Results, 1978 Novice Roundup

All for fun and fun for all.

By Bill Jennings,* K1WJ

reheat ionosphere for best propagation. Liberally sprinkle with sunspots. Blend in those long hours of hard work on hardware improvements. A dash of topnotch operator ability. Add a pinch of good luck, and you have the recipe for "winning" the Novice Roundup . . . maybe. Unlike a recipe, which, if followed exactly, produces a uniformly consistent result, the formula for a winning Novice Roundup entry (or any other contest for that matter) contains enough variables to at least make the competition interesting.

We will attempt to offer pertinent operating facts and a few tips, taken from the various NR entries, not in an effort to hypothesize a formula for winning the NR, but as a basis for comparative analysis. Take it for what it's worth. The fun, enjoyment and satisfaction derived from participating in the Novice Roundup, whether you make one or one thousand contacts, can't be measured in facts and figures anyway.

The 27th running of the Novice Roundup, held February 4-12, 1978, brought a total of 700 entries, representing Novices and Technicians from every possible ARRL section, except Nevada and Canal Zone. Logs were also received from two Canadian provinces and five other DXCC countries.

The top ten Novice scores of 1978 average 63k, compared with 49k points by those in the same category in 1977. Conversely, the average score of the top ten Technician entrant decreased by 5000 points to 26k compared with the 1977 "top tenners." The top ten Novices (who are the top ten scorers of the contest, anyway) on the average made 636 QSOs, worked 70 of the possible 75 ARRL sections, and logged an average of 28 additional DXCC countries.

I've decided that I want to be one of the top-scoring entrants in the next NR; how do I go about it?

When should I get on the air to make the best use of my operating time?

A look at the 1978 NR entries shows that the best rates (most QSOs made per

Division Leaders

Novice WA2IGK WD9HFY WDØBNI WA4UYJ WD4HCF WB7EME/2 WDØBGB WB1AVA WR7RHF WB6TCO WD4NES WDØBZY WD4DUF WD6FTC WB5LVL

Division Technician WIWEAW Atlantic Central WB9HGN WDØFPF Dakota Delta WB5YLT **Great Lakes** WD8D.IB WB2SUW Hudson WDØDR7 Midwest New England WB1BWV Northwestern WB7QQY WA6MZR **Pacific** WA8TCG Roanoke Rocky Mountain WD5FMB Southeastern WD4GSF WR7OWA Southwestern WD5EEF West Gulf

hour of operating time) are made on the weekends and after normal (9 A.M.-5 P.M. local time) working/school hours during the week. Some of the less common multipliers are liable to be on the air during the less congested hours of the contest (some folks don't enjoy pileups—honest!).

When is the best time to try working some of the DX stations for those additional multipliers?

DX QSOs can be turned into extra

WD6BAY operated the UCLA ARC station, W6YRA, in the NR. Leslie is secretary-treasurer for the club.



multipliers and a large bonus in accrued points by an operator who knows when and where to find them. Operating experience will tell that chances are mighty slim for a U.S.-to-Europe QSO at 1400 UTC on 80 meters, but 10 or 15 meters might very well be chock-full of European signals. There is no reason to tune the bands blindly in search of DX QSOs. The charts that predict the month's average propagation conditions, found every month in QST (right after the "How's DX?" column), are as good a place as any to start gathering information on when and where one is most likely to be successful in making DX QSOs.

What station equipment and antenna systems are the best?

"Best" is what works well in each individual operator's situation. A chart is included in this report, showing the equipment (by brand name, if any), antennas used on each band, number of ARRL sections worked, and number of DXCC countries worked for each of the top ten entrants. This is not meant to endorse any particular brand of gear. An individual operator's needs, wants and personal preferences determine what is best for that particular operator.

Once the contest is over and the logs are filled out is any further work necessary before submitting my entry?

It is always best to go over your contest entry, thoroughly, before submitting it, and check for the following: duplicates check the log after the contest as well as during the contest for duplicate contacts. No matter how carefully you keep a dupe sheet during the contest, it is very easy in the heat of battle, working several QSOs per minute, to forget to enter a call on the dupe sheet. Presto, instant score reduction; be sure that your entry supplies all the information required to make the OSO a valid contest contact — if a signal report and section name are part of the required contest exchange, then a valid entry will show the signal report and section name for each and every QSO claimed; be sure that your entry is quite legible — a log checker cannot give credit for a OSO if he cannot read it in the log; be sure that your entry is sent in plenty of time to meet



WD9AKM, Bill, staved off "Murphy's" lastminute appearance and finished the contest with a score of 10k points from Indiana.



Ann, WA4ZCS, took time out from her Army MARS and YLRL activities to turn in the number three Novice score from Alabama.



Steve, WB1BZP, 11 years old, made 151 NR contacts in 55 sections in his first Novice Roundup.

any deadline requirements set by the contest sponsor — after all, if your entry does not arrive in time to be considered a valid entry, all that time spent in operating in the contest and doing the required paperwork is for naught.

The success of an event such as the Novice Roundup is gauged by the enjoyment and good operating experience gained by the participants. Judging by the favorable comments of the participants, the 1978 Novice Roundup was a resounding success, due in no small part to the higher class licensees and our DX friends, who visited the Novice bands "just to help out." Thanks.

Feedback

Please note the following corrections to the 1977 Novice Roundup Results that appear on page 64 of the September 1977 QST. The call sign listed as WB7CLA in the Arizona section should really be WB7ELA. WB9YCJ listed in the Illinois section is in reality WB9YJC. And finally, the score for WB9WSO in the Illinois section should be 9163 points rather than the 8428 shown.

Soapbox

I was QRV nearly every afternoon on 21 MHz when the band was open to the U.S. Sure wish all the NR participants had signed /N or /T, sure would have made things easier for those of us only able to work Novices or Techs . . . be back next year. (OE1TKW) Greenwich *Mean* Time is aptly named. (WB7RGM) One problem

in particular that I did encounter was having my CQ NR answered by stations who were not participating in the contest and wanted to ragchew when I returned their call. This is particularly time-consuming and it is a shame that nonparticipants are not at least cognizant of the contest and of the fact that most participants are trying to make as many contacts as possible and really don't have time to ragchew. (WB7OJS) My first time on the air. Quickie contacts helped me to get over my "key fright." (WB2SUW) I think that the time span of 30 hours is just too much. I am sure that it is fine for retired persons with plenty of time, and for youngsters who don't have to work for a living. However, us ole hard-working bananas just don't have that kind of time to spend to become competitive in the contest. (WB5SRB) Many thanks to the General and higher class ops who showed up, especially N6NR. How's that for a call in the Novice Roundup? (WD6CGW) . . Keeping track of dates and times in UTC is the pits! (WB1GGR) I figured out what NR means — Numb Rist. (WBØZGD) Just when you get in the swing of that catchy "CQ NR," it's over. (WD9DMJ) I was so surprised when HP1AC answered my CO, that I came back with "What section?" (WD6EEQ) The General class cw test was a snap after the NR. (WD4DWJ) The Novice Roundup was great fun and as an added bonus, I can now send a slant bar, which heretofore I could not send! (WD4MDA) Had a lot of fun in the NR, but also ran into some problems. Average

temp in the shack was 26°F (lowest it got was -1°F). Had to melt my long wire antenna out of the ice, using boiling water. Then to top it all off, my finals blew half into the NR. I trudged through a blizzard in a futile attempt to buy new ones . . . but NR was the greatest time ever. (WB3HII) Thanks for giving us Novices a chance to share in a portion of amateur radio that the more experienced operators enjoy, contesting. (WD4LTH) I started the contest in the middle of the week. First time I ever missed "Charlie's Angels"!! (WB3JGD) [Now that's real dedication. — Ed.] I think that the hardest part of the contest is keeping the dupe sheet so that you don't work anyone twice. (WD8KEM) I heard many stations calling CQ VT during the contest, myself included. Never did raise a Vermont station. (WDØFPJ) Haven't people ever heard of dupe sheets? I spent half of my time working duplicate QSOs, not all of them were Novices, though. (WB3DCA) I hope that I did OK for a Novice from KL7-land. (KL7JBS) [Any effort from KL7 is greatly appreciated by us Southerners in the lower 48. — Ed.] The Novice Roundup when "mother" is a Novice with three kids and is in the contest means: frozen food dinners, the OM can't use the rig, the telephone stays off the hook, and no one gets to bed on time. (WD4HCF) Worked my first DX in the NR. (WB1DED) I enjoyed the contest very much. I think the idea of spreading the operating time out over 30 hours is excellent, as it gives everybody an equal op-

WDØBQG, top-scoring Novice in the Nebraska section, in his "wait 'til next year" mood right at the end of the 1978 NR.



WA4UYJ's 58k points earned him first place in Tennessee and fifth place, nationally, among Novice operators.



Chuck, WB9YQT, enjoyed the quick pace of the NR and is already planning more contest ac-



Top Ten			
Novice		Technician	
WA2IGK	88,560	WA3WIW	44,900
WB7EME/2	75,256	WB1BWV	32,472
WD9HEY	68,064	WA1ZPC	32,160
WB1AVA	67,100	WA6MZR	27,648
WA4UYJ	58,420	WB9HGN	26,228
WB1EQI	56,817	WD5EEF	22,302
WD4DUF	56,256	WD4GSF	20,922
WB2JGQ	55,144	WDØEPE	20,608
WD4HCF	55,096	WB3GCH	20,251
WB3COT	52,836	WDØDBZ	18,900

Station Ed	quipment — Antennas — Multipliers			
Call	Equipment Receiver/Transmitter/Power Input	Antenna(s) Used	ARRL Sections	DXCC Countries
WA2IGK	Collins 75A-3/Heath DX-60/90 watts	dipoles	72	36
WB7EME/	2Collins 75S-3B/Collins 32S-3/200 watts	dipoles	68	24
WD9HEY	Drake TR-4C/xcvr/200 watts	vertical/dbl. bazooka	73	23
WB1AVA	Kenwood R-599D/T-599D/250 watts	3-el. quad/dipole	70	30
WA4UYJ	Drake TR-4C/xcvr/180 watts	vertical/inverted Vs	70	25
WB1EQI	Kenwood TS-520/xcvr/200 watts	6-el. beam/dipoles	68	39
WD4DUF	Kenwood TS-520/xcvr/160 watts	3-el. beam/inv. Vs	70	26
WB2JGQ	Collins R-388/Yaesu FLDX-400/100 watts	3-el. beam/dipoles	72	41
WD4HCF	Heath HW-101/xcvr/180 watts	3-el. beam/V/bazooka	71	26
WB3COT	Yaesu FR-101/Yaesu FL-101/150 watts	3-el. beam/inv. V	71	13

portunity. Before the contest I was sort of inactive, but got on for the NR and my code speed came right back up to the point where I was able to pass my Advanced class exam on March 1. (WA2KNZ) I'm only 16 years old and I think that the contest bug has already bitten me. So, you ought to be hearing from me for at least another 50 years. (WD6CZR) This past trip to Delaware was a real ball . . . Each trip I make to the "mid-Atlantic toughy" is slanted in a slightly different way. This trip was aimed primarily at Novices during the Novice Roundup. Delaware contacts were easy pickins for anyone who called. Final tally was 416 QSOs, 18 ops said U R no. 50, one op said no. 250 (for 5-Band WAS) . . . and hopefully many others were helped toward WAS or whatever awards they happen to be working toward. And the next trip is in the planning stages. (WA3ZMY) Q 5 7---



Paul, WD4JVU, from Alabama, found that 40 meters produced his best QSO rates, while 10-meter contacts were few and far between.



First place in the Minnesota section belongs to this gentleman. He is Evan, WBØWYV, who after making 400 contacts using his straight key, is sure glad the NR is only once a year.

Novice Roundup Scores

Scores read, left to right, call, score, contacts, multiplier, and number of hours of operation.

U.S.A.	Rhode Island	WB2RNZ/N 22,922-299- 73-19 WA2LTS/N 21,266-323- 62-30	WB3FYT/N 12 348-242- 49-24 WB3JQE/N 11 448-201- 53-18	WD4DLG/N 17,160-352- 80-27 WA4ZCS/N 16,864-248- 68-26
1 Connecticut WR1AVA/N 67 100-661-100-30	WBLEQI/N 56,817-516-107-30 WBLDET/N 39,116-483-77-28 WBLZPC/T 32,160-465-67-30 WBLDEU/N 32,112-431-72-28 WBLGGR/N 10,222-1193-53-27 Vermont WBLBWV/T 32,472-396-82-28	WB2[UI/N 17,152-268-64-26 WB2RQR/N 14,535-240-57-30 WA21AX/N 10,868-189-52-30 WA21LI/N 733-209-37-20 WA2HU/N 5500-100-55-11 WA2HU/N 5500-100-55-11 WA2MBE/N 2404-86-59-20 WA2HOR/N 2268-81-28-8 WA2KBZ/N 988-38-26-6	WB3GŽÝ/N 8968-152- 59-22 WB3F5O/N 8832-192- 46-30 WB3FFN/N 8034-206- 39-22 WB3HNI/T 6697-171- 37-24 WB3JBF/N 3400- 70- 40-27 WB3JYO/N 2670- 89-30- WB3HVV/N 1560- 52- 30-11 WB3EPW/N 1400- 50- 28-17	WD4JVU/N 14,579-224- 61-30 WB4KSC/N 14,396-221- 61-13 WD4VRD/N 13,969-229- 61-15 WD4DRF/N 12,702-219- 58-17 WD4LHN/N 12,702-219- 58-17 WD4UHN/N 12,702-219- 58-17 WD4MNR/N 10,236-198- 52-30 WD4MNR/N 7852-151- 52-16 WB4KUU/N 5376-97- 48-13
WAIYWW/N 47,770-547- 85-24 WBIALW/N 44,792-499- 88-30 WBIFNU/N 20,097-304- 63-24	WB1ENR/N 2080- 65- 32-18 WB1ATC/N 1080- 30- 24- 8	WA2PIP/N 468- 24- 12-14	WB3DIH/T 760- 76- 10-13 Delaware	WD4HYE/N 5180-125- 37-26 WD4NYL/N 748- 34- 22-30
WB1ENW/N 10,498-181- 58-28 WB1ACS/N 8280-180- 46-27	Western Massachusetts	Southern New Jersey WA2KNZ/N 23,046-324- 69-30	WB3JIU/N 16,575-255- 65- WB3GVS/N 13,847-212- 61-30	WD4LNZ/N 561- 51- 11-12 WD4DBB/N 512- 22- 16- 7
WAIUKX/T 6480-147- 40-20 WRICTM/N 1740- 50- 29-13	WB1AOG/N 40,020-450- 87-27 WB1CZE/N 22,242-337- 66-30	WA2RUH/N 14,809-231- 59-29 WA2SOQ/N 11,596-213- 52-30	WB3FUP/T 1930-66-30-14 Maryland-D.C.	Georgia
WBIFAH/T 1643 53 31-10 WBIEFW/N 952 56 17-14 KIFZL/T 648 26 18 8 WBIAJQ/N 540 30 18 4 WBIFAU/N 4 2 2 1	WB1CZE/N 22,242,337, 66-30 WA1YXL/N 14,384-228, 58-28 WB1BPP/N 12,366-214, 54-16 WB1FHN/N 2784, 96-29-18 WA1ZUW/N 2688, 84-32-11 WB1FUV/N 2660, 76-35-11 WB1CXK/N 2450, 70-35-13 WA1WRK/T 726-33-22-11	WAZJQH/N 76968-134-52-16 WBZAOL/T 6191-151-41-19 WAZIAU/N 5006-115-46-15 WAZJXD/N 2886-74-39-20 WAZSJG/T 1159-51-19-11 Western New York	WB3DCA/N 41,850,445-90-17 WB3JWX/N 35,441,427-83-30 WA3YLO/N 33,374,426-74-29 WB3JLF/N 27,974-379-71-30 WB3JRS/N 10,856-184-59-23 WB3FHO/N 10,653-201-53-15	WB4YFX/N 17,484-267- 62-29 WD4KGN/N 17,358-243- 66-16 WD4AGU/N 16,940-217- 70-25 WD4IKI/N 12,726-202- 63-28 WD4LUK/T 6118-123- 46-27 WD4AGK/N 5474-119- 46-17 WD4HER/N 2574- 78- 33-16
Eastern Massachusetts WB1FPF/N 36,893-452-79-30		WA2IGK/N 88,560-819-108-30	WB3JRU/N 9516-183- 52-30 WB3FSB/N 2331- 63- 37- 5	WD4IRQ/N 1363- 47- 29-13
WB1FTM/N 13,098-207- 59-26 WA1ZXV/N 12,650-220- 55-30	2	WB2MMB/N 50,149-507- 97-30 WA2LMC/N 21,838-358- 61-28	Western Pennsylvania	Kentucky WD4HCF/N 55,096-568- 97-26
WBIFLA/N 10,878-222- 49-30 WBIENV/N 10,865-205- 53-30 WBIDSL/N 9635-205- 47-27 WBIDSL/N 9635-205- 47-27 WBIDHT/N 8655-151- 55-20 WBIPKG/N 8575-175- 49-33 WBIDXE/N 8578-175- 49-31 WBIDXE/N 5538-203- 26-28 WBIPKF/N 3518- 83- 45- 6 WAIYVT/N 3515- 95- 37-28 WBIDUT/N 1034- 47- 22-13 WBIDUT/N 1034- 47- 22-13 WBIDUT/N 1034- 47- 22-13 WBIEHL/N 572- 34- 13-13	Eastern New York WA2MZK/N 38.078-462- 79-28 WA2MRW/N 25.844-354- 71-19 WB2SNT/N 18.944-286- 64-30 WA2U1P/N 13.924-226- 59-25 WB2LJIK/N 13.629-216- 59-27 WA2LLV/N 12.663-201- 63-26 WB2LQI/N 11.596-213- 52-30 WA2VAX/N 9513-151- 63-27 WB2THN/N 280-100- 28-12	WB2RWH/N 13,456-212-58-WA2ISWN 12,882-206-57-22 WA2JGY/T 12,750-25-5 50-22 WA2WMW/N 12,705-251-55-28 WB2O1KB/N 11,368-203-59-14 WB2CR/N 2600-100-26-15 WB2SWL/T 2208-69-32-21 WA2PSG/N 1360-68-20-10 WB2MVC/N 198-18-11-19	WB3COT/N 52.836.6.114.84.30 WB3GNC/N 26.564.458.86.23 WB3CDD/N 23.751.362.63.21 WB3GWR/N 21.328.344.62- WB3DCX/T 16.450.220-70.28 WB3IEX/T/T 14.50-2201.50.15 WB3EXT/N 10.277.239.43.21 WB3CMJ/N 97.68.212.48.20 WB3LMG/N 8892.224.38.25 WB3BLO/N 6804.189.36.30 WB3KAF/N 5715-127.45.13 WB3KAF/N 5715-127.45.13 WB3JKAF/N 5715-127.45.13 WB3JKAF/N 5715-127.45.13	WD4FXX/N 28,497-413. 65-28 W44KLI/N 20,634-362. 57-30 WA2QYW/N 16,750-235. 67-22 WD4HTJ/N 15,392-281. 52-9 WD4HEK/N 13,875-225. 61-15 WD4HKW/N 13,767-209. 64-30 WD4HTW/N 11,224-234. 46-30 WD4HTW/N 10,887-191. 57-26 WD4HW/N 10,887-191. 57-26 WD4HQ/N 500-115. 44-10 WD4HQ/N 520-145-36-18 WD4UQ/N 520-145-36-18 WA4UW/N 101-46-22-7
WATUMA/N 240- 20- 8- 8	WA2JVV/N 1540- 55- 28- 9 New York City-Long Island	Eastern Pennsylvanja	WB3HGC/N 5676-117- 43-20 WB3DJM/N 4134- 91- 39-24 WB3JGD/N 4060-101- 35- 8	North Carolina
Maine WB1CGG/N 32,264-421- 74-26		WA3WIW/T 44.900-449-100-30	WB3INW/N 3182-86-37-12 WB3CLW/N 2160-62-30-8	WD4KIL/N 23,100-330- 70-29 WD4HCY/N 21,797-307- 71-21 WD4HTX/N 15,128-238- 61-23
WB1CGG/N 32,264-421- 74-26 WB1CTV/N 24,928-313- 76-29 WB1DED/N 20,400-300- 68-30 WA2ORE/1N 14,280-223- 60-27	WA20HD/N 15,840-230- 66-29 WA2PYY/N 15,444-224- 66-26 WA2HQB/N 1932- 69- 28-10 WB2SUW/T 1696- 53- 32-22 WB2VAW/N 600- 50- 10-24	WB3HLY/N 25,160-355- 68-29 WB3GCH/T 20,251-243- 77-30 WB3DNA/N 19,099-254- 71-24 WB3GTT/N 17,472-263- 64-30 WB3HII/N 16,356-272- 58-30 WB3GRT/N 16,320-215- 68-27	WB3KOE/N 588-28-21-6 WB3JFS/N 350-25-14-5	WD410C/N 14,690-226- 65-29 WD415J/N 14,450-289- 50-26 WD4CTA/N 10,797-168- 59-12 WA4WRY/T 2670- 79- 30-17 WB4SIU/N 2025- 75- 27-16
K1FUB/N 25,461-354- 69-27	WA2ZFH/T 121- 11- 3 Northern New Jersey	WB3IKQ/N 15,680-230- 64-17 WB3HVC/N 14,640-244- 60-17 WB3IUD/N 14,030-220- 61-30	**************************************	Northern Florida WD4LAH/N 29.192-313- 89-29
WB1DDK/N 11,970-210- 57-14 WB1FJW/N 3450-115- 30-20 WB1BQU/N 1334- 58- 23-15	WB7EME/2N 75,256-818- 92-30 WB2JGQ/N 55,144-488-113-30	WB3IUD/N 14,030-220- 61-30 WB3DCT/N 12,936-206- 56-10 WB3HJC/T 12,660-201- 60-30	Alabama WB4NQG/N 28,160-352- 80-27	WD4LAH/N 29,192-313- 89-29 WD4MDW/N 25,456-281- 86-28 WD4ENQ/N 15,813-231- 63-30



Judy, WB3GRT and "friends" enjoyed the NR from the Eastern Pennsylvania section.



Jim's 25k points put WD5CBQ at the top of the list in Mississippi.



Miles, WA2IAU, turned in the number five Novice score in Southern New Jersey.

WITCHARD 1997 199					
Wilson	WD4DWJ/N 14,508-234- 62-30 WD4JQC/N 13,572-224- 58-21			WD9GSU/T 13,048-223- 56-27 WD9DMJ/N 11,610-200- 54-29	WD0EHX/N 11,985-215- 51-30 WD0BLT/N 11,928-213- 56-25
Seather Francisco Wilderform	WD4JXH/N 3710- 91- 35-22 WA4TKG/N 3333- 81- 33- 6 WA4QFH/N 2176- 68- 32-15	WD5CJO/N 3333-101- 33-18	WB7EJE/N 26,996-397- 68-30 WB7RWH/N 24,254-342- 67-30 WB7RYB/N 15,015-216- 65-24	WD9GUK/N 11,067-217- 51-29 WD9EGW/N 11,016-201- 51-30 WD9EXD/N 8624-176- 49-	WDØEFB/N 936- 39- 24- 6
WORDERFORM 15. 6. 4. 1 WORDERFORM 12.00 0.0 STATE OF THE STATE OF	WD4LUG/N 1740- 58- 30- 6 WD4LAL/T 1334- 58- 23-12		WB7AIV/N 14,755-227- 65-30	WB9YHD/T 5355-119- 45-17	WDGNIV/D/N: 17 459 301 59 30
## Alaba	WD4DBN/N 16- 4- 4- 1	WD5BTU/N 6000-140- 40- 9 WD5FJY/N 3135- 95- 33-18	WB7RGM/N 12,960-206- 60-26 WB7ECH/N 12,810-210- 61-30 WB7TFN/N 12,198-204- 57,25	WD9GBS/N 2970, 90, 33,20	WDØFPJ/N 15,936-239- 64-27 WDØAFL/N 13,617-267- 51-27
## Alaba	WR4AFP/N 25 788-202- 84-20	WD51FG/N 510- 30- 17-14	Wyoming	WD9GVC/N 1150- 50- 23- 7	WDØDLV/N 13,370-230- 59-27 WDØDLV/N 13,392-201- 62-17 WBØZGD/N 11,180-200- 52-30
WORDERFORM 2008 49 4373 6	WB4MGP/T 10,553-173- 61-29 WD4KFD/T 10,050-201- 50-26		WB7UVB/N 4326-103- 42-30 WB7SNA/N 1769- 51- 29-11	WD9GPY/N 312- 24- 13- 8	WDØEVT/N 7650-138- 50-25 WBØWJK/N 5763-103- 51-13
March September Forties East Bay R.L. 18.081-297 63.23	WA4TNI/N 4059- 84- 41-27 WD4LBS/N 1080- 45- 24-13	6		·	WD@CDW/N 2204-58-38-10
Wilderform		East Bay	KL/ISO/N 24,180-372- 65-27 KL7JBS/N 18,081-287- 63-23	WD9GHS/N 42,413-561- 73-30 WD9GBB/N 40,432-517- 76-30	WD4FFL/ØN 49- 7- 7- 3
WASSERD 34,886.85 74.85	WD4DUF/N 56,256-566- 96-30	WB6ZKN/N 11.289-203- 53-20		WD9DVO/N 40,068-477- 84-25 WD9EDQ/N 28.490-370- 77-30	WD0BQG/N 36.103-442- 79-30
Workstring	WA4ZGB/N 32.486-429- 74-30	WD6AEF/T 486- 27- 18- 5	8	WB9TYM/N 25,452-404- 63-25 WD9HMY/N 24.064-366- 64-28	WBØPZH/N 7050-126- 50-13 WAØMRH/T 6439-137- 47-26
WORDERSON 10,000.000 10,0	WD4AHZ/N 28,706-463- 62-30 WD4GSF/T 20,922-302- 66-30 WD4KAA/N 6090-145- 42-17	WD6ETC/N 41.420-545- 76-28		WD9DGA/N 21,840-321- 65-30 WD9DBY/N 18,792-324- 58-20	WDØCHK/N 1431- 53- 27-24 WBØWNH/T 324- 17- 12- 9
WARDOWN 98 20 92 20 WARDOWN 98 20 92 20 WARDOWN 98 20 92 WARDOWN 98 20 WARDOWN 98	WD4MDA/N 60- 10- 6-14	WB6SZH/N 16,320-240- 68-30 W6YRA/N(WB6RAY opr)		WB9ZPK/N 17,818-302- 59-25 WD9DJZ/N 17,712-303- 54-23 WD9ET I/N 14 148-262- 54-18	North Dakota
WARDERINA 12,506,504,505,505 WARDERINA 12,506,505,505 WARDERINA WA			WD8AOA/N 30,114-453- 63-27 WD8DUG/N 28,275-435- 65-25		WDØETG/N 12,250-245- 50-27 WBØVPH/N 9430-205- 46-
WARDERINA 12,506,504,505,505 WARDERINA 12,506,505,505 WARDERINA WA	WD4FPT/N 28.710-315- 87-30	WD6BYN/N 4851- 99- 49-16 WD6DTN/N 2754- 66- 34-28	WD8NHA/N 22,320-352- 60-26 WD8LYI/N 20,460-295- 66-30	WD9EWT/T 10,224-213- 48-23	
WDSTRING State WDSTRING W	WA4WBA/N 16,500-280- 55-28 WA4PMQ/N 13,530-190- 66-19		WD8OUP/N 17,820-315- 54-30 WD8DJB/T 15,486-267- 58-29	WD9FAR/N 9576-161- 56-28 WD9HNE/N 9416-214- 44-24	WDØDNV/N 2320- 80- 29- 7 WDØCHD/T 391- 23- 17- 3
WDSTRING State WDSTRING W	WA4SCE/N 12,998-184- 67-19 WD4EPX/N 11,880-206- 55-29	WD8KGN/6N 560- 28- 20-21	WD8OUQ/N 13,900-278- 50-30 WD8ANR/N 12,528-246- 48-22	WB9RVV/N 8856-206- 41-25 WB9YZO/N 8405-205- 41-21	
WDSTRING State WDSTRING W	WD4LTH/N 4914-117- 42-20		WD8NKC/N 11,078-176- 58-26	WB952P/N 7055-204- 35-17 WB95DP/T 7350-175- 42-21 WD9GJJ/N 3850-110- 35-27	WD0FMB/N 18 540-289- 60-29
WDSTRING State WDSTRING W	WD4CIN/N 3640- 91- 40-11 WD4JPS/N 2656- 68- 32-15		WD8NJQ/N 10.528-214- 47-20	WB9WVD/N 2997-111-27-24 WD9GLI/N 2380-85-28-20	WDØFFX/N 15,196-247- 58-24 WBØYNB/N 1372- 49- 28- 4
WDSTRING State WDSTRING W	WD4EJO/N 560- 25- 16- 4	WA6MZR/T 27,648-422- 64-30 WD6CIO/N 18,850-270- 65-18	WD8LBZ/N 9435-255- 37-26 K8QJQ/T 7740-180- 43-30	K9PNP/T 2175- 65- 29-19 WD9ECJ/N 330- 33- 10- 9	
WDSHCKN 12,426,236 69.59 WDSECKN 14,426,236 69.59 WDSECKN 12,426,236 69.59 WDSECKN 13,426,236 69.59	-	WD6CGW/N 14,625-210- 65-23 WD6DXH/N 14,514-246- 59-16	WD8KXV/N 6480-135- 48-14 WD8KCM/N 6144-128- 48-15	Wisconsin	Non North
WDSFREIN 15,263-231 - 46-27 WDSFREIN 12,000-2437 - 66-27 20,000 K9EV 18,126 K4ADT WDSFREIN 10,663-203 - 31,12 WDSFREIN 10,603-203 - 32,12 WDSFREIN 10,603-203 - 32	27,360-426- 60-29 WD4NHB/N 21.432-361- 57-28	WD6COR/N 14,280-223- 60-29 WD6EPV/N 12,430-226- 55-28	WD8NVP/N 5586-147- 38- WD8OMO/N 2310- 77- 30-22	WD9BCG/N 30,780-405- 76-30 WB9TRN/N 30,099-381- 79-27	WA6NEL 27.972, K1XA
WBSTCKP/M	WD4FGN/N 20,584-322- 62-19 WD4FMG/N 15,226-321- 46-27	WD6CKT/N 11,165-203- 55-30 WA6CSB/T 416- 16- 16- 8	WD81BW/N 1596, 37, 28,	WD9CLN/N 29,638-391- 73-30 WB9ZRE/N 29,055-437- 65-27	23,424, WB1ANT 20,336, KØUP
WBSTCKP/M	WD4LGQ/N 12,320-220- 56-19 WD4ALH/N 12,096-214- 54-13		WD8PTO/N 1184- 74- 16- 9 WD8JZQ/N 765- 45- 17- 4	WD9ESB/T 13.167-221- 57-30	17,856, KUCHE/9 17,280, WUQNP 16,815, WA3ZMY/3 16,704 KL7CN 16,576 N5CW
West Indies West Indies KPAECE/N 4, 984-134 - 76-24 KPAERT/N 40, 984-134 - 76-24 KPAERT/N 2686 - 69 - 34-25 KPAECE/N 2686 - 69 -		WD6DHR/N 16,962-242- 66-28 WD6CZR/T 3306- 87- 38-11	WD8JRL/N 540- 30- 18-11 WD8IVJ/T 518- 37- 14- 5	WD9DTF/T 8800-176- 50-25 WD9CPM/N 8424-206- 39-27	16,352, WDØDLY 15,660, WA9SQN 15,517, WA7QKX
West Indies West Indies KPAECE/N 4, 984-134 - 76-24 KPAERT/N 40, 984-134 - 76-24 KPAERT/N 2686 - 69 - 34-25 KPAECE/N 2686 - 69 -	WB7OXF/4N 7488-141- 48-17 WD4FQS/N 6591-169- 39-19	San Francisco	WD8PLJ/N 240- 24- 10- 9 WD8PLJ/N 72- 12- 6- 4 WD8PCV/N 8- 4- 2- 4	WD9FLH/N 5029-107- 47-23 WB9YSD/N 4690-119- 35-12	15,000, K6XZ 14,927, WØMN 13,664, N8OK 12,850, WD8BNA
MARCHERTYN 4284-119. 36-16 Sacramento Valley WBSTCO/N 21,240-280. 72-25 WBSTCO/N	WD4IHT/T 3318- 79- 42-11	WD6EEQ/N 13,662-207- 66-14 WD6CKD/N 5376-112- 48-20	Ohio	WD9CYR/N 3888-108- 36-11 WD9CYR/N 3268- 86- 38-30 WD9DIS/N 2860-115- 22-27	12,773, WAGLMB 12,036, WB9QYU 10,251, HP1AC 10.176, K8BL 9690, N1RI 9672,
MARCHERTYN 4284-119. 36-16 Sacramento Valley WBSTCO/N 21,240-280. 72-25 WBSTCO/N			WD8KEM/N 28,928-437- 64-29	WD9HTI/N 688- 40- 17- 9	K5BDX 9264, W6OJW 9063, WD8LIU 8360, WBØUGX 7584,
Arkansas Arkansas WBSTGP/N WDSTGP/N W	KP4ERT/N 4284-119- 36-16	WD6BJK/N 224- 16- 14- 8	WD8NTD/N 13.209-244- 51-24		W2FVS 7056, W4YOK 6720, WB5TJM 6681, WA3UNX 6474, WB8VBC 6460 W1FM 6419
Arkansas Arkansas WBSTGP/N WDSTGP/N W	KP4EDL/N 2686- 69- 34-25		WB8ITW/T 12,597-227- 51-17 WD8NBB/N 12,483-204- 57-27		K4OAQ 6228, WA2EYA 6160, W5XX 5964, WDØCAI 5934,
Arkansas Arkansas WBSTGP/N WDSTGP/N W		Pacific	WD8JHH/N 12.150-225- 54-20	ø	N8AG 5883, VE4AAU 5580, WA2LJM 5166, WB9ZED
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	-	KH6JTW/N 13,200-210- 60-27 KM6FD/N 5658-123- 46-13	WD8JUB/N 10,224-213- 48-15	Colorado	4859, VE3HWV 4833, VE3FEA 4770, K4GMR 4403, W9WR
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	5		WN8QII/N 8820-210- 42-27 WB8YTQ/N 7590-138- 50-21	WD9BZY/N 38.411-531- 71-30	4013, WA2YQY 4000, DL6YK 3658, WB3BXU 3441, WA3ZVS
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	Arkansas	7	WD8CWS/N 4968-138- 36-24	WD9BNL/N 22.814-354- 61-26	3290, WA5UMC 3168, WAØLIS/9 3075, VE3EQF 3040, WB9DVQ 3076, WA17VB 2844, WA2017
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	WB5TGP/N 24,192-378- 64-30 WD5HZN/N 13,130-202- 65-20	Arizona	WD8BGW/N 2350- 94- 25- 8	WDØDSU/N 13,340-230- 58-25	2700, WB2GZC 2470, WB9VQA 2232, WB7EIK 2074, WD9DMV
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	WD5DYD/N 12,430-220- 53-29 WD5DYD/N 12,296-222- 53-15 WB5SRB/N 11.760-210- 56-15	WB7TAH/N 33.540-430- 78-28	WD8IJZ/N 1363- 47- 29-19 WD8JRM/N 731- 28- 17-14	WD9DNM/N 1769- 61- 29-10	2070, K2SCU/3 2015, KØFPC 1984, WB2MJQ 1764, NGHE
WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9-6 WB70G	WD5DJW/N 10,780-205- 42-16 WB5WLG/N 5117- 99- 43-14	WB70WA/T 16 704-273- 58-30	WD8BOW/N 270- 30- 9- 6		1334, WA2EPK 1240, WB3JGD 1334, WA2EPK 1240, WB2YSA 1239, N3IT 1197, N6.IM 1196
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	Louisiana	WB7RGA/N 6216-148- 42-16			WB2CNF 1180, WD4CIA 1078, WB4YQQ 1078, 4U1ITU(K3KWJ,
WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9	WB5YL1/1 17,350-265-62-27 WD5DBR/N 12,265-213- 55- WD5HSF/N 12,264-209- 56-30	WB7UMH/T 5000-125- 40-30	WD8KAC/N 7004-206- 34-21	WD0AYT/N 18,164-224- 76-30 WD0FTH/N 14,637-287- 51-25	opr) 836, WB5PDQ 748, WB3DBI 697, WB5OFB 688, N2CC 684 WD6BGG 572 K7ME
WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9-6 WB70G	· ·	WB7RSE/N 627- 23- 19-13 WB7CWW/N/WB7s PLX TAF	WD8LFQ/N 1748- 66- 23-18 WB8WEZ/N 140- 14- 10- 2	WD0EVR/N 14,245-259- 55-27 WD0CZC/N 12,654-212- 57-23	525, WB8WVW 481, K1TN 440, WN4KKN 336, VP2MUZ(W8UVZ.
WDSDRO/N 9118-194- 47-30 WDSDRO/N 108-12- 9-6 WB70GV/N 108-12- 9-6 WB70G	WD5DCK/N 17.460-271- 60-20	VIN, pprs) 864- 36- 24-			opr) 299, OE1TKW 276, WA3TMP 150, W@QEY(WD5BCK,opr) 144,
New Maxico WB5 WIT/T	WD5DKO/N 9118-194- 47-30 WD5GDA/T 5658-138- 41-19	WB70GV/N 27,200-400- 68-25		WDØBNP/N 2772- 67- 36-16 WBØBWY/T 1824- 57- 32-26	(+WA1ZNV,WB1EPI) 16,048,
WB5YID/N 10,816-208- 52-30 Wontana WZ WZ WZ WZ WZ WZ WZ W			9	WD9CMT/N 1764- 53- 28-13	KWE, oprs) 13.720, WA3UDI(WB3s DKT DKU FMS HSV.oprs) 12.430.
Northern Texas					W2EZ 3420.
WD5GMC/N 13,740-214- 60-14 WB7DPR/N 12,122-209- 58-28 WD9GLIB/N 22,021-351, 61-30 Minnesota WB2QQU/N, W3ARK, WASEEE,	Northern Texas	WB/RHF/N 33,957-539- 63-29 WB7PJD/N 26,666-398- 67-30 WB7QXQ/N 1848- 56- 33- 8	WD9DCL/N 52,260-645- 78-30 WB9VLM/N 51,175-555- 89-30	WD0FBP/N 11.819-213- 53-19	
WD5GMC/N 13,740-214- 60-14 WB7DPR/N 12,122-209- 58-28 WD9GLIB/N 22,021-351, 61-30 Minnesota WB2QQU/N, W3ARK, WASEEE,	WD5GRW/N 30,810-375- 79-21 WD5EEF/T 22,302-344- 63-24 WD5EWM/N 31,466-298	Oregon	WD9DBC/N 31,832-326- 92-30 WB9YSP/N 27,192-412- 66-19	WD0BSC/N 10.816-208- 52-21	
WD5EMG/N 13/452-228- 59-22 WB/DFN/N 12/122-209- 58-28 WD9CD/R/N 22/021-351- 61-30 WB/DFN/N WD5FDR/N 1457- 87-121 WB7DE/N 12/122-209- 58-28 WD9CD/R 20/034-318- 63-29 WD9CD/R 10/972-201- 52-23 WB7SRY/N 2800- 70- 40-11 WD9CD/R 10/972-201- 52-23 WB7SRX/N 2800- 70- 40-11 WD9DNL/N 19/250-250- 77-30 WD9DDR/N 27/945-395- 69-23 WBSRUS, WB5ZFX, WD5DIX/N, WD5FDR/N 1457- 87-22- 41-15 WB7DUV/N 13/456-217- 58-13 WD9FDR/N 15/1672- 21-10 WB7DUV/N 13/456-217- 58-13 WD9FDR/N 15/1672- 61- 56-26 WD9FDR/N 1457- 87-31-14 WB7DUV/N 13/185-25- 51-23 WB9TBU/N 13/824-241- 54-29 WD9FDR/N 14/901-212- 63-17 WD9FDR/N 14/901-212- 63-17 WB7DUV/N WD9FDR/N 14/901-212- 63-17 WB9TBU/N 13/824-241- 54-29 WD9FDR/N 13/108-226- 58-18 WB7DUV/N WD9FDR/N 14/901-212- 63-17 WD9FDR/N 13/108-226- 58-18 WB9TBU/N 13/824-241- 54-29 WD9FDR/N 13/108-226- 58-18 WB7DL/N 13/108-226- 58-18 WB9TBU/N 13/1	WB5NOG/N 21,231-337- 63-19 WD5GXO/N 13,740-214- 60-14	WB7PMG/N 31,382-427- 71-30 WB7QOY/T 14,884-244- 61-19	WB951L/N 23,746-363- 62-26 WB9FJF/N 22,032-306- 72-25	WB@QNU/N 1914- 58- 33-23	KIKI, KIMC, WAIWDZ, WA2DHZ, WA2FSO/N, WB2NFG/N, WB2QQU/N, W3APK WA3FFF
WD5CHE/N 10,972-201 - 52-23 WD9DRL/N 19,250-250 - 77-30 WD9DRDA/N 27,945-395 - 69-23 WBSRUS, WB5ZEX_WD5DIX/N WD5HRI/T 688-153 - 45-25 Utah WD9SEZ/N 16,146-299 - 54-30 WD9ADRIY D5,340-342 - 70-18 W6UGR_W6BYU_WB6BYU_WB6NJO/N WD5HRI/T 3772 - 92 - 41-15 WB7DUV/N 13,456-217 - 58-13 WD9HEK/N 15,176-261 - 56-26 WD9CRIY 14,301-212 - 63-17 K9BK, W9UBT, WD9CXU/N WD5HKJ/T 672 - 32 - 21-10 WB7QEE/N 11,985-225 - 51-23 WB9TBU/N 13,824-241 - 54-29 WB9CBT/N 13,108-226 - 58-18 VE3IPR, VE3JRG	WD5EMG/N 13,452-228- 59-22 WD5EJC/N 13,144-212- 62-16	WB75RY/N 9720-180- 54-23	WD9CUR/N 22,021-351- 61-30 WD9GCO/N 20,034-318- 63-29		WB3HEW/N, WD3KAF/N, K4EJQ, K4HP, WB4NTH, WB4UIS,
WD5FUR/N 1457- 47- 31-14 WB7DUV/N 13,456-217- 58-13 WD9HEK/N 15,176-261- 56-26 WD9CNR/N 14,301-212- 63-17 K9BK, W9UBT, WD9CXU/N WD5HKJ/T 672- 32- 21-10 WB7QEE/N 11,985-225- 51-23 WB9TBU/N 13,824-241- 54-29 WB9ZBT/N 13,108-226- 58-18 VE3IPR, VE3IPR	WD5DRI/T 6885-153- 45-25	Utah	WD9FSF/N 16 1/6 200 5/ 20	WDØBDA/N 27,945-395- 69-23 WDØANF/N 25,340-342- 70-18 WDØFPE/T 20,604-323-62-32	WB5RUS, WB5ZFX, WD5DIX/N, W6UQF, WB6BYU, WB6NJO/N, W7VS, WB7JECOK! W25NJAK
	WD5FUR/N 1457- 47- 31-14 WD5HKJ/T 672- 32- 21-10	WB7DUV/N 13,456-217- 58-13 WB7QEE/N 11,985-225- 51-23	WD9HEK/N 15,176-261- 56-26 WB9TBU/N 13,824-241- 54-29	WDØCNR/N 14,301-212- 63-17 WBØZBT/N 13,108-226- 58-18	K9BK, WOUBT, WDOCXU/N VE3IPR, VE3JRG