260- 479-68-A-4
W0DEP...74.625- 500-60-A-34
K0BSL...67.280- 423-64-A-37
W0W6...66.365- 389-55-A-32
W0BYV...48.510- 385-63-B-28
K0BYF...23.063- 205-45-A-23
W0VMM...11.135- 131-34-A-13
K0HYE...6724- 84-33-A-10
W0W6...6724- 84-33-A-10
W0QQQ (W0LQ, K0BIX,
KN0HNC)
9998- 131-32-A-20

HUDSON DIVISION

Eastern New York

K2PIC...113.750- 700-65-A-32
K2EDH...107.013- 619-70-A-36
W2EWD...93.844- 582-65-A-40
K2DRN...52.913- 415-51-A-40
W2CJM...43.885- 263-67-A-38
K2HUX...39.751- 270-59-A-36
W2HSZ...23.475- 162-58-A-4
K2MBU...16.913- 212-33-A-39
K2QJR...12.600- 160-32-A-24
K2QIX...10.588- 121-35-A-20

Missouri
 K0HEM 107,726-627-69-A-40
 W0E2U 99,964-665-61-A-40
 W0TDR 93,194-574-65-A-39
 W0PUV 74,506-459-65-A-40
 W0WYJ 70,560-506-56-A-37
 W0QWS 60,600-410-60-A-39
 W0FIN 57,177-425-54-A-38
 W0GVI 56,240-352-64-A-28
 W0ETV 52,388-321-66-A-32
 W0MHS 36,113-269-54-A-22
 W0YPP 30,144-232-53-A-20
 W0YCA 28,500-230-50-A-20
 W0GUC 28,060-230-61-B-30
 K0AQO 22,110-201-44-A-26
 K0GJD 58,900-76-31-A-25
 K0BDK 30,800-51-28-A-25
 W0KIK 19,600-49-16-A-13
 W0UAW 12,157-27-18-A-5
 W0ELN 3-1-1-A-1
 W0EEE (7 ops) 66,670-568-59-B-39

Nebraska
 W0BUR 94,013-547-69-A-27
 W0RNH 85,140-523-66-A-40
 W0WLO 84,175-521-65-A-40
 W0DW 76,640-483-64-A-40
 W0RYX 55,400-349-59-A-34
 W0ZTN 9,625-12-35-A-10
 W0VSR 8,910-108-33-A-17
 K0DSJ 2,300-41-23-A-7
 K0BQY 2,104-52-17-A-13
 K0EMH/9 (20 ops) 15,120-184-42-B-35

NEW ENGLAND DIVISION

Connecticut
 W1TYQ 138,510-771-72-A-38
 W1BIH 123,113-706-70-A-38
 W1FEA 109,895-714-62-A-40
 W1ODW 108,719-613-71-A-38
 W1MHF 85,905-514-69-A-38
 W1ZDP 85,085-504-68-A-28
 W1SVS 75,225-512-59-A-35
 W1VG 62,689-344-73-A-25
 W1GVK 59,850-400-60-A-33
 W1AW 59,000-500-59-B-19
 W1ACR 35,460-349-59-A-34
 W1DDJ 35,535-309-46-A-28
 W1OPY 34,230-326-42-A-28
 W1AMY 23,156-238-39-A-18

W1CW 102,506-578-71-A-39
 W1DLF 101,405-597-68-A-40
 W1BOD 101,338-607-67-A-40
 W1AQE 89,613-535-67-A-39
 W1JEL 86,833-524-67-A-39
 W1SAD 71,685-486-59-A-28
 W1EPE 65,344-511-64-B-34
 W1MQV 58,793-351-67-A-32
 W1ONP 46,620-333-56-A-32
 W1EIQ 44,038-271-65-A-29
 W1PEG 37,819-328-59-B-40
 W1NS 34,160-254-55-A-36
 W1MEG 28,119-205-55-A-6
 W1SMO 25,600-323-32-A-26
 W1AGN 25,313-203-50-A-24
 W1FJJ 21,998-210-42-A-29
 W1TVZ 19,731-226-35-A-15
 W1BX 18,907-130-73-B-34
 W1BPA 16,958-134-51-A-15
 W1JVZ 15,844-163-39-A-22
 W1HJP 15,610-223-28-A-6
 W1PLJ 15,480-129-48-A-25
 W1PWK 14,509-110-53-A-11
 W1BPW 13,956-160-35-A-22
 W1PFS 13,808-134-42-A-19
 W1VJE 13,392-141-48-B-29
 W1NPT 10,950-146-30-A-19
 W1IRH 10,931-134-33-A-21
 W1NIU* 10,114-150-31-A-40
 W1KIN 6,970-82-34-A-12
 W1DPP 6,938-111-25-A-27
 W1ZXB 6,814-119-22-A-23
 W1NINQ 3,098-61-21-A-31
 W1ZFS 3,025-55-22-A-6
 W1QVK 2,000-40-20-A-10
 W1NIK 1,725-36-20-A-29
 W1NIEF 1,318-33-17-A-12
 W1NMX 1,020-24-17-A-11
 W1IIP 956-26-15-A-11
 W1TEC 863-23-15-A-3
 W1VOE 770-30-11-A-11
 W1NLX 293-13-9-A-12
 W1UQ 135-9-6-A-8
 W1IQ 23-3-A-1
 W1KSI 3-1-A-8
 W1COL 3-1-A-1

Western Massachusetts
 W1JYH 135,123-926-73-B-39
 W1EOB 126,801-869-73-B-35
 W1WEP 102,638-67-61-A-30
 W1AZW 33,203-234-57-A-27
 W1FSJ 11,115-126-36-A-15
 W1BKG 9,953-87-43-A-8



Smiling KP4DII copiously distributed West Indies to one and all, taking honors in that section with 100,238 points. When last heard, Frank was batting out about 50 QSOs per hour in the 1957 ARRL International DX Competition.

NORTHWESTERN DIVISION

Alaska
 KL7MF 17,325-165-42-A-14

Idaho
 W7WMO 53,520-339-64-A-34
 W7ASA 46,526-330-57-A-28
 W7FBD 15,810-156-51-B-6
 W7BY 8,190-86-39-A-36
 W7ZRC 7,556-100-31-A-17

Montana
 W7VGZ 54,653-352-63-A-38
 W7TKB 38,690-212-73-A-29
 W7BMI 10,566-34-13-A-6

Oregon
 W7TML 101,010-725-70-B-39
 W7AAQ 86,681-523-67-A-39
 W7ALJ 42,981-265-60-A-30
 W7LT 37,844-287-66-B-39
 W7ZUD 10,920-156-28-A-28
 W7NCR 3,445-64-26-A-21
 W7AXK 1,000-41-10-A-11
 W7JAZ 390-22-10-A-8
 W7XYF 383-17-9-A-4
 W7WQM/7 (W7S JHA WQM) 89,080-528-68-A-39
 W7ADU (W7S ADU DIS) 56,183-348-66-A-30

Washington
 W7GWD 114,210-638-72-A-37
 W7PQE 109,944-771-72-B-40
 W7AJ 108,290-629-68-A-29
 W7LEV 89,355-521-69-A-35
 W7YAG 65,960-394-68-A-36
 W7WMY 60,468-383-67-A-32
 W7TAT 54,560-343-62-A-28
 W7VRO 42,981-273-65-A-18
 W7ZOI 37,950-253-60-A-38
 W7JJI 26,500-200-53-A-39
 W7ZB 21,330-159-54-A-18
 W7NCL 20,625-167-50-A-36
 W7VKZ 11,468-140-33-A-30
 W7ETO 11,300-113-40-A-18
 W7HVM 10,814-107-41-A-15
 W7ZUF 10,238-91-45-A-16
 W7MEA 10,200-50-16-A-5
 W7UYN/7 11,552-42-11-A-11
 W7SV 1,318-8-7-A-2
 W7NBU 3-1-1-A-1
 W7YGN (W7S YGN YMW) 65,178-443-62-A-39
 W7QLH (W7S QSK QLH) 12,898-132-38-A-32

PACIFIC DIVISION

Hawaii
 KH6MG 92,140-542-68-A-34
 KH6J 89,136-619-72-B-38

Nevada
 W7KEV 173,649-956-73-A-40
 W7VIU 11,704-134-44-B-11
 W7VNO/7 9,240-107-44-B-11
 W7NCR 488-20-10-A-6

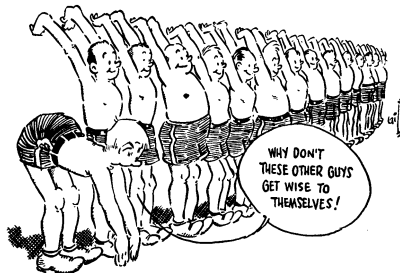
Santa Clara Valley
 W6UTV 134,750-770-70-A-36
 W6HOC 124,556-685-73-A-39
 K6DYX 59,295-444-67-B-38
 W6KJ 52,341-315-67-A-30
 K6LSG 31,650-211-60-A-26
 K6QCI 25,125-205-50-A-37
 W6PBV 24,711-187-53-A-18
 W6CLZ 21,670-197-44-A-26
 W6M 2,115-47-18-A-5
 W6EGX 1,500-10-6-A-1

East Bay
 W6PYH 129,666-713-73-A-40
 W6TT 118,808-651-73-A-34
 K6GS 108,380-591-72-A-38
 W6TMC 97,891-552-71-A-38
 K6AUC 69,530-425-68-A-30
 W6IPH 42,880-335-64-B-27
 W6NBX 18,555-53-14-A-6
 K6ITZ (K6ITZ, KN6SYR) 23-4-3-A-1

San Francisco
 W6BIP 107,164-734-73-B-40
 W6EY 91,560-662-70-B-31
 K6OPI 55,738-347-65-A-30
 W6YC 42,545-318-67-A-30
 K6AYB 16,575-129-52-A-6
 K6QHI 9,735-179-22-A-9
 W6WL 1,733-33-21-A-9

Sacramento Valley
 K6ORT 93,100-532-70-A-33
 W6OKK 67,830-400-68-A-33
 K6CNE 56,480-357-64-A-37
 W6NHA 55,208-412-67-B-23
 K6ILB 10,165-108-35-A-20
 W6CIV 9,825-82-35-A-21
 K6NSX 2,546-67-21-A-30
 K6TBP 2,370-41-24-A-21
 W4AWM 1,720-44-16-A-8

San Joaquin Valley
 W6EFV 87,774-495-71-A-31
 W6MYP 79,450-544-70-A-30
 W6BVM 78,767-542-73-B-26
 K6OVJ 51,300-345-80-B-39
 W6BYK 47,120-300-64-A-37
 W6BYH 45,297-360-63-B-14
 W6QXF 25,125-106-67-A-30
 K6HTM 9,900-140-36-A-20
 K6JPT 8,926-102-37-A-26
 K6OOV 2,835-65-18-A-9
 K6BSV 2,430-43-24-A-11
 K6HFA 1,080-27-20-B-3
 K6PFX 400-20-8-A-10
 K6TLK 340-17-8-A-5
 K6LZU 315-15-9-A-3



W1QIS 21,550-216-40-A-13
 W1VKZ 20,213-231-35-A-37
 W1NLM 18,724-151-62-B-6
 W1ILW 18,348-210-44-B-16
 W1EFW 16,538-135-49-A-17
 W1JGS 16,313-226-29-A-37
 W1OOL 11,156-119-47-B-18
 W1TCW 9,875-158-25-A-20
 W1RON 6,105-111-22-A-12
 W1JBK 5,468-81-27-A-7
 W1EBW 4,433-100-18-A-15
 W1BGP 3,800-76-20-A-10
 W1LWQ 2,213-41-24-A-13
 W1BDP 2,210-34-26-A-4
 W1NJM 1,980-50-16-A-4
 W1ASO 1,845-41-18-A-4
 W1KAM 1,763-47-15-A-4
 W1GBZ 1,573-37-17-A-6
 W1YYM 1,156-28-18-A-2
 W1RFJ 860-43-8-A-8
 K1NIACC 150-10-7-A-5
 W1INB 100-8-5-A-2
 W1NINQX 69-8-5-A-9
 W1NIMDB 30-4-3-A-2
 W1IKE 10-2-2-A-6

Maine
 W1BCD 51,345-326-63-A-31
 W1NLX 394-23-9-A-11
 W1HAG 113-9-6-A-4

Eastern Massachusetts
 W1DDF/1 113,750-651-70-A-40
 W1W 106,663-610-70-A-35
 W1JSM 104,794-608-69-A-40

New Hampshire
 W1BET 172,885-975-71-A-40
 W1CWR 57,684-437-66-B-19
 W1TRM 23,155-189-49-A-26
 W1HKA 7,286-102-29-A-31
 W1IQD 1,280-32-16-A-6
 W1NMTX 3-1-1-A-1

Rhode Island
 W1CJH 80,063-525-61-A-38
 W1VBR 55,350-412-54-A-36
 W1RFQ 27,251-254-43-A-29
 W1BIS 24,750-180-55-A-14
 W1CMH 22,500-250-36-A-16
 W1SX 18,375-150-49-A-22
 W1LWA 11,770-107-44-A-11
 W1ELI 10,888-170-26-A-22
 W1UTA 8,830-119-28-A-13
 W1AWE 2,156-41-21-A-6
 W1ADE 1,120-25-19-A-8
 W1ZXA 889-27-13-B-7
 W1JWZ (W1S JWZ KGR) 915-31-12-A-39

Vermont
 W1QMM 47,530-340-70-B-27
 W1UGW 35,123-223-63-A-17
 W1OAK 2,562-61-21-B-4

K6MBM.....68- 9- 3-A- 3
K6CLK.....40- 4- 4-A- 1
K6NRLX.....35- 4- 4-A- 4
KN6UTK.....23- 3- 3-A- 1

ROANOKE DIVISION

North Carolina

W4LYV.....111,599- 621-73-A-40
W5WWT/477,726- 497-83-A-23
W4BZT.....64,906- 360-61-A-40
K4LEFX.....21,336- 256-42-A-27
W4BDU.....13,000- 130-40-A-10
W4RFB.....11,305- 122-38-A-24
KN4IEX*.....4894- 87-27-A-19
KN4KBA.....3438- 55-25-A-20
K4HNN.....523- 20-11-A-2
KN4JAK.....40- 7-11-A-4
K4BHN.....183- 17-9-A-2
KN4JZE.....248- 13-9-A-5

South Carolina

W4HGW.....86,933- 524-67-A-36
W4ZRH.....70,500- 470-60-A-37
W4BWZ.....63,365- 441-58-A-40
K4DRF.....45,598- 403-46-A-35
K4IUD.....20,625- 193-44-A-40
K4EXV.....16,291- 137-42-A-20
W4VDG.....370- 19-8-A-3

Virginia

W4KFC.....219,000-1205-73-A-40
W4YHD.....165,710- 910-73-A-39
W4PNK.....136,413- 784-70-A-38
W4BZE.....127,075- 749-68-A-38
W4IA.....114,480- 637-72-A-31
W4TKR.....107,453- 644-67-A-39
W4JUQ.....102,930- 603-63-A-36
W4CXK.....99,720- 654-72-A-35
W4GFF.....88,751- 664-63-A-34
W4TFX.....87,280- 646-64-A-31
W4ZM.....83,583- 499-67-A-39
W4GMX.....68,499- 483-61-B-37
K4HAA.....64,434- 474-A-36
W4YZC.....54,138- 355-61-A-11
W4JYJ.....53,040- 332-64-A-23
W4WBC.....49,300- 340-58-A-33
W4YEA.....45,120- 378-60-B-30
W4VRT.....44,395- 342-52-A-10
K4KFF.....40,560- 325-50-A-21
W4SNI.....37,690- 313-48-A-16
W4FRO.....34,688- 278-50-A-19
K4JKK.....33,278- 234-58-A-32
W4PVA.....30,993- 253-49-A-31
W4JHK.....29,820- 250-48-A-11
W4NHN.....29,288- 213-55-A-14
W4JF.....23,688- 193-64-A-22
W4JAT.....27,150- 181-60-A-13
K4CQA/4.....25,174- 206-49-A-20
K4BND.....22,400- 224-40-A-33
W4PLS.....22,375- 182-50-A-21
K4EFL.....22,003- 182-50-A-21
W4IEN.....15,695- 108-73-B-30
K4GWO.....14,644- 178-33-A-29
W4JUY.....12,303- 133-37-A-9
KN4JFE.....12,045- 165-33-A-10
W4BLR.....11,780- 152-31-A-12
W4NAD.....10,450- 110-38-A-7
W4HJK.....9,500- 113-33-A-11
K4GLX.....7950- 109-30-A-24
W4ZCL.....7552- 118-32-B-7
W4FPX.....6606- 76-35-A-13
W4BIJ.....6405- 61-42-A-6
K4DSB/4.....5033- 92-22-A-12
W4PHL.....50,200- 4- 4- 4-A- 4
K4HVO.....2650- 54-20-A-11
W4BPV.....2255- 41-22-A-9
W4YE.....1573- 17-17-A-1
K4BJU.....1560- 40-16-A-8
K4AL.....1440- 32-18-A-5
W4HRP.....1354- 29-19-A-9
W4FZG.....1295- 17-14-A-3
K4EJG.....1091- 24-19-A-12
KN4KES.....860- 26-16-A-8
K4EZY.....510- 18-12-A-5
K4CAD.....408- 17-11-A-1
W4ZIE.....413- 15-11-A-2
W4IMP.....40- 7-7-B-9
K4JKL.....90- 9- 4-A-3
W4WSF.....23- 3- 3-A-1
K4JVE.....10- 2- 2-A-1
W4ZCL.....10- 2- 2-A-1
W4KKV (W1UGW, W4KKV)
109,200- 624-70-A-35
K4DKA/4 (K4s DKA JKL)
7020- 104-27-A-11

West Virginia

W8KWI.....81,680- 518-64-A-25
W8TGD.....46,839- 354-53-A-26
W8SNP.....22,052- 302-37-B-16
W8UYR.....20,304- 213-48-B-20
W8SWX.....7210- 103-28-A-14
KN8CMW.....710- 36-35-A-32
W8MLX.....1254- 32-17-A-11
KN8CCO.....123- 8-7-A-4

ROCKY MOUNTAIN DIVISION

Colorado

W9CDP.....129,666- 713-73-A-36
W9SGG.....64,181- 410-63-A-28

W0WME.....48,000- 324-60-A-35
W0IA.....45,225- 304-60-A-34
W0IC.....34,461- 274-63-B-19
K0EDK.....27,000- 200-54-A-20
K0EDH.....21,060- 176-45-A-21
K0SWT.....9263- 95-39-A-18
K0GEU.....8750- 100-35-A-25
W0UNM/.....04,830- 69-28-A-17
W0MYB.....1870- 34-22-A-7
K0EDG.....1725- 30-23-A-4
KN0EGJ.....1445- 37-17-A-15
KN0DJ.....1175- 52-10-A-32
W0UIB.....15- 3- 2-A-3
KN0EQS.....5- 2- 1-A-2
K0DDC.....3- 1- 1-A-1
KN0EJG.....3- 1- 1-A-1

W7BAJ.....67,538- 385-70-A-35
W7PTM.....25,181- 202-51-A-39
W7WUU.....24,295- 229-43-A-26
W7BUY (W7BUY, W0AZT)
8815- 86-41-A-15

Wyoming

W7HYW.....64,470- 461-70-B-29
W7HRM.....21,471- 211-51-B-10
W7UFB.....14,063- 114-50-A-13
W7PSO.....12,488- 113-45-A-7
W7BHH.....3843- 53-29-A-10

SOUTHEASTERN DIVISION

Alabama

W4WOT.....58,823- 342-69-A-26
W4LUG.....47,691- 510-60-A-32
W4GUV.....47,200- 297-64-A-25
W4USM.....21,788- 210-52-B-12
W2GVH/4.....13,300- 175-38-B-21
W4EJZ.....11,973- 155-39-A-12
W4UW.....8215- 107-31-A-20
K4CCX.....90- 32-A-6
W4ZGE.....6891- 70-27-A-4
K4IVF.....3705- 59-26-A-15
KN4KID.....3526- 50-31-A-20
W4CIU.....300- 15-8-A-3

Eastern Florida

W4SHW.....83,573- 510-66-A-32
K4IXG.....83,525- 515-65-A-39
K4EUV.....78,199- 501-63-A-40
K4IXC.....68,778- 451-61-A-34
W4RWA.....67,408- 482-59-A-40
K4DAS.....66,439- 484-56-A-39
W4VPD.....65,825- 375-70-A-4
W4WHK.....61,200- 384-64-A-27
W4DXL/4.....41,895- 338-63-B-36
K4KID.....40,165- 277-58-A-17
K4IKQ.....21,038- 168-51-A-32
K4DRD.....20,210- 174-47-A-16
W4VTJ.....13,200- 132-40-A-7

Western Florida

W4WKQ.....103,125- 627-66-A-37

Georgia

K4BAI.....100,969- 753-67-B-38
W4ZKU.....71,355- 506-71-B-35
K4DWF.....68,424- 411-67-A-31
W0WFP/4.....67,320- 510-66-B-32
W4BEY.....66,065- 365-73-A-37
W4FWU.....64,339- 387-67-A-37
W4BXV.....60,776- 427-57-A-28
K4GGN.....48,000- 302-64-A-38
K4HAY.....41,863- 304-55-A-29
K4HAY.....37,700- 257-59-A-22
W4BYS.....35,564- 257-59-A-22
W4LDD.....28,420- 197-58-A-26
W4EGP.....27,731- 250-45-A-28
W4YK.....26,455- 204-65-B-15
K4HMS.....14,580- 112-54-A-8
K4IOV.....14,000- 40-19-A-8
K4HOU.....1650- 33-20-A-5
K4CXE.....1463- 33-18-A-10
KN4HIG.....1401- 42-19-A-16

West Indies

KP4DH.....100,238- 616-66-A-35
KP4ZV.....32,966- 224-59-A-19

Canal Zone

KZ5BC.....19,796- 202-49-B-7

SOUTHWESTERN DIVISION

Los Angeles

W6BJU12.....198,000-1107-72-A-38
W6YMD.....157,096-1079-73-B-34
K6JQJ.....153,658- 878-70-A-38
K6CEP.....150,400- 832-73-A-37
W6SBB.....146,881- 829-71-A-38
K6OIZ.....74,100- 456-65-A-34
W6SRT.....56,063- 325-69-A-32

K6JBV.....48,525- 333-60-A-30
W6KWF.....43,350- 389-60-A-28
K6CXF.....39,340- 281-56-A-29
W6ACL.....34,368- 234-59-A-25
K6GUZ.....30,590- 119-56-A-14
W6WKE.....30,360- 277-55-B-19
W6CRV.....20,213- 165-49-A-19
W6MJP.....18,488- 145-51-A-12
K6DQE.....18,240- 152-48-A-21
K6IGZ.....17,273- 141-49-A-16
K6UYK.....16,800- 140-48-A-12
W6AMV.....15,480- 131-48-A-31
W6LVQ.....14,375- 115-45-A-10
K6PQV.....12,240- 136-36-A-15
K6DLV.....9595- 102-38-A-21
W1CUL/6.....9204- 101-37-A-31
W6KUC.....8740- 116-38-B-12
K6KZY.....8710- 131-24-A-27
K6BAG/6H.....7883- 62-32-B-8
K6LKG.....7425- 92-33-A-12
K6EEZ.....5950- 85-28-A-12
W6UUC.....4650- 60-31-A-8
W6FUC.....4130- 60-28-A-20
K6JSM.....4125- 57-30-A-18
W6WKE.....3567- 3- 3- 3-A-3
KN6QYG*.....3508- 65-23-A-25
K6SHJ.....2400- 50-20-A-10
W6GTR.....1853- 40-19-A-11
KN6PSJ.....1628- 54-14-A-1
KN6QJ.....1625- 35-20-A-4
KN6QZ.....1583- 15-15-A-13
K6KMD.....900- 23-18-A-3
K6QIP.....675- 27-10-A-1
W6ZOL/6.....510- 17-12-A-3
K6KME.....360- 17-9-A-2
KN6SLM.....113- 15-3-A-24
W6DXZ.....40- 4- 4-A-4
K6PLW.....23- 3- 3-A-1
K6IBE (K6s CYX IBE)
80,730- 468-69-A-40
K6LBE (K6s LBE M8G)
20,913- 243-35-A-40

Arizona

W7CJZ.....119,680- 707-68-A-40
W7EAX.....32,592- 294-56-B-16
W7ATV.....20,844- 199-54-B-14
W7PUV.....10,800- 112-40-A-16

San Diego

W6ZVQ.....107,100- 612-70-A-38
W6JVA.....103,216- 684-71-A-39
K6LIV.....37,950- 256-60-A-29
K6EQL.....26,860- 158-68-A-15
K6EJK.....4070- 74-22-A-12
K6LXL.....2125- 43-20-A-3
K6IUV.....1983- 32-26-A-7
K6BCG (K6s BCG OLS, KN6ULV)
19,080- 162-48-A-35

Santa Barbara

W6ERB.....100,554- 567-71-A-40
W6YK.....92,520- 516-72-A-39
K6INI.....56,438- 323-70-A-36
K6QNR/6.....25,760- 226-46-A-37
W6DTY.....17,325- 158-44-A-17
K6CST.....15,096- 148-51-B-19

WEST GULF DIVISION

Northern Texas

W5BLU.....114,665- 680-68-A-40
K5HLG.....113,419- 658-69-A-40
W5DXW.....104,563- 600-70-A-37
W5COY.....84,105- 543-63-A-25
W5FTD.....62,175- 416-60-A-34
W5OC.....60,165- 382-63-A-23
W5DZ.....59,679- 289-65-A-24
W5DLM.....41,253- 291-57-A-23
W5DYK.....27,540- 204-54-A-8
W5FCX.....25,145- 194-47-A-26
W5OBY.....23,136- 243-48-B-27
W5EOZ.....21,862- 166-53-A-17
W5FIO.....17,825- 153-44-A-20
W5AWT.....4495- 73-31-B-4
W5LBC.....920- 23-16-A-3
KN5HWY.....304- 16-3-A-11
K5BFP.....11- 3- 3-A-1
KN5IBR.....3- 1- 1-A-1
W5GNE (W5GNE ZKJ)
89,500- 550-65-A-40

Oklahoma

W5EQT.....103,360- 672-64-A-39
W5NQF.....76,455- 481-64-A-38

W5CYQ.....70,880- 450-64-A-34
W6CKT.....24,750- 225-55-B-14
W5LPL.....10,916- 107-41-A-7
W5FEC.....8701- 102-39-A-8
K5CBA.....3375- 54-25-A-8

Southern Texas

W5BTS.....108,205- 650-67-A-40
W5ABV.....78,790- 464-68-A-27
W5JPC.....64,020- 388-66-A-33
K5WAC/4.....54,548- 416-66-B-28
KN5EZV*.....34,583- 262-53-A-34
K5BSZ.....18,600- 156-48-A-12
W5CTZ.....2760- 46-24-A-9
KN5GFF.....2670- 55-24-A-31
KN5EAU16.....10- 2- 2-A-1

New Mexico

K5CAW.....138,006- 794-71-A-38
W5GCI.....104,400- 582-72-A-37
W5FTP.....88,468- 662-68-B-39
W5WCP.....62,144- 408-61-A-40
W5BCP.....14,548- 133-45-A-16
W3CCQ/5.....7306- 87-35-A-19

CANADIAN DIVISION

Maritime

VO6N.....19,550- 170-46-A-22
VE1CU.....220- 11-8-A-1

Quebec

VE3ADD.....64,417- 412-63-A-39
VE2BX.....43,900- 373-57-A-39
VE2YU.....41,025- 275-60-A-21
VE2CP.....30,378- 210-58-A-20
VE2AVC.....25,530- 222-46-A-23
VE2PZ.....17,220- 163-41-A-15
VE2ANQ.....3190- 59-22-A-15
VE2AOC.....1425- 30-18-A-6
VE2AJD.....76- 26-13-A-13
VE2ATT.....200- 11-8-A-8

Ontario

VE3DS.....101,513- 632-70-A-40
VE3VX16.....85,503- 612-67-A-39
VE3EAM.....85,090- 510-67-A-38
VE3ES.....74,725- 494-61-A-39
VE3EU.....54,356- 335-65-A-36
VE3DUS.....51,258- 357-58-A-39
VE3BXF.....48,538- 353-55-A-32
VE3AUV.....44,318- 315-57-A-22
VE3ACB.....34,190- 263-52-A-26
VE3DH.....20,213- 194-42-A-21
VE3BMB.....19,650- 131-60-A-25
VE3IR.....18,300- 150-61-B-14
VE3RN.....17,769- 145-40-A-29
VE3YV.....15,222- 177-43-B-16
VE3BLY.....13,640- 177-31-A-18
VE3IZ.....7750- 100-31-A-9
K2INZ/VE3.....6885- 82-34-A-9
VE3DYJ.....6510- 85-31-A-23
VE3BAJ.....180- 12-6-A-3

Manitoba

W3MCC/VE4.....11,019- 108-41-A-8
VE4YZ.....4040- 73-32-B-7
VE4W1.....1575- 34-20-A-7

Saskatchewan

VE5DZ.....39,329- 300-67-B-33

Alberta

VE6MA.....51,975- 330-63-A-35
VE6SX.....12,675- 131-39-A-22
VE6TY.....12,470- 118-43-A-11

British Columbia

VE7JO.....47,250- 300-63-A-24
VE7AGN.....27,084- 233-47-31
VE7AC.....24,780- 210-59-A-16
VE7JL.....14,981- 120-51-A-34
VE7RU.....200- 11-8-A-1

Yukon

VE8JW.....64,253- 484-67-B-28
VE8OJ.....4633- 55-34-A-9
VE8OW.....3706- 56-34-B-25
VE8CN (VE8S AB CN)
30,409- 230-53-A-12

1 W3OQJ, opr. 2 W0ZMJ, opr. 3 W9EXP, opr. 4 W8DJN, opr. 5 W8EZF, opr. 6 K2DVT, opr. 7 W2GNP, opr. 8 W9CUM, opr. 9 Hq. Staff, not eligible for award. 10 W1WPR, opr. 11 W1WMH, opr. 12 W6CUF, opr. 13 W6NJU, opr. 14 W6HQN, opr. 15 K5ABV, opr. 16 VE3BHS, opr. 17 W5EAO, opr. 18 W5EAO, opr. 19 W5EAO, opr. 20 W5EAO, opr. 21 W5EAO, opr. 22 W5EAO, opr. 23 W5EAO, opr. 24 W5EAO, opr. 25 W5EAO, opr. 26 W5EAO, opr. 27 W5EAO, opr. 28 W5EAO, opr. 29 W5EAO, opr. 30 W5EAO, opr. 31 W5EAO, opr. 32 W5EAO, opr. 33 W5EAO, opr. 34 W5EAO, opr. 35 W5EAO, opr. 36 W5EAO, opr. 37 W5EAO, opr. 38 W5EAO, opr. 39 W5EAO, opr. 40 W5EAO, opr. 41 W5EAO, opr. 42 W5EAO, opr. 43 W5EAO, opr. 44 W5EAO, opr. 45 W5EAO, opr. 46 W5EAO, opr. 47 W5EAO, opr. 48 W5EAO, opr. 49 W5EAO, opr. 50 W5EAO, opr. 51 W5EAO, opr. 52 W5EAO, opr. 53 W5EAO, opr. 54 W5EAO, opr. 55 W5EAO, opr. 56 W5EAO, opr. 57 W5EAO, opr. 58 W5EAO, opr. 59 W5EAO, opr. 60 W5EAO, opr. 61 W5EAO, opr. 62 W5EAO, opr. 63 W5EAO, opr. 64 W5EAO, opr. 65 W5EAO, opr. 66 W5EAO, opr. 67 W5EAO, opr. 68 W5EAO, opr. 69 W5EAO, opr. 70 W5EAO, opr. 71 W5EAO, opr. 72 W5EAO, opr. 73 W5EAO, opr. 74 W5EAO, opr. 75 W5EAO, opr. 76 W5EAO, opr. 77 W5EAO, opr. 78 W5EAO, opr. 79 W5EAO, opr. 80 W5EAO, opr. 81 W5EAO, opr. 82 W5EAO, opr. 83 W5EAO, opr. 84 W5EAO, opr. 85 W5EAO, opr. 86 W5EAO, opr. 87 W5EAO, opr. 88 W5EAO, opr. 89 W5EAO, opr. 90 W5EAO, opr. 91 W5EAO, opr. 92 W5EAO, opr. 93 W5EAO, opr. 94 W5EAO, opr. 95 W5EAO, opr. 96 W5EAO, opr. 97 W5EAO, opr. 98 W5EAO, opr. 99 W5EAO, opr. 100 W5EAO, opr. 101 W5EAO, opr. 102 W5EAO, opr. 103 W5EAO, opr. 104 W5EAO, opr. 105 W5EAO, opr. 106 W5EAO, opr. 107 W5EAO, opr. 108 W5EAO, opr. 109 W5EAO, opr. 110 W5EAO, opr. 111 W5EAO, opr. 112 W5EAO, opr. 113 W5EAO, opr. 114 W5EAO, opr. 115 W5EAO, opr. 116 W5EAO, opr. 117 W5EAO, opr. 118 W5EAO, opr. 119 W5EAO, opr. 120 W5EAO, opr. 121 W5EAO, opr. 122 W5EAO, opr. 123 W5EAO, opr. 124 W5EAO, opr. 125 W5EAO, opr. 126 W5EAO, opr. 127 W5EAO, opr. 128 W5EAO, opr. 129 W5EAO, opr. 130 W5EAO, opr. 131 W5EAO, opr. 132 W5EAO, opr. 133 W5EAO, opr. 134 W5EAO, opr. 135 W5EAO, opr. 136 W5EAO, opr. 137 W5EAO, opr. 138 W5EAO, opr. 139 W5EAO, opr. 140 W5EAO, opr. 141 W5EAO, opr. 142 W5EAO, opr. 143 W5EAO, opr. 144 W5EAO, opr. 145 W5EAO, opr. 146 W5EAO, opr. 147 W5EAO, opr. 148 W5EAO, opr. 149 W5EAO, opr. 150 W5EAO, opr. 151 W5EAO, opr. 152 W5EAO, opr. 153 W5EAO, opr. 154 W5EAO, opr. 155 W5EAO, opr. 156 W5EAO, opr. 157 W5EAO, opr. 158 W5EAO, opr. 159 W5EAO, opr. 160 W5EAO, opr. 161 W5EAO, opr. 162 W5EAO, opr. 163 W5EAO, opr. 164 W5EAO, opr. 165 W5EAO, opr. 166 W5EAO, opr. 167 W5EAO, opr. 168 W5EAO, opr. 169 W5EAO, opr. 170 W5EAO, opr. 171 W5EAO, opr. 172 W5EAO, opr. 173 W5EAO, opr. 174 W5EAO, opr. 175 W5EAO, opr. 176 W5EAO, opr. 177 W5EAO, opr. 178 W5EAO, opr. 179 W5EAO, opr. 180 W5EAO, opr. 181 W5EAO, opr. 182 W5EAO, opr. 183 W5EAO, opr. 184 W5EAO, opr. 185 W5EAO, opr. 186 W5EAO, opr. 187 W5EAO, opr. 188 W5EAO, opr. 189 W5EAO, opr. 190 W5EAO, opr. 191 W5EAO, opr. 192 W5EAO, opr. 193 W5EAO, opr. 194 W5EAO, opr. 195 W5EAO, opr. 196 W5EAO, opr. 197 W5EAO, opr. 1