

\$5.00

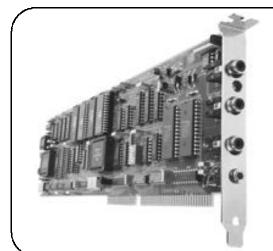
SUMMER, 2002 VOL. 50, NO. 2



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The **P 38** is a multi-mode HF data modem that gives you top performance operation using RTTY, AMTOR, P-Mode* and CLOVER-II waveforms. The **P 38** is a full sized plug-in card for PC-AT and faster personal computers. Multi-screen menu-driven HAL software is included with each **P 38** modem. Many popular "third-party" user programs are also available for the **P 38** -WORLI, WINLINK, WriteLog, XPWARE, EZTERM and RTTY by WF1B. The **P 38** is complete and ready to run. Plug in the board, connect three phono cables to your radio, and install the software. That's all there is to it! Whether you want to rag-chew, chase DX, or access electronic mail, the **P 38** is the modem of choice.

-RTTY-1

The HAL **RTTY-1** is an easy to use and very accurate tuning indicator. It may be used with virtually *any* FSK modem, TNC, multi-mode controller, demodulator, and receiver or transceiver.

modes including Baudot Teletype (RTTY), ASCII Teletype, AMTOR, SITOR, P-Mode*, and even HF hook it to your receiver's audio output and you're in business, even with modems that do not include "scope" output connectors.



"The word "P-Mode" is the HAL designation for a communications protocol that may be also known as "Pactor" a registered trademark of the Spezielle Communications System GmbH (SCS) firm in Hanau, Germany. HAL affirms that, to the best of its knowledge, "P-Mode" is compatible and interoperable with the protocol SCS calls "Pactor" and with the link establishment and weak signal modes of the protocol SCS calls "Pactor-II".



HAL COMMUNICATIONS CORP.

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RTTY Contest Schedule — Summer/Fall 2002

Date & Time Contest		Contest	Date & Time		Contest Information Online				
8/17	0000 to	SARTG	10/13 0000 to	NA Sprint	ARRL: http://www.arrl.org				
8/18	1600	WW RTTY	10/13 0400		Jim's Gazette: http://www.n2hos.com/digital				
					LA9HW Contest Calendar: http://home.online.no/~janalme/hammain.htm				
8/24	1200 to	SCC RTTY	10/19 0000 to	JARTS	SM3CER Contest Service: http://www.sk3bg.se/contest				
8/25	1200	Championship	10/20 2400	WW RTTY	The New RTTY Journal: http://www.rttyjournal.com/contests				
9/28	0000 to	CQ/RJ WW	11/2 1200 to	Ukrainian DX					
9/29	2400	RTTY DX	11/3 1200		OR — The New RTTY Journal will airmail a printed copy to you. For each contest, send \$3.00 for U.S., Canada, or Mexico destinations or \$4.00 to				
		Dates and times	subject to change.		other countries. Please allow three weeks for processing and delivery.				



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The New RTTY Journal is a continuation of the magazine formerly known as RTTY, RTTY Journal, RTTY Digital Journal, Digital RTTY Journal, and Digital Journal.



Hits & Misses

It's summer and there's now one more Davton Hamvention behind us. To the best of our accounting, this was the 25th "official" banquet at Dayton. The Saturday night dinner tradition was started in the mid-1980's by Dick Uhrmacher, K0VKH, and Jerry Trichter, WA1IUF - billed as a meeting of the HF RTTY MSO (mailbox) users and operators. At that time, there were two mailbox "factions" — Dick's group at 14.0877 MHz and Jerry's at 14.0975 MHz. This was a friendly rivalry and the two groups always met at Dayton to compare notes. I recall several very enjoyable late-hour gatherings in Jerry's Room at the old Imperial House Motel. The Saturday night dinner group soon grew to include everyone in RTTY, not just HF mailbox enthusiasts. Since 1987, we've had an "official" RTTY Journal Banquet on Saturday night at every Dayton Hamvention.

About 15 years ago, Ron Stailey, K5DJ, and a group of RTTY DX and Contest hounds started meeting at a Dayton steakhouse on Friday night of the hamvention weekend. This gathering also grew and eventually became part of the RTTY Journal-sponsored events at Dayton. In recent years, we've run into scheduling conflicts with other DX and Contest banquets that were also held on Friday night. Also, putting on two banquets was getting to be expensive for the attendees and a lot of work for the staff. This year, we combined the two dinners into one gala event on Saturday. I think it worked out very well for all of us. We should thank Dale Sinner, W6IWO, and Joe Wittmer, K9SZ (was KB9SIZ), for all of the work they put into the dinner this year. Also, thank you Doug Faunt, N6TQS, for your slide presentation about the many unusual DX locations you've worked recently. Good job, guys!

This issue of the RTTY Journal is fatter than usual because of all of the great photos Jason Allen took during the Dayton weekend. These pictures and a few more may also be found on the RTTY Journal web page if you want to pick-up your own digital copy. Good job, Jason.

Bill Henry, K9GWT k9gwt@rttyjournal.com

The RTTY Forum was SRO (Standing Room Only) — again! Frank Fallon, N2FF, put together a fine panel of experts who discussed the "how-to's" of running a contest as SO2R (Single Operator, Two Radios). Featured speakers were Don, AA5AU, Tyler, K3MM, Jerry, NO2T, and John, WA9ALS. This was another very good turn out for the RTTY crowd.

One more item about the Dayton weekend: This was our first year at the Howard Johnson Express hotel. The room price and the banquet ticket were a lot less expensive than in recent years. Also, the drive to and from Hara Arena was very short compared to the 30 to 60 minute journey we had been making to the Holiday Inn. Thanks to Dale, the buses actually came to the hotel (close at least) for the first time in years. I'd like to hear what you thought of the hotel and the arrangements in general. Because advance reservations are required very early, we are planning to return to "Ho-Jo's" next year unless I receive several strong objections. Write and let me know what you liked and didn't like.

You'll also find part two of Dale Sinner's RTTY Scope article in this issue, including photos of his finished gadget. Dale sure does nice work, doesn't he? One of the goals for this series is to encourage more home-construction. Is anyone else making his/her own scope? Do you need any more information? Do you have any other construction project in the works? If so, we'd sure like to publish an article about it

Our biographical feature this month is about Bob Meyer, K9IO. Bob has been coming to Dayton for years and we know him from those gatherings and for his strong involvement in RTTY DX. Finally, we also have the results for the 2002 CQ/RTTY Journal WPX Contest.

That's it until this fall. Enjoy.

— 73 de Bill, K9GWT



RTTY Scope — Part II

In my last article I laid out the circuit on a bread-board to make sure it worked okay. After some tuning of the circuit which I will cover in this article, you now see the finished product. My thanks to Bill Henry, K9GWT, for his help with the circuitry and power supply writeup. The filter unit shown in Fig. 7 on page 7 of the last issue (Vol. 50, No.1) is different from the one I used. I had the filter unit already built from another project and so I just used it in the interest of saving time. However, the filter unit shown in Fig 7 is the one I will be using in my next project which will be the two tube RTTY tuner. If you build the circuit you will find this latest filter circuit is much better and will give sharper ellipses on the CRT. More on this later.

To finish this project I had to come up with a suitable enclosure. I found one at a reasonable price from Charles Byers, K3IWK, 5120 Harmony Grove Ed, Dover, PA 17315. His telephone number is (717) 292-4901 and his Email address is k3iwk@flash.net. He has a charge of \$34.95 plus \$7.95 for S/H per cabinet. The cabinet is listed under 2 piece cabinets in his online catalog at www.flash.net/~k3iwk. If you order this cabinet, please refer him to my specs which he has on file. He does not have this particular cabinet in stock but will make it up as needed. Once the cabinet was secured, I installed rails on each side so I would have a way to attach the top cover. Please refer to Fig. 1.

Referring to my first article and Fig. 1 of this article you will notice I altered the installation of some of the tuning pots and also condensed the size of each circuit board. I left three controls on the electronics board because once they are set, they will not change. Those pots are focus, intensity, and astig. The two positioning controls and the gain controls have been relocated to the front panel. Again you can see them in Fig. 1 on the left and in Fig. 3. I tried to keep the cabinet size to a minimum and so placement of the boards is somewhat critical The black strip on the electronics board is some tape I used to keep from shorting out the board on the cover. I have since bent the board inward and it now easily clears. In Fig. 2 you see the back side of the

Dale Sinner, W6IWO dsinner@rttyjournal.com

electronics board showing the two PC board terminals (Radio Shack 276-1388) where I terminated all the out going lines and incoming voltages. The two transformers were stacked and epoxied to the chassis but my first try failed. Hi! Second try is holding. The power supply board is then mounted at the rear of the chassis. On the back panel I have mounted the filter board. The filter board is a 3" X 3" perf board but could be smaller. The unit is built so that either mark and space tones from your modem can be used or take the audio straight from the radio. If you build this circuit it is suggested that the two 165,000 1% resistors be changed to 301,000 1%. This will improve the ellipses on the screen to a sharper pattern. I am including a couple of other pictures to complement this article and give you a good idea of how easy it was to build this unit. See Figs. 3 and 4.

The CRT shield was a surplus piece I had in my junk box but one can be fashioned from a

coffee can or something similar. The CRT tube bezel is the one used by Heath years ago but here again one can be fashioned. Actually no bezel or tube screen is really needed. But since I had one, I used it. Maybe you have a CRT but not the socket for it. Take an old tube socket and break it open and use the pin connections for the CRT. You do not need a socket per say just a way to hold the wires to the tube. Of course it goes without saying, once you have used this method, keep your hands away from the wires if they have not been properly insulated. There are some very high voltages at this point. Use shrink-tubing or electrical tape to insulate these terminals.

The scope electronics work fine and don't require any particular tuning. As a precaution I used a wire with heavier insulation for the high voltage line to the CRT. The filter circuit will need to be tuned but this can be easily done. If you are using a modem take the AFSK output and apply it to the Rcvr input audio terminal. You will need to able to key between Mark and Space to make this adjustment. Once Mark is injected simply turn the R10 pot for a screen pattern. Then adjust the Mark positioning and gain pots on the scope for the proper pattern. Once this is done, do the same with the Space tone adjusting R20 and the Space positioning and gain controls. Going back and forth a few times and you will have it working just as good as mine. One other thing I did and I guess I'm old fashioned but I by passed the AC line as they



Figure 1



Figure 2



Figure 3

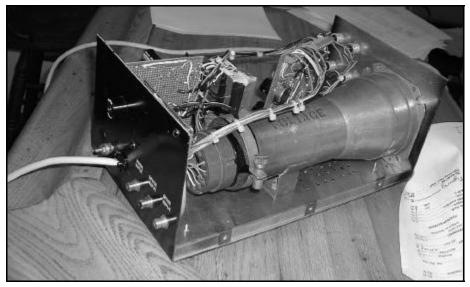


Figure 4

enter the cabinet with .01uf high voltage 1kv capacitors.

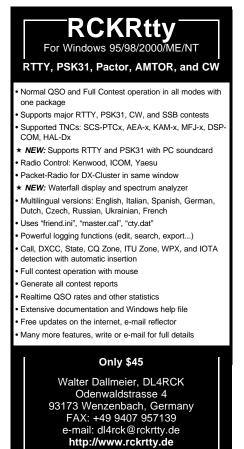
Well there you have it. It was a fun project and if you tackle it, I'm sure you will enjoy the fruits of your labor. My next project will be the same type circuit except I'll be using two 12AX7s instead of the two TIP 50 transistors.

— 73, Dale S. Sinner, W6IWO



All RTTY Journal issues, from 1953 to 1997, are available on CD-ROMs. Buy the whole set of eight discs for just \$100 (a savings of \$20), or you may purchase each archive disc individually for \$15 (\$20 each for non-subscribers).

See the enclosed form for details on ordering.



MSM months - Can D in













Thursday Night Gathering



Friday at Hara Arena











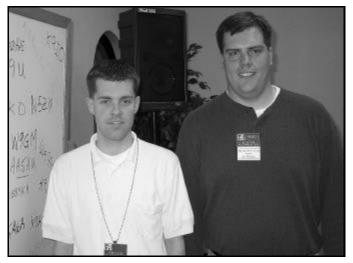


Friday Night Gathering



Bob Wachtel W6RPT





Jason Allen

Joe Wittmer K9SZ



Friday night gathering.



Stan Dworak W3TTY Bill Boeckenhaupt AK0A



Crawford MacKeand WA3ZKZ





Friday night gathering.



Ralph IrishArthur CohenLuz CohenDale SinnerW8ROIXE1LLXYL of XEILLW6IWO

ANDA (DBX KARBHAE WZ9U O N52M WW35 KARAF COGRET WHERE (HWW KB951Z KEG YKY

There were quite a few people at the gathering on Friday night.



Mark Prather WB9HFK

Joe Wittmer K9SZ



Friday night gathering.



Friday night gathering.



Friday night gathering.



Frank Fallon, N2FF, was the moderator for the RTTY Forum on Saturday.



Jerry Jankowitz Tyler Stewart Don Hill NO2T K3MM AA5AU



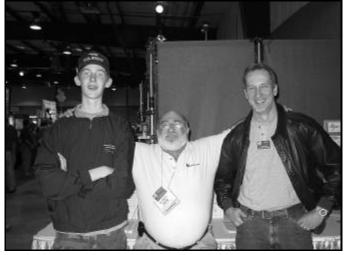
There was a large crowd at the RTTY forum.



Frank Fallon, N2FF, gets the RTTY forum underway.



More of the crowd at the RTTY forum.



Harry Coleman Bob Wachtel K9AQQ W6RPT Jim Coleman KA6A













Saturday Night Dinner



Tyler Stewart K3MM





Bill Henry K9GWT

Don Hill AA5AU



Bill Henry K9GWT





Bill Henry K9GWT

George Johnson W1ZT



Bill Henry K9GWT

Don Hill AA5AU



Doug Faunt N6TQS

Bill Henry K9GWT



Joe Wittmer K9SZ

David Plaskett ZS6RVG



Radhames Bonilla, HI3AB (front); and Joe Wittmer, K9SZ (back).



Waldemar Kebsch, DK3VN (front); and Joe Wittmer, K9SZ (back).



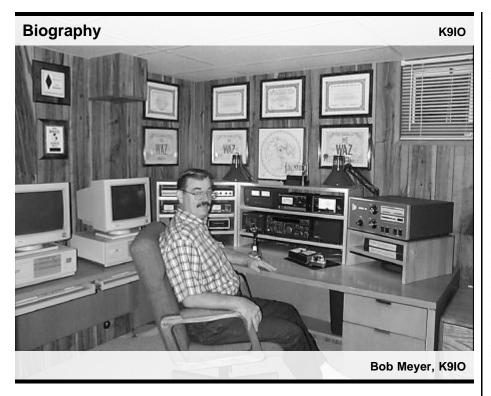
Ron StaileyJoe WittmerK5DJK9SZ



Nick Smith Joe Wittmer W4GKM K9SZ



Doug Faunt (center, standing), N6TQS, was the speaker at the dinner.



The 1960's...

My interest in Amateur Radio started at an early age while I was a Boy Scout. The local radio club came to a Scout Troop meeting and demonstrated mobile amateur radio. I was hooked! Not old enough to drive yet, I still was fascinated by the ability to communicate with cars driving around town. So in 1961 I studied for the Novice Class license and contacted a local ham that was willing to help me study and give me the exam. In those days General Class licensees could administer the Novice/Technician Exams only and return it to the FCC for grading. So before I was out of High School I was licensed as WN9AKT. The early Novice license allowed you to use only 75 watts with a crystal-controlled transmitter.

Before getting out of High School I was WA9AKT with a Technician Class license. A High School friend of mine was also licensed and together we would double date on a Saturday night. He also had his Technician License and we would work 6-meter DX from the local drive-in movie theater while our dates were at the concession-stand. Those were great times working into central and south America on 6-meters which at the time was good 6-meter DX from a mobile. That friend of mine is Larry, then WA9JCO and now K9KU. We are still the best of friends and often talk on Sunday mornings on 20 meter SSB.

While attended college at the Milwaukee School of Engineering, I was exposed for the

first time to RTTY. The club station, still active today, was W9HHX. At the time, this station was state-of-art. The club had a Central Electronics 100V transmitter, a 75A-4 Collins receiver, a homebrew kilowatt amplifier, a Model 15 teletype machine with a homebrew TU. The antenna was on top of a five story building and there was nothing this station couldn't work with that equipment. As a rookie member of the club and a Freshman in college, I was volunteered to be one of the loggers for a weekend RTTY contest. As I sat there logging for one of the more experienced upper-classman during the RTTY contest, I started to wonder what this RTTY mode was all about. Before long, I had my General Class license and was showing up early in the morning at the club station to work RTTY DX.

The 1970's...

After college I entered the military and was soon assigned to a computer maintenance school in New Jersey. Fort Monmouth, New Jersey had one of the best equipped, thanks to the tax payers, Amateur Radio stations in the world. Housed in a completely separate building Amateur this Radio Communications Center contained 6 individual operating rooms each equipped with a complete Collins S-Line. Remember the S-Line? Legacy equipment at a historic station, K2USA. I spend many off-duty hours operating all modes from this unbelievable station. With beams antennas at 100 feet, long-wire antennas also up 100, this station worked the world!

When I served a year of duty in South Vietnam, I would often call home via one of the many MARS stations. In order to make a call home you would have to register with the MARS station operator. Often I would introduce myself as Sergeant Bob Meyer, WA9AKT. Many of the MARS operators were also Hams and after I introduced myself, they would actually let me sit at the controls and make the contact back home myself. Those MARS stations were not allowed to call CQ or issue QSL cards during the war days. But never-the-less it was fun to sit at the controls of a Collins S-Line in Vietnam!

In the late 1970's I started RTTY Contesting. In those days the major RTTY contests were the BARTG, SARTG and CARTG. The British, Scandinavian and Canadian Amateur Radio Teletype Groups were the three major RTTY Contests back in the late 70's and early 80's. Up until 1980, I was using the Drake B-Line (T4XB and R4B), the Heathkit SB-220, HAL ST-5 and a Model 15 Printer. With that equipment and a total of only 300 or 400 QSOs in any one of the three contests, I could usually win the certificate for the 9th Call Area. Of course, all logged was done by hand and the house always smelled of Model 15 oil for a week after the contest. It sure was fun...

The 1980's...

Lots of changes during this decade. My wife, Kathy and I were "trying" to raise two kids, keep up with the demands of a family and work while trying to maintain a house in the suburbs, I now had the Advanced Class license and my station also changed. I was now using the IRL FSK-1000 Video TU with the Info Tech Model 300C keyboard. All digital and all video. No more oil smell after contesting all weekend! Because of family commitments, I stopped contesting in the mid-80's but continued to work RTTY DX whenever I could. My RTTY DXCC totals started to grow. I also joined the local Chicago area DX Club, the Northern Illinois DX Association (NIDXA) and I am still a member today. (Where did these 10 years go?)

The 1990's...

With our kids in High School, the demands of raising two small children started to fade. In 1990 at the Dayton RTTY Dinner I managed to win the main prize, the HAL PCI-3000 TU. This state-of-the-art video terminal installs inside a desktop PC and has provided outstanding performance. It can pick the weak ones out of noise filled band and was worked flawlessly for over ten years. It is still in use today! While my daughter, Amie, was still in High School she showed an interest in the hobby and soon became KA9WLJ. When I passed the Extra Class exam and became K9IO, Amie applied for and received my old call WA9AKT. So my original, first issue Novice call (WN9AKT now WA9AKT) will remain with a family member.

In 1995 I joined several other active RTTY'ers and we operated the ARRL RTTY contest as J68BU from the island country of St. Lucia. That was sure fun! After the RTTY contest we had time to operate on other modes. The European pileup on 75-80 meters for St Lucia were unbelievable. I would work one station after another for as long as the propagation would hold. This was my one short taste of actually being DX myself!

In the Fall of 2002 I will celebrate 41 years in Ham Radio. Where did that time go! I have been attending the Dayton Hamvention for over 25 years and have been lucky enough to make very RTTY dinner during my visits to Dayton. Always enjoy spending time with the RTTY gang. For the 2002 Dayton Hamvention I brought along my daughter Amie, WA9AKT. She recently spent a Sunday afternoon with me working the RTTY DX. Kathy and I also have a son living in Florida after graduating from college in St Augustine. Bryan has decided to live in Florida and we sure enjoy visiting him during the cold Winter months. I can also operate as portable 4 while we are there.

I am still very active on RTTY and continue to chase the DX. My totals are in the 290's and the goal, of course, is RTTY DXCC Honor Roll. This is a very challenging goal because working DX from the heart of the mid-west also presents unique propagation difficulties. Kathy and I hope to retire within the next few years and it will be time for us to do some serious traveling.

73 for now and see all of you in the RTTY pileups!

The "Brag" sheet (I think I use to have a "brag tape"):

- Cover picture on the October 1981 RTTY Journal
- Cover picture and DX'er of the Month on the May/June 1990 RTTY Journal (contains a short article and may provide more/different information.)
- Cover picture Summer 2001 RTTY Journal

Bob Meyer K9IO (Ex-WA9AKT from 1961-1997) 400 Briar Place Libertyville, IL 60048-332 Current station:

Nicobar/Andaman)

firmed!

Kenwood TS-850S/AT Alpha 86 Amplifier Hal PCI-3000 RTTY Terminal Two Compaq Deskpro 386S Computers (one is used for RTTY with the PCI-3000, one is used for the Chicago Area DX Packet Cluster). Kenwood TM-221A - 144 mhz Transceiver (Two meter Repeaters) Kenwood TM-321A - 220 mhz Transceiver (DX Cluster Link) Antennas: Wilson System One 4-Element Tribander at 65 feet, 40-80 Sloper by W9INN, WARC Band Dipole by W9INN The First 9th Call Area RTTY Worked All Zones Award (WAZ) DX Awards - DXCC RTTY-SSB-CW and WAZ RTTY-SSB-CW DXCC Mixed Honor Roll (Missing only VU

RTTY totals - 292 worked with 286 con-

2002 CQ/RJ Worldwide WPX Contest Results February 9-10, 2002

10 Meters					JA1BUI	160	450	138	62100	UZ4E	484	1145	313	358385
Callsign	Qs	Points	WPX	Score	SP9W	167	446	136	60656	RW9SW	395	1105	260	287300
RN6BN	882	2157	454	979278	HA1WD	160	432	131	56592	RU0BB	378	988	258	254904
S50C	772	1979	395	781705	UA9QFF	132	370	118	43660	I2ZZZ	367	937	268	251116
KK5OQ	732	1881	395	742995	K3KO	129	367	102	37434	JE1GMM	335	922	249	229578
UA1AKC	725	1830	387	708210	ER3KS	134	351	93	32643	EA4OI	395	910	244	222040
EO1I	759	1857	381	707517	IK1TWC	109	294	97	28518	JR3RIY	279	770	225	173250
N4BP	703	1735	394	683590	LA9DK	110	277	98	27146	W4LC	293	708	233	164964
LU8EKC	615	1825	370	675250	OH7JJT	104	242	86	20812	UA6ADC	294	677	241	163157
NT6K	704	1601	380	608380	LU/N5KO	85	243	71	17253	SP9BBH	293	732	212	155184
DL4MCF	621	1604	376	603104	9A4K	43	118	40	4720	ON4AME	253	633	189	119637
LW8EXF	567	1679	340	570860	LA1ZFA	11	33	11	363	S52SK	223	553	178	98434
RA0ALM	607	1645	320	526400	7M4POL	9	26	9	234	VA7SW	251	597	164	97908
HG5C	555	1451	352	510752	YO6BHN	3	8	3	24	ON4VV	186	463	161	74543
LZ4KAC	519	1346	325	437450						UT0H	159	366	134	49044
KH6ND	517	1544	272	419968	Operators:					DL6EDD	154	367	131	48077
PY5XT	449	1332	306	407592	EO1I: UT1IA					K9NU	133	329	110	36190
2E0ROB	486	1264	322	407008	KH6ND: KH7R					DK2GZ	111	284	106	30104
VR2BG	485	1321	290	383090						OK2SG	115	279	105	29295
WM9G	438	1148	282	323736	15 Meters					VE6JY	58	154	56	8624
A45XR	400	1170	246	287820	Callsign	Qs	Points	WPX	Score	VE2OWL	39	90	37	3330
VE1AOE	427	1103	258	284574	5U8B	1297	3879	492	1908468					
YV5AAX	335	989	244	241316	9A5W	975	2510	498	1249980	Operators:				
JA7EMH	341	946	244	230824	RA1ACJ	929	2289	453	1036917	5U8B: 12UIY				
JA1SJV	331	923	243	224289	S57IIO	855	2180	472	1028960	RF4R: UA4RC	;			
HK6PIJ	323	965	218	210370	SP5GRM	760	1973	442	872066	KY4AA: K4WW				
GI4KSH	335	846	245	207270	AH6OZ	728	2173	389	845297					
HA3JB	329	849	236	200364	CN8KD	722	2161	361	780121	20 Meters				
LZ2JA	305	783	225	176175	EU1MM	719	1744	399	695856	Callsign	Qs	Points	WPX	Score
JK1IQK	283	784	210	164640	ON7UI	675	1710	390	666900	9A7R	777	1889	404	763156
KF2XF	286	717	223	159891	HA3LI	670	1697	390	661830	LV5V	612	1818	353	641754
RV3APM	218	536	186	99696	ZC4DW	577	1667	321	535107	YL7A	637	1547	357	552279
OK1ACF	210	575	172	98900	EC2ADR	616	1447	361	522367	SN4G	580	1365	329	449085
DJ9XB	213	553	177	97881	UA0JQ	563	1454	355	516170	UX0DL	524	1226	328	402128
VK4WPX	205	608	152	92416	F5NZO	524	1342	336	450912	UA9CKP	473	1327	302	400754
OK2PMS	194	520	155	80600	RF4R	550	1263	330	416790	IK2DPP	463	1060	296	313760
AN7AIG	198	446	156	65116	KY4AA	495	1221	321	391941	EU1SA	483	1081	287	310247

2002 CQ/RJ Worldwide WPX Contest Results (Cont.) February 9-10, 2002

AH7R OK2WH F6FJE OH2LU ES4RD W7TI UA3LEO UX3MR SM3LEP RU0AB SV1CER US7IS ZI/100//	339 385 404 349 357 379 333 311 323 287 293 258	1012 854 810 811 771 730 701 725 763 639 567	242 255 252 250 239 250 238 236 223 210 208 186	244904 217770 215460 202500 193829 192750 173740 165436 161675 160230 132912 105462	YU8/S57AW N9CK W9HLY EA8/DJ10J UT2UZ ES1QV KI6DY/0 JM1LPN HA9OA OH4BB SM5UFB W4UEF	804 865 817 656 781 806 923 696 685 740 739 727	2341 2022 2056 2282 1890 2085 1985 1914 2023 1973 1982 1957	334 382 372 326 385 343 361 334 336 334 336 334 328	781894 772404 764832 743932 727650 715155 700705 690954 675682 662928 661988 641896	DL4MFP K8SIA SP9CQ N1MGO WA2EYA G0MTN WC9C RW0BG SV1BSX SQ6FHP ON4KGL SM7BJW	368 442 372 449 461 418 397 352 395 368 367 361	1125 1007 1072 990 1011 1042 1012 1054 1088 1077 966 971	223 249 233 250 244 232 236 225 217 214 235 229	250875 250743 249776 247500 246684 238832 237150 236096 230478 227010 222359
7K4QOK UR5NX I4DOO	210 255 190	565 533 431	184 181 165	103960 96473 71115	RA9DA N6OJ VE3WQ	654 838 685	2077 1771 1982	308 357 318	639716 632247 630276	JA2BY MM0BQI SP3BLT	335 319 319	953 941 985	223 222 206	212519 208902 202910
ON4APU VA3XRZ	110 111	245 244	99 92	24255 22448	AM4CI JS1OYN	784 655	1863 1822	338 335	629694 610370	RU3XB AA0YX	363 451	962 833	210 241	202020 200753
PR7AR VU3KPL VA7BM	90 87 87	264 231 181	77 82 74	20328 18942 13394	G4WFQ KE4KWE ON4CHT	691 748 618	1872 1721 1771	323 350 340	604656 602350 602140	I4HRH IK3QAR K1US	322 353 350	888 851 828	225 231 235	199800 196581 194580
Operators:		101	14	10004	RA9XF VE6RAJ	620 696	1892 1870	315 318	595980 594660	K6TA YL3FW	344 337	861 996	220 190	189420 189240
LV5V: LU5V SN4G: SP4N					RX9JM UA4FCO	602 694	1925 1813	298 315	573650 571095	IZ4DZD W4AUI	324 410	951 864 829	198 216	188298 186624
40 Meters Callsign	Qs	Points	WPX	Score	N9SDL RW3LB RA4CTR	706 648 721	1660 1861 1805	340 302 307	564400 562022 554135	N0AC UT5UML OK1DCP	406 335 328	829 884 877	224 209 207	185696 184756 181539
9A6A	537	2484	311	772524	AK0A	741	1613	331	533903	OM7PY	315	810	217	175770
RK6BZ UX1IL	451 362	2002 1542	280 227	560560 350034	W3MEL JL6HKJ	700 591	1689 1597	313 321	528657 512637	W6ISO RA9AU	363 289	781 988	222 173	173382 170924
UR5FFC UW2F	292 275	1254 1162	210 196	263340 227752	EI4DW WD4GBW	589 616	1566 1657	326 301	510516 498757	VA3PL IZ8DVD	332 326	883 819	190 204	167770 167076
AN3GIP	245	1074	188	201912	PA3EMN	593	1570	311	488270	OM7JG	308	887	187	165869
IK3SSJ SM7BHM	254 208	1054 876	184 152	193936 133152	N1NB EA2AOI	562 550	1550 1561	297 294	460350 458934	DL8SDC SP3NYS	300 250	840 780	196 209	164640 163020
KH7U	159	946	112	105952	UT4EO	575	1578	284	448152	HB9DHG	347	831	195	162045
W3SE DL9NEI	211 101	710 386	137 85	97270 32810	NK5A KE5OG	663 723	1435 1416	309 312	443415 441792					
UR8QR	49	202	47	9494	K8RS	574	1472	300	441600	Writ	eLog f	or W	indo	NS
JH1APZ	38	190	36	6840	ES2NA RA9FRD	598 492	1521 1673	289 260	439569 434980					
Operators:					JA8JCR	534	1427	304	433808		<i>ttyrite</i>			
	OFT AGIP				W8UL	556	1454	298	433292		ackage I			
ANSGIF. EA	JUSIF				DK3GI AD1C	513 525	1462 1355	294 317	429828 429535	CW, SSB,	and RTT	Y Cont	esting	Needs
80 Meters	0.5	Deinte	WDY	Cases	7L4IOU	496	1480	283	418840		EW Ve			
Callsign S54E	Qs 397	Points 1700	WPX 246	Score 418200	4K6DI KE7NT	494 696	1532 1355	272 305	416704 413275	for W				
S51DX	328	1346	189	254394	SM6BSK	480	1431	287	410697	Operate 2 r and S	BB & Perfec			
S59CAB OK2CLW	268 272	1126 1084	176 177	198176 191868	KL7AC K0IDT	649 661	1491 1413	274 286	408534 404118					
EU1AZ	235	960	156	149760	EA7GTF	530	1405	286	401830	Tired of obso you to use s				
UT5NM DJ3IW	238 160	950 620	155 120	147250 74400	YL/RZ3BY YO8RFS	463 530	1465 1523	266 254	389690 386842	of the power	of your cor	nputer? \	VriteLog	is the first
T95DVD	144	588	112	65856	K8VT	604	1394	277	386138	contest loggin convenience				
DL2RUG YL2KF	142 103	544 426	114 90	62016 38340	UA3SAQ GU0SUP	498 419	1195 1095	313 339	374035 371205	WriteLog in				
					4X6UO	474	1394	266	370804	Work RTTY usir		-	heck Partial	
SOAB Low Callsign	Qs	Points	WPX	Score	VE3IAY VK4DZ	505 444	1445 1318	250 266	361250 350588	(or better) sound	d card. No	 Click an 	d Go Mouse	e Support
ZX2B	1230	3695	499	1843805	JA1XRH	463	1287	272	350064	other hardware 2 sound cards a	required! Opt. nd run 4 radios		Log Submise dio Support	
AA5AU VP5JM	1473 1242	3500 3475	486 439	1701000 1525525	9A3CY AC6JT	430 671	1340 1332	261 260	349740 346320	 Full Radio Contri Helpful Band Ma 		 Support All Mode 	s All Major (Contests in
N2WK	1199	3110	455	1415050	KA2D	469	1198	283	339034	 Packet Interface 		• Only \$7	5.00	
RU3QW RA3WA	1135 1011	2945 2855	413 411	1216285 1173405	OK2PEF AC0M	504 485	1334 1150	253 290	337502 333500	Fast Ethernet N	-		users upgra	ade \$30.
OP0GS	971	2708	417	1129236	4X6UU	417	1504	221	332384		LUS These			210/
YU7AM VE4COZ	943 1014	2792 2600	399 413	1114008 1073800	CT3KN ES1BH	394 465	1363 1284	243 245	331209 314580	 RTTY mode AF known as Autoti 		screen l	der - print C ke in a RTT	"Y contest.
HA5BSW	922	2701	396	1069596	VA3PC	454	1219	253	308407	 Audio Compress can save & play 		CW read	added mult ler capabilit (350MHz Pe	y. With a
K9MOT UY8IF	1030 1051	2475 2693	431 391	1066725 1052963	UZ7HO W1TO	510 463	1326 1212	231 251	306306 304212	entire log after a tact by contact,	contest, con-	faster) V	VriteLog will	decode CW s on 2 radios
YL4U	931	2520	411	1035720	I1BAY	447	1290	234	301860	on your H.D. — RTTY & PSK31	in CW, SSB,	simultan	eously. Like	e having a
YO3APJ TM6A	860 905	2730 2456	378 403	1031940 989768	UA4FX SP6IHE	495 397	1182 1211	254 247	300228 299117	WAV file compre		your sho	ulder.	ang ovor
ON4ADZ	891	2543	387	984141	LY2SA	403	1173	253	296769	"I made the first FANTASTIC. It is				
IK4JSI DK3VN	867 865	2492 2550	394 380	981848 969000	DM5GI UT9NA	440 407	1267 1188	230 229	291410 272052	love it, and from	n now on anyo	one who op	perates fro	m here will
WA1EHK	847	2210	400	884000	LZ9R	441	1026	264	270864	HAVE to use this				nn, UN4UN
RG9O LZ2PI	861 849	2579 2491	342 342	882018 851922	SP8FHJ LA7CL	384 406	1185 1067	225 247	266625 263549		http://www. -mail:k5dj@			
4Z5CP	735	2632	320	842240	OK1OX	395	1085	239	259315		Ron Sta			
G0URR UW5U	803 843	2070 2314	403 356	834210 823784	YL2NN DL2AL	299 395	1274 1097	200 232	254800 254504		504 Dove	Haven D)r.	C 7
VE6YR	832	2153	370	796610	4X1RF	355	1122	226	253572	Master Cata	ound Rock,	TX 78664	1-5926	VISA
DL7VOG	770	2142	366	783972	ND6E	495	1012	250	253000		Tel: (512	2) 255-500	0	

2002 CQ/RJ Worldwide WPX Contest Results (Cont.) February 9-10, 2002

	000	044	404	101001	1/071	000	400	40.4	50000		VOLIA			
G6UQ/P UT1UA	303 283	844 798	191 201	161204 160398	K6ZJ IK3CST	228 156	402 429	134 125	53868 53625		Y2UA Z3YY			
YO3III	292	916	174	159384	K3FH	186	454	116	52664		L2KA			
OH2GI	272	828	189	156492	BX4AAC	170	429	122	52338		Y1DS			
DF5SI	283	812	192	155904	DK4IO	147	428	120	51360	7S3A: S	M3CER			
EA3AYP	304	731	212	154972	WW3S	173	415	123	51045					
RW9QA	284	910	170	154700	RW1QN	163	377	134	50518	SOAB High	0.5	Delute	MOV	6
TF3VS WT6P	300 322	745 735	204 205	151980 150675	K6RIM DL3ARK	196 151	366 384	132 125	48312 48000	Callsign K4GMH	Qs 1476	Points 4260	WPX 491	Score 2091660
A45WD	252	855	173	147915	RV1CC	137	410	125	46000	ZF2QS	1470	4200	491	1998654
VE9DX	250	840	176	147840	SP3GRQ	149	416	109	45344	W1ZT	1445	3822	488	1865136
OM3TA	264	770	188	144760	JA8AGI/1	158	394	113	44522	WW7OR	1496	3634	510	1853340
KC4SAW	321	751	191	143441	I2ORX	137	375	112	42000	VX2HQ	1389	4155	442	1836510
SP1NQV	290	750	188	141000	K4SET	161	373	109	40657	UA9CDV	1178	4007	446	1787122
YU1ZZ	270	799	176	140624	MOAEJ	143	352	112	39424	UF3CWR	1403	3859	463	1786717
LX2RH TA1DX	270 238	761 791	184 176	140024 139216	UA9OTN K6OWL	130 171	341 362	114 104	38874 37648	JH4UYB J41YM	1181 1226	3713 3562	469 458	1741397 1631396
WN10TV	317	728	190	138320	JA3PYC	122	385	97	37345	RQ4L	1267	3334	487	1623658
K0BJ	306	690	199	137310	LY1CT	144	307	118	36226	VA7XX	1151	3155	449	1416595
JR1NHD	273	746	184	137264	VX6LB	131	320	107	34240	AN1AKS	1199	3288	428	1407264
SP4CJA	296	697	189	131733	DL5YAS	121	330	102	33660	WA2ETU	1166	2934	463	1358442
EA3FAJ	280	712	184	131008	OH2LZI	118	332	99	32868	7S5ARA	1053	3042	446	1356732
SP4CQU	233 231	748	171	127908	WBOULX	136	281	112	31472	DK0EE	1052 1227	3050	430	1311500
UA9AX VE6TN	231	766 679	165 180	126390 122220	YO4UQ KC0KSA	121 172	319 292	98 107	31262 31244	W0ETC K8YU/KH2	1227	2891 2955	451 432	1303841 1276560
VA6RA	291	686	176	120736	SM7PAF	127	293	106	31058	YU7YG	1053	3021	419	1265799
UA9OSV	264	745	159	118455	IV3KSE	116	305	100	30500	WX4TM	1106	2791	440	1228040
N5ZM	258	677	173	117121	RA3WMW	97	349	84	29316	UZ7U	990	2763	416	1149408
EA3EGC	253	689	169	116441	W4/VE3BUC	133	271	105	28455	W2YC	976	2560	418	1070080
JA3MIB/1	260	664	174	115536	VE5SF	117	287	93	26691	LZ2PL	960	2729	390	1064310
YO8FZ	250	733	157	115081	YO4CVV	108	295	89	26255	I1COB	888	2739	378	1035342
WD9GMK SP3OL	287 236	638 636	179 177	114202 112572	M3GOJ K0XU	115 126	257 256	95 93	24415 23808	KY5I K9DJ	1023 1030	2372 2482	433 413	1027076 1025066
JO3JYE	230	649	172	111628	NOJRN	125	242	86	20812	K3GP	948	2458	413	1023000
JA1BHK	242	652	169	110188	W4JH	100	239	87	20793	RD0C	882	2494	396	987624
JA1XUY	242	668	164	109552	RA9JX/9	97	272	74	20128	NO2T	922	2442	395	964590
JM1GHT	222	661	163	107743	EA2BNU	91	239	83	19837	IK2HKT	832	2543	371	943453
W4TIJ	289	580	184	106720	IK2NCF	102	235	83	19505	AN1BD	867	2444	384	938496
RW3PN	254	624	171	106704	WA9AFM	119	251	77	19327	GW4KHQ	926	2706	341	922746
YL0A IK4ZHH	211 230	689 607	154 171	106106 103797	WB9BSH 8P6SH	101 84	199 250	93 73	18507 18250	JA1BWA VX2RA	797 759	2395 2459	378 353	905310 868027
SP6RGC	246	638	162	103356	K4000	99	213	80	17040	IKOYVV	825	2215	387	857205
ON4IG	197	680	150	102000	RA3TT	98	225	75	16875	YU7AE	788	2435	352	857120
ZS1JY	219	648	154	99792	VE2FFE	93	230	72	16560	W4UK	975	2164	395	854780
KN6OZ	280	578	170	98260	SM3ETC	80	232	70	16240	S56A	755	2226	368	819168
VE3OXX	220	636	152	96672	SM1HPV	89	229	68	15572	DJ3NG	802	2332	351	818532
W6OAT JF2IGP	267 215	558 593	171 158	95418 93694	KO4XB W3FQE	95 80	199 202	78 76	15522 15352	DA0BVG KW4DA	721 798	2104 2161	388 375	816352 810375
NOIBT	252	535	172	92020	N3RDV	100	202	74	15096	RX9SR	707	2142	339	726138
W8DN	225	559	164	91676	LY6M	89	191	74	14134	OK2BXW	704	2099	338	709462
OE1KTS	215	566	159	89994	N4GXP/8	87	173	79	13667	ZL2AMI	621	2039	339	691221
NX8C	227	529	168	88872	OE1WEU	57	246	51	12546	RV9BB	588	2089	321	670569
K3OK	257	566	157	88862	LY2BET	76	176	70	12320	UA0AGI	646	2098	315	660870
JF2SKV K9BJM	233 223	608 529	146 167	88768 88343	RW3DIA DL4SDT	75 59	165 176	73 56	12045 9856	W2WB KB3TS	680 686	1860 1894	329 317	611940 600398
NN6XX	238	488	176	85888	7S3A	56	176	48	8448	DL4RCK	688	1853	318	589254
RW4CG	214	559	153	85527	JF2OZH	69	170	48	8160	K3WW	682	1892	311	588412
K6BIR	284	538	154	82852	DL7VBO	57	153	52	7956	VE7CF	671	1783	326	581258
NN5T	238	551	149	82099	NE0P	66	150	53	7950	VE5CPU	751	1843	291	536313
JA5ATN	195	562	143	80366	KCODEB	57	157	50	7850	RA3AA	620	1641	321	526761
EA4BT KS0M	218 227	508 491	156 161	79248 79051	JH1TUX JE3UHV	58 52	149 149	50 45	7450 6705	4Z8BB EA5DFV	589 586	1814 1612	284 315	515176 507780
UA0BHC	193	527	149	78523	IK2WFN	53	136	43	6528	SN5N	592	1660	301	499660
HL3AHQ	192	544	141	76704	KC0DEB	48	140	45	6300	I1WBW	606	1736	286	496496
WA6BOB	266	560	133	74480	G4OBK	50	134	46	6164	VA6MM	606	1584	308	487872
MU3EFB	182	513	142	72846	K0BX	46	134	43	5762	TF3AO	682	1593	295	469935
JK6ISK	181	456	159	72504	DL5JWL	54	116	49	5684	VK4UC	488	1540	297	457380
OE5JKL	170	507	140	70980	JG3NKP/1	40	119	40	4760	YO4CIS	586	1469	311	456859
SP9ODY WE9V	178 202	567 474	122 145	69174 68730	IZ4BKI PA0WRS	40 36	116 102	36 34	4176 3468	RS0F MW2I	530 464	1432 1541	291 263	416712 405283
AD6G	280	478	143	68354	KC7WUE	40	87	39	3393	UW5Q	548	1448	261	377928
XE2AUB	200	487	139	67693	K7MM	33	95	33	3135	RU0AT	533	1431	255	364905
K5HDU	231	470	143	67210	RU3RQ	32	67	31	2077	WOLSD	576	1261	289	364429
KJ6RA	229	452	148	66896	JK2VOC	32	57	26	1482	CE8SFG	456	1346	269	362074
NWOL	199	441	151	66591	RA4AFZ	21	42	17	714	NA2M	522	1221	283	345543
WN3C RV6BO	202 190	436 460	148 140	64528 64400	N3JIX N6PC	14 10	38 28	14 10	532 280	IZ5CCS NW6S	449 434	1279 1203	260 261	332540 313983
HB9DBK	190	460 484	140	62436	JQ1AHZ/2	10	28 26	10	260	LX1JH	434 455	1203	261	275280
KB9SIZ	255	474	131	62094	WD9EWK/7	1	3	10	200	W6IHG	423	1019	253	257807
ER3ZZ	171	444	134	59496		•	-		-	VE3GLA	392	1097	231	253407
EA6DD	142	503	118	59354	Operators:					N5JR	400	945	262	247590
AE5P	179	421	140	58940	ZX2B: PY2					WA8RPK	466	1012	242	244904
DL2RTJ	154	450	127	57150	OP0GS: ON5					UT8EL	412	1143	207	236601
DH8IJ AN4ZB	141 168	476 427	118 130	56168 55510	YL4U: YL2 TM6A: F6A					EA5RM W0TY	390 422	941 901	237 240	223017 216240
EW1EA	171	427 446	130	55304	RG90: RZ9					W5BEN	422 374	901	240	216240
											0.1	0.0		5

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VX9FX	355	900	215	193500	VX9TTY	353	937	213	199581
K9JY	308	808	238	192304	W5YM	388	850	223	189550
T88XF N4CW	332	994 824	186 214	184884	LA1K OZ6TL	294	653	187 144	122111
JN4FNZ	345 294	826	203	176336 167678	W3DSX	190 122	423 288	144	60912 33408
DK7ZT	283	835	190	158650			200		00100
N2FF	297	743	205	152315	Operators:				
W6JOX	363	741	204	151164	RW9C:	UA9CGA, RW9			
N8BJQ	276	754	187	140998	OM5M:	OM2RA, OM3			
K3SV	267	739	174	128586	HG1S:	HA1TJ, HA1DA		C, HA1AG	, HA1DAI
DL3JPN XE2AC	240 279	666 693	185 176	123210 121968	UP5P: OL5Q:	UN5PR, UN6P OK1HRA, OK1			
G3UFY	213	694	161	111734	LX5A:	LX5A, LX1RQ,			
EA7CWA	259	605	184	111320	UT9F:	UT9FJ, UT4ZX	,	,	
W7DPW	293	636	175	111300	YL7C:	YL2MD, YL2G		,	
N4VV	254	609	175	106575	NN6NN:	W6XK, N6DE,	N6EE, N6L	K, W6AD	J
WA3AAN	264	589	165	97185	AF4Z:	KC4HW, KE4M			
N8KM	242	578	162	93636		WB4EQS, AB4	EI, KD4HF	IF, W3QO	9, K4QD,
RX9TX YO2BZV	226 222	606 543	154 171	93324 92853	M0SDX:	AF4Z M0SDX, M0DX	/P		
KB9JD	215	492	160	78720	OM8A:	OM3RM, OM2			
G4EMT	204	514	143	73502	KP2D:	KP2N, KP2VI,		2DJ	
IZ5BSA	198	459	152	69768	LR0N:	LU2NI, LU1ND			U6HDF,
IZ3BUR	196	479	139	66581		LU8NA, LU4N/			
WO6M	203	424	143	60632	OK6A:	OK2CMW, OK		MTW, OK	2PSE
I2SVA	158	460	129	59340	S53M:	S51DM, S51Z			61/40
K4RO F6IFY	189 159	397 391	133 119	52801 46529	VE5RI: J43BSF:	VA6EA, VE5FN SV1CIB, SV3B			OVAC
KOCOP	159	391	120	46529	RK9CZO:	RV9CTD, RX9			
N7VGO	153	360	119	42840	YU7AL:	YU7AL, YT7AV			
K0JPL	143	378	101	38178	KJ7TH:	KJ7TH, KW7N			
XE1YYD	157	378	100	37800	LU7FJ:	LU5FF, LU5FII	, LU4FXI, L	U7FNI, LU	J3FLV
WA9ALS	160	343	101	34643	I2OKW:	I2OKW, IK2DH			
UA6JY	115	336	102	34272	DN1JC:	DN1JC, DL7VE			
AJ3M	149	304	102	31008	VE3FJB:	VE3FJB, VE3L			i, VA3CW,
KZ5AM DM5JBN	180 111	266 260	110 105	29260 27300	F8KFN/P:	VE3ALH, VE3N F5TEF, F5TEU		IN	
N3NZ	118	260	89	23140	SN4R:	SQ4TY, SQ4C		2	
K6SEM/2	94	229	84	19236	VX9TTY:	VE9TTY, VE9N			
VE6YP	89	217	70	15190	W5YM:	KD5QYG, W6J		E	
WD5GSL	108	171	80	13680	LA1K:	LA5LKA, LA6A	KA		
0					OZ6TL:	OZ6TL			
Operators: ZF2QS:	N6TQS				W3DSX:	K3CHB, W3DS	5X		
WW70R:	W7GG				Multi-Two				
UF3CWR:	RZ3AZ				Callsign	Qs	Points	WPX	Score
RQ4L:	UA4LCQ				Z30M	2158	6300	563	3546900
J41YM:	OK1YM				JE4VVM	1505	4232	510	2158320
7S5ARA:	SM5FUG				W8NI	446	938	235	220430
UZ7U:	UT3UA				Operators:	704034 7049			
DK0EE: RD0C:	DL4MDO				Z30M: JE4VVM:	Z31GX, Z31MN			NV
DA0BVG:	UA0CA DJ5JK				W8NI:	JE4VVM, JG40 WB8SKP, WA8			
RS0F:	UA0FZ				WON.	KC8GKK, KC8			ч г л,
UW5Q:	UR3QCW						Q20, 11001	~	
T88XF:	JH5OXF				Multi-Multi				
					Callsign	Qs	Points	WPX	Score
Multi-Single					3Z0WPX*	2451	7398	608	4497984
Callsign	Qs	Points	WPX	Score	RI4M	2073	5638	547	3083986
RW9C	1903 1731	6695 5175	520 545	3481400 2820375	KA4RRU	1920 1436	5060 5029	547 504	2767820
OM5M HG1S	1731 1702	5175 5259	545 524	2820375 2755716	CT3BX KX7LDS	1436 1760	5029 4014	504 521	2534616 2091294
UP5P		0200			SK6D	1700		438	1872450
	1466	4924	491	2417684	SKOD	1460	4275		
OL5Q		4924 4826	491 491	2369566	EA4ART	1460 284	4275 743	140	104020
	1466								104020
LX5A UT9F	1466 1557	4826	491 497 470	2369566	EA4ART Operators:	284	743	140	
LX5A UT9F YL7C	1466 1557 1497 1520 1438	4826 4566 4510 4282	491 497 470 481	2369566 2269302 2119700 2059642	EA4ART	284 SP7GIQ, SP7	743	140	
LX5A UT9F YL7C NN6NN	1466 1557 1497 1520 1438 1555	4826 4566 4510 4282 3768	491 497 470 481 501	2369566 2269302 2119700 2059642 1887768	EA4ART Operators: 3Z0WPX*:	284 SP7GIQ, SP7 0717	743 PS, SQ5BP	140 M, SP5UA	AF, SP5-25-
LX5A UT9F YL7C NN6NN AF4Z	1466 1557 1497 1520 1438 1555 1474	4826 4566 4510 4282 3768 3913	491 497 470 481 501 480	2369566 2269302 2119700 2059642 1887768 1878240	EA4ART Operators:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4	743 PS, SQ5BP	140 M, SP5UA	AF, SP5-25-
LX5A UT9F YL7C NN6NN AF4Z M0SDX	1466 1557 1497 1520 1438 1555 1474 1404	4826 4566 4510 4282 3768 3913 4056	491 497 470 481 501 480 463	2369566 2269302 2119700 2059642 1887768 1878240 1877928	EA4ART Operators: 3Z0WPX*: RI4M:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA	743 PS, SQ5BP LW, RN4LF	140 PM, SP5UA P, RW4LE,	AF, SP5-25- RW4LR,
LX5A UT9F YL7C NN6NN AF4Z MOSDX OM8A	1466 1557 1497 1520 1438 1555 1474 1404 1311	4826 4566 4510 4282 3768 3913 4056 3973	491 497 470 481 501 480 463 469	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I	743 PS, SQ5BP LW, RN4LF MGM, W4D	140 PM, SP5UA P, RW4LE, AV, WA4T	AF, SP5-25- RW4LR,
LX5A UT9F YL7C NN6NN AF4Z M0SDX	1466 1557 1497 1520 1438 1555 1474 1404	4826 4566 4510 4282 3768 3913 4056	491 497 470 481 501 480 463	2369566 2269302 2119700 2059642 1887768 1878240 1877928	EA4ART Operators: 3Z0WPX*: RI4M:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT	140 PM, SP5UA P, RW4LE, AV, WA4T 1AGF	AF, SP5-25- RW4LR,
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401	4826 4566 4510 4282 3768 3913 4056 3973 3822	491 497 470 481 501 480 463 469 446	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT VW, K7WM	140 M, SP5U4 P, RW4LE, AV, WA4T 1AGF	AF, SP5-25- RW4LR, ⁻ K, N4DXS
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1192 1136	4826 4566 4510 4282 3768 3913 4056 3973 3822 3395 3588 3636	491 497 470 481 501 480 463 469 446 479 431 421	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756	EA4ART Operators: 3ZOWPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SM SM6XMY	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM	140 M, SP5U4 P, RW4LE, AV, WA4T 1AGF	AF, SP5-25- RW4LR, ⁻ K, N4DXS
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1192 1136 1185	4826 4566 4510 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087	491 497 470 481 501 480 463 469 469 446 479 431 421 447	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889	EA4ART Operators: 3ZOWPX*: RI4M: KA4RRU: CT3BX: KX7LDS:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SM	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM	140 M, SP5U4 P, RW4LE, AV, WA4T 1AGF	AF, SP5-25- RW4LR, ⁻ K, N4DXS
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1192 1136 1185 1172	4826 4566 4510 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087 3174	491 497 470 481 501 463 469 446 479 431 421 447 414	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SM SM6FUD, SM SM6XMY EA4OI, EA4A2	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM ZJ	140 PM, SP5UA P, RW4LE, AV, WA4T 1AGF 6WWK, SI	AF, SP5-25- RW4LR, ^T K, N4DXS M6XKB,
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1192 1136 1185 1172 985	4826 4566 4510 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087 3174 3013	491 497 470 481 501 480 463 469 446 479 431 421 447 414 434	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SMI SM6XMY EA4OI, EA4A2 n original entry (I	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM ZJ	140 PM, SP5UA P, RW4LE, AV, WA4T 1AGF 6WWK, SI	AF, SP5-25- RW4LR, ^T K, N4DXS M6XKB,
LX5A UT9F YL7C NN6NN AF4Z MOSDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1132 1136 1185 1172 985 1060	4826 4566 4510 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087 3174 3013 3093	491 497 470 481 501 480 463 469 446 479 431 421 421 447 414 434	2369566 2269302 2119700 2059642 1887768 1877240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART:	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SMI SM6XMY EA4OI, EA4A2 n original entry (I	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM ZJ	140 PM, SP5UA P, RW4LE, AV, WA4T 1AGF 6WWK, SI	AF, SP5-25- RW4LR, ^T K, N4DXS M6XKB,
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL KJ7TH	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1132 1136 1185 1172 985 1060 1284	4826 4566 4510 2822 3768 3913 4056 3973 3822 3385 3588 3636 3087 3174 3013 3093 2841	491 497 470 481 501 480 463 446 479 431 421 447 414 434 408 433	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944 1230153	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror change viola	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W41 CT3BX, CT3F KX7LDS, W7V SM6FUD, SM SM6FUD, SM SM6XMY EA4OI, EA4A2 m original entry (i ations.	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM ZJ	140 PM, SP5UA P, RW4LE, AV, WA4T 1AGF 6WWK, SI	AF, SP5-25- RW4LR, ^T K, N4DXS M6XKB,
LX5A UT9F VL7C NN6NN AF4Z MOSDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL KJ7TH LU7FJ	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1192 1136 1185 1172 985 1060 1284 812	4826 4566 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087 3174 3013 3093 2841 2415	491 497 470 481 501 480 463 469 446 479 431 421 447 414 434 408 433 395	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944 1230153 953925	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror change viola Check Log :	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SMI SM6FUD, SMI SM6FUD, SMI SM6FUD, SMI SM6FUD, EA4A2 m original entry (I ations.	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM ZJ M2) to MM	140 M, SP5UA P, RW4LE, AV, WA4T 1AGF 66WWK, SI	AF, SP5-25- RW4LR, TK, N4DXS M6XKB, ressive band
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL KJ7TH	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1132 1136 1185 1172 985 1060 1284	4826 4566 4510 2822 3768 3913 4056 3973 3822 3385 3588 3636 3087 3174 3013 3093 2841	491 497 470 481 501 480 463 446 479 431 421 447 414 434 408 433	2369566 2269302 2119700 2059642 1887768 187768 1877208 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944 1220153 953925 903528	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror change viola Check Log : 4Z5AV, 4Z5	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SM SM6XMY EA4OI, EA4A2 m original entry (ations.	743 PS, SQ5BF LW, RN4LF MGM, W4D N, CT3/CT WW, K7WM 6WQB, SM ZJ M2) to MM 9NF, DL8L	140 M, SP5U/ P, RW4LE, AV, WA4T 1AGF 66WWK, SI due to exc JFO, EC4I	AF, SP5-25- RW4LR, TK, N4DXS M6XKB, ressive band DFA, K6EP,
LX5A UT9F YL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL KJ7TH LU7FJ I2OKW	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1132 1132 1136 1185 1172 985 1060 1284 812 836	4826 4566 4510 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087 3174 3093 2841 2415 2403	491 497 4700 481 501 480 463 469 446 479 431 421 447 414 434 408 433 395 376	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944 1230153 953925	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror change viola Check Log : 4Z5AV, 4Z5 LZ5Z1, N8	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SMI SM6FUD, SMI SM6FUD, SMI SM6FUD, SMI SM6FUD, EA4A2 m original entry (I ations.	743 PS, SQ5BP LW, RN4LF N, CT3/CT W, K7WM, K7WM 6WQB, SM ZJ M2) to MM 9NF, DL8L K, OK2HJI	140 M, SP5U/ P, RW4LE, AV, WA4T 1AGF 60WWK, SI due to exc JFO, EC4I D, OZ5M	AF, SP5-25- RW4LR, TK, N4DXS M6XKB, eessive band DFA, K6EP, IJ, RA3LX,
LX5A UT9F YL7C NN6NN AF4Z MOSDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL KJ7TH LU7FJ I2OKW DN1JC VE3FJB F8KFN/P	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1132 1136 1185 1172 985 1060 1284 812 836 767 680 459	4826 4566 4282 3768 3913 4056 3973 3822 3395 3588 3636 3087 3174 3013 3093 2841 2403 2145 2403 2148 1883 1359	491 497 4700 481 501 480 463 469 446 479 431 421 421 414 434 408 433 395 376 338 344 237	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944 1230153 953925 903528 726024 647752 322083	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror change viola Check Log : 4Z5AV, 4Z5 LZ5Z1, N8	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SM0 SM6FUD, SM0 SM0 SM0 SM0 SM0 SM0 SM0 SM0 SM0 SM0	743 PS, SQ5BP LW, RN4LF N, CT3/CT W, K7WM, K7WM 6WQB, SM ZJ M2) to MM 9NF, DL8L K, OK2HJI	140 M, SP5U/ P, RW4LE, AV, WA4T 1AGF 60WWK, SI due to exc JFO, EC4I D, OZ5M	AF, SP5-25- RW4LR, TK, N4DXS M6XKB, eessive band DFA, K6EP, IJ, RA3LX,
LX5A UT9F VL7C NN6NN AF4Z M0SDX OM8A KP2D LR0N OK6A S53M VE5RI J43BSF RK9CZO YU7AL KJ7TH LU7FJ I2OKW DN1JC VE3FJB	1466 1557 1497 1520 1438 1555 1474 1404 1311 1401 1122 1192 1136 1185 1172 985 1060 1284 812 836 767 680	4826 4566 4510 3973 3973 3822 3395 3588 3636 3087 3174 3013 3093 2841 2415 2403 2148 31883	491 497 470 481 501 483 469 446 479 431 421 421 447 414 434 433 395 376 338 334	2369566 2269302 2119700 2059642 1887768 1878240 1877928 1863337 1704612 1626205 1546428 1530756 1379889 1314036 1307642 1261944 1230153 953925 903528 726024 647752	EA4ART Operators: 3Z0WPX*: RI4M: KA4RRU: CT3BX: KX7LDS: SK6D: EA4ART: * Moved fror change viola Check Log: 4Z5AV, 4ZE LZ5ZI, N8 RX3DTN,	284 SP7GIQ, SP7I 0717 RA4LBE, RA4 RZ4LA KA4RRU, W4I CT3BX, CT3F KX7LDS, W7V SM6FUD, SM0 SM6FUD, SM0 SM0 SM0 SM0 SM0 SM0 SM0 SM0 SM0 SM0	743 PS, SQ5BP LW, RN4LF N, CT3/CT W, K7WM, K7WM 6WQB, SM ZJ M2) to MM 9NF, DL8L K, OK2HJI	140 M, SP5U/ P, RW4LE, AV, WA4T 1AGF 60WWK, SI due to exc JFO, EC4I D, OZ5M	AF, SP5-25- RW4LR, TK, N4DXS M6XKB, ressive band DFA, K6EP, IJ, RA3LX,

Up-to-date Contest Information



WT4I Contest Tools Tools to analyze and check Cabrillo format logs

Now you can use the same software used by Official Contest Managers to check logs and expedite production of accurate and timely contest results!

WT4I Log Checker - Get a look at your log in a different view than what is provided by most contest logging programs. The user can easily spot bad or busted calls and missed or bad exchanges. The individual user is given the opportunity to look at the log in much the same way as an official log checker.

Cabrillo Converter - Convert just about any column based ASCII log into the Cabrillo format. The user simply identifies each of the columns through simple clicks of the mouse, enters the required header information, and saves the log in Cabrillo format. The resultant log is ready for log checking with WT4I Log Checker or for electronic submission.

Master Call Maintenance - Create and maintain your own master callsign database for use with WriteLog, WF1B RTTY, or with the WT4I Log Checker utility. The user can build a master callsign database from existing super check partial files, or build one semi-automatically from the callsigns found in Cabrillo format logs.

- Cabrillo Format Logs - 30+ Major Contests - Automatic Scoring - Dupe Checking - Unique +1 Processing	- Search and Replace - Check 10 Minute Rule - Check 6 Band Change - Display Off Times - View Log by Field					
WT4I Contest Tools \$40	Cabrillo Converter \$20					
http://www.wt4i.com						



Next Contest, Work the Weak Ones



DXP38 DSP HF Radio Modem

Modes: CLOVER-II, RTTY, AMTOR, P-MODE

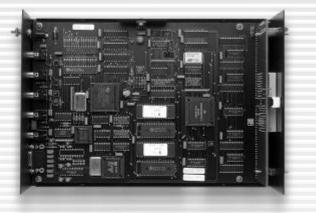
Everything bad can and does happen to your HF signals, especially during a contest. Selective fading, noise, interference, and poor tuning indicators all conspire to let that rare DX get away. Track it down with the DXP38.

The DXP38 modem provides advanced digital signal processing the other do-everything analog designs can t. You can t work the rare ones if your modem can t copy them. The DXP38 will!



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- Rugged and portable aluminum cabinet
- Unique Crossed-X tuning indicator displays M/S in FSK and CLOVER, and frequency center in all modes



- Connects to computer with a standard DB9 serial cable
- Radio connections made easy with phono connectors