

# Scuttlebutt

# January 1992

# Issue 97

## Captain's Cabin Stu Santelmann, KC1F

As I write this, we're a month away from the ARRL CW weekend. This is the time to negotiate with the family for those weekends off (truly dedicated operators will keep MACE in the shack with them for emergencies!). Also, please be sure to evaluate whether you are ELIGIBLE for the ARRL contests!!! The eligibility requirements are DIFFERENT than for CQWW, and may require you to a) show up at the next meeting (see announcement elsewhere in this Butt), and/or b) cough up some dues money. Since we seem to be by nature a club of stay-at-homes, unlike our neighbors to the south, the rules of the ARRL contest may favor us more. But let's not lose any points due to ineligibility!! Questions about eligibility should be directed to KQ1F - and also, your area managers should also have an idea about this. When I contacted the area managers about this a year ago, I was gratified to find that they had already evaluated which of their members needed to act to become eligible. The area managers will as always assist with matching operators and stations. Also, after the contest, don't forget to drop your score to Kurt Pauer, W1PH, by packet or postcard. Kurt is resisting being assigned a title for the great job he is doing, but I'm sure it has been evident to all that Kurt has put in a number of hours on this.

January 29th will see the fourth (I think) session of the NH/Emass Contest University, at the house of K1TWF/WN1V in Chelmsford, Mass. I'm not sure whether this would count as a "graduate course", or simply a second "Bachelor's Degree", but not only will it include previous subjects, but also packet radio procedures, and antenna installation and tower work. Word has it that any attendee who needs a place to operate will be

accomodated at one of the local multi-ops. It is always valuable when our more veteran club members take the time to share their knowledge with us - we may forget that newer members may have questions that older members haven't thought of in years!! Because of Jeff Briggs' (K1ZM) presentation at the last meeting, for example, both my father N1AU and I are planning installation of inverted L's for 80 and 160! Be sure to talk up the club on local repeaters, and encourage non-members to try a meeting. I have been stunned to hear some of the responses I've gotten, mainly along the lines of "Why would the YCCC want me/my score ?". And again, in response to a question by our newer members - to submit a score for YCCC, simply put "YCCC" on the summary sheet, follow mailing instructions in QST, and notify W1PH of your score.

Finally, being president means that I get to pontificate every other month about subjects that cross my attention, and most recently this has been packet etiquette, and the Russian mail system. I do think that we need a review of the INTENDED use of the packet system, done hopefully at a club meeting by the people who design and operate the system. I do think that the present inappropriate use of some commands is done from lack of education as to the full capabilities of the system (Quickhow many of you can name more than five types of packet mail addressing?), rather than intentional misuse. As entertaining as "packet arguing" using the ANNOUNCE/FULL command may be to some people, I imagine that it puts a colossal load on the system.

And finally, I agree with N2AA and W1PH that the Russians should not be condemned for appearing to be "panhandling" money from their more wealthy and fortunate American brothers. We are in a more fortunate position by sheer happenstance, and should be more appreciative of what life is like in other countries. I personally enjoy responding to all my FS QSL requests from Eastern Europe by direct air mail, regardless of the compensation enclosed. I am getting quite a collection of Russian stamps, and pocket calendars! And while mail thieving can obviously not be condoned, I think we need to understand that desperate conditions drive people to desperate actions. 'Nuff said!

Good Luck in the contests, and have fun. Let's see if we can Toast the Frankfurters once again!!

## Next Meeting Paul Young, K1XM

The next meeting of the Yankee Clipper Contest Club will be on Sunday, February 2, at the Sturbridge Host Hotel, beginning at 1 pm.

The program will include a slide show on Fiji and Tonga by K1XM and KQ1F.

The Host Hotel is located on Route 20 in Sturbridge, Massachusetts, ½ mile West of I-84 (first exit off I-84 when coming South from the Mass. Turnpike).

To get to the Host Hotel, exit I-84 on to Route 20 West. You will pass through two sets of stoplights while noticing several motels on your right. Make a right turn just prior to the Burger King sign. This is the entrance to the Host Hotel. There is plenty of parking in front of the hotel.

The meeting dates for 1992 are:

DATE	DAY
February 2, 1992	Sunday
April 4, 1992	Saturday
June 7, 1992	Sunday
December 5, 1992	Saturday

The October meeting will be at the ARRL New England Division Convention.

The August meeting will be the club picnic.

Kurt, W1PH, summarized the CQWW contest score results which now total about 240 million points for the YCCC.

Rich, K1CE, related his adventures in the Soviet Union. He attended the International Hamvention in Leningrad (now St. Petersburg) on August 1, 1991, then traveled to Moscow where he had been invited to give training in emergency communications and assist in the formation of their Amateur Radio Emergency Service.

An "audio band" contest was conducted by KD2SX who had won the previous meeting's contest. This one was won by K1DG.

The AK1A packet node has moved to 145.57 MHz and a new antenna has been installed.

Doug, K1DG, who had been an operator at PJ9W during the CQWW, showed slides of that operation. No expense had been spared to put up the very best array of towers and antennas on the bulldozed top of a hill. Of special interest was a 3-element, full-size delta loop for 160 meters, mounted on a 170-foot crank-up tower!! While intended to be rotatable by rope, the prevailing winds decided to keep it pointed east. It is reported that it had a "killer" signal into Africa. The PJ9W signal on 80 meters was reported as 20dB over S9 in Tokyo, but operators at PJ9W could not hear their responses because of noise.

Jeff Briggs, K1ZM, spoke on "How to Maximize Performance of a Medium-Sized Station". This was defined generally as a station having only one 70-foot tower, with possibly a TH6 or TH7 for 10 through 20 meters, a 402BA or Cushcraft 40 meter beam and inverted-V wires for 80 and 160 meters. The IIX Super Mast was recommended for its strength. It was noted that using hard-line coax to feed a tri-band beam will improve its gain to about that of a monoband beam with normal coax.

The audience interest in low-band antennas produced an ad hoc Antenna Forum with K1ZM, W1WEF, W1RM, and K1VR. The discussion focused on the best use of the 70foot tower for 80 and 160 meters. Such a tower can be loaded directly if there is nothing on the tower below the HF Yagis, or it can be used to support separate verticals for each band. A multi-strand vertical antenna for the 80-meter band, and a 3/8-wave 160 meter inverted L, both insulated from the tower, are recommended. The 3/8-wavelength prevents 80-meter resonance of the 160 wire and minimizes the importance of a good ground or radials.

Doug, K1DG, ended the meeting with awards for the Poisson d'Avril contest. He received many types of logs, including some made from trees. Most kept to the rules and submitted their logs on 8" disks, or at least small portions of such disks. Some were actually written by hand on these disks, making it difficult for computer processing. The contest was won by Paul, NW1U, in the Multiop Indivisible category. A handsome trophy was awarded showing a contester swinging a D104 microphone (or so we were told; it looked like a tennis racket to me).

Respectfully submitted,

Bill Santelmann, N1AU Acting Secretary/Treasurer

# Minimum Computer Requirements for CT<sup>TM</sup> Jim Reisert, AD1C

The price of IBM personal computers and compatibles has come down so far that there's no reason why every contester shouldn't own one. I have seen used IBM XT's priced as low as \$200. Isn't this a reasonable investment to increase your rate, improve your multiplier and QSO hunting, and take the drudgery out of post-contest paperwork? This article describes the minimum computer necessary for running CT during a contest.

In summary, here's what necessary:

- An IBM PC-XT or compatible computer
- 512K RAM
- · A monochrome video card and monitor
- One floppy disk drive (either 5.25" or 3.5")
- A hard disk drive and controller, 10MB or larger
- A keyboard with function keys F1-F10 (on the left preferred)
- One serial COM port (see below)
- One parallel LPT port (see below)
- A dot-matrix printer, or access to a printer

after the contest.

#### Computer:

CT will only run on IBM and compatible PCs running the DOS operating system. This means the computer must have an Intel 8088, 8086, 80286, 80386 (or SX), or 80486 (or SX) microprocessor or equivalent (this includes the 80186 and NEC's V20 and V30, as well as clones of the 80386 from AMD and other manufacturers). CT will run under the MS-DOS operating system from Microsoft or DR-DOS from Digital Research, Inc. CT will also run on PC emulators such as those for the Apple MacIntosh (SoftPC) and Commodore Amiga. Note, however, that the emulators will run more slowly, and may have hardware limitations (i.e. no access to the computer's serial ports).

Speed is the important consideration when selecting a computer. 50 MHz 32-bit processors like the 80486 will certainly run a lot faster than a 4.77 MHz 8-bit XT. However, in real-time use, speed isn't actually that important. CT is fast! The real speed-critical parts of contest logging are starting CT from the DOS prompt (especially if you have logged many QSOs), which you only do once unless your system crashes, and using Super Check-Partial (though the author, K1EA, has a fix for this which sacrifices some disk space for increased speed). The common functions of logging and duping all are so fast that you won't notice the millisecond differences between slow and fast computers.

#### Memory:

The amount of memory installed in the computer will determine how many QSOs you can log. A computer with 512K memory installed (a standard configuration for XTs) will be able to hold approximately 2300 QSOs in memory, while 640K of memory, which will allow almost 4000 QSOs, is more practical for top-10 logs. If you plan to add memory to an IBM XT or compatible, you must configure it as EXPANDED memory. Each additional megabyte of expanded memory will allow you to add about 16,000 QSOs to your log. An expanded memory option is usually supplied in two parts - an expanded memory board which you install in a slot in your computer, and a software driver, usually supplied on floppy disk, which allows the computer to access that memory. Make sure you get both the card and the disk! 80286 and

80386/486 computers are generally configured with EXTENDED memory. You must use a software driver supplied with your 80286 motherboard, or a memory manager for 80386/ 486 machines, such as QEMM<sup>™</sup> from Quarterdeck or 386MAX<sup>™</sup> from Qualitas, to allow CT to access the extended memory in these computers as expanded memory.

#### Video:

CT supports most monochrome and color graphics systems. Color is nice, but it won't increase your score! Furthermore, monochrome monitors are usually less prone to RFI than their color counterparts (see Other Considerations, below).

#### Floppy Disk Drive:

With two floppy drives, or a hard drive and single floppy drive, you can configure CT to automatically backup the log to a floppy disk during the contest, every hour on the hour. This is a safeguard against losing your only copy of the log (it's happened). With a backup floppy, at most you'll only lose an hour of your contest log if your primary disk drive dies. A single 5.25" 360K floppy disk has more than enough space to hold a backup contest log.

Although CT no longer fits on a single 360K floppy, it can be run on a computer with only a single 360K floppy drive and no hard drive by using LapLink<sup>TM</sup> or some other program to load CT into memory from another computer over the serial line. You can also run CT from a single 3.5" 720K floppy disk (DXpeditioners who take laptop computers to the Caribbean do this regularly), or from a high-density 5.25" (1.2 MB) or 3.5" (1.44 MB) disk. In either case, however, you would have no backup of your log. No one likes going "bareback."

Furthermore, when the contest is over, you'll want to submit a copy of your log on floppy disk to the ARRL or CQ, as well as to K1EA, who uses the logs to create master data files.

#### Hard Disk Drive:

A 10MB hard disk will have enough space for the MS-DOS operating system and CT files, and is the preferred method of storage for contest logging. Logging to a hard disk also avoids the problem of the computer temporarily locking up while it writes a QSO to a floppy disk, since writing to the hard disk is much quicker than writing to a floppy. Consider getting a larger disk if you plan to use your computer for word processing or other applications in the off-season. Faster disk drives (40 mS access time or less, rather than 65 or 80 mS) are better of course, but are also a little more expensive. A disk caching program, such as SMARTDRV (supplied with MS-DOS) or Super PC-Kwik<sup>™</sup> from Multisoft, which temporarily holds the most recently used disk data in RAM memory, can speed up disk access, at the expense of some memory.

#### Keyboard:

Many operators find that CT is easier to use when the function keys are on the left of the keyboard, rather than along the top. This is the standard (original) XT keyboard configuration. An AT-style keyboard with the function keys along the top will also work. A "clicky" keyboard can wreak havoc in a phone contest by tripping the VOX, but is great for CW.

#### Serial COM Port:

You will need a separate serial COM port for each of the following purposes:

- 1 To connect a TNC to your computer for use in the Single-Op assisted or Multi-op categories, so CT will automatically notify you of needed DX spots. Single ops can use a TNC as well, but they are only allowed to broadcast DX spots, not receive them.
- 2 To interface to a computer-controlled radio, so you can change frequency automatically.
- 3 To link multiple computers together in a multi-operator network.
- 4 To key the rig. Alternatively, you can use an LPT port for this.

For example, to just be able to use a TNC and control your radio, you will need two COM ports, which come standard with most computers. The issues surrounding the use of more than two COM ports are described in the CT manual.

Furthermore, you may want to connect a telephone modem for downloading the latest and greatest copy of CT from the CT BBS (see CT documentation for details). However, it's unlikely you'd be doing this during a contest, unless you ran across a bug that annoyed K1EA so much he had to fix it.

#### Parallel LPT Port:

The parallel printer (LPT) port can be used to key CW to the rig, as well as operate the four memories of an outboard voice keyer though two simple interfaces described in the CT manual. You can also use one of the COM ports above as a CW port, if you have a spare, and must dedicate your only LPT port to a printer.

#### Printer:

A printer is not a necessity during the contest. It is convenient, however, to be able to print your multiplier or rate sheet during the contest to see how well you're doing. You will need a printer to print your log after the contest. Remember CQ requires a paper log, even if you send them a floppy!

#### Other considerations:

Make sure your computer is well-shielded and well-grounded, to prevent RFI from getting into your receiver, and to prevent RF from getting into your computer or monitor. Check this out days before the contest begins, not hours. If you detect RFI in your receiver when your computer is powered on, start by removing the cables going to the printer, TNC and CW/voice keyer interface. Next try disconnecting the monitor and keyboard. If removing one of these cables decreases radiated RFI, it may help to wrap the offending cable around a ferrite toroid (clip-on ferrite RF chokes are good for this purpose). Make sure the toroid is as close to the computer as possible (you may want to use a tie-wrap to prevent the toroid from slipping). You may also need to shield the inside of your video monitor, using some sort of conductive tape grounded to the monitor chassis. You can also try a choke on the power cord going to the computer and/or monitor to see if that helps. No one should lose a QSO because of computer RFI!

Finally, make sure you are familiar with CT before using it the first time in a serious contest effort. Practice listening to and logging sample QSOs, or type one of your old logs into CT. Try CT out in one of the other supported contests (160, 10 meter, etc.) before using it in the ARRL DX or CQ WW DX contests. Don't embarrass yourself by hitting the wrong keys during the contest! But most of all, have fun and make sure to buy or download the latest version of CT from KC1EO.

# Results, 1991 CQ WW Contest - YCCC Kurt Pauer, W1PH

This year's CQ Contests were punctuated with really unusual ionospheric conditions. Solar storms, aurora, noisy bands made operating difficult resulting in scores that were probably 25 to 30 percent lower than they should have been for this spot in the sunspot cycle. Despite these conditions, the YCCC came through with some great efforts. Below are the aggregate club scores, number of members operating, and solar conditions:

- SSB: 117,889,000 136 members S.F. 245, A=22, K=3
- CW: 133,532,000 134 members S.F. 140, A=37-18, K=4-2

#### TOTAL: 251,421,000 POINTS

This total is down somewhat from last year's total, but we probably had more members operating this year. All the reported scores follow this writeup. This year we are listing every reported bottom line score broken down into total score, QSOs, zones, countries, and operating time. This will let members compare their scores with other stations who might have operated the same time. (We are not all able to put in marathon efforts for one reason or another!) For multi-operator stations, we are showing all the operators' calls.

Single operator, low power, is almost a masochistic category, especially this year. Les, KG1D, operated both SSB and CW to the tune of 770K in both. On CW, Rus, NJ2L, scored 840K to have the top honor for the club. (Rus operated with Dan, K1TO, from PJ7A on SSB.)

SSB Highlights: John, K1AR, scored an unbelievable 5.396 Meg operating from K1EA. Mark, K1RX, traveled to BV on business and was able to score over 3.45 Meg with some 4100 QSOs. This is a real achievement in Asia, especially when you can't make contacts with the Soviet Union. Dean, N6BV/1, produced a 3 Meg effort from his new QTH in Windham, NH.

The single operator, assisted, category turned out to be the most popular with 28 stations reporting scores and many operating 20 to 30 hours. Jeff, K1ZM, scored over 4 Meg and really usedn packet to connect with 555 band countries. Other scores over 2 Meg were Matt, KC1XX, John, W1RR, and Dick, AK1A.

If we had to pick out a single all-star effort, the PJ7A multisingle operation by Dan, K1TO, and Rus, NJ2L, would be at the top. Their story is written up in the January NCJ and represents a great 13.4 Megeffort. The C6AFQ operation by Jim, K1TN, Jim, KR1S, and Chod, WB2CHO, netted over 7.9 Meg. Here in New England, Lou's, K1YR, team scored 4.8 Meg. Other teams scoring over 2 Meg were K5NA/2, KB1H, K1VR, and KZ1M.

Our multi-multi stations were responsible for a fourth of our score. Perennial K1ST led the SSB group with 10.6 Meg, followed by K2TR and KY1H. A great job by all.

Some excellent single band scores were made by Paul, NX1P, on 15 meters, Lou, KS1L, on 20 meters, and Paul, K8PO, on 75 meters (where do you find 387 QSOs on 75?)

CW highlights: Dan, K1TO, decided to try a solo effort from PJ7A and made 5900 contacts to score 8.48 Meg. When you think that there are only 48 hours in the contest, and that this is CW, those contact totals are absolutely awesome. Here in New England, Greg, W1KM, made some 2400 QSOs to score 4.12 Meg. Of special significance is his 80 meter line of 360 Q, 22 Z, and 79 C. John, W1FV, who is no slouch on 80 meters, said Greg was running JAs that he couldn't hear, that "Greg is in a class of his own on 80". Rich, K1CC, was right behind with 3.9 Meg followed by Dean, N6BV/1, and Mark, IS0/K1RX (who must like traveling!).

As in SSB, single operator, assisted, was the most popular category. Jim, AD1C, guest-op at K1VR, scored close to 3 Meg to the top spot. He was followed closely by John, W1RR, and Mark, AA2Z. The packet system really enhanced a lot of scores and it was easy to score 600K in 20 hours of operating.

In multi-single, VP5P piloted by Jim, NQ2D, and Mike, N2MG, had 5500 two-ways for a score of 6.77 Meg. Up here in the northeast, Richard and his gang at K5NA/2 scored 6.72 Meg to lead this category. (Susan's contest chili must be the key!) Other DXpeditions were C6A/K1XA (Bob, K1XA, and Rich, KA1CI) and A35MX (Paul, K1XM, Charlotte, KQ1F, and Rich, K2WR) scoring 5 Meg and 4.5 Meg respectively. The multi-multi stations provided 20% of the club score on CW. The K1AR team operating from K1EA outgunned the K1ST team 10.9 Meg to 8.9 Meg. A total of 30 members operated in the four multi-multi stations.

Single band entries were sparse, but Vinny, K1RM, once again punched through to 1300 stations with his 15 meter 3 el quad to score 563K. On 80 meters, Jeff, K1ZM, edged out John, W1FV, 179K to 177K. Jeff's impressive 95 country multiplier did the trick. (Has anyone ever worked 100 countries on 80?) Rob, W1MK, was right at their heels with 168K. By the way, Rob also operated the other bands to submit 645K for the YCCC!

My soapbox: This was my first effort at score reporting. I did my best to beat the bushes for scores. I really want to thank everyone who submitted their scores to me via packet and post. I received a lot of great encouragement and really enjoyed this. In particular, I am open to suggestions to improve the reporting for the club. Tell me what you think.

This club has many superstars, more than any other contest club. However, it takes more than superstars to put the YCCC on top. We need the efforts of all the club members, both big and small to do this. When you look through the results, check out the efforts of all the members. Many of these scores were made by lesser equipped stations and represent a significant contribution. In the future, I would like to add a very brief station description to the score line. This way, those of you with tribanders and wires can compare your efforts against similarly equipped stations.

I would like to recognize some of the efforts that come to mind. Luigi, KA1UTU (AA1??), scored almost 500K on his first time out. He is a student at RPI and has been an operator at W2SZ. Glenn, WO1P, who has been licensed for 30+ years, scored 199K on SSB in his first time out. Rob, W1MK, operated on other bands than 80 meters to add an extra 280K to the club score. Bruce, WA1G, added an extra 245K at home even though he was one of the ops at K1VR. In the over 50 years of age group, Roger, W1AX, Vic, N4XR, and John, W1BIH, contributed significant scores. (W1JYH, W1EOB, and W1BIH have been top contesters since the 1950's!) Many fellows sent in scores of 200K with apologies for low scores; these "low scores" add up. Bill, K1JKS, chased down a few scores for me. I know I am missing a bunch of others who helped. Thanks for all the contributions.

## YCCC 1991 CQ World Wide DX Contest - SSB Compiled by Kurt Pauer, W1PH

Single C	)perator - L			-	-						
Les	KG1D	Score 769,880	Q 746	Z 104	C 276	Hrs 30.0					
Single Operator - All Band											
		Score	Q	Z	С	Hrs					
John	K1AR	5,396,202	2765	153	525	44					
Mark	BV/K1RX	3,446,961	4101	117	282						
Dean	N6BV/1	3,091,624	2018	136	432	45					
Kurt	W1PH	2,481,744	1482	141	455	37.6					
Roger	W1BR	1,054,235	853	115	340	35					
Lanny	W100	1,034,520	832	113	311						
Rich	WS1Y	841,960	853	96	292	35					
Jack	W1WEF	509,652	542	96	255	13					
Mark	AA2Z	501,552	558	88	236	10					
Ed	K2TE	451,880	527	83	233	22.4					
Gordon	KA1DWX	419,442	511	86	232						
Rob	W1MK	243,648	336	76	206	10					
Glenn	WO1P	199,920	325	75	165	17.8					
Tom	K1KI	174,324	322	71	148						
Vic	N4XR	87,989	167	68	141						
Vin	K1RM	80,928	283	25	71	4					
Rich	K1CC	31,005	101	44	73	2.6					
	NICO	01,000		2-374577							
Single C	perator - A	ssisted									
P	•••••••••••••••••••••••••••••••••••••••	Score	Q	Z	С	Hrs					
Jeff	K1ZM	4,014,325	1960	170	555	48					
Matt	KC1XX	2,63x,xxx	1411	147	531	36					
John	W1RR	2,458,827	1389	139	512	35.7					
Dick	AK1A	2,307,016	1437	128	438	31					
Tony	K1KP	1,658,620	1144	119	421	31					
Jeff	K1IU	1,572,438	936	133	476	29					
Ted	AG1C	1,430,428	955	131	423	29					
Ken	W1NG	1,145,564	856	124	378	22					
Stu	KC1F	1,079,456	803	121	367	23					
Bob	N1TZ	722,176	603	117	331						
Bill	KC8PE	693,664	633	107	302	22					
Bill	WA1IML	597,546	604	95	278	17					
Barb	NK1I	574,047	573	91	282						
Hank	KF2O	532,704	559	92	266	22					
John	W3IQS	530,198	547	91	267	30					
Fred	W2UB	529,xxx	489	110	277						
Shawn	WB1AEL	490,224	555	90	246	18.6					
Luigi	KA1UTU	487,560	465	109	299	20	(first time)				
Ray	NR1R	479,899	496	105	278		÷				
Steve	KT10	454,553	517	89	252	13					
Bill	KC1EO	351,352	449	74	222	20					
John	W1BIH	253,062	308	89	217	14					
Bruce	WA1G	244,881	354	84	189	9					
Roger	W1AX	148,741	246	66	157						
Leo	KB2XL	136,172	219	76	160	14					
Dave	N4DW	114,323	214	69	140	9					
Dave	KA1CB	101,171	253	30	119	12	(10m)				
Bruce	K1BG	13,700	80	17	50						

# Signal Survey Mark Pride, KIRX

During the ARRL SSB DX Test, K1RX will be in Germany (probably at DK1FW) to do some operating, but more importantly, collect data on the W/VE signal levels from all stations heard during this contest. A five minute listening period per band is planned for each hour to collect this data throughout the entire 48 hour contest period (W/VE to EU conditions permitting.) After the data (callsign/S meter reading) is collected, it will then be loaded into a spread sheet type program that will produce a signal level versus time graph for any selected call(s) heard on any selected band.

In other words, a presentation might show W3LPL vs. K1ST vs. K1AR on 20 M over the 48 hour period. The curves produced should reveal some interesting information about one's own station. How does my signal compare to K1ST on 20? Or, W1FV on 80? you might ask.

A list will be generated which will show calls heard, and the number of times heard per band. These data points are then presented graphically as described above. If you want to get into this survey of W/VE signals, point your antenna at EU and start working the contest. Your chances of being heard is dependent on your aggressiveness in calling CQ or just keeping your duty cycle during the listening periods.

The listening periods are, or will be

160 15-20 minutes after the hour

80 20-25

40 25-30

20 30-35

15 35-40

10 40-45

Every hour there is propagation to the states, I'll be listening during the above times. Please post this at your station and JOIN THE SIGNAL SURVEY!!

Single (	Operator -	Single Band					
5	555	score	Q	Z	С	hrs	Band
Jack	K1KNQ	158,000	426	30	108		(10)
Paul	NX1P	438,xxx	953	33	140	38	(15)
Jim	KC1SJ	398,025	796	37	146	21	(15)
Howie	K1VSJ	7,840	63	16	33	2	(15) 100w
Lou	KS1L	515,406	998	38	148	22	(20)
Paul	K8PO ·	90,944	387	21	77	16	(80)
Multiop	erator - Si	ngle Transmitt	er				
		score	Q	Z	С	Hrs	ops
PJ7A		13,391,515	8723	135	500	48	(K1TO, NJ2L)
C6AFQ		7,926,657	6509	127	410	48	(K1TN, KR1S, WB2CHO)
K1YR		4,8xx,xxx	2408	153	594	48	(+K1RU, KB1WH, KC1XM, WJ1U, N1DVT)
K5NA/2		4,063,576	1998	164	593	48	(+KU2Q, WB2Q, KY2J, NG2X, N2EK, N2EIK, NA2N, KE2SD, N2MCI, K2UR, KT2Z, NA2E)
KB1H		2,852,004	1630	150	526	48	(+KD2SX, WA1HYN, K1GX, KA1IG, NU1H, K1YRP)
K1VR		2,804,134	1539	148	529	40	(+N1IR, WA1G, NZ1W)
KZ1M		2,409,010	1525	132	457	48	(+KB1RI, WF1B, AE1C)
W1BK		1,011,496	784	119	353	20	(+K1TXH, WA1UAR)
AK1L		361,746	422	84	235	25	(+KA1X)
Multiop	erator - M	ultitransmitter					
		score	Q	Z	С	ops	
K1ST		10,604,000	4966	169	640	(+NX1)	H, NW1U, K1FWE, AD1C, K1XX, K1XM, NK1F, KM3T)
K2TR		8,950,995	4091	181	675	(+WA2	SPL, N2DU, WA4VKD, K2WR, NQ2D, N1CC, K2XA)
KY1H		6,339,416	3267	161	605		AUV, KB1W, N1IBN, NU1P, N2MG, KR1R, WK1O, NS1M, ZAM, N1FJ, NT2X, NJ1F, AK4L, KY1K)
PJ9W (2	25 ops)	2,5xx,xxx	(K1DG	a's portio	n)		89 62 NOV 032 252 C
WM1K	3 <b>7</b> 19	1,429,956	1031	116	391	(+N1Al	J, WC1D, WA1TTV)

# YCCC 1991 CQ World Wide DX Contest - CW

Compiled by Kurt Pauer, W1PH

#### Single Operator - Low Power

oungie .	operater a						
		Score	Q	Z	С	Hrs	
Rus	NJ2L	863,600	737	111	314		
Les	KG1D	768,000	769	95	255	26	
Frank	K1EBY	633,640	618	97	268		
John	WS1E	583,128	580	99	265	35	
Dave	KA1CB	66,040	147	61	99	5.5	
Howie	K1VSJ	5,985	47	17	31	2	
Single	Operator - A	II Band					
0.00	1.454	Score	Q	Z	С	Hrs	
Dan	PJ7A	8,484,004	5892	135	421	44	(K1TO)
Greg	W1KM	4,123,xxx	2406	148	443		10.0
Rich	K1CC	3,912,204	2310	147	435	41	
Dean	N6BV/1	3,218,680	2087	139	397	46	
Mark	ISO/K1RX	2,899,395	3854	100	305	42	
Kurt	W1PH	2,644,608	1570	141	441	38	
Tom	W2SC	2,4xx,xxx	1720	126	375		
Jack	W1WEF	1,868,730	1320	131	370	28	
Jim	KC1SJ	1,448,450	1046	127	364	25	
Lanny	W100	1,410,808	1037	122	350	27	
Jim	K1TN	1,215,618	868	119	379		
Vic	N4XR	969,650	729	118	355		
Roger	W1BR	931,816	754	119	314	27	
Rob	W1MK	645,xxx	875	65	197		(for YCCC credit)
Dave	W1WAI	470,000	483	354			A A

6

YCCC	Scuttlebutt

Lou	KS1L	024 010	210	70	100	5	
Fred	K1EFI	234,910 115,973	312 284	79 35	199 108	5	
Laci	W1PL	92,000	189	63	121	e	
Jim	KZ1M	40,018	131	34	73	6 3	
Scott	WT1T	10,658	101	04	13	4	
Scoll	WYTTT	10,656				4	
Single (	Operator - A	ssisted					
		Score	Q	z	C	Hrs	
Jim	AD1C	2,919,863	1615	153	490	36	
John	W1RR	2,879,104	1520	152	512	31	
Mark	AA2Z	2,767,050	1489	148	497	34	
Matt	KC1XX	2,232,264	1194	150	512	36	
Stu	KC1F	1,889,020	1250	124	400	33.5	
Ken	W1NG	1,828,096	1104	147	445	32	
Gary	K8LT	1,366,990	1071	113	333	30	
Ed	K2TE	1,008,504	715	115	389	28	
Greg	KA1O	910,000	719	114	341	38	
Dick	AK1A	815,745	636	112	345	27	
Dave	N4DW	714,870	650	106	317	20	
John	W1BIH	657,984	528	118	329	21	
Roger	W1AX	650,997	541	107	316		
Barb	NK1I	613,899	517	110	319		
Jim	KR1S	609,528	523	111	325	20	
Bill	K2EK	565,812	569	94	257	11	
Bob	WE1F	484,617	518	78	251	18	(100w)
Hank	KF2O	379,638	433	90	232	20	
Steve	KT1O	209,000	299	78	172	8.4	
Don	WB2DND	185,380	255	76	184	10	
Mike	K1TEF	177,330	276	73	157	6	
David	NY1L	160,975	250	66	169	10	
Buzz	WM1W	117,000	215	76	148		
Jack	K1KNQ	112,564	200	65	149	10	
Shawn	WB1AEL	40,960	127	41	87		
Vick	NO1I	19,872	75	34	62	1.5	
Tom	K1KI	7,930	44	24	41		
Single (	Operator - S	ingle Band					
		Score	Q	z	С	Hrs	Band
Vin	K1RM	562,624	1289	35	114	25	(15)
Jeff	K1ZM	179,xxx	541	27	95		(80)
John	W1FV	177,xxx	573	27	89		(80)
Rob	W1MK	168,xxx	567	25	81		(80)
Paul	K8PO	133,430	429	25	85		(80)

Multioperator - Single Transmitter

	Score	Q	z	С	Ops
VP5P	6,774,931	5507	130	398	(NQ2D, N2MG)
K5NA/2	6,724,480	2963	179	611	(+KU2Q,WB2Q, KY2J, NG2X, NA2N, K2UR, K2OMP)
K1RU	5,489,078	2679	162	547	(+K2SS, K1YR, WJ1U)
C6A/K1XA	5,062,020	4430	122	356	(K1XA, KA1CI)
K2TR	4,933,680	2362	166	566	(+WA2SPL, WA4VKD, N2DU, N1CC, K2XA)
A35MX	4,498,628	3721	142	270	(K1XM, KQ1F, K2WR)
K1IU	4,266,874	2142	163	535	(+KD2SX, NS1I, W1GL, KS1J)
KB1H	2,124,759	1331	133	426	(+K1GX, WA1HYN, KC1Q, AK1N, K1YRP, N4XR)
W1FJ	1,260,392	885	123	374	(+K1JKS, N1DS)
W1BK	226,259	264	92	215	(+K1TXH, WA1UAR)
WA1U	200,716	280	92	186	(+N1EPU) (100w)

#### Multioperator - Multitransmitter

		Score	Q	z	С	Ops
K1AR		10,875,118	4520	185	654	(+K1EA, K1GQ, W1RM, K1DG, K1JX, KM3T)
K1ST		8,908,704	4307	173	583	(+K1XX, K1FWE, NW1U, NX1G, NX1H, NK1F, K1BG, K1MNS, K1TR)
KY1H		5,293,080	2878	159	517	(+NU1P, WB1AUV, KD1FE, NZ1W, KY1K, KB1W, N1FJ, KO1O)
WC1D	147	1,292,242	960	123	359	(+N1AU, WM1K, NB1Y, WA1TTV)

# Results, ARRL 160 Meter Contest - YCCC

Compiled by Kurt Pauer, W1PH

There was a lot of activity by YCCC members this year. Conditions and activity were good. Jeff, K1ZM, worked 1140 stations as well as all sections except VE8 (I can't even do that in SS!). At the YCCC metting the week before the contest, Jeff had given a very informative talk about 160m antennas. In the same section (ENY), Richard, K5NA, was hot on his heels. Tom, K1KI, tried out his new wire GP to the tune of 745 QSOs in 12 hours operating time. QRP entrant Lanny, W1OO, keyed with 305 others for a beautiful 33K. Paul, K8PO, also put in a nice QRP effort (theoretically, QRP is about 25 dB below max power!). I added "antennas" to all the line scores as I found the variations to be interesting.

QRP								
Lanny	W100	ME	33,280	305	9 2	43	22	Inverted Vee
Paul	K8PO	EM	19,516	235	2	39	8	Shunt-fed 70' vert w/402CD, Tribander
Low Pov	ver							
Rick	NY1V	CT	23,126	238	2	46	12	Full wave loop at 35'
John	WS1E	NH	18,384	190	1	47	6	Half sloper 50'
Rob	W1MK	EM	15,390	201		38	8	
Jim	KZ1M	WM	12,600	175		36	4	Dipole
Dave	N4DW	VT	9,468	130	1	35	4	
Luigi	KA1UTU	WM	6,910	108	32	5	1	50' wire laying on roof to tree
High Po	wer							
Jeff	K1ZM	ENY	254,000	1140	27	76		Full size 1/4 wave vertical
Richard	K5NA	ENY	213,934	1003	24	74	37	Full wave loop at 120'
Tom	K1KI	CT	154,473	745	20	73	12	135' wire GP w/4 raised radials
Jan	K5MA	EM	104,571	605	17	64	16	1/2 wave center fed Zepp @ 70'
Bob	N1TZ	WM	54,362	338	10	67	10	Shunt fed 120' vertical w/14 radials
Bill	K1JKS	EM	47,792	400	9	49	18	G5RV (35' highest point)
Steve	K1ST	EM	42,151	335	7	54	7	1/4 wave sloper
Dan	K1TO	CT	38,016	279	6	60	4	Inv V dipole 115'
Jack	W1WEF	CT	35,739	306	5	52	4	Shunt fed 100' tower
Ed	WA1HYN	RI	32,193	324	3	43	8	512' Zepp
Dick	KB1H	CT	28,275	210	3	62	9	Inverted L w/16 135' radials
Mike	K1TWF	EM	27,600	286	1	47		"Wet noodle"
Ray	AK1L	NH	25,192	265	2	45	7	Sloper @ 90'
Kurt	W1PH	NH	17,114	196	2	41	3	Base loaded 65' vertical
Vic	N4XR	СТ	8,272	94		44	2	Inverted L
Multiop	arator or wi	th pac	ket:					
Craig	NX1G	NH	185,031	834	26	73		Full size 1/4 wave vertical
John	W1RR	NH	80,175	503	13	62		Inv V dipole @ 100'

# THE CLUB RESOURCES PAGE

# The Place to Find Club Information

DUES are due at the April election meeting, which begins our club "contest year", with a grace period until the end of June. Membership in the club will lapse at the end of the grace period if dues are not paid up. In order to re-join the club, a lapsed member must attend a meeting, like any new member, and be welcomed back into membership, or may become a subscriber to the Scuttlebutt by paying up (see below). Club members who move out of club territory and so are not eligible to contribute to club aggregate scores automatically become subscribers. New members who join at the last meeting of the club's contest year (February) are credited with dues for the following year (that is, the contest year beginning that April). You can tell if you owe dues by checking your 'Butt mailing label. Only paid-up members are eligible to contribute to the the club score in contests.

FAMILY MEMBERS Members of the same family living at the same address may elect to receive only one copy of the Scuttleutt. One member of the family must pay full dues, enabling the rest of the family to join as family members. Being a family member is currently free.

STUDENT MEMBERS Full-time students are eligible for dues at half the regular rate.

SCUTTLEBUTT SUBSCRIBERS Anyone may subscribe to the club newsletter, the Scuttlebutt. A subscription currently costs \$10 per year. At the present time, overseas subscriptions cost the same as domestic (we have very few overseas subscribers). The subscription period begins at the beginning of the club year, in April. New subscribers who begin their subscriptions after the December issue are considered to have paid for the following year (that is, they receive as many issues as new members joining at that time do). You can tell if your subscription is current by checking your 'Butt mailing label. The grace period for late subscriptions is the same as for late memberships

SCUTTLEBUTT ARTICLES should be sent to the Scuttlebutt editor, Paul Young, K1XM, 11 Michigan Drive, Hudson, MA 01749, home phone (508)562-5819. The deadline for each issue is usually three weeks before the next meeting.

CLUB JACKETS We are looking for someone to coordinate club jackets. If you can help contact Ed Kritsky, NT2X, 580 East 17th Street, Apt. 2F, Brooklyn, NY 11226, home phone (718)284-4493.

CLUB QSL CARDS are ordered through John Dorr, K1AR, 2 Baldwin Street, Windham, NH 03087, home phone (603)434-5661.

PACKET NET information is available from Dick Newell, AK1A, 8 Golden Run Rd., Bolton, MA 01740, home phone (508)779-5198, or Dave Robbins, KY1H, Baumann Road, Peru, MA 01235, home phone (413)655-2714.

CONTEST SCORES are sent to the club scorekeeper, Jeff Detray, NK1F, P. O. Box 524, Troy, NH 03465, home phone (603)242-7995.

CLUB ROSTER appears in the summer issue of the Scuttlebutt every year. Updates are published when members move or change callsigns. If you want a new copy of the club roster, contact the club secretary/treasurer, Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749, home phone (508)562-5819.

CONTRIBUTIONS The YCCC welcomes your contributions, be it money to help offset the cost of the Scuttlebutt and club operations, scores for the club aggregate score, time spent helping other members, articles for the Scuttlebutt, or presentations at club meetings.

DXCC LIST The club maintains a one-page version of the ARRL DXCC Countries List. To get a copy, send an SASE to the club secretary, Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson, MA 01749. Complete DXCC rules are only available from the ARRL.

CT by K1EA is available from Bill McGowan, KC1EO, 33 Truell Rd., Hollis, NH 03049. Send \$40 (US funds) to register and receive the latest version. CT phone: (603)465-2392. CT BBS: (603)465-2161 (1200/2400 N81). Visa/MC accepted.

W1 QSL Bureau is sponsored by the YCCC. Keep your account up to date with SASEs, or send a check. Stamps are sold at face value, envelopes are 10 cents each. W1 QSL Bureau - YCCC, PO Box 216, Forest Park Station, Springfield, MA 01108.

ARRL LIAISON For ARRL matters, contact Tom Frenaye, K1KI, PO Box 386, West Suffield, CT 06093, home phone (203)668-5444.

Dues are \$15 per year, payable 1 April. Non-members may subscribe to the Scuttlebutt by sending \$10 to the treasurer: Charlotte Richardson, KQ1F, 11 Michigan Drive, Hudson MA 01749. Subscribers who subsequently become members will be credited as having paid \$10 towards dues.

The Scuttlebutt may be reprinted in whole and in part, except for separately copyrighted articles, provided proper credit is given.

The Yankee Clipper Contest Club (an ARRL affiliated club) holds six official meetings per year, on the Saturday or Sunday afternoon of the first full weekend of every even month, usually in the Sturbridge, Massachusetts area. The deadline for article submission to the Scuttlebutt is usually three weeks before the next meeting date. The next meeting will be on Sunday, February 2, 1992. Attendance at an official meeting is required in order to become a member. Club members congregate on 3830 after contests. The packet frequencies for DX spotting are 144.95, 145.69, 144.93, and 144.97 MHz.

Rosters are mailed to all paid members each summer. For more information and/or assistance, contact the area manager nearest you.

Officers:					
President	Stu Sa	Intelmann	KC1F	603-672-2509	
VP-Activities Manager	Rich (	Gelber	K2WR	212-580-1075	
Secretary-treasurer	Charle	otte Richardson	KQ1F	508-562-5819	
Editor	Paul Y	loung	K1XM	508-562-5819	
Area Managers:					
Area	Call	Name	Home	Work	
CT/RI	K1RU	Gene Frohman	203-393-1772	203-386-6137	
EMass	N1AU	Bill Santelmann	617-862-1753	508-692-6000	
WMass	W1GG	Gary Gaudette	413-443-3404		
VT/NH	K1GW	Glen Whitehouse	603-673-6290	603-627-7877	
ME	N1AFC	Peter Archibald	207-767-2169	207-797-8931	
NLI	NQ2D	Jim Metcalf	516-744-9422	516-467-4800	
NNY	K2TR	Fred Lass	518-355-4813	518-346-6666	
SNY/NJ	K2EK	Bill Gioia	914-221-1672	914-697-3250	

YCCC 11 Michigan Drive Hudson, MA 01749

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First Class

YANKEE CLIPPER CONTEST CLUB - SCUTTLEBUTT EXTRA - FEB 24,1992

ARRL DX CONTEST - SSB 0000 Mar 7, 1992 to 2400 Mar 8, 1992 CT Hint:

If you come across a prefix that shows "no country", adu a slant bar and the correct country prefix, e.g. /OHO. CT will pick up the correct country and score correctly. (Version 7.x allows edittin within CT.)

The summary sheet should be editted to show your ARRL section instead of country. This is the ct.SUM file.

Likewise, the "Single Operator Unlimited" should be changed to Single Operator Assisted". Unlimited is not a category.

When using CT with packet, use ALT-A to see the last 15 active spots. An asterrisk means you have worked the multiplier. (Tnx NK1F) Captain's Cabin

The CW weekend's outstanding conditions have given us a good jump on the competition in the ARRL contest. These conditions favor us in New England, and make it possible for our smaller stations to achieve sizable scores.

Remember - YCCC has won this contest several times in the past, and has a VERY GOOD chance of winning this one. We lost the 1989 contest by only 500,000 points -EVERY SCORE COUNTS!!

See you on the air! de KC1F

#### Scorekeeping

Please send your score to me as soon as you can after the contest. Use packet if you have it, otherwise via U.S. mail. I need total score, band breakdown (qso's/ mults), total operating time (from CT), category of operation, power level, and station description. If you have already sent your station description to me, please omit this. I hope you like the format on the inside page. I think it is important to distribute this information as soon as possible. de WIPH

YCCC Scorekeeper - W1PH P.D. Box 754 Amherst, NH 03031 Claimed Scores for 1992 ARRL DX Contest - CW Compiled by Kurt Pauer, W1PH (Some scores may not be eligible.)

Call   Cat   Name   Score   160   80   40   20   15   10   Total Hrs     AKIA   S/A Dick   1,089,270   1235/294   24     AKIA   S/A Dick   1,089,270   1235/294   24     AKIA   S/A Dick   1,039,956   1171   2272   24/22   21/22   237/55     MIAU   M,239,956   1776   176/57   227/65   331/85   872/276   26     MIEK   M/Z   3,39,453   171/14   141/43   377/61   347/60   570/70   1454/248   31     KIDE   S/D is   249,480   573/85   151/2   727/74   26   31/23   204/738   44   121/14   141/43   377/61   347/247   204/03/38   455/84   204/738   34   161/24   211/35   204/738   44   15/12   721/41   107/73   204/738   317/243   11   47/37   103/74   204/733   317/243   11   317/243   11				gle op; S/	A-Single	op assi	sted; S/	L-Single	op 100w;	M/S, M/2,	M/M-Multi	op
AAIAA   S/A   Luigi   36,816   1/1   2/2   38/34   22/20   24/22   31/25   118/104   6     KIAR   M/2   I, S23,956   1359/65   1306/342   1306/342     MIAI   S/A Roger   722,016   2/2   31/23   105/44   176/57   227/65   331/85   872/276   26     MIAK   M/S   38,473   594/14.0   5	Call	Cat	Name	Score	160	80	40	20	15	10	Total	Hrs
KIAR   N/2   B, 523, 801   22/21   359/65   747/93   1542/116   1334/122   129/120   5293/537     NIAU   N/2   1, 339, 956   1339, 956   131/23   105/44   176/57   227/65   831/227   62     NIEK   M/S   39, 493   141/91   19   19   141/191   19     NIEC   S/0   Jia   249, 480   570/70   1455/248   31     K1D5   M/2   6, 386, 650   16/16   118/51   633/89   1215/111   1261/16   1032/115   4275/48   31     KCIF   S/A   Su   2, 313, 360   5/5   50/35   448/81   51/2   75/11   109/72   329/737   465/78   204/735   34     KCIF   S/A   Buc   153, 972   49/30   15/12   75/14   190/72   329/157   48   1104/73   3172/43   1105/73   117/73   1105/73   1105/73   117/73   1105/71   1109/72   329/157   48   11	AK1A	S/A	Dick	1,089,270							1235/294	24
HIAU   N/2   1,339,956   1306/342     MIAK   S/A Roger   722,016   2/2   31/23   105/44   176/57   221/65   331/85   872/276   26     MIEK   K/S   38,493   19/14   141/91   15   141/91   15     NIEC   S/O   Jia   249,480   594/140   5   54/140   5     K105   M/2   4,338,50   16/16   119/14   141/43   377/51   347/40   570/70   144/71   18     W1E   K/2   2,313,360   5/5   50/35   448/81   651/82   451/82   425/93   2040/378   44     KUEF   S/A Buc   2,337,970   9/9   66/41   122/55   80/710   607/710   1372/32   324/73   105/715   327/15   3     W1H   S/O   Bab   768,36   11/11   69/73   379/7379   78   88/7100   107/33   3172/33     K1HH   S/O   Dave   71,379   3	AAIAA	S/A	Luigi	36,816	1/1	2/2	38/34	22/20	24/22	31/25	118/104	6
HIAK   S/A   Roger   722,016   2/2   31/23   105/44   176/57   227/65   331/85   872/276   26     HIBK   M/S   38,493   141/14   18   594/140   8     NICC   S/U   Lss   1,081,776   19/14   141/43   377/61   347/60   570/70   1454/248   31     KIDE   S/L   Lss   1,081,776   19/14   141/43   377/61   347/60   570/70   1454/248   31     KIDE   S/A   Su   2,33,360   5/5   50/35   48481   661/22   451/62   425/73   2040/738   44     KCIF   S/A   Bruc   153,972   49/30   15/12   75/41   190/72   329/153   8     KEIH   M/Z   4,108,129   22/02   214/51   107/75   80/100   80/37   321/103   317/233     KKIH   S/O   Barc   7,23,290   10/10   49/14   22/72   55/71   65/7103	K1AR	M/2		8,523,801	22/21	359/65	747/93	1542/116	1334/122	1289/120	5293/537	
NIBK   N/S   39,493   141/91   19     NICC   S/O   Jia   249,480   594/140   9     KIDS   S/L   Les   1,001,776   19/14   141/43   377/51   347/40   570/70   1454/248   31     KIDS   M/L   Les   1,001,776   19/14   141/43   377/51   347/40   57   547/148   31     KIDS   M/L   Les   1,001,776   10/14   1215/111   1251/111   1251/111   1251/111   1251/111   1251/111   1251/111   1251/111   1251/111   1251/111   1251/111   1261/25   30/14/243   21     WAIS   S/A Buo   766,366   11/11   69/73   1807/27   30/14   261/16   60/103   3172/430     KHH   S/O   Dave   71,379   30/14   261/16   60/219   825/103   228/138   80/100   30/17/103   228/139   80/19   12     KIH   S/O   Greg   2,728,216   20/13 <td>NIAU</td> <td>M/2</td> <td></td> <td>1,339,956</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1306/342</td> <td></td>	NIAU	M/2		1,339,956							1306/342	
HIR   N/S   38,493   141/91   19     NICC   S/O Jia   249,480   594/140   9     KIDS   S/L Les   1,081,776   19/14   141/43   377/61   347/20   594/140   8     KIDS   M/L   Les   1,081,776   19/14   141/43   377/61   347/20   1454/248   31     KIDS   M/L   Les   1,081,776   19/14   141/43   377/761   347/20   7457/448   31     KUEF   S/A Bruce   133,772   457/35   157/12   75/41   190/72   329/153   8     KEH   M/2   4,109,112   8/8   114/24   20/75   1072/75   880/100   808/103   3127/430     KIHM   S/O Bave   71,379   30/14   26/15   607/91   825/103   228/738   35     KIHM   S/O Bave   71,379   30/14   26/12   57/37   1630/381   38/191   338/191   38/191   338/191   38/191   38/191	MIAX	S/A	Roger	722,016	2/2	31/23	105/44	176/57	227/65	331/85	872/276	26
K619   S/L   Les   1,081,776   19/14   14/143   377/51   347/60   570/70   1454/248   31     K105   M/2   6,386,850   16/16   118/51   633/87   12/5/11   12/5/11   10/21/16   10/27/17   20/40/378   44/78     WS1E   M/2   2,313,360   5/5   50/33   448/48   64/12   451/82   425/93   20/40/378   44/30     WE1F   S/A Buc   15/12   75/41   190/72   329/153   36     WE1F   S/A Buc   11/11   69/32   338/7   228/60   408/73   1054/243   21     WA1S   S/A Buc   11/14   270/75   1072/75   880/100   307/74   30/14   228/15   40/84   108/103   328/191   31   30/14   22/17   50/81   60/219   835/103   228/398   35   38/191   32   38/191   31   38/191   31   38/191   32   38/191   33   38/191   33/10   38/191 <td>W1BK</td> <td>M/S</td> <td></td> <td>38,493</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>141/91</td> <td>19</td>	W1BK	M/S		38,493							141/91	19
K1D5   M/2   6,386,950   16/16   118/51   63/89   1215/111   1261/116   1032/115   4275/498     WSIE   M/2   2,313,360   5/5   50/35   44/81   641/82   451/82   425/93   2040/378   44     KCIF   S/A   Bbb   766,366   11/11   64/12   238/67   228/60   409/73   105/4243   21     WA15   S/A   Bruce   153,972   49/30   15/12   75/41   190/72   329/153   8     K1H   S/O   K2DM   4,040,200   22/20   214/51   41/27   87/84   1062/79   329/137   48     K1HM   S/O   Dave   71,379   30/14   26/16   57/571   65/79   228/378   32     K1HM   S/O   Dave   2,722,920   10/10   59/54   105/51   16/716   157/71   65/740   228/378   32     K1HM   S/O   Lammy 1,805,940   -/12   -/12   -/77   -/785 <td>N1CC</td> <td>S/0</td> <td>Jin</td> <td>249,480</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>594/140</td> <td>8</td>	N1CC	S/0	Jin	249,480							594/140	8
WSIE   M/2   2,313,360   5/5   50/35   448/81   661/82   451/62   425/93   2040/378   44     KCIF   S/A Stu   2,335,970   9/9   66/41   122/55   807/65   573/55   465/89   2042/355   36     WEIF   S/A Bruc   153,972   447/30   15/12   75/41   190/72   327/153   8     KHH   S/A Bruc   4,049,209   22/20   214/51   412/67   878/84   786/85   1986/89   3397/39   48     KHM   S/D Dave   71,379   30/14   24/16   877/34   89/37   221/103   225/398   35     MIN   S/D Greg   2,728,816   281/55   403/59   915/80   575/71   65/719   2258/344     K1H0   S/D Dave   71/2   -/12   -/72   -/77   -/85   -/93   1580/381     K1H0   S/D Lanny   1,805,940   -/12   -/12   -/72   -/77   -/85   -/93   1580/351   12 <td>K61D</td> <td>S/L</td> <td>Les</td> <td>1,081,776</td> <td></td> <td>19/14</td> <td>141/43</td> <td>377/51</td> <td>347/60</td> <td>570/70</td> <td>1454/248</td> <td>31</td>	K61D	S/L	Les	1,081,776		19/14	141/43	377/51	347/60	570/70	1454/248	31
KCIF   S/A   Stu   2,235,990   9/9   66/41   122/56   807/85   573/95   465/89   2042/365   36     WAIS   S/A   Bruce   153,972   49/30   15/12   75/41   190/73   105/2/23   229/15   8     KEIH   M/2   4,103,112   B/8   114/49   207/75   160/172/75   860/100   808/103   317/2430     KXIH   S/O   Dave   71,379   30/14   26/16   87/34   80/37   231/103     KIHW   S/O   Dave   71,379   30/14   26/16   57/571   650/30   285/398   35     MIKM   S/O   Bard   272,82,816   281/55   40/579   915/80   57/571   650/81   380/191   12     KIRD   S/O   Barny   1,805,942   0   -/12   -/72   -/77   -/93   1530/381   380/191   12     WIRD   S/O   Lanny   1,805,940   0/10   59/35   129/77	K1D5	M/2		6,386,850	16/16	118/51	633/89	1215/111	1261/116	1032/115	4275/498	
WE1F   S/A   Bob   768,366   11/11   69/32   338/57   228/60   408/73   1054/243   21     WA15   S/A   Bruce   153,972   47/30   15/12   75/41   190/72   327/155   8     KB1H   M/2   4,109,112   8/8   114/49   290/75   1072/75   880/100   080/103   3172/430     KH1H   S/O   Gorg   21,928,200   214/51   11/12/57   97/94   766/35   108/79   328/79737   48     K1HW   S/O   Greg   2,928,816   281/55   408/59   97/97   255/71   659/79   228/34   338/191   12     K1HBO   S/O   Lany   1,805,940   -/12   -/42   -/77   -/765   -/731   1530/381   11   12   388/191   12   388/191   12   388/191   12   388/191   12   51/15   115/51/10   114/51/11   76/73   126/73   321/15   115/51/10   114/112   30/15	WS1E	K/2		2,313,360	5/5	50/35	448/81	661/82	451/82	425/93	2040/378	44
WA15   S/A   Bruce   153,972   49/30   15/12   75/41   190/72   329/155   8     KEHH   M/2   4,109,112   6/8   114/49   290/75   1072/75   880/100   808/103   3172/433     KHHM   S/O   Dave   71,379   30/14   24/16   81734   880/103   228/133   228/137   48     KHMS   S/O   Dave   2,728,200   10/10   48/41   282/72   508/81   602/91   823/103   228/344     KILM   S/A   Jaar   2,928,848   1/1   5/5   53/23   199/55   189/69   346/68   79/31   1580/361     WIDE   S/D   Lamp 1,805,940   -/12   -/42   -/77   -/85   -/93   1580/351   428/73   191/101   116/112   4806/528   45     KIRU   S/D   Eane   2,501,499   8/8   53/35   147/52   645/84   443/82   4531/343   42   1431/343   42   1436/93	KC1F	S/A	Stu	2,235,990	9/9	66/41	122/56	807/85	573/85	465/89	2042/365	36
KEIH   H/2   4,109,112   B/8   114/49   290/75   1072/95   880/100   808/103   3172/430     KM1H   S/D   KQ2M   4,040,209   22/20   214/51   412/67   877/44   786/84   1086/87   3399/377   48     K1HWD   S/D   Dave   71,379   30/14   26/15   877/34   880/103   2251/39   55     MIKM   S/D   Greg   2,928,816   281/55   408/59   915/80   575/71   659/79   2258/344     KIIMS   S/A   Jias   504,348   1/1   5/5   53/23   199/55   189/60   346/68   773/212   15     KIMBD   S/D   Lamp 1,806,940   -/12   -/42   -/77   -/85   -/73   1580/361   114/71   746/73   2431/343   2   426/73   1580/361   114/71   746/73   2431/343   2   4241/343   2   4241/344   97   1016/343   2   4241/344   97   1047/345   48	WE1F	S/A	Bob	768,366		11/11	69/32	338/67	228/60	408/73	1054/243	21
K:1H S/D K042,09 22/20 214/51 412/67 879/84 786/86 1086/89 3399/397 48   K1HWD S/D Dave 71,379 30/14 26/15 87/34 88/37 231/103   K1HW S/D Gerg 2,728,816 281/55 403/59 915/80 575/71 659/79 2285/398 35   W1KM S/D Gerg 2,728,816 281/55 403/59 915/80 575/71 659/79 2283/34   W1DD S/A Jawe 222,324 388/191 12 12 15 537/32 197/55 187/60 346/68 773/212 15   W1DD S/D Lamy 1,805,940 -/12 -/72 -/77 -/85 -/93 1530/381   W1PH S/L Kurt 2,007,400 10/10 59/34 335/66 86/710 1414/71 766/93 2431/343 42   K1RU N/M 7,604,000 26/22 265/51 197/127 1448/113 1503/119 141/4/34 453/88 1749/346 39	WA15	S/A	Bruce	153,972			49/30	15/12	75/41	190/72	329/155	8
K1HH0 S/O Dave 71,379 30/14 26/15 87/34 68/37 231/103   K1IU S/A Jeff 2,728,290 10/10 48/41 282/72 563/81 602/91 825/103 228/53 35   M1KM S/O Greg 2,928,816 281/55 408/59 915/80 575/71 659/79 268/344   KIIMO S/A Dave 222,324 384/191 12 15   W100 S/D Lanny 1,805,940 -/12 -/42 -/77 -/85 -/93 1530/361   W100 S/D Eanny 1,805,940 -/12 -/42 -/72 -/77 -/85 -/93 1530/361   W100 S/D Eanny 1,805,940 -/12 -/42 -/72 -/77 -/85 -/93 1530/361   W100 S/D Eanny 1,805,940 -/12 -/42 -/72 -/77 -/85 -/93 1530/361   K1RU S/D Gene 2,501,499 8/8 58/34 335/56 650/71 414/71 766473 1049/47 531/	KB1H	M/2		4,109,112	8/8	114/49	290/75	1072/95	880/100	808/103	3172/430	
K11U S/A Jeff 2,722,290 10/10 48/41 282/72 509/81 602/91 835/103 2285/398 35   M1KM S/D Greg 2,928,816 281/55 403/59 915/86 575/71 659/79 2283/344   KIIND S/A Jim 504,348 1/1 5/5 53/23 199/55 189/60 346/68 773/212 15   KINDD S/D Lampt J0805,940 -/12 -/72 -/77 -/85 -/93 1530/381   W1PH S/L Kurt 2,097,400 10/10 59/34 226/55 537/82 472/78 656/85 1960/355 42   KER N/M 7,604,000 26/25 253/66 861/100 1330/115 1196/110 140/112 480/529 45   KIST M/M 10,029,090 26/22 265/61 977/103 1915/127 1448/113 1503/119 613/545 48   K1TW 10,029,090 26/22 265/61 977/103 1915/127 1448/113 1503/119 413/47/34 421/73 1018/347 28	KS1H	S/0	K92M	4,048,209	22/20	214/51	412/67	879/84	786/85	1086/89	3399/397	48
W1KM   S/D   Greg   2,928,816   281/55   408/59   915/80   575/71   659/79   2838/344     KI1MS   S/A   Jia   504,348   1/1   5/5   53/23   199/55   159/60   346/68   793/212   15     KIMBO   S/A   Dave   222,324   -/42   -/77   -/85   -/93   1530/361     W190   S/D   Lamy 1,805,940   -/12   -/42   -/77   -/85   -/93   1530/361     W19H   S/L   Kurt 2,037,400   10/10   59/34   226/65   537/12   472/78   65/85   1960/355   42     KEIR   M/M   7,604,000   26/25   253/66   851/100   1330/115   1140/112   4806/528   45     KIRU   S/O   Gene   2,501,499   8/8   58/34   335/66   850/71   414/71   766/93   2431/343   42     KIRU   M/M   10,029,090   26/22   265/51   129/57   217/72   318/11	KIHMO	S/0	Dave	71,379			30/14	26/18	87/34	88/37	231/103	
KIIM   S/A jia   504,348   1/1   5/5   53/23   199/55   189/60   346/68   793/212   15     KIMBO   S/A Dave   222,324   -/12   -/72   -/77   -/85   -/93   1530/381     WIDE   S/D Lanny 1,805,940   -/12   -/42   -/72   -/77   -/85   -/93   1530/381     WIPH   S/L Kurt 2,087,400   10/10   59/34   226/65   537/82   472/78   656/85   1960/355   42     KIRU   S/D Gene   2,501,499   8/B   53/35   147/52   645/84   443/82   453/88   1749/346   39     KIST   M/M   10,029,090   26/22   265/61   977/103   1915/127   1448/113   1503/119   6134/545   48     KITW   5,059,47   80/36   123/56   489/70   348/74   351/73   1391/309     K1TWF   S/A Bit   10,959,738   10/9   56/32   120/51   326/54   200/65   2598/68   1000/270 <t< td=""><td>K1IU</td><td>S/A</td><td>Jeff</td><td>2,728,290</td><td>10/10</td><td>48/41</td><td>282/72</td><td>509/81</td><td>602/91</td><td>835/103</td><td>2285/398</td><td>35</td></t<>	K1IU	S/A	Jeff	2,728,290	10/10	48/41	282/72	509/81	602/91	835/103	2285/398	35
K1NB0 S/A Dave 222,324 388/191 12   M100 S/O Lanny 1,805,940 -/12 -/42 -/72 -/77 -/85 -/93 1530/381   M1PH S/L Kurt 2,007,400 10/10 59/34 226/45 537/82 472/78 455/85 1960/355 42   KEIR M/M 7,604,000 25/25 253/66 861/100 1330/115 11951/110 1140/112 4806/352 45   KIRU S/O Gene 2,501,499 8/8 58/34 335/64 850/71 4114/71 766/93 2431/343 42   KIST M/M 10,027,090 26/22 265/61 977/103 1915/127 1448/112 1814/112 1814/112 36   KIST M/M 10,027,070 26/22 265/51 129/57 257/72 318/81 248/73 1018/347 28   K1WF S/A Mike 1,057,738 10/9 56/32 120/51 326/54 200/65 259/68 1000/270 40   K1WF S/A	W1KM	S/0	Greg	2,928,816		281/55	408/59	915/80	575/71	659/79	2838/344	
W100 S/D Lanny 1,805,940 -/12 -/72 -/77 -/85 -/93 1580/381   W1PH S/L Kurt 2,087,400 10/10 59/34 226/65 537/82 472/78 656/85 1960/355 42   KRIR M/M 7,604,000 26/25 253/66 861/100 1330/115 1195/110 1146/112 4806/328 45   KIRU S/D Gene 2,501,499 8/B 58/34 335/66 850/71 414/71 766/73 2431/343 42   KCISJ S/L Jia 1,815,462 8/B 53/35 147/52 645/84 443/82 453/88 1749/346 39   KIST M/M 10,029,090 26/22 26/50 977/103 1915/127 1448/113 1503/119 6134/545 48   K1TW S/A 1,289,457 80/36 123/56 489/70 348/74 3191/309 1018/347 28   WA1U M/S 1,289,457 80/36 123/56 489/70 348/74 317/115 1448/110 1478/110 1478/110 1478/110 1478/110<	KZ1M	S/A	Jia	504,348	1/1	5/5	53/23	199/55	159/60	346/68	793/212	15
WIPH   S/L   Kurt   2,087,400   10/10   59/34   226/65   537/82   472/78   656/85   1960/355   42     KRIR   M/M   7,604,000   26/25   253/66   861/100   1330/115   1195/110   1140/112   4806/528   45     KIRU   S/D   Gene   2,501,499   8/8   58/34   335/66   850/71   414/71   766/93   2431/343   42     KISU   Jim   1,815,462   8/8   53/35   147/52   645/84   443/82   453/88   1749/346   39     KISU   Jim   1,0029,090   26/22   265/61   977/103   1915/127   1449/113   1503/119   6134/545   48     KITD   20   609,504   1814/112   1814/112   1814/112   1814/112   1814/112   1814/112   1913/309     KITW   M/S   3,789,276   9/8   160/52   432/81   1051/100   614/95   633/100   2897/43   48     KIWS   S/C	K1MBO	S/A	Dave	222,324							388/191	12
KFIR M/M 7,604,000 25/25 253/66 861/100 1330/115 1195/110 1140/112 4806/528 45   KIRU S/D Gene 2,501,499 8/8 58/34 335/66 850/71 414/71 766/93 2431/343 42   KCISJ S/L Jim 1,815,462 8/8 53/35 147/52 645/84 443/82 453/88 1749/346 39   KIST M/M 10,029,090 26/22 265/61 977/103 1915/127 1448/113 1503/119 6134/545 48   KITD 20 609,504 1814/112	W100	S/0	Lanny	1,805,940	-/12	-/42	-/72	-/77	-/85	-/93	1530/381	
K1RU S/D Eane 2,501,499 8/8 58/34 335/66 850/71 414/71 766/93 2431/343 42   K1ISJ S/L Jin 1,815,462 8/8 53/35 147/52 645/84 443/82 453/88 1749/346 39   K1ST M/M 10,029,090 26/22 265/61 977/103 1915/127 1448/113 1503/119 6134/545 48   K1TD 20 609,504 1814/112 1814/112 1814/112 1814/112 1814/112 36   K1TWF S/A Mike 1,059,738 10/9 56/35 129/57 257/72 318/81 248/93 1018/347 28   WA1U M/S 1,289,457 80/36 123/56 489/70 349/74 351/73 1391/309 1741/309   K1VR M/S 3,789,276 9/8 160/52 432/81 1051/100 614/95 633/100 289/436 48   K1VSJ S/L Howie 110,316 214/11 7 1478/110 1478/110 1478/110 1478/110 <	W1PH	S/L	Kurt	2,087,400	10/10	59/34	226/65	537/82	472/78	656/85	1960/355	42
X21SJ S/L Jim 1,815,462 8/8 53/35 147/52 645/84 443/82 453/88 1749/346 39   K1ST M/M 10,029,090 26/22 265/61 977/103 1915/127 1448/113 1503/119 6134/545 48   K1TD 20 609,504 1814/112 1814/112 1814/112 1814/112 1814/112 1814/112 36   K1TWF S/A Mike 1,059,738 10/9 56/35 129/57 257/72 318/81 248/93 1018/347 28   WA1U M/S 1,289,457 80/36 123/56 489/70 348/74 351/73 1391/309   K1VR M/S 3,789,276 9/8 160/52 432/81 1051/100 614/95 633/100 2897/436 48   K1VR M/S J,289,3457 80/36 120/51 326/54 200/65 279/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/	KR1R	M/M		7,604,000	26/25	253/66	861/100	1330/115	1195/110	1140/112	4806/529	46
KIST M/M 10,029,090 26/22 265/61 977/103 1915/127 1448/113 1503/119 6134/545 48   KITD 20 609,504 1814/112 1814/112 1814/112 1814/112 1814/112 36   KITWF S/A Mike 1,059,738 10/9 56/35 129/57 257/72 318/81 248/73 1018/347 28   WA1U M/S 1,289,457 80/36 123/56 489/70 348/74 351/73 1391/309   K1VR M/S 3,729,276 9/8 160/52 432/81 1051/100 614/95 633/100 2897/436 48   K1VSJ S/L Howie 110,316 317/116 317/116 214/11 7   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 1478/110   WA12AM 40 Ed 13,770 90/51 326/54 200/65 279/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 1478/110	KIRU	S/0	Gene	2,501,499	8/8	58/34	335/68	850/71	414/71	766/93	2431/343	42
K1T0 20 609,504 1814/112 1814/112 1814/112 36   K1TWF S/A Mike 1,059,738 10/9 56/35 129/57 257/72 318/81 248/73 1018/347 28   NA1U M/S 1,289,457 80/36 123/56 489/70 349/74 351/73 1391/309   K1VR M/S 3,789,276 9/8 160/52 432/81 1051/100 614/95 633/100 2897/435 48   K1VSJ S/L Howie 110,316 317/115 317/115 317/115 317/115 317/116 317/116   WA1W S/A Ira 76,398 214/17 7 326/54 200/65 279/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 120/269 19 132/21 120/101 1120/101 1120/101 121/289 31 122/289 31 122/289 31 1430/111 1430/111 1430/111 1430/111 1430/1	XC1SJ	S/L	Jia	1,815,462	8/8	53/35	147/52	645/84	443/82	453/88	1749/346	39
K1TWF S/A Nike 1,059,738 10/9 56/35 129/57 257/72 318/81 248/73 1018/347 28   NA1U M/S 1,289,457 80/36 123/56 489/70 348/74 351/73 1391/309   K1VR M/S 3,789,276 9/8 160/52 432/81 1051/100 614/95 633/100 2897/435 48   K1VSJ S/L Howie 110,316 317/116 317/116 317/116   WA1W S/A Ira 76,398 214/11 7 7 7 7 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 1478/110 120/257 32 292/149 8 120/21 5 310/21 126/269 19 132 126/1289 31 160/269 19 1021/289 31 120/101 1120/101 1120/101 120/1289 31 1430/111 1430/111 1430/	K1ST	M/M		10,029,090	26/22	265/61	977/103	1915/127	1448/113	1503/119	6134/545	48
NA1U M/S 1,289,457 80/36 123/56 489/70 348/74 351/73 1391/309   K1VR M/S 3,789,276 9/8 160/52 432/81 1051/100 614/95 633/100 2897/435 48   K1VSJ S/L Howie 110,316 317/116 317/116 317/116   WA1W S/A Ira 76,398 214/11 7	K1TO	20		609,504				1814/112			1814/112	36
K1VR M/S 3,789,276 9/8 160/52 432/81 1051/100 614/95 633/100 2899/436 48   K1VSJ S/L Howie 110,316 317/116 317/116 317/116   WA1W S/A Ira 76,398 214/11 7 7 214/11 7   K1WJL S/O Dave 810,000 56/32 120/51 326/54 200/65 259/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 90/51 3   WA1ZAM 40 Ed 13,770 90/51 200/65 259/68 1000/270 40   WA1ZAM 40 Ed 13,770 90/51 3 90/51 3   WB2DND S/A Bill 1,016,820 56/32 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1201/289 31   K2ONP S/O George 906,660 2/2 2	K1TWF	S/A	Mike	1,059,738	10/9	56/35	129/57	257/72	318/81	248/93	1018/347	28
K1VSJ S/L Howie 110,316 317/115   MA1W S/A Ira 76,398 214/11 7   K1WJL S/O Dave 810,000 56/32 120/51 325/54 200/65 258/68 1000/270 40   K1WJL S/O Dave 810,000 56/32 120/51 325/54 200/65 258/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110   WA12AM 40 Ed 13,770 90/51 3 292/149 8   K2EK S/A Bill 1,016,820 56/32 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1120/101   KF2O S/A Hank 885,207 1021/289 31 1430/111 1430/111 29   K2ONP S/O George 906,660 2/2 21/17 102/39 457/56 362/55 370/60 1314/230 28	WAIU	M/S		1,289,457		80/36	123/56	489/70	348/74	351/73	1391/309	
WA1W S/A Ira 76,398 214/11 7   K1WJL S/O Dave 810,000 56/32 120/51 326/54 200/65 279/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 1478/110   WA1ZAM 40 Ed 13,770 90/51 326/54 200/65 279/68 1000/270 40   WA1ZAM 40 Ed 13,770 90/51 326/54 200/65 279/68 1478/110 1478/110 1478/110 1478/110 90/51 3   WB2DND S/A Don 130,524 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1120/101 1260/269 19   K2EK S/A Hank 885,207 1021/289 31 1430/111 1430/111 29   K20NP S/O George 906,660 2/2 21/17 102/39 457/56 362/56 370/60 1314/230	K1VR	M/S		3,789,276	9/8	160/52	432/81	1051/100	614/95	633/100	2899/435	48
K1WJL S/O Dave B10,000 56/32 120/51 326/54 200/65 279/68 1000/270 40   K1XA 10 Bob 487,740 1478/110 1478/110 1478/110 1478/110   WA1ZAM 40 Ed 13,770 90/51 90/51 3292/149 8   W52DND S/A Don 130,524 292/149 8 292/149 8   K2EK S/A Bill 1,016,820 56/32 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1120/101   KF20 S/A Hank 885,207 1021/289 31 1021/289 31   K20NP S/O George 906,660 2/2 21/17 102/39 457/56 362/56 370/60 1314/230 28   K2SS 15 Dave 476,190 1430/111 1430/111 1430/111 29   K2WR S/O Saul 2,620,512 9/9 107/33 349/6	K1VSJ	S/L	Howie	110,316							317/115	
K1XA 10 Bob 487,740 1478/110 1478/110   WA1ZAM 40 Ed 13,770 90/51 3   WB2DND S/A Don 130,524 292/149 8   K2EK S/A Bill 1,016,820 56/32 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1120/101   KF2D S/A Hank 885,207 1021/289 31   K2CNP S/O George 906,660 2/2 21/17 102/39 457/56 362/56 370/60 1314/230 28   K2SS 15 Dave 476,190 1430/111 1430/111 1430/111 29   K2WR S/O Rich 1,489,488 8/8 57/25 120/42 470/62 492/73 589/76 1736/286 34   K2XA S/O Saul 2,620,512 9/9 107/33 349/60 836/79 626/79 666/77 259/337 42   N4DW/1	WAIW	S/A	Ira	76,398							214/11	7
WA1ZAM 40 Ed 13,770 90/51 90/51 3   WB2DND S/A Don 130,524 292/149 8   K2EK S/A Bill 1,016,820 56/32 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1120/101   KF20 S/A Hank 885,207 1021/289 31   K20NP S/O George 906,660 2/2 21/17 102/39 457/56 362/56 370/60 1314/230 28   K2SS 15 Dave 476,190 1430/111 1430/111 29   K2WR S/O Gaul 2,620,512 9/9 107/33 349/60 836/79 626/79 66/77 259/337 42   N4DW/1 S/A Dave 1,344,210 2/2 59/38 206/69 523/83 233/72 272/82 1295/346 30   N6EV/1 S/O Dean 2,762,496 11/10 89/34 408/63 863/84 635/80 610/81 2616/352 46   AD8V <td< td=""><td>K1WJL</td><td>S/0</td><td>Dave</td><td>810,000</td><td></td><td>56/32</td><td>120/51</td><td>326/54</td><td>200/65</td><td>279/68</td><td>1000/270</td><td>40</td></td<>	K1WJL	S/0	Dave	810,000		56/32	120/51	326/54	200/65	279/68	1000/270	40
W622ND   S/A   Don   130,524   292/149   8     K2EK   S/A   Bill   1,016,820   56/32   208/56   454/66   446/64   96/51   1260/269   19     NJ2L   15   Rus   339,360   1120/101   1120/101   1120/101     KF20   S/A   Hank   885,207   1021/289   31   1260/269   19     K20NP   S/O   George   906,660   2/2   21/17   102/39   457/56   362/56   370/60   1314/230   28     K2SS   15   Dave   476,190   1430/111   1430/111   1430/111   29     K2WR   S/O   Rich   1,489,488   8/8   57/25   120/42   470/62   492/73   589/76   1736/286   34     K2XA   S/O   Saul   2,620,512   9/9   107/33   349/60   B36/79   626/79   666/77   259/337   42     N4DW/1   S/A   Dave   1,344,210   2/2	K1XA	10	Bob	487,740						1478/110	1478/110	
K2EK S/A Bill 1,016,820 56/32 208/56 454/66 446/64 96/51 1260/269 19   NJ2L 15 Rus 339,360 1120/101 1120/101 1120/101   KF20 S/A Hank 885,207 1021/289 31   K20NP S/O George 906,660 2/2 21/17 102/39 457/56 362/55 370/60 1314/230 28   K2SS 15 Dave 476,190 1430/111 1430/111 1430/111 29   K2WR S/O Saul 2,620,512 9/9 107/33 349/60 836/79 626/79 666/77 2593/337 42   N4DW/1 S/A Dave 1,344,210 2/2 59/38 206/69 523/83 233/72 272/82 1295/346 30   N6EV/1 S/D Dean 2,762,496 11/10 89/34 408/63 863/84 635/80 610/81 2616/352 46   AD8V 10L Ed 138,510 570/81 570/81 570/81 570/81   J372R S/O K1RM 3,615,036	WA1ZAM	40	Ed	13,770			90/51				90/51	3
NJ2L   15   Rus   339,360   1120/101   1120/101     KF20   S/A Hank   885,207   1021/289   31     K20NP   S/O George   906,660   2/2   21/17   102/39   457/56   362/56   370/60   1314/230   28     K20NP   S/O George   906,660   2/2   21/17   102/39   457/56   362/56   370/60   1314/230   28     K2SS   15   Dave   476,190   1430/111   1430/111   1430/111   29     K2WR   S/O Saul   2,620,512   9/9   107/33   349/60   836/79   626/79   666/77   2593/337   42     N4DW/1   S/A Dave   1,344,210   2/2   59/38   206/69   523/83   233/72   272/82   1295/346   30     N6BV/1   S/O Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     AD8V   10L   Ed   138,510   570/81 <td< td=""><td>WB2DND</td><td>S/A</td><td>Dan</td><td>130,524</td><td></td><td></td><td></td><td></td><td></td><td></td><td>292/149</td><td>8</td></td<>	WB2DND	S/A	Dan	130,524							292/149	8
KF20   S/A Hank   885,207   1021/289   31     K20NP   S/O George   906,660   2/2   21/17   102/39   457/56   362/56   370/60   1314/230   28     K20NP   S/O George   906,660   2/2   21/17   102/39   457/56   362/56   370/60   1314/230   28     K2SS   15   Dave   476,190   1430/111   1430/111   1430/111   29     K2WR   S/O Rich   1,489,488   8/8   57/25   120/42   470/62   492/73   589/76   1736/286   34     K2XA   S/O Saul   2,620,512   9/9   107/33   349/60   836/79   626/79   666/77   2593/337   42     N4DW/1   S/A Dave   1,344,210   2/2   59/38   206/69   523/83   233/72   272/82   1295/346   30     N6BV/1   S/D Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46	K2EK	S/A	Bill	1,016,820		56/32	208/56	454/66	446/64	96/51	1260/269	19
K20NP   S/0   George   906,660   2/2   21/17   102/39   457/56   362/56   370/60   1314/230   28     K2SS   15   Dave   476,190   1430/111   1430/111   1430/111   29     K2SS   15   Dave   476,190   1430/111   1430/111   29     K2WR   S/0   Rich   1,489,488   8/8   57/25   120/42   470/62   492/73   589/76   1736/286   34     K2XA   S/0   Saul   2,620,512   9/9   107/33   349/60   836/79   626/79   666/77   2593/337   42     N4DW/1   S/A   Dave   1,344,210   2/2   59/38   206/69   523/83   233/72   272/82   1295/346   30     N6BV/1   S/0   Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     AD8V   10L   Ed   138,510   570/81   570/81   570/81 </td <td>NJ2L</td> <td>15</td> <td>Rus</td> <td>339,360</td> <td></td> <td></td> <td></td> <td></td> <td>1120/101</td> <td></td> <td>1120/101</td> <td></td>	NJ2L	15	Rus	339,360					1120/101		1120/101	
K2SS   15   Dave   476,190   1430/111   1430/111   29     K2WR   S/O   Rich   1,489,488   8/8   57/25   120/42   470/62   492/73   589/76   1736/286   34     K2WR   S/O   Saul   2,620,512   9/9   107/33   349/60   B36/79   626/79   666/77   2593/337   42     N4DW/1   S/A   Dave   1,344,210   2/2   59/38   206/69   523/B3   233/72   272/82   1295/346   30     N6BV/1   S/O   Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     AD8V   10L   Ed   138,510   570/81   570/81   570/81     J372R   S/O   KIRM   3,615,036   29/19   258/43   617/52   799/57   1037/56   1503/57   4243/284	KF20	S/A	Hank	885,207							1021/289	31
K2WR   S/0   Rich   1,489,488   8/8   57/25   120/42   470/62   492/73   589/76   1736/286   34     K2XA   S/0   Saul   2,620,512   9/9   107/33   349/60   836/79   626/79   666/77   2593/337   42     N4DW/1   S/A   Dave   1,344,210   2/2   59/38   206/69   523/83   233/72   272/82   1295/346   30     N6BV/1   S/0   Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     AD8V   10L   Ed   138,510   570/81   570/81   570/81     J372R   S/0   K1RM   3,615,036   29/19   258/43   617/52   799/57   1037/56   1503/57   4243/284	K20NP	S/0	Georg	e 906,660	2/2	21/17	102/39	457/56	362/56	370/60	1314/230	28
K2XA   S/O   Saul   2,620,512   9/9   107/33   349/60   B36/79   626/79   666/77   2593/337   42     N4DW/1   S/A   Dave   1,344,210   2/2   59/38   206/69   523/B3   233/72   272/82   1295/346   30     N6BV/1   S/O   Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     ADBV   10L   Ed   138,510   570/81   570/81   570/81   570/81     J372R   S/O   KIRM   3,615,036   29/19   258/43   617/52   799/57   1037/56   1503/57   4243/284	K295	15	Dave	476,190					1430/111		1430/111	29
N4DW/1   S/A   Dave   1,344,210   2/2   59/38   206/69   523/83   233/72   272/82   1295/346   30     N6BV/1   S/D   Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     ADBV   10L   Ed   138,510   570/81   570/81   570/81     J372R   S/O   K1RM   3,615,036   29/19   258/43   617/52   799/57   1037/56   1503/57   4243/284	K2WR	S/0	Rich	1,489,488	8/8	57/25	120/42	470/62	492/73	589/76	1736/286	- 34-
N4DW/1   S/A   Dave   1,344,210   2/2   59/38   206/69   523/83   233/72   272/82   1295/346   30     N6BV/1   S/D   Dean   2,762,496   11/10   89/34   408/63   863/84   635/80   610/81   2616/352   46     ADBV   10L   Ed   138,510   570/81   570/81   570/81     J372R   S/O   K1RM   3,615,036   29/19   258/43   617/52   799/57   1037/56   1503/57   4243/284	K2XA	5/0	Saul	2,620,512	9/9	107/33	349/60	836/79	626/79	565/77	2593/337	42
ADBV 10L Ed 138,510 570/81 570/81 3372R S/D K1RM 3,615,036 29/19 258/43 617/52 799/57 1037/56 1503/57 4243/284	N4DW/1	S/A	Dave	1,344,210	2/2	59/38	206/69	523/B3	233/72	272/82	1295/346	30
ADBV 10L Ed 138,510 570/81 570/81 3372R S/O K1RM 3,615,036 29/19 258/43 617/52 799/57 1037/56 1503/57 4243/284	N6BV/1	S/0	Dean	2,762,496	11/10	89/34	408/63	863/84	635/80	610/81	2616/352	46
J372R S/O KIRM 3,615,036 29/19 258/43 617/52 799/57 1037/56 1503/57 4243/284										570/81	570/81	
PJ2J S/0 W1WEF 4,336,092 255/45 466/52 663/54 650/58 1197/57 1230/58 4461/324	<b>J</b> 372R	S/0	KIRM	3,615,036	29/19	258/43	617/52	799/57	1037/56	1503/57	4243/284	
	PJ2J	S/0	W1WEF	4,336,092	255/45	466/52	663/54	650/58	1197/57	1230/58	4461/324	

A few points about eligibility: (from Jan 92 OST)

A member (more than one year) must have attended at least two meetings during the previous year. New members must have attended one meeting. All stations and all members must reside within 175 miles of the club center, Sturbridge, MA. All multioperator stations must have at least 2/3 eligible members, as well as the licensee, for the score to count for the YCCC. All entries must have YCCC listed on the summary sheet. Regardless of your eligibility, list YCCC if you are a member. Also, the YCCC Constitution requires dues to be paid up to be an active member. Your Area Manager should be able to tell you the status of your eligibility. Finally, the logs must be submitted on time: April 8, 1992.

ARRL DX Contest - SSB Tips

Here are a few tips to maximize your score assuming that you can put in a few hours but not a full effort.

 Be active during the morning openings to Europe on 15/10. A 35 foot antenna on 10 meters can be very effective. 2) Use the packet spotting system to add sultipliers when your rate drops below 50 qso's an hour. One multiplier is worth about 3 oso's. 3) Check out 40 meters about 232 to pick up some quick multiloliers. They are very easy, especially on Saturday nicht. 4) Work high in the band. The DI does not like the 9RM in the low part either. A few CO's on 10 meters about 18-192 can pick up a lot of 6's and DL's. 5) If you have a choice of evenings to operate, use the second evening. Competition is much less and you can work core stuff. 6) Likewise, late Sunday afternoon during the final 3 hours, you can pick up a lot of multipliers easily. 7) Packet Spotting: -Soot multipliers that haven't been spotted recently. -Be sure of the call/frequency before hitting ENTER. (Errors and corrections "garbage up" the network slowing it down.) -Don't spot multipliers that have called you. That doesn't help anyone. Save the bragging till later. -Use "ANNOUNCE" instead of "DX" to call out band openings. DO call out band openings. -Don't spot unworkable or "no ears" DX. We want workable stuff for the log. -There is nothing wrong with spotting Dipeditions frequently. Any country with one or two active haps should also be spotted if there is not a current spot on the Cluster. -Above all, don't be a "policeman" on the Cluster. It makes you look dumb. 8) For all you die-hard CW types, give the SSB Test a try. It is a lot of fun and you can get some great runs going. Above all, have fun and enjoy yourself. This is a great part of a great hobby.

de W1PH.