Results, First ARRL RTTY Roundup

...RTTY is a whole different animal!—WB7Y

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n a mid-winter weekend last January, the ARRL kicked off the opener of what may well become the superbowl of keyboard contesting. The RTTY Roundup was so popular that the density of RF colliding over Colorado raised the mean temperature of the state four degrees. The hydroelectric power required for all that key-down contesting is suspected of dropping the level behind the Grand Coulee Dam (WA) by nearly a foot.

The popularity of the Roundup could have been predicted. Where else can you find a fast-paced, worldwide, RTTY contest with a schedule that allows the contestant to take the XYL out to dinner Friday, have a leisurely breakfast the next morning, get six hours of sleep Saturday night and be finished in time to watch 60 Minutes on Sunday? KL7PG pointed out with a bit of understatement, "...It certainly was well attended as the bands were very crowded."

Who says January isn't contest season? Any time QSOs exceed 700 in a 24-hour contest, it makes a definitive statement about participation. Totals like that the first time out on a 24-hour digital (RTTY) contest make a statement that probably should be printed in rescue-orange head-lines!

Although certificates are awarded by section and country, not by overall competition, NG7P's effort from Lake Stevens, WA clearly illustrates the pace of the new contest. Earl's 768 QSOs and 96 multipliers earned him the world top score. In a photo finish, a scant two-multiplier margin separated NG7P from RTTY newcomer K6LL. The next-highest score was submitted by KT1N, who placed third in a field that included over 300 logs from 39 countries and 49 states.

Most experienced RTTY contest operators subscribe to some form of WB7RBJ's one-hunk-of-metal-unison rule: "THE AMPLIFIER IS PART OF THE ANTENNA AND THE ON/OFF SWITCH IS WIRED TO THE COFFEE POT." The Roundup is the first RTTY contest with a place for the folks that do not heat their homes with

Single	Operator To	op Ten						
W/VE—Low Power		W/VE—High Power		DX—Low	Power	DX—High Power		
Call	Score	Call	Score	Call	Score	Call	Score	
AA5AU NTØV VE6ZX KD6PY WJ7S NUØP NO1Y AA5FR K1EVU KD4W	44,616 37,000 33,210 31,692 29,120 24,948 24,794 23,004 21,520 18,864	NG7P K6LL KT1N W3LPL (W3EKT,o WS7I WA7EGA AA4TH WF5E K2NJ KEØKB	73,728 72,447 69,102 66,255 p) 52,380 48,720 47,437 47,168 41,322 41,308	K2BMI/VP2V 4M5RY (YV5KAJ,oj H13ADI FF1NZH GATK G4SKA SP3SUN CX5BX 9Y4DG AL7BK	33,768	KP2N HK1LDG KL7XD OK2FD XE1VV OH2LU SM4CMG LA7AJ HP1AC DK3EA	46,200 42,930 29,952 19,800 15,960 9,840 6,600 5,733 5,546 3,975	

Multiop	erator High	Scorers					
W/VE—L	ow Power	W/VE-H	ligh Power	DX—Low	Power	DX—Low	Power
Call N2DCP WAØQIT KI7T NØFMR KA3DSX	Score 17,019 13,462 11,088 10,450 5,969	Call WAØVQR WB6WQA W3EAX	Score 19,584 12,168 3,713	Call HA5KAG OE1XJA HGØD N4TRA/MM	Score 15,300 5,428 308 143	Call UZ9CWA JA1YFG	Score 27,720 6,240

their final tubes. Barefooters competed in their own group and peanut whistles outnumbered barn-burners by nearly three to one! One of the top-ten DXers, 9Y4DG, expressed amazement at what could be done with 50 watts and a multiband antenna, "Who said contesting is only for the Big Guns?"

"I only operated 10 meters with 50 watts out and a dipole, but I enjoyed it very much. I hope you continue having the RTTY Roundup in the years to come"—

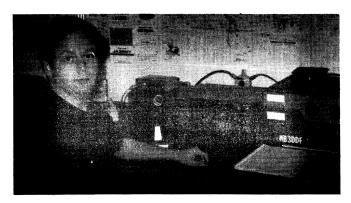


Bob, AA5FR, finished eighth-place W/VE low-power from his NTX QTH.



N2FF tunes for another multiplier. Frank finished first-place low power in the NLI Section

Single-Operator Division Leaders								
•	Low Power		High Power					
Division	Call	Score	Call	Score				
Atlantic	WA3ZKZ	13,455	W3LPL (W3EKT,op)	66,255				
Canada	VE6ZX	33,210	VE3JAN	2,496				
Central	WB9MSM	12,768	W9HLQ	5,130				
Dakota	NTØV	37,000	KEØKB	41,308				
Delta	AA5AU	44,616	K5KLA	3,552				
Great Lakes	W8LNK	10,443	W8MQK	35,061				
Hudson	WA2PNI	16,170	K2NJ	41,322				
Midwest	NUØP	24,948	K6WZ	33,726				
New England	NO1Y	24,794	KT1N	69,102				
Northwestern	WJ7S	29,120	NG7P	73,728				
Pacific	KD6PY	31,692	N6GG	41,085				
Rocky Mountain	NFØB	8,477	NQØI	6,174				
Roanoke	KI4MI	15,318	AA4CK	2,262				
Southeastern	KD4W	18,864	AA4TH	47,437				
Southwestern	WB6SSW	10,545	K6LL	72,447				
West Gulf	AA5FR	23,004	WF5E	47,168				



Charles, WB3DDF, amassed 202 QSOs and 63 multipliers and finished first-place low-power in the MDC Section.

Single-Operator Continental Leaders

	LOW POWER		nıgn Power	
Continent	Call	Score	Call	Score
Africa	EA8AKQ	8,910	_	_
Asia	JA1DFQ	6,944	JR1IJV	1,176
Europe	FF1NZH	18,612	OK2FD	19,800
North America	K2BMI/VP2V	42,772	KP2N	46,200
Oceania	WH6I	9,702	KH2D	3,772
South America	4M5RY (YV5KAJ.op)	33,768	HK1LDG	42,930

High Down



JA1AYC has been a ham for 34 years and one of his favorite modes is RTTY. Masao finished second-place low-power in Japan.

KC7MJ. There seems to be a mystique about the attic. "QRP RTTY really works! I used a 5-watt rig and a dipole in the attic," from NI1L. "I used 100 watts to a random-wire antenna in the attic. I'm looking forward to the next contest"—NJ1H. WA3SDV brags, "I made all my QSOs with 30 watts to an attic-mounted indoor dipole!"

A ground-mounted, 5-band vertical and 100 watts provided AA5AU with all the clout he needed to corner the low-power, world top score with 507 QSOs. More QSOs but fewer multipliers was the story for K2BMI/VP2V, whose 578 QSOs earned him second-best score for barefoot operation. During his 22-hour effort he also boasted the top low-power QSO rate. Third overall and second place in the W/VE low-power went to NTØV with 500 OSOs.

Despite the anticipated information lag in getting word of a new contest to the DX community, logs from outside the US accounted for one out of four. Ron, KP2N, was the number one DX station with 550 QSOs. "The caliber of operation has greatly improved," he said, "I worked only 3 stations who sent a string of RYs!" HK1LDG was second in the DX highpower class, followed by KL7XO.

Out of 52 logs from DX stations in the 150-W class, K2BMI/VP2V gets first bow,

followed by 4M5RY (operated by YV5KAJ) in second and HI3ADI third. Of the six logs from Canada, VE6ZX was notable with 405 QSOs, followed by VE3UR and VE6BS.

WAØVQR (plus NØBG) took the honors among the multioperators with 306 QSOs. The team at N2DCP placed second, with WAØQIT finishing third.

The Roundup packed its share of troubles. Bob, 7J6CAS, on Okinawa described the effects of a direct lightning hit on a 3-wavelength rhombic. "Great contest," he wrote, "...you missed a good light show." Lightning also had VE3JAN scrambling, "...had to disconnect all the antennas and gear for several hours." SM5CZD lost a round to weather. "After the storm," he said, "all I had left was 50 watts and a longwire antenna." Mother Nature didn't let veteran RTTY op ND2K off the hook either. "... wet snow and ice formed on all the antennas due to a storm," he said. But at least a Saturday morning thaw brought him a happy ending, "...6 minutes before the end I worked J52US!"

The Roundup was especially tough for the Novices and Techs who had only one band to operate. "It was frustrating hearing all the DX just outside of the Novice portion of 10 meters"— KB5ECK/T. Midwinter propagation also was a factor for some. "There was no propagation on Saturday from G land but it was much better Sunday. I enjoyed it immensely"—GØATK. Although he finished in the high-power top ten, KEØKB also commented on propagation, "Even though the conditions were not the best, it was near nonstop action." ZL2AKI wasn't so lucky, "RTTY was quite active but conditions were against a better score at this end." There was also some grumbling from VK2BQQ, "I think I'm faster with paddles than I am with the keyboard." Multiop entry HGØD said they never did get their RTTY modems to work right.

Although open to all digital modes, nearly all the activity was on Baudot. Packeteer ON6CR remarked, "...not many stations on packet here in Europe." And KA1RJJ suggested, "I noticed very little packet activity during the contest. Maybe an incentive is needed for next year?"

George, KB2VO/4, laments, "I wasted 7 hours at a dull party with the XYL..well, you understand..." Even with multiple power outages, XE1VV captured 5th place in the high-power DX category. AA5FR lost his computer halfway through the contest. Beam trouble forced GI4TSK to a ground-mounted vertical and WAØOUI said he invited Murphy to be second op, "I almost blew up the rig exceeding the

duty cycle!" "Never," said WB6SMX, "try to voltage feed a random wire anywhere near a computer."

The low-power category, in concert with a simplified exchange and scoring system, attracted a lot of folks who were new to RTTY contesting. "... first time on RTTY," said 11-year-old KA1SSU, "and I had lots of fun!" 5Z4BH wrote, "been a ham for 26 years and this is my first contest... extremely interesting mode!" OE3GOU said it was his first. "Thanks for having the RTTY Roundup," said KA2AEY, "This was my first contest ever."

After 34 years, K4IBP finally tossed his hat in the ring saying that he enjoyed "...everything but the paperwork." Second-place world winner K6LL commented, "This was my first experience on RTTY and I really enjoyed it." It was also a first effort for NUØP. "The pileups are different," he said, "You have to be quick on the keyboard to work two a minute. I can't wait for next year!"

After running the first day on low power, WS7I said, "It got a little slow and I got bored so I switched on the amp." Although he finished 5th in high power and earned section-winner wallpaper, he was his own biggest critic. "Boy was that dumb," he said, "I was almost 40,000 before I

changed classes." (Top low-power score was 44,616.)

VE3UR set the tone, "Congratulations on your first RTTY Roundup. It was a dandy and I sure enjoyed it." GWØANA praised the ops, "...thanks to all the competitors in the contest for their sportsmanlike attitude." "What a breath of fresh air," from KC7MM. "Great contest! Next year I plan to operate the entire 24 hours"—WA9AKT. VE2OWL remarked, "...I sure enjoyed this one. The pace was different." WDØE described their multiop entry, "My son Tom, NØISE and I had a blast! We will be back next year for sure!"

Long-time RTTY DXer/contest-op K6WZ wrote, "I've been in more than a hundred RTTY contests and this one looks to be one of the best." KB4YBR/T was also full of praise, "What a great first contest. I had a ball and can't wait until next year." From NØFMR, "...great contest. Let's do it again soon," and WA6SDM lamented, "Do we have to wait a whole year...?" W4RQK summed it up, "Let's do it again next year!"—WA7EGA

Soapbox

I'm glad to see a new RTTY contest. I hope to see everyone next year. 73 and good DX (EA5FKI).

Thanks for a very good contest (G4SKA). A fine contest. I enjoyed the nice opening on 10 meters where I was able to speed up to a 31-QSO/hour rate (YO2IS). Thanks again for providing a weekend of fun. All the best for 1989 and aloha (WH6I). The contest was enjoyable and a long overdue ARRL event. I'm looking forward to it becoming an annual event (K1EVU). It was a pleasure working the contest. Thanks for putting contests like these together (WA2MBQ). RTTY contests are the only contests I enter. I've been active on RTTY since 1965. I sure wish you had a contest like this a long time ago. Keep it up! (N2FF). I had a great time! After a long spell since our last rag chew, I worked my old friend Al, W8PBX. I'm looking forward to next year's contest (KD2XN). I had lots of fun with this contest. Let's do it again next year! (WA3INX). I really enjoyed this contest. I hope it becomes a permanent fixture! (WB4M). I had loads of fun! Please make it a regular contest (WA5VBE). The rig broke down Sunday morning, but I managed a temporary fix that lasted for 3 more QSOs (KG5EG). I learned a lot about RTTY operation and realized quickly that RTTY is a whole different animal! (WB7Y). Thanks for the fastest-paced RTTY contest I have ever experienced, including operating from the Galapagos Islands. I hope all the participants had as much fun as I did and I'm already looking forward to next year! (WA7EGA). I had a great time. I could have made more contacts but took a break to QSO a long-lost friend (K8OSF). Having been off RTTY for about two years, the contest was great motivation to get everything up and running again. I'm looking forward to 1990 (KC8YL). This was my first-ever contest entry and I hope to make RTTY Roundup an annual event (KC8FS). Just wish I could have operated more than just the 2 hours I did, but I had to work both days. Next year! (WB9B). It was great to see such a good turnout (WB9MSM). It was a fun, low pressure contest (WAØVQR).

Scores

Scores are listed by continents, countries and ARRL/CRRL sections. DX stations are listed first then US and Canada. Each line score lists (call, score, number of QSOs, number of multipliers, hours operated and power (A = less than 150 W output; B = more than 150 W output).

DX		France			SP2UUU			15- 24-A	Colombia			Rhode Island	ı	
		FF1NZH	18,612-18	8- 99-24-A	SP3BGD	16-	4	4-24-B	HK1LDG	42,930-477-	90-24-B	KB1EM	10,080- 180-	
Africa		England			European F	tussian RSI	FSR		Brazil			N1DM	1,917- 71-	27-10-A
Canary Islands		•			UASTN			20-24-A	PT2BW	8.232-147-	50 45 A	Western Mas	eachusetts	
	32- 55-16-A	GØATK		7- 72-24-A	0/10/11	020		20.277	PIZDW	0,232- 14/-	30- 13-A	WIBYH	14,256-198-	70 04 D
	25- 54-24-A	G4SKA GØARF		6- 70-24-A 7- 53-12-A	Romania				Venezuela			WBIGSO	6.804- 126-	
EABAZM 437- 2	23- 19-24-A	G4MKO		8- 45-18-A	YO2IS	10,150-1	175- 1	58-24-A	4M5RY (YV	SKA Lon)		KA1QFU	4,752-108-	
V		GHMINO	3,310-11	0 40 ION	YO6JN	2,170-	70-	31-24-A		33.768- 252-	134-22-A	KATIFE	726- 33-	
Kenya		Northern Ire	land		YO6CFB			28-24-A						
5Z4BH (KB7NK,op)		GI4TSK	1.664- 5	2- 32-13-A	YO7FT	154-	14-	11-24-A	Trinidad an	d Tobago		2		
4,002- 8	87- 46-24-A		.,	,	North A	merica			9Y4DG	10,860- 181-	60-18-A	Eastern New		
Zambia		Wales			Dominican				Maritime M	abila				
9.J2KF 2.480- (82- 40-17-A	GWBANA	5,861-11	1- 51-22-A								WM2U WB2SPN	4,141-101-	
	- 10 II II	Hungary			HI3ADI	31,875-4	425-	75-17-A	N4TRA/MM	(+ N4RHV,N5E		WB2SPN KE2JJ	2,128- 56- 1,500- 50-	
Asia					Panama					143- 13-	11- 8-A	W1KHQ	646- 34-	
Korea		HA1YA HA5KAG (HA		3- 24- 8-A	HP1AC		440	47-24-B	w			KB2GKY/N	570- 30-	
HL9FN 792-	36- 22-24-A	HASKAG (HA		,nA63P,0ps) 22- 68-21-A	HEIAC	3,340-	110-	4/-24-0	==					
TIEST TOE		HGØD (HAØs			Alaska				1			NYC-Long	island	
Japan		11000 (1000		2- 14-24-A	KL7XD	29.952-3	384-	78-19-B	Connecticu	t		KC2FD	30,030-385-	
	24- 56-24-A				AL7BK	10,659-			NO1Y	24,794-322-	77. 24.A	N2FF	9,180- 170-	
	20- 53- 9-A	Norway			KL7PG			50-13-A	NT1I	5,500-110-		W2JGR	3,900-100-	39- 8-B
	17- 40-24-A	LA7AJ		17- 49-15-B	KL7CQ	968-	44-	22-24-B	KH6CP/1	2,496- 78-		W2AYJ KD2BW	2,014- 53- 1,736- 56-	
JR1JV 1,176-	42- 28- 7-B	LAØBX	1,736- 5	56- 31- 9-A	Virgin Islan				KA1RJJ	2,232- 62-	36-12-A	K2RYI	1,736- 50-	
JA1YFG (JO1RUR,JP1J	PG,ops) 20-52-24-B	Austria			•				KY1T	1,696- 53-	32- 7-A		.,	20- 0-1
6,240- 1	20- 32-24-0	OE3GOU	0.000	70- 34-16-A	KP2N	46,200-	550-	84-22-8	NIIL	1,456- 56-		Northern Ne	w Jersey	
Asiatic RSFSR		OE1XJA (OE			British Virg	sin Islands			NF1J K1ZZ		24- 4-A 20- 2-B	K2NJ	41,322-426-	
UA9FBV 2.940-	84- 35-24-A	OE IAMA (OE		18- 46-24-A	K2BMI/VP2		579.	74- 22-A	KIZZ	040- 32-	20- 2-0	WA2IKL	16,215-235-	
UZ9CWA (UA9s CGA.C	FV,SMW,CR,		0,120 .			V 42,772-	376-	77227	Eastern Ma	ssachusetts		WA2PNI	16,170-245-	
UV9CAF,ops) 27,720-3	15- 88-24-B	Finland			Mexico				KT1N	69.102-698-	99-24-B	ND2K	7,830- 145-	
Europe		OH2LU	9,840-10	84- 60-12-B	XE1VV	15,960-2	285-	56-24-B	WIIHN	13,064-184-		KE2CG	5,700- 100- 2,244- 68-	
			-4-4-		0				WITR	11,592-184-		KD2L K2BO		18-24-B
Fed Rep of Germany		Czechoslov			Oceania				N1FIO	10,726- 173-				10-24-0
	75- 53-24-B	OK2FD	19,800- 20	34- 75-17-B	Guam			•	W1HFN	7,670- 130-		Western Nev	# York	
	51- 43-24-B	Belgium			KH2D	3,772-	92-	41-24-B	W1AX WA1TPE	3,285- 73- 1,749- 53-	45- 4-B	WB2ZQP	7,168-128-	56-22-A
	56- 33-24-A	ONSCR	20	6- 5- 6-A					WAIIFE	1,748- 33-	33- 8-A	KD2XN	5,760-120-	
	41 29-24-A 39- 29-24-A	UNOCH	30-	0- 0- 0-A	Hawaii				Maine			W2YRH	5,460-105-	52-24-B
	30- 25-24-B	Denmark			WH6i	9,702-	198-	49- 11-A	K1EVU	21,520-269-	80.13.A	K2PYM	1,995- 57-	
	21- 11- 4-B	OZ1QI	132.	12- 11-24-A	Australia				KC1BS		26-10-A	KA2AEY	735- 35-	21- 7-B
		OL IG						17-24-A				3		
Spein		Sweden			VK2BQQ	/65-	40-	17-24-A	New Hamp	shire		•		
EA5FKI 4,914-	91- 54-24-A	SM4CMG	6,600-1	20- 55-15-B	New Zealar	nd			NU1E	18,000-225-		Delaware		
tretand		SM5BKA		85- 36-12-A	ZL2AKI	2.627-	71-	37-23-A	KA1LMR	13,333-199		WA3ZKZ	13,455- 195-	69-21-A
		SM7BGE		43- 23- 9-A			• •		NJ1H	5,760- 120-		N3DLM		19- 9-B
EI9CB 7,367-1	139- 53-16-A	SM5CZD SM5EIT		28- 15-10-A 16- 13-24-B	South A	merica			W1UBG WB2MBQ		23-13-A 24-24-B			
		IIIcmo	200-	10-13-24-0	Uruguay				WDZMDQ	0/2- 20-	24-24-0	Eastern Pen		
		Poland			CX5BX	11,160-	180-	62-24-A				NT3B	12,888- 179-	
		SP3SUN	14,105-1	55- 91-24-A		,						KW3F	6,032-116-	52-13-A

N3BOU	5,424-113- 48-19-A	KD4VR 1,684- 52- 32-10-A	Orange	8	lowa
WB3FIZ	3,854- 82- 47- 8-A	W1UDB/4 594- 33- 18- 7-A	W6IWO 3,471- 89- 39- 9-B		
W3GU KC3ST	3,772- 82- 46-10-B 2,240- 56- 40-11-A	KF4WB (+ N4UNE) 4,850- 97- 50-23-A	KI6X 2,418- 78- 31-11-A	Michigan	NU6P 24,948-324-77-24-A
N3FOG/T	2,240- 56- 40-11-A 1,550- 62- 25-12-A	4,850- 97- 50-23-A	Santa Clara Valley	W8MQK 35,061-403- 87-22-B	Kansas
N3GLE/T	780- 39- 20- 9-A	Tennessee	•	N8ABW 14,760-246- 60-17-B	K6WZ 33,726-462- 73-24-B
NA3SDV	432- 27- 16- 6-A	K4IBP 9.858-159- 62-16-A	KD6PY 31,692-417- 76-24-A	KØCV 11,457-201- 57-24-B	NØHYG 3,816-106-36-13-A
V3GBG	425- 25- 17-11-A	KD4MM 7.975-145- 55-13-A	WA6SDM 3,612- 84- 43-13-A WD6FYJ 1,104- 46- 24-10-A	KBOSF 4,536-108- 42-10-A	KABSIX/N 548- 42- 13-24-A
V3KV	272- 17- 16-24-B	WA4JJY 3,128- 68- 46-24-A	WDOFTJ 1,104- 40- 24-10-A	KASIZE 3,150- 75- 42-12-A	NOFMR (+NWOF)
N3DIZ/T	30- 6- 5-3-A	WA4MCZ 1,590- 53- 30- 8-A	San Francisco	K8CHN 2,144- 67- 32-17-A	10,450-209- 50-19-A
KA3DSX (+1		KB4YBR/T 532- 38- 14-13-A	W6JOX 2.013- 61- 33-13-A	Ohio	Minnesota
	5,989- 127- 47-18-A	Mandala	W000X 2,013-01-33-13-X	AB8K 22,640-283- 80-18-B	
Maryland—C	~	Virginia	San Joaquin Valley	W8PBX 11,830-182- 65-14-B	KE6KB 41,308-449- 92-24-B
-		KF4FP 2,516- 68- 37-24-A	W6MTJ 8.640-144- 60-23-B	W8LNK 10.443-177- 59-21-A	NJØM 41,124-447- 92-24-B
V3LPL (W36		AA4CK 2,262- 58- 39- 5-B		WB8YJF 10,032-152- 66-14-A	KAØZMY 1,560- 60- 26-12-A
VB3DDF	66,255-631-105-24-B 12,726-202-63-22-A	5	Sacramento Valley	N8JNB 4,950-110- 45-23-A	KD6SF 1,430- 65- 22- 7-A W6TIV 1,242- 54- 23-24-B
43UN	12,720-202- 03-22-A 11,948-181- 88-11-A	9	N6GG 41,085-495- 83-20-B	W8EXI 2,808- 72- 39-17-A	WARQIT (+ NGEOB)
VB8WRY/3	10,050-201- 50-20-A	Arkeness	·	WB8WTS 2,142- 63- 34- 3-B	13.462-254- 53-24-A
VASUXZ	1.560- 60- 28-11-A	WA5VBE 1,952- 61- 32- 7-A	7	KE8UA 2,072- 58- 37-21-A	.,
	(GD,KD3FU,ops)	WASTEL 1,802- 01- 32- 7-K	Artzona	KC8YL 2,040- 60- 34-24-A	Missouri
	3,713- 79- 47- 8-B	Louisiana		W8VQI 1,040- 40- 26- 6-A	WASOUI 5,490-122- 45-19-B
		AA5AU 44.616-507- 88-24-A	K6LL 72,447-779- 83-24-B	W8IDM 945- 35- 27- 5-A	KB6ANP/T 468- 39- 12-13-A
Nestern Pe		KG5EG 18.600-300- 62-22-A	KC7MJ 3,636-101- 36-10-A	N8IRS/T 612- 36- 17-14-A WA8IMF 240- 20- 12- 7-A	N9BU 378- 27- 14-24-A
XAINX	2,304- 64- 36-15-A	K5KLA 3.552- 74- 48-11-B	N7LQS 2,294- 74- 31- 8-A	WAGINIF 240- 20- 12- 1-A	
		WB5ASD 2,108- 68- 31-24-A	WB@BZ 1,947- 59- 33-12-A	West Virginia	North Dekota
4		KB5NR 1,960- 56- 35- 8-A	W7KB 315- 21- 15- 4-B ND7A 221- 17- 13- 1-A	WA8FLF 5.244-114-46-19-A	NT#V 37,000-500- 74-24-A
Georgia		Mississippi		KC8FS 2,133- 79- 27-20-A	WØLHS 5,547-129- 43-24-A
•	47 407 500 00 04 0		Eastern Washington	_,	Nebraska
AA4TH KD4W	47,437-533- 89-24-B 18,864-262- 72-17-A	KB5ECK/T 1,098- 61- 18-14-A	WS7I 52.380-582- 90-24-B	9	
KB4GID	10,830-190- 57-18-A	W5VZF (+ KB4HB,WA4DDE) 3.078-114-27-24-A	WA7EGA 48,720-609-80-20-B		KB6IC 19,108-281- 68-24-B
CL7TF/4	6,370- 130- 49-24-B	3,070-114- 27-24A	K7GS 10,540-170- 62-12-A	Minois	South Dakota
NN4K	2.196- 61- 36-10-A	North Texas	KC7MM 3,996-108- 37-24-A	WD9DZV 7,128-132- 54- 7-A	WA#VQR(+N#BG)
(K4DF	2,100- 60- 35-10-A	AA5FR 23,004-284- 81-21-A	W7ZRR 2,100- 75- 28-13-A	W9HLQ 5,130-114- 45-24-B	19,584-306- 64-18-B
		WM6H 8,280-184- 45-23-A	K7JRN 1,878- 67- 28-20-A	KR9G 4,108- 79- 52-16-A N9HZA 3,828-116- 33-13-B	
Centucky		KF5SH 2.812- 78- 37-15-A	ldeho	W9FFQ 3,388- 77- 44-17-A	VE
KI4QJ	5,040-112- 45-14-A	KA5ZBT 1.643- 53- 31-24-A		WA9AKT 2,170- 70- 31-10-A	
WB4LKP	2,145- 55- 39-10-A		WB7Y 13,624-262- 52-18-A WS7U 90- 10- 9- 1-A	WA9YII 2,117- 73- 29-14-A	Quebec
North Caroli	lma.	Oldahoma	KB7FNI/T 88- 11- 8- 6-A	N9GTT 1,475- 59- 25-24-A	VE2OWL 3,960- 88- 45-20-A
		KØWM 3,774-111- 34- 8-B	NOTITIVE OF THE OF OA	WB9B 425- 25- 17- 3-A	VE2FFE 2,613- 67- 39-24-A
KI4MI	15,318-207- 74-22-A	KD5IT 2,090- 55- 38-24-A	Oregon	KA9MAB/T 3- 3- 1- 2-A	Ontario
WB4M	10,354-167- 62-14-A	South Texas	WJ7S 29,120-364-80-24-A		
K4JYS KD4OM	8,758- 151- 58- 15-A 4,183- 89- 47- 16-A		W7MI 9,900-150- 68-17-B	Indiana	VE3UR 18,504-257- 72-24-A
VARTK	4,183- 89- 47-10-A 2,940- 70- 42-17-A	K5LTW 4,165-119-35-7-A	W7IMP 4,576- 88- 52-16-B	K9VQK 2,124- 59- 36- 8-B	VE3JAN 2,496- 64- 39-19-B
WA4DAZ	1,271- 41- 31- 4-A	K5EJL 204- 17- 12- 3-A	NJ7H 2,708- 68- 41-11-A	W9FXV 1,624- 56- 29-24-B	Alberta
(C4HIU/T	9- 3- 3- 1-A	West Texas	K7SGT 2,360- 59- 40-15-A	KD9HT 900- 38- 25- 7-A	
			Western Westerness	Wisconsin	VE6ZX 33,210-405- 82-19-A VE6BS 13,719-269- 51-23-A
Northern Fk	orida	WF5E 47,168-536- 88-24-B	Western Washington		VE6BS 13,719-269- 51-23-A
W4HBK	11.524-172- 67-12-A	6	NG7P 73,728-768- 96-24-B	WB9MSM 12,768-228- 56-24-A	Check Logs
KC4CSD	6,095-115- 53-11-A	-	WA7PVE 8,536-194- 44-12-A	NX9H 4,410-105- 42-19-A	
N2DCP (+ N		Los Angeles	KI7T (+ WB7VHL,WL7V) 11.088-231- 48-22-A	0	SM6EZI, SP2FN, YO2CMI, KB2CLQ. WBAFY
	17,019-279- 61-17-A	WB6SSW 10,545- 185- 57-20-A	11,000-231- 40-22-4	•	*****
South Carol	ine	W6CN 4,232- 92- 46-15-A	Wyoming	Colorado	
		KE6T 2,300- 50- 46-13-A	KB7M 4,480-112- 40-18-A	NF9B 8,477-173- 49-12-A	
WA4BHK	2,301- 59- 39- 7-A	WB6SMX 250- 50- 5-24-A		NQØ 6.174-147- 42- 8-B	
outhern Fl	orida	W5QBC 80- 10- 8- 6-A		KØBP 5,166-123- 42-24-A	
(B2VO	28.026-346- 81-18-B	WB6WQA (+ N6QEZ)		K3ZMO/T 495- 33- 15-10-A	
	20,020-340- 61-16-6 4,047- 71- 57-17-A	12,168-234- 52-16-B		WD6E 165- 15- 11- 6-A	
W4RQK				NØISE 56- 8- 7- 1-A	