

# 2008 ARRL DX Phone - One QSO At A Time

H. Ward Silver, NØAX

*"I must be a contest masochist — high line noise, heavy splatter, tons of QRM, low sunspots and running low power — but always back for more!" — K2MFY*

How does one make a winning score at the bottom of the cycle in quite-a-bit-less-than-optimum conditions? The same way that it's done at the top of the cycle – one QSO at a time! And let's face it; if you aren't "in the chair" then you won't make *any* QSO's. I used to keep a 2nd-Place certificate above my operating position as a reminder of what happened when I took a couple of extra-long breaks instead of keeping the finals hot and the headphones hopping! Simply by keeping those QSO's rolling, you will make the best score you can, wherever you live and whatever the propagation. Remember, DX Is and Contests Are!

## Who's Out There?

Considering that there were probably a number of other things that could be done instead of operating, a lot of folks did warm up those chairs. A total of 2056 contesters sent in a log this year (1246 from the US and Canada and 810 from DX stations) - that's a 5% drop. Fewer unique calls were logged in 2008, as well: 1814 QSOs on 20 meters by K3LR and 2976 QSOs on 20 meters by PJ2T set the bar this year. That's down 33% and 20%, respectively. Interestingly, PJ2T had almost as many unique calls on 15 meters (2855) as they did on 20 meters. Many of the casual participants obviously chose not to this year.

The number of QSO's did drop, but not as precipitously as the number of unique call signs. 409,488 DX to US/VE QSOs were contained in the final database and that is only off by 6.7% from last year. Interestingly, only 296,134 contacts were contained in the US/VE database, suggesting that a higher fraction of DX stations submit their logs than US and VE stations do for this contest. That makes sense as there are likely fewer casual or "Sunday Driver" participants on the DX end.

These figures also suggest that the DX stations that do participate continue to draw crowds. On the domestic side, though, it's tougher than ever for Medium Guns and Little Pistols to fill their logs in the face of the double-whammy of competition and propagation. I know there are a lot of tribander-and-wires stations out there yearning for the return of 15 meters!

## Propagation (Or The Lack Thereof)

*"When did this wall between Europe and North America get built?" GOMTN*

*"Where did they move Europe?" K1LI*

From last year's writeup, "As I write (late June), solar flux has hit bottom (65) several times in the past few days. Oh well, nowhere to go but up, right?" Well, not exactly. As I write *this year's* article, the solar flux and geomagnetic indices are even lower than those for the contest – if such a thing is actually possible! Yes, on 26 June the solar flux is 65 (the lowest possible) and it has not been higher than 67 for the entire month. The smoothed sunspot number is stuck at -1 as if the sun's mechanics were simply broken. On the other hand, the quiet conditions are making it possible to work lots of DX if you know where and when to look. Oops, sorry, during the contest conditions were not so quiet!

Propagation Indices for ARRL DX Phone								
	Flux			Planetary Ap			Estimated K	
Year	Sat	Sun		Sat	Sun		Sat	Sun
2002	191	183		5	10		1.6	2.5

2003	138	147		14.5	11		2.8	2.6
2004	105	106		5	6		1.8	1.8
2005	81	84		10	36		2.5	4.3
2006	75	74		2	1		0.9	0.5
2007	73	73		2	3		0.5	0.8
2008	69	69		19	8		3.3	2.0

Taking a look at the indices over the few days before and after this year's contest, it's clear that Murphy paid us a visit in the form of disturbed conditions. Saturday was at the end of a disturbed period, with conditions improving a bit on Sunday. Even so, the high latitude conditions were definitely upset, rendering the all-important 20 and 15 meter polar paths nearly unusable for US stations outside districts 1 through 4 and 8 and VE stations in VE4 and west. Being able to eke out some European contacts made a lot of difference in the final score for stations with a high-latitude path to the Old World.

Neither did the low-band operators get to take advantage of low solar flux. The best day for Top Band DX might have been February 27th at the beginning of the disturbance. While the mechanism remains unexplained, the onset of disturbed conditions often bring good openings on 160 and 80 meters before the full wrath of the incoming charged particles is felt. Unfortunately, the timing wasn't fortuitous and so scores aren't what they might have been just a couple of days earlier.

I would be remiss not to mention that even though the higher HF bands have been moribund, there have been some amazing days on 50 MHz, aka "Magic Band", of late. Following the ARRL June VHF QSO Party, several stations reported breaking the 1000-QSO barrier and the previous band record. So just because the sunspots are tardy in showing up for Cycle 24, you can't write off DX excitement!

(Solar and ionospheric data can be obtained from NOAA's "Solar Data and Products Online" Web site - [www.sec.noaa.gov/Data/index.html#indices](http://www.sec.noaa.gov/Data/index.html#indices).)

### Writeup Notes and Features

*"There are two Carolinas." K3IXD*

There are some modifications and updates to the statistics this year:

- Category trends now include a total for comparison of activity from year to year so that you can see the "fraction of what" as well as relative popularities.
- The domestic single-band trend graph now includes sunspot number (SSN) to at least validate our ionospheric misery.
- A new type of accuracy plot compares error rate with non-dupe QSOs so that we can consider our own performance in that regard.
- Power is no longer part of the single-band comparisons, since that information is largely not included in the log submission.
- 

The overall contest writeup really has no choice but to focus on the overall leaders - as it should, since they have made the big effort to make those huge scores. That shouldn't diminish the achievement of any operator moving up in the standings, making the most of a modest station, or taking advantage of smart strategy. That's why we have Regional Analysis that can be found by clicking on "Regional Analysis" at the top of this Web page.

Every ARRL Division and all of the continents are once again graced with the attention of a resident (or nearly-resident) author to look at their results and emphasize the best efforts among propagational peers. In a DX contest spread across the world, the variations at smaller scales are often what holds our personal

interest. It's definitely worth taking a minute to read the analysis for your region and learn more about the contest from your area.

The regional editors do the best job they can, but are often limited by a lack of information about your station and its operator. You can help them in future contests by uploading your contest stories to the [ARRL Soapbox](#). Soapbox comments from your Cabrillo-formatted log are gleaned for them to use, too. Alternatively, you can contact the editor for your Division or Continent directly--they will appreciate it! Don't be shy about contributing photos and comments – we would love to see them, no matter what the capabilities of your station may be. We're interested!

### Records

"I came to 40m few minutes before the end and I was not expecting a lot of QSO with only 100W and a DX88 vertical antenna. And in fact yes!!! Great fun." FY1FL

Things were tough all over. ("How tough were they?") Well, take a close look at Table 2A for the list of records set by US and VE stations this year. That's right – there weren't *any* set this year! Not even on the low bands or on 20 meters, the most popular band, worldwide. So don't feel bad if you didn't exceed your score from last year – it was hard to do! In fact, the average winning score in the four Single Operator-All Band US-VE categories was only 35% of the records for those divisions!

Outside the US and VE, things were a little better, particularly for stations with only salt water between them and the North American continent. The two 20 meter records were broken pretty convincingly by KH7B and AI6V operating as P40V. It's particularly nice to see Carl (AI6V) back on the contest scene! Students of contest history will recognize P40V as the 1988 mega-contest expedition that put Aruba on the map and started an incredible run of winning scores from that South American island.

New US/VE Records for 2008					
Category	Call District	Call	New Record	Old Record	Year Set
All	Any	None	None	All	Any

New DX Records for 2008					
Category	Continent	Call	New Record	Old Record	Year Set
SO-20	OC	KH7B	559,143	420,831	1989
SO-20	SA	P40V (AI6V, op)	670,299	607,290	2004
SO-40	AF	AO8A	293,436	179,550	1994
SO-Assisted	SA	PJ2T	6.177M	5.982M	1999

40 meters turned out to be just right for AO8A from the Canary Islands, tapping into huge pools of US and VE stations frustrated by poor conditions on more northerly paths. The big signal from the middle of the Atlantic attracted a lot of attention, blowing by the old record from 1994. The Caribbean Contest Consortium station, PJ2T, just keeps racking up the wins, this time far out-distancing the pack in SO-Assisted, displacing a record from near the last peak of sunspot activity and almost setting a World Record! In the "Wait Till Next Year" department, action is pretty light there, too. Two more of the fortuitously situated island stations got close to raising the bar; P40A operated by KK9A in the SO-LP category and the KH7X multi-multi team. Both stations gave their category records a shiver, but the South American and Oceania records are still standing. A few more sunspots and new call signs would be replacing the old.

Wait 'Till Next Year!				
Category	Call District or	Call	2008 Score	Record

	Continent			
SO-LP	SA	P40A	5.214M	5.913M
MM	OC	KH7X	5.946M	6.314M

The oldest record broken was from the wide, blue Pacific. KH7B's score of 559,143 overturned the old record of 420,831 set by T32AF (KB2HZ, op) nearly twenty years ago in 1989! The oldest record still standing is still KORF's Multioperator-Multitransmitter 10th-district record of 4.033M set in 1979, just before the peak of Cycle 21! It's hard to believe that this record can't be challenged by a solid M/M effort from somewhere between Durango and Duluth in the next few years.

### Exceptional Performances

*"This was my first ARRL DX Contest effort since 1993. It was also my first full-bore Single-Op effort using Computer Logging. I figured that since we're now in the 21st century, I ought to at least bring my operating into the 20th century. I try not to be more than one century behind." HC8A (op N6KT)*

Every contest has its standout performances, no matter what the conditions may have been. Here are a few noteworthy efforts harvested from the database.

- VO1MP handed out the semi-rare NL (Newfoundland) multiplier in the SO-HP category to the tune of 1.384M points. Gus made 1721 QSOs, bagged 268 DX band-entities, and finished in the lucky number seventh spot. What's such a big deal? He did it with only 19 hours of operating time!
- As if he'd never been gone a day, Rich N6KT reappeared as HC8A after 15 years of inactivity. Slugging it out across all the bands, his equatorial QTH in the Galapagos Islands enabled him to make 810 QSOs on 10 meters and vault to the top of the SOAB-HP category.
- In the very competitive SO-LP category, KU1CW put together a very nice 568k score and finished second from MO, not traditionally a state that does well in DX contests. He did it with lots of multipliers – the most in the category.
- W8QZA didn't hear a single, workable European signal all weekend from San Diego, but that didn't stop him from putting W6QU in enough logs to qualify for second place in the SO-QRP standings. He leapfrogged several stations that should have had much better propagation and prevailed.
- Out west again, W6YI walked away with the SOSB-40 competition, handily outdistancing a posse of pursuers from Back East. With the "Chinese Dragon" over-the-horizon radar putting a big dent in Asian low-band participation, plus the general difficulties of noise and bootleggers from ITU Region III on 40 phone, his 505 QSOs were no mean feat.
- In the multi-multi competition, K3LR's team held the high ground against all challengers again this year. Beaten or nearly tied on every other band, the new 240' tower (with lights and paint and everything!) proved its mettle on 20 meters and carried the day. Winning a major band by nearly 25% is hard to do at that level of competition.

### Caveats

*"My first contest. Be kind!" KC0UUT*

Two events at the 2008 Dayton Hamvention involved Randy K5ZD; he was inducted into the CQ Magazine Contesting Hall of Fame and he gave an inspiring talk on contesting ethics at the Contest University's opening session. The first is in well-deserved recognition of Randy's exceptional performance over many years. The second gives us a window into how he conducted those performances.

Randy summed up contesting ethics as "What you do when no one is looking." He proceeded to highlight some ethically-challenged activities before, during and after the contest. Operating ethically means conducting yourself not only by the letter of the rules, but in accordance to their spirit, as well. We engage

in contests because they are fun, for personal satisfaction, to improve our radio skills, and for peer recognition. Operating ethically makes all the difference in whether that final reason – peer recognition – is positive or negative.

As radiosport becomes more and more popular around the world, it is our duty as competitors to speak up for ethics in contesting. Amateur radio is largely a self-policing activity and so it falls to us to develop and promulgate our own code of ethics. Enforcement of the rules comes after the contest, long after the heat of battle has dissipated. There are no "contest police" to flag down transgressors. It is up to the person that looks back at us in the mirror each day to operate ethically and insist that others do, as well.

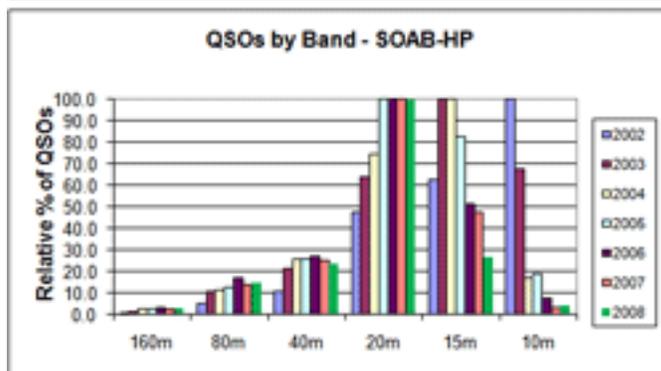
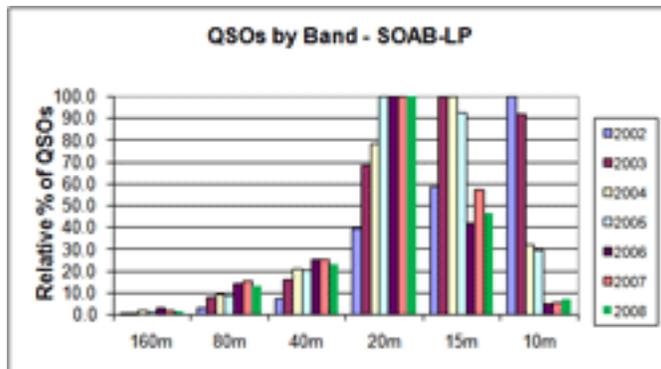
### HF Guidelines

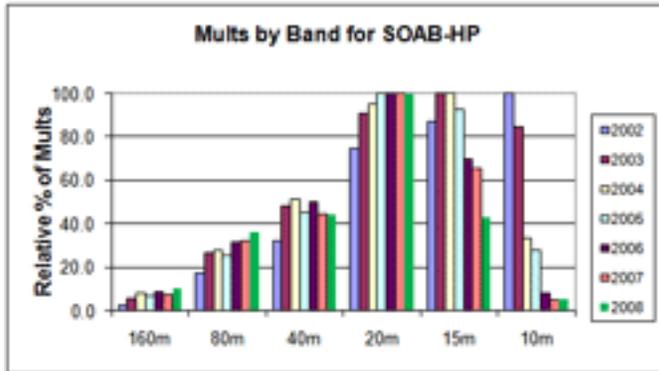
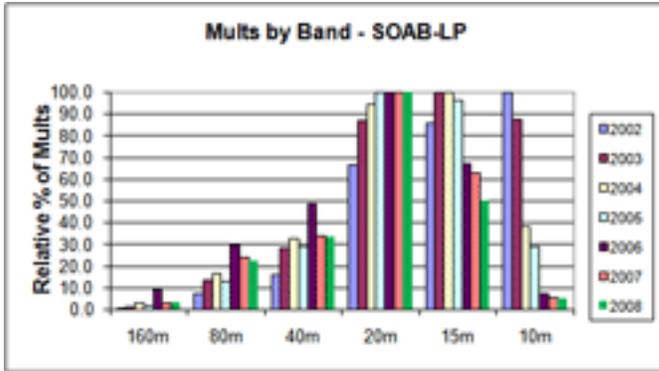
New testers can hardly be faulted for asking, "So where is this code of ethics? How am I supposed to know what is and isn't considered ethical?" That is a completely reasonable request as none of us, no matter when we were licensed or passed a code test, were born with an innate sense of what's OK and what's not OK on the air. We all had to learn it by trial-and-error and by listening for the resulting growls and barks from those presumably wiser.

In an effort to help answer some of these questions, the ARRL Contest Advisory Committee developed a set of guidelines for HF contests. It can be found at [www.arrl.org/contests/hf-faq.html](http://www.arrl.org/contests/hf-faq.html). Many common situations and questions are discussed to explain "where the Good Arrow points" for the HF tester. Areas open to interpretation or personal preference are identified as such. Even if you are a veteran of many weekends in the chair, browsing this discussion will help you explain to a newcomer why you did growl at them!

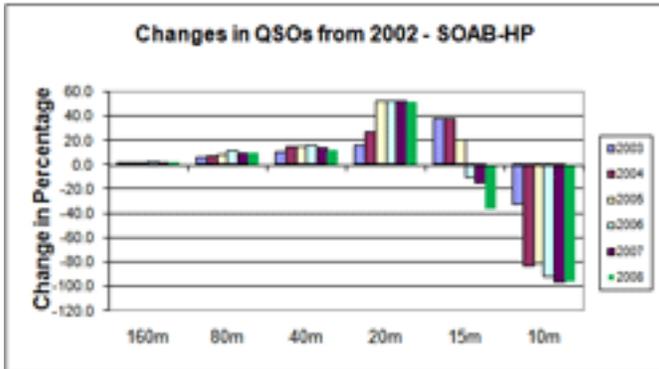
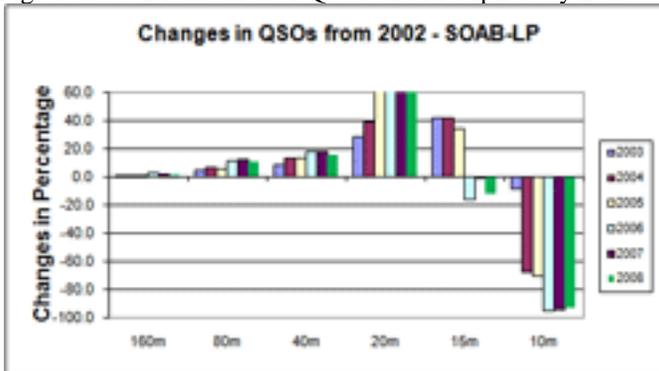
### **US and VE Overview**

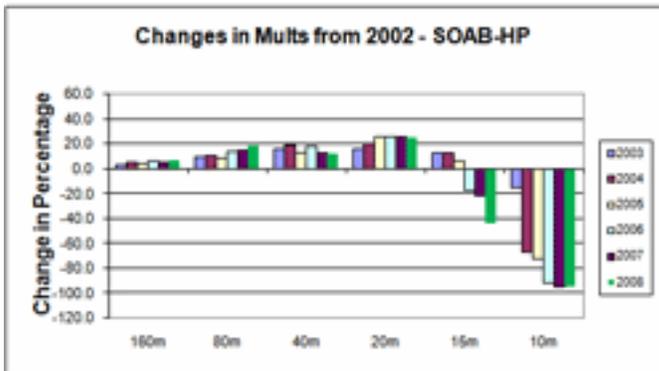
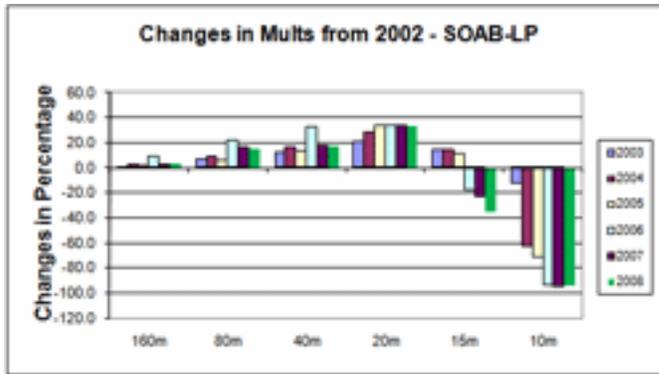
*"What fun!!! Talk on the radio, silence the CO (carbon monoxide) detector; repeat, repeat..." K9WN*





Figs 4 and 5: Distribution of QSOs and Multipliers by Band





Figs 6 and 7: Trends in QSOs and Multipliers

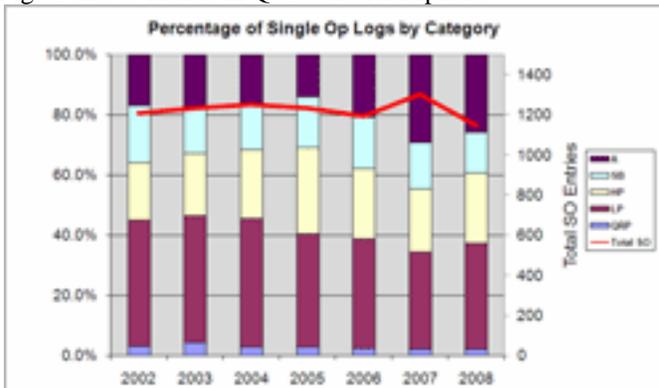


Fig 8: Distribution of Single-Op Logs by Category

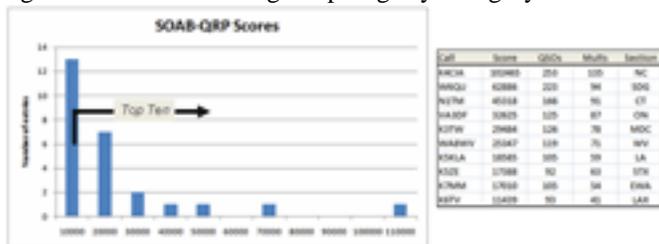


Fig 9: Distribution of SOAB-QRP scores

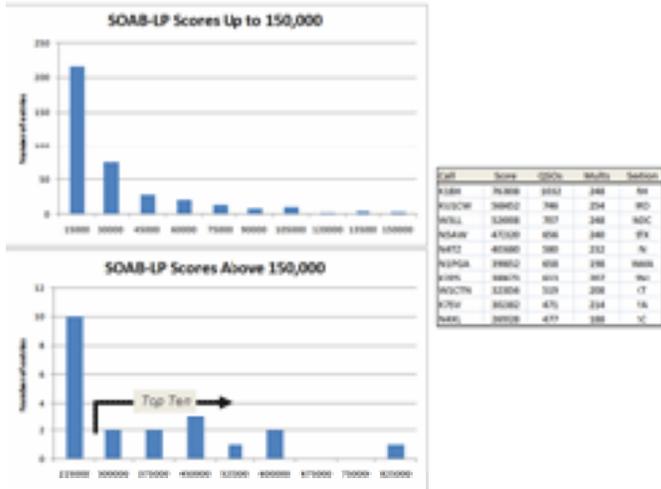


Fig 10: Distribution of SOAB-LP scores

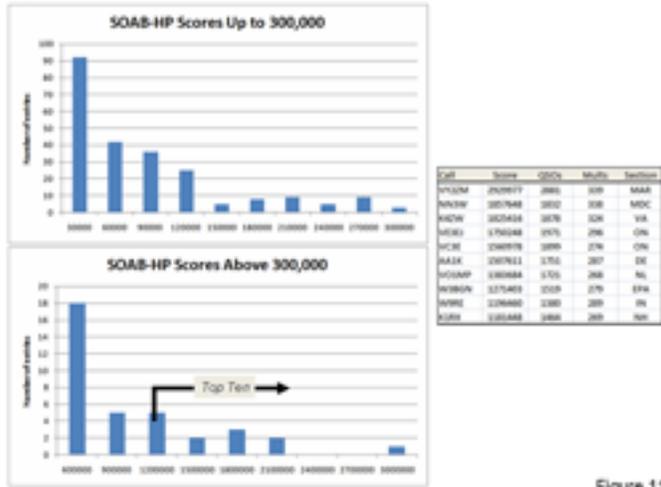


Figure 11

Fig 11: Distribution of SOAB-HP scores

CALL - QSOs	160 Q	80 Q	40 Q	20 Q	15 Q	10 Q
VY2ZM (K1ZM, op)	126	297	329	2056	73	0
N1JW	42	229	298	1105	120	38
K4ZW	42	276	234	1171	114	41
VE3EJ	46	121	148	1561	83	12
VC3E	20	88	202	1487	100	2
AA1K	35	142	164	1298	97	16
W1AMP	50	86	490	1020	80	0
W3BGN	55	134	112	1111	98	11
W9RE	35	193	144	866	117	25
K1RX	44	137	144	1048	85	7

CALL - MULTs	160 M	80 M	40 M	20 M	15 M	10 M
VY2ZM (K1ZM, op)	59	70	72	100	38	0
N1JW	35	66	77	106	46	8
K4ZW	34	71	67	101	41	10
VE3EJ	36	58	60	107	31	4
VC3E	18	53	62	106	33	2
AA1K	31	54	60	99	38	5
W1AMP	33	52	67	80	36	0
W3BGN	39	57	45	102	31	5
W9RE	30	65	53	98	36	7
K1RX	31	59	56	87	31	5

Fig 12: QSO and Multiplier Band Breakdown for the HP Top Ten

We've thrashed propagation enough, don't you think? There were some developments on bands that might have made a difference worthy of note. The impact of the new phone privileges available to some Region II operators on 40 meters (7100-7200 kHz) and to US operators (expansion of 75 meter phone band down to 3600 kHz) was relatively muted. Not enough countries in Europe have granted the expanded privileges for there to be a "critical mass" of available stations above 7100 kHz. So split operation still dominates on 40 phone, at least until the worldwide 7100-7200 kHz allocation takes effect in 2009. On 75 meters, US contesters found the additional elbow room resulted in less QRM, but with conditions marginal, no big help in heaping up QSOs. So let's take a "wait and see" attitude to find out what develops over the next few years.

Figures 4 and 5 show SOAB-HP QSOs and multipliers as a percentage of the band on which the most QSOs or Multipliers were made. (To keep activity levels from influencing the graph, the percentages are all based on the band with the highest total of QSOs or multipliers.) These graphs are computed from the sum of all QSOs and multipliers made by all SOAB-HP stations on that band.

20 meters, as expected, remains the money band for DX contesters, worldwide, for the fourth straight year. Except for statistically insignificant variations, the LP distribution of QSO's is pretty much the same as in 2007. On HP, notice the large fall-off in the contribution of 15 meters to QSO totals. Even the HP stations couldn't bust through on 15 meters this year. 15 meter multiplier totals were down for both HP and LP stations. At the other end of the spectrum, both 80 and 40 meters show a steady, long-term increase in both QSO and multiplier totals for both HP and LP stations.

Figures 6 and 7 show the percent by which QSOs or multipliers have changed since the solar peak year of 2002. These graphs show the result of subtracting the 2002 percentage from Figures 4 and 5 from the percentage in later years. (i.e. %200x - %2002) The result is a pair of graphs that compare the relative contribution of each band to that of 2002. Over a long period of time, the bars for each band should fill out a shape similar to that of the solar cycle, although with different phases on the high and low bands. Keep reading!

Figure 8 shows the distribution of entries between the various Single-Op categories, with single-band entries shown as a single group. As the solar conditions change, so does the strategy of the single operator station. There are five categories from which to choose; Single-Op All-Band HP, LP, and QRP, plus SO-Assisted, and SO-Single Band with the six different bands available. A new feature to this graph is the total number of SO entries, as shown by the line graph superimposed on the bars.

Reversing a trend, total LP entries (the red bar) were up this year and HP entries down. In the face of poorer conditions, that was somewhat surprising, but may just be due to more contesters choosing to use LP for other reasons. SO entries overall have returned to levels of the first part of the decade after a peak last year, possibly due to new HF operators giving the contest a try. If that is the reason, it's no wonder they decided to try something else!

The difficulty of putting a lot of DX QSOs in the log certainly puts a premium on station performance. Continuing the trend remarked upon last year, the winners in all three SOAB power categories outdistanced the rest of the pack by substantial amounts. This is easy to see in Figures 9, 10, and 11. The poor polar conditions also changed the "sweet spot" in all three categories, as well, a good reason to keep on operating when conditions don't seem to be in your favor. They might be worse for your competition!

### Close Finishes

As on any day at the races, there will be some close finishes. These are always fun to look for in the results and this year is no exception:

- 1.6% separates NN3W and K4TW in the SOAB-HP category
- SOAB-HP competitors W9RE and K1RX were only 0.8% apart
- N3KS and AA3B in SO-Assisted finished with only 0.7% between their scores

- AA4VV and K8DJC in SO-40 were the closest in the entire competition – a paper-thin 0.018% determining the final place of finish!

Remember these photo finishes when you are tempted to log that weak station even though you aren't really sure if your information was acknowledged or if you really got the call correct.

### ***US-VE QRP***

"The highlight of this contest was working KH7X on all bands 10m through 160m with my 5w and wires. After the last QSO on 160m, he sent Congratulations on the Sweep. Really made my day." N6WG  
The persnickety polar path moved the ionospheric lovelight south this year as K4CIA walked away with the top score from NC. Last year, three of the top five SOAB-QRP positions went to New Englanders and all of the top five were northeast of Knoxville. This year, the number two position swung way out west to W6QU (op W8QZA) before rocketing back across the continent to CT where N1TM finished third. Three regulars in the Top Ten box, VA3DF, K3TW, and WA8WV, finished fourth through sixth. A new pair of calls from the Gulf states, K5KLA and K5ZE, make their appearance in seventh and eighth. K7MM and K6TV complete the list in ninth and tenth from the West Coast.

### **US-VE Low Power**

*"This was a once-in-a-lifetime contest when a low-power W9 fone station would actually have more 160 countries than WB9Z and just one shy of W9RE." N4TZ*

The Top Ten in this category bounces all over the eastern half of the continent. K1BX was the top SOAB-LP station this year with KU1CW putting together a big list of multipliers to take second from near Kansas City. W3LL was third from Maryland before N5AW yanked the fourth spot back to STX and N4TZ held the baton in the Midwest for fifth. The East Coast could not be denied and claimed all of the remaining spots; N1PGA in sixth from WMA, seventh-place K2PS down the coast in SNJ, and W1CTN in CT for eighth. The fourth district finally got a word in edge-wise as K7SV in VA and N4XL in SC finished ninth and tenth.

### **US-VE High Power**

*"Lots of fun, if operated in moderation." K5ZD*

As in several other recent years, there is VY2ZM (op K1ZM) and then there is everybody else in SOAB-HP. It's not just a killer location, either, as 'ZM's accuracy is excellent and he keeps the chair warm. I was wondering last year what might dethrone the Potentate of Prince Edward Island, but I don't see any answers on the horizon. I think it's called "10 Meters", but that is going to take a long-g-g-g time getting here. That doesn't mean the SOAB-HP category isn't competitive! No, sir! Just try making that assertion in one of the Dayton Hamvention hospitality suites – be prepared to defend that assertion! One of the closer finishes was turned in by second-place station NN3W in MDC and K4ZW in VA. Only 1.6% separates these two! Two VE3 stations – VE3EJ and VC3E – slugged it out for fourth and fifth position. AA1K filled in the badly needed DE multiplier overseas and took sixth in the process. VO1MP, in rare NL, took advantage of good propagation opportunities to place seventh. Familiar call sign W3BGN appears in eighth spot, while W9RE's big IN signal earned the ninth seat. In another tight finish, K1RX was less than a percentage point behind 'RE to claim the final Top Ten spot.

As always, it's instructive to look at Figure 12's breakdowns of QSO's and multipliers by band for the SOAB-HP stations. In the QSO table, it's clear that VY2ZM was the loudest signal on the band from 160 through 20 meters. Or is it? Check out that 40 meter QSO total from VO1MP! 15 meters was another story with stations farther south making the higher totals. 10 meters did the Ancient Maritimers in as VY2ZM and VO1MP were shut out on this band.

In the multiplier table, there was much more of a dog fight on 80 and 40 meters than there was on 160 meters, where the VY2ZM antenna farm was unbeatable. But on 80 and 40, all of the Top Ten stations

were closely packed. No different on 20, these excellent stations made or got close to a full DXCC! 15 meters was a lot more competitive than the QSO totals would indicate and 10 meters was just catch as catch can.

Check out the breakdowns available on the 3830 archives ([www.contesting.com](http://www.contesting.com)) where you can mull over the local competition and see where you can get the best return on your training or equipment dollar.



Fig 13: Distribution of SO-Assisted scores

### US-VE Assisted

The domestic Assisted category remains a battle for stations in the northeast. The Top Ten extends as far west and south as OH and NC. Within those borders, the scores show that it is a competitive and tough category. The oft-needed RI multiplier helped pilot KI1G to the top of Single-Op Assisted this year. K3WW – a familiar call in Assisted categories – placed second in front of one of the tightest races between N3KS and AA3B for third and fourth, respectively. K3PP in fifth, N8TR in sixth, and N3AD in seventh were locked in another duel before the first Canadian, VE3UTT, appears in eighth place. N4ZC in NC and W1GD in NNJ round out this category's Top Ten list.

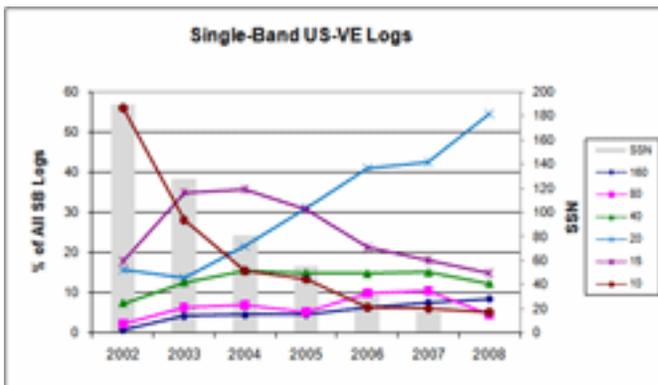


Fig 14: Entries by category and by band for SO-SB

### US-VE Single-Band

It's hardly a surprise that there aren't many 10 meter and 15 meter logs in the pile this year. Nor is it unusual that 20 meters leads the parade again with the same number of entries. What is unexpected is the steep drop in both 40 and 80 meter submissions. The disturbed conditions probably discouraged operators that otherwise might have put in a serious effort. Perhaps instead of "disturbed", the NIST should start using the word "discouraging" to describe the state of the geomagnetic field!

- 10-meters - 8 logs (12 in 2007)
- 15-meters - 23 logs (36 in 2007)
- 20-meters - 84 logs (84 in 2007)
- 40-meters - 19 logs (30 in 2007)
- 80-meters - 7 logs (21 in 2007)
- 160-meters - 13 logs (15 in 2007)
- 

This year, I've added SSN (smoothed sunspot number) to the figure that illustrates how the single-band entries are distributed. It will be nice to see the effect of a solar uptick in a year or two. No, the bar for 2008's SSN is not missing. It's just that the SSN for the 2008 contest was -1. That's right...a -1 value.

### 10 meters

Looking at 10 meter scores, distributed in an arc across the southern part of the US, W5MK in seventh place was the northernmost station to make more than a few QSOs. Third-place W6GMT (I wonder to what time zone his clock is set?) and KM6Z in fifth made sure the West Coast was represented and I'm sure that wasn't easy! Congratulations to K4WI with the winning score from AL, followed by NA4CW to his southeast in the SFL section.

<b>US/VE 10-Meter Single-Band Top Eight</b>				
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>	<b>Section</b>
K4WI	3672	72	17	AL
NA4CW	2301	59	13	SFL
W6GMT	1692	47	12	SJV
K4JRB	1089	33	11	GA
KM6Z	1020	34	10	LAX
KI4ETD	540	30	6	GA
W5MK	180	12	5	AR
W4GRW	27	3	3	NC

### 15 meters

The scores in the 15 meter Top Ten look an awful lot like the scores in the 10 meter Top Ten – but at least there were ten! The distribution looks a lot like the 10 meter scores, too. The locations of the stations are largely spread across the sunnier states. No Canadian provinces found here, either, although KE3WM in seventh place from WPA is extended the Top Ten farther north than the 10 meter group. Winner NR5M's big aluminum farm played a role in his being able to out-contact KC7V in second place from AZ and N8PR from SFL in third. The multiplier totals in second through tenth look a lot alike, implying that propagation was only available to a few areas. Centrally located, NR5M was able to pick up counters to both east and west. It won't take much for 15 meters to become more widely competitive, so keep an eye on the WWV flux meters!

<b>US/VE 15-Meter Single-Band Top Ten</b>
---

Call	Score	QSOs	Mults	Section
NR5M	57288	308	62	STX
KC7V	24300	180	45	AZ
N8PR	18963	147	43	SFL
W0VX	14706	129	38	NTX
W7UPF	12540	110	38	AZ
KC6R	11556	107	36	CO
KE3WM	10989	111	33	WPA
K0RH	9078	89	34	KS
W4SUL	7560	90	28	NFL
AB1U	5022	62	27	SV

#### 20 meters

The Queen of the DX Bands showed us again this year why that title is so apt. Even here at the very lowest levels of solar activity (I hesitate to use the term "bottom of the cycle", this being the third year of hoping such is the case), there are plenty of stations to work and three DXCC's to be found in positions 1 through 3. 20 meters also gives more stations a chance as seen in the Section list of Table 6. Stations are found on both coasts and from the Southeastern Division far up into Canada.

K2XA's winning QSO total on the ENY-EU circuit held off the challenge from another 20 meter stalwart, W7WA strong WWA score in second place. Third place is found in GA in the person on N4PN, before a pair of Newfoundlanders, VO1HE and VO1KVT, placed fourth and fifth from their perch on the North Atlantic. (Check out VO1KVT's QSL on [www.qrz.com](http://www.qrz.com).) Moving west again, W8TWA placed sixth from MI and then the spotlight moved all the way back to EWA as W7BJN finished seventh. The final three spots are occupied by W9NY, K2MFY, and WR2G, all from the northeastern quadrant of the US.

US/VE 20-Meter Single-Band Top Ten				
Call	Score	QSOs	Mults	Section
K2XA	431244	1331	108	ENY
W7WA	317349	953	111	WWA
N4PN	217536	704	103	GA
VO1HE	158730	715	74	NL
VO1KVT	113610	541	70	NL
W8TWA	94536	404	78	MI
W7BJN	90936	421	72	EWA
W9NY	88068	358	82	IN
K2MFY	77517	319	81	NLI
WR2G	76050	325	78	NNJ

#### 40 meters

Congratulations to W6YI for the highest single-band finish by any West Coast station this year, convincingly taking the top spot on 40 meters with one of the two top scores that was higher than in 2007! 40 meters is another band that can be relatively eclectic in propagation, but Asian participation is crucial to

stations west of Kansas City. As the high bands go, so do the Region III callers, so it is not surprising to see the remainder of the 40 meter scores from farther east, beginning with N4QV in second place from SFL. The exception is WD0BGZ in third place from CO again this year. The photo finish between AA4VV and K8DJC for fourth place came down to three points - the equivalent of a single QSO! OH was also a hot spot on 40 meters with K8DJC, and W8JMF in fifth and tenth place, respectively. AD8J, W3TMZ, K7AO, and VA3XH shouldered aside the Ohionians for sixth through ninth places, respectively.

<b>US/VE 40-Meter Single-Band Top Ten</b>				
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>	<b>Section</b>
W6YI	68175	505	45	SDG
N4QV	29568	154	64	SFL
WD0BGZ	21021	143	49	CO
AA4VV	16218	102	53	NC
K8DJC	16215	115	47	OH
AD8J	13395	95	47	WPA
W3TMZ	9912	59	56	NFL
VA3XH	7104	64	37	ON
W8JMF	6630	65	34	OH
NR8U	4512	47	32	OH

#### 80 meters and 160 meters

The top three 80 meter stations from 2007 weren't on 80 meters in 2008, having moved to other bands or not participating. As a result, only seven SO-80 entries were made and the top score, by ND8DX in OH, was about 20% of last year's winning score! In what should have been a low-band year, competition was surprisingly light. Nevertheless, the top two stations, ND8DX pursued by N3YD, both found 59 multipliers and that's a good weekend's work, to be sure. K4KZZ was third from NC, beating WA2AOG in WNY. After K8OQL in fifth, there was a tie for as KU4BP and NA4M submitted identical totals in sixth and seventh place.

160 meters was the other band on which scores improved. KT1V added almost 20% to last year's winning total to take home the winning score on this difficult band. Another score larger than the 2007 winner was submitted by second place finisher W2MF. K5RX moved up two places from last year to finish third as the only Top Ten finisher from west of the Mississippi River. From there, locations bounded up and down the East Coast.

Perhaps 2009 will be a little kinder and with at least quiet conditions to let the low-band operators have a bit more success.

<b>US/VE 80-Meter Single-Band Top Seven</b>				
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>	<b>Section</b>
ND8DX	25311	143	59	OH
N3YD	19824	112	59	WPA
K8OQL	4851	49	33	WV
KU4BP	2430	30	27	NC
NA4M	2430	30	27	STX

WO9S	1725	25	23	IL
K2SZ	300	10	10	SNJ

US/VE 160-Meter Single-Band Top Ten				
Call	Score	QSOs	Mults	Section
KT1V	12282	89	46	NH
W2MF	9936	72	46	SNJ
K5RX	5967	51	39	NTX
WF2W	3060	34	30	WNY
W4SVO	2940	35	28	NFL
K1HAP	1725	25	23	NH
WJ9B	1650	25	22	NFL
KK4SI	1386	22	21	NFL
W3GH	1254	22	19	WPA
W2VO	1140	20	19	WNY

### Multi-Operator

After nearly twenty years, multioperator entries total just about the same as they did in 1990. During that period, Multi-Single entries have been converted to Multi-Two, falling from the low-70% mark down to just over half. Multi-Multi entries remain about one-fifth of the total. So Multi-Two has been quite a success story. The strategy and tactics are exciting for small teams and the introduction of excellent switching and filtering equipment has put building a good M/2 station within the means of more hams. Why not check out M/2? It might be easier than you think!

Multioperator certainly doesn't seem to be as popular north of the 49th parallel. In fact, there are only four VE call signs to be found in all of M/S, M/2, or M/M; VE6AO and VE2DWA in M/S and VE3RM and VE6FI in M/2. No Canadian M/M entries were received. This is probably due to the lower number of Canadian hams being spread across such a big country.

I'll repeat my suggestion of last year that hosting new hams (or those that haven't tried HF operating) is great idea when conditions don't encourage full-bore, go-for-the-record team efforts. It's fun to help someone learn how to contest and give them the one-to-one attention they so badly need to get over those awkward first QSOs. Remember how *you* felt during your first contest? Radiosport is fun, so pass it on!

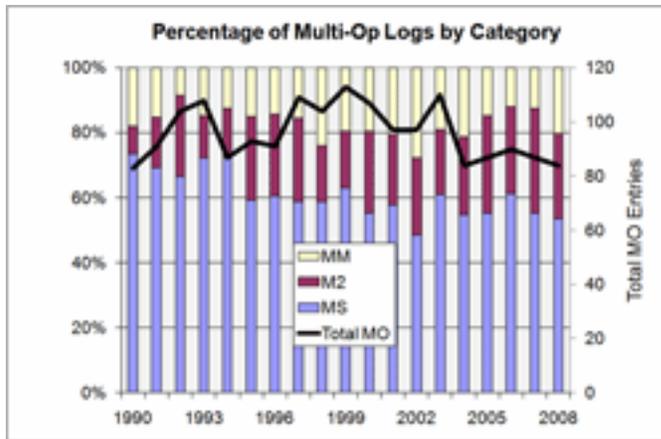


Fig 15: Trends in multioperator category entries

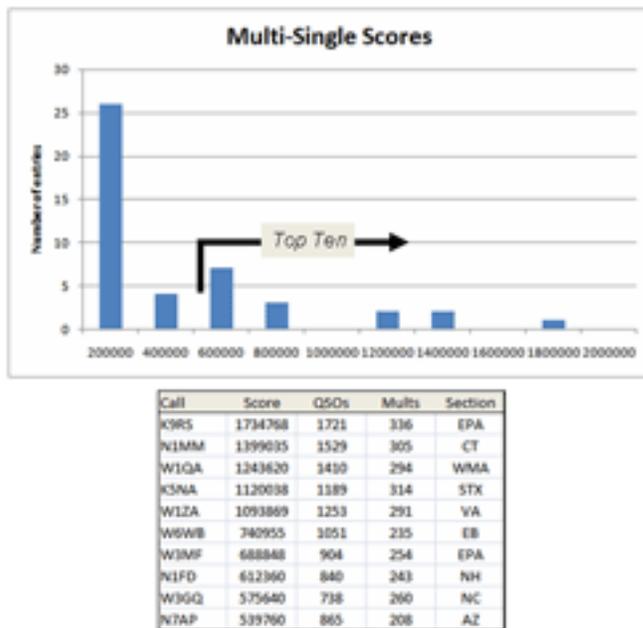


Fig 16: Multi-single scoring distribution

### Multi-Single

Teams from all across the US were represented in this category, from NH (N1FD) to EB (W6WB). The top three finishers (K9RS, N1MM, and W1QA in first through third) were all from the northeast, although K9RS in WPA finished substantially ahead of the challenging teams. K9RS had big numbers on 160 and 80 meters, while the higher bands were much tighter. The fourth-place K5NA team put in a strong showing from STX and finished just ahead of W1ZA in VA. W6WB placed sixth all the way across the country in the EB section by dint of good 40 meter and 15 meter (and even 10 meter) totals. The average number of operators in the Top Ten M/S entries was 3.1 this year. I don't know about you, but I could certainly use an extra 0.1 operator at times!

### Multi-Two

No station in the M/2 Top Ten was very far from the Atlantic this year, sprinkled from VA to NH, with VE3RM as the sole Canadian representative in any of the multioperator Top Ten. Last year, the muscular station of KC1XX dominated the M/2 category, but Matt's Marauders decided to take a year off from

ARRL DX Phone. That threw the field open and some very motivated teams responded. WE3C prevailed over N3RS for the top spot, reversing the finishing order for these two stations last year. In third, KB1H appeared and edged W4RM right behind in fourth. Requiring a few more operators to keep all of those emitters emitting and filaments filamenting, the average M/2 team size was 6.

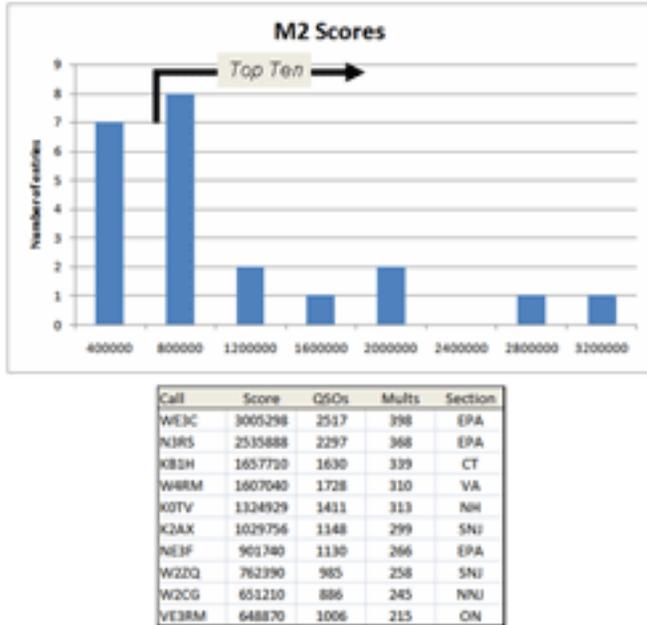


Fig 17: Multi-two scoring distribution

### Multi-Multi

The K3LR machine in far-Western Pennsylvania kept their winning streak going at five this year. Tim's team really makes the station play well, especially on 20 meters, and so outlasted their archrivals at W3LPL. It's great to see these highly skilled, magnificently engineered stations go at it, year after year! If you want to take a look at what makes the stations tick, browse to [www.k3lr.com](http://www.k3lr.com) or search on W3LPL to find Web pages with plenty of pictures. Both station owners contribute a great deal back to the amateur radio community, as well – ham radio at its best!

Following K3LR and W3LPL were a pileup of New England stations with W1UE finishing third ahead of K1CX (4th) and K1TTT (5th). Each of those three took home the bacon on 160, 80, or 20 meters and virtually tying on 15 meters. W4ML (VA) and W3PP (DE) had a real mid-Atlantic donnybrook, with W4ML prevailing to take sixth place. Out on the West Coast, N6RO in the EB section and K7ZSD a little further north in OR duked it out for eighth and ninth places, respectively. Long-time multi-multi competitor W0AIH rounded out the Top Ten from WI.

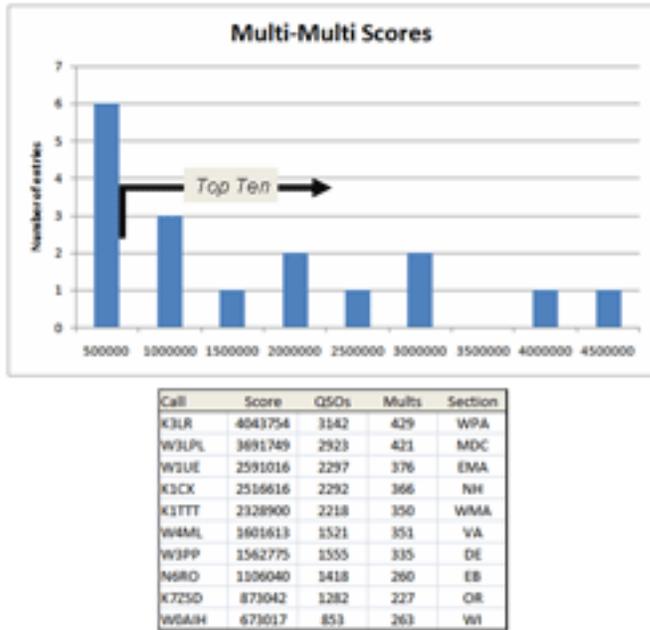


Fig 18: Multi-multi scoring distribution

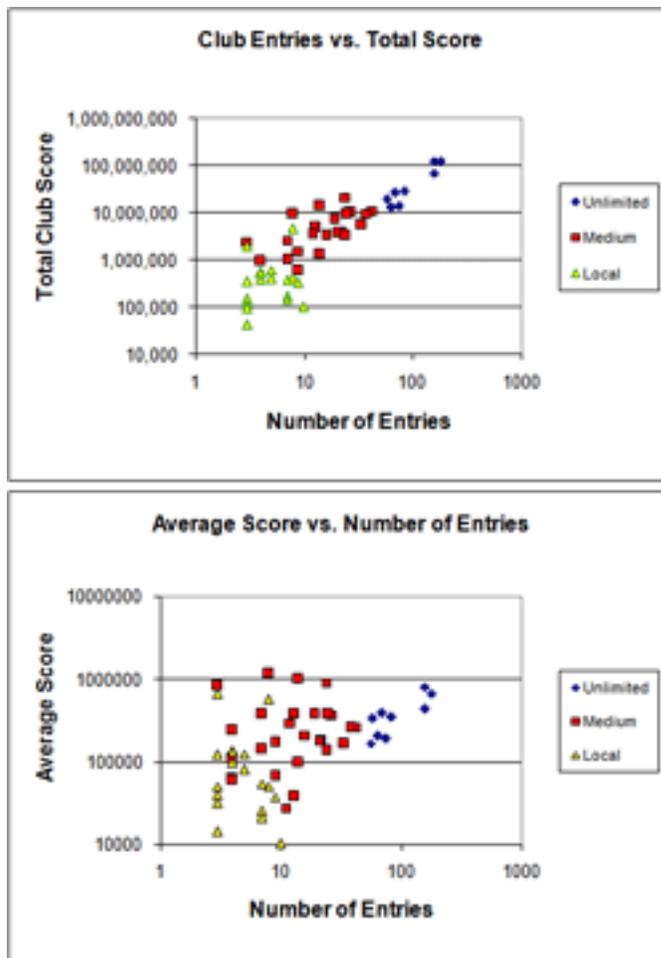


Fig 19: Total and Average Score Distribution of Club Entries

### *Affiliated Club Competition*

"ARRGGGGGH" WB8JUI

This year's club totals were almost the same as last year – 56 entries – but total numbers of member scores as up again this year – 1464 as opposed to 1451 last year. The contest clubs, in the face of tough conditions, are doing a great job of getting more people on the air and submitting their logs. This will pay big dividends for all us when the solar cycle resumes its upwards journey. Why not make it a mission for your own contest club, to encourage participation not only in the contest, but in the club, too! Last year's shift of entries in favor of the Local category has somewhat reversed this year, with 19 Local and 28 Medium entries.

A note from the ARRL Contest Branch comes during the writing of these results that the gavel program has gotten completely caught up. So if your club won a gavel, but didn't get one, it should be in your hands by the time this writeup appears in your hands or on the ARRL Contest Web site.

In the Unlimited category, the Frankford Radio Club (FRC) pushed aside the Yankee Clipper Contest Club (YCCC) to win the gavel. Even though the FRC had fewer logs than YCCC, the FRC's participation went up, while YCCC's went down. Getting all the club members on the air really helps! YCCC was followed by the Potomac Valley Radio Club (PVRC) in third place. Fourth and fifth places traded hands this year with the Northern California Contest Club (NCCC) ahead of the Society of Midwest Contesters (SMC). In the Medium category, the Central Texas DX and Contest Club took a run at the North Coast Contest Club, but the results are the same as last year with the North Coasters retaining their gavel with a strong turnout of members to submit their logs. The Carolina DX Association made a big jump up to third this year followed by a charging Mad River Radio Club, both clubs having increased the number of log submissions dramatically.

Changing from Medium to Local category, the Maritime Contest Club grabbed a gavel! They were followed by a new club, the Central Virginia Contest Club who found themselves second when the shooting stopped. The Southern California DX Club was present, too, holding onto third place. How did your club do compared to others? Find your club's "dot" on Figure 19's scatter plots of total and average score. Use these plots to see if you're headed in the right direction. Moving up and to the right is where the Good Arrow points. The line shows a sort of reference average--it was just eyeballed in by your editor, so don't give it too much weight except for comparison.

### **DX Overview**

"Conditions were poor, and that explains why I didn't work a single CA on any band! I changed a few diapers, however. A first for me, HI." CT1EAT

How many miles do you think were flown to put those juicy DX stations on the air? I made some very casual approximations and assumptions before looking through operator lists. Turns out the distance is probably somewhere between 250,000 and 275,000 miles. Think of it – the equivalent of a trip to the Moon was made just for ARRL DX Phone!

Comparing 2007's category distribution to this year's, it looks very much like last year except that some of the SOAB-LP stations decided to operate in an SOSB category, mostly 20 meters. South Americans continued to take advantage of the north-south propagation to keep 15 and 10 meters busy.

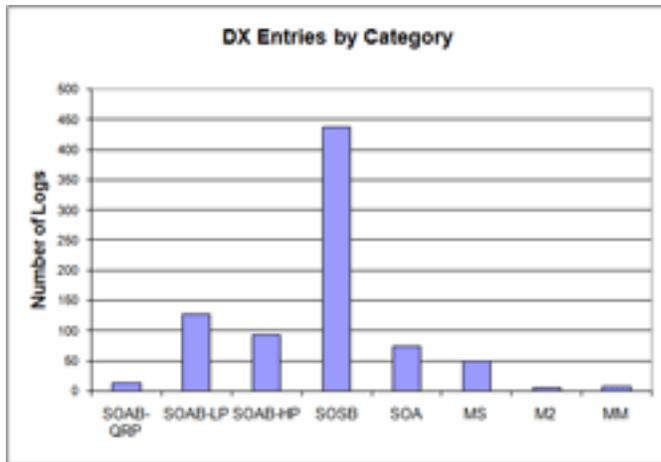


Fig 20: DX Entries by category

Just as in the US and VE logs, there are some very closely spaced scores to be found all through the various category Top Ten tables:

- HQ9R and VP9/W6PH were neck and neck in SOAB-LP, only 1.2% apart
- KP2BH and LU3CT, also SOAB-LP, were even closer at 0.3% separation
- In SO-Assisted, EA5KV and PY4OG finished just 0.5% apart
- On 20 meters, ZV5K and IT9STX almost finished in a dead heat, with 0.04% between them

This makes for some pretty intense competition! If you don't think the teams are focused, remember that they read these results, too!

### DX QRP

I have done a fair amount of QRP DXing and contesting and it's always amazing to me that such low power can communicate halfway around the world not just once, but time after time after time. Whenever I put a QRP DX station in the ARRL DX log, I have to smile, especially if they are running a pileup! Extra points for moxie!

Speaking of moxie, the QRP DXers were worked in all directions. The winner this year was CO6LP from nearby Cuba who used 40 and 20 meters to outdistance the competition. Moving up to second and third are F5BEG and IK5RUN from Europe. Switching to the other direction, three JA QRP'ers finished fourth (JA1CG), fifth (JA2DLM), and sixth (JR4DAH) – all familiar calls to contesters and DXers.

DX QRP Top Ten			
Call	Score	QSOs	Mults
CO6LP	67860	290	78
F5BEG	27531	161	57
IK5RUN	13176	122	36
JA1CG	11433	103	37
JA2DLM	10800	100	36
JR4DAH	5904	82	24
IK3XTY	2346	46	17

EA3FF	1920	40	16
PE2KP	1800	40	15
DJ3GE	378	14	9

### DX Low Power

The SOAB-LP stations don't give up a single kHz of competitiveness against the HP boys. The top four scores in this category would have placed third, seventh, eighth, and ninth in the SOAB-HP Top Ten! You'll find them right down there on the low end of the bands, running pileups just as fast and just as big as those of high power stations. Well done, lads!

All of the SOAB-LP Top Ten could be found by pointing the beam south to the Caribbean and South America. P40A operated by KK9A ran his string of wins to four this year with a solid victory over HQ9R (op WQ7R). Only K3LR with five straight wins has a longer active streak in this contest. All of the first four scores were made by traveling operators. VP9/W6PH just missed out on second place on his annual visit to the Island of Shorts. G3TBK traveled to the Caribbean, piloting J88DR to fourth place. The resident operators then take over, with HK6P in fifth place, followed by 8P6EX, YV5EAH, and CE1KR. KP2BH and LU3CT finished close to a dead heat, with KP2BH's better multiplier total carrying the day.

DX Low Power Top Ten			
Call	Score	QSOs	Mults
P40A (KK9A, op)	5214525	6275	277
HQ9R (WQ7R, op)	2521440	3502	240
VP9/W6PH	2497908	3668	227
J88DR (G3TBK, op)	2217096	3486	212
HK6P	1046856	1646	212
8P6EX	928800	1720	180
YV5EAH	709512	1598	148
CE1KR	636792	1352	157
KP2BH	568854	1122	169
LU3CT	566580	1420	133

### DX High Power

*"20 meters opened up early and went out with a bang on Sunday! The entire 20 meter band was packed from band edge to band edge. The temps were cold but the band was HOT!" KL8DX*

This category is the big leagues of ham radio contesting. Travelling, setting up, and settling in for a full 48 hours takes "guts and coffee" to quote N6TJ. Even operating from a home station, you're in heavy-duty competition if you want to put that "C" in your score listing. Let's see who "cut the mustard" (another N6TJ-ism) this year!

The potent signal from the HC8A/HC8N station is a hard one to beat and will be for quite a while. N6KT hasn't been very active lately since his record years of the mid-1990's, but he's b-a-a-a-ck! HC8A displaced 8P1A operated by W2SC from last year's top spot in the SOAB-HP category. Both ops generated an Imperial Ton of QSOs, but N6KT found some extra multipliers on every band and grabbed 10 meter openings unavailable in Barbados. Two more Caribbean calls, KP2M (op N2TK) and TO5A finished third and fourth before the Pacific made an appearance in KH6LC operated by N6GQ. The Caribbean and

Central America divvied up sixth through eighth in the person of NP2I, HQ2W (op HR2DMR) and V31XX (op HP1WW), respectively. PY2NY was ninth from South America and Europe's sole Top Ten representative, EA4KR, was in tenth place.

<b>DX High Power Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
HC8A (N6KT, op)	7955844	7846	338
8P1A (W2SC, op)	6824874	7558	301
KP2M (N2TK, op)	4159974	5213	266
TO5A	3454740	4516	255
KH6LC (N6GQ, op)	3143322	4242	247
NP2I	2077110	3297	210
HQ2W (HR2DMR, op)	1760064	2848	206
V31XX (HP1WW, op)	1577448	2616	201
PY2NY	1419708	2452	193
EA4KR	1216458	2503	162

#### **DX Assisted**

I'd say there is a pretty good resemblance between the geographic distribution of the Top Ten scores in all of the SOAB DX categories; south, south, and south! At least that makes it easy to find the big signals! And what a big signal! Without a large team making the trip this year, WE9V decided to run PJ2T in the SO-Assisted category and ran away with the show, making almost 9 times the score of his nearest competitor and breaking a 9-year-old record in the process! The second and third places calls, PY2EX and PY5QW, are also new to the category, followed by a regular, EA7RU, in fourth. Europe's extensive spotting network also helped another repeating Top Tenner, DL0WW, to fifth place and EA5KV to sixth. The next four places bounced back and forth between Europe and South America as PY4OG, EF1W, LU7YZ, and YT6M complete the Top Ten.

<b>DX Assisted Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
PJ2T	6176928	6956	296
PY2EX	742482	1482	167
PY5QW	570492	1219	156
EA7RU	518721	1453	119
DL0WW	328164	943	116
EA5KV	189420	770	82
PY4OG	188505	1065	59
EF1W	177612	722	82
LU7YZ	138348	854	54
YT6M	134136	828	54

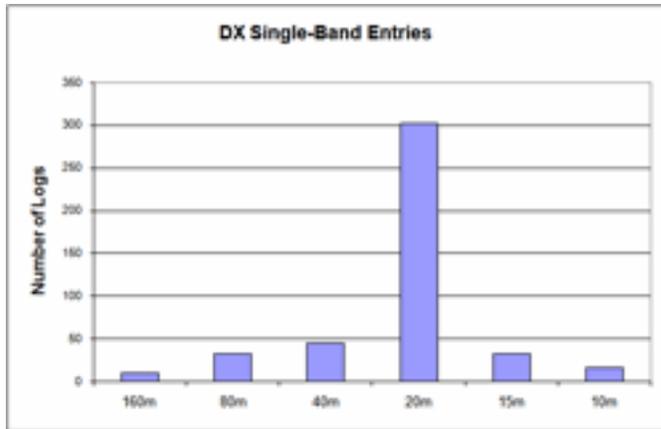


Fig 21: Entries by band for SO-SB

### DX Single-Band

The appropriate quote has never been published, but it must be, "When the going gets tough, the tough tune to 20!" Like the US and VE single-band entries, the 20 meter DX entries were also the most popular by far and picked up entrants that would have been on 15, had there been one tiny little sunspot to give us a little F-layer ionization.

#### 10 meters

There was nary a sign of a signal from north of the equator this year – not even close. But yet, there were plenty of QSOs to be had from the South Americans, as always. LU1HF repeated as the top SOAB-10 score, breaking the 1000 QSO mark and even *improving* his score from last year! That would not have been my prediction, so extra credit is due for this fine score! One of the many PP5 and PY5 calls whose number has increased thanks to WRTC-2006, PP5NW finished second. A parade of Argentineans followed in third through seventh as LU9DAG, LQ5H, LU4DX, LU6FOV, and LU6DU played the bands and giving us all a few 10 meter contacts. CX4DX's reliable signal was there for another multiplier and eighth place. LW1HR and PY2SRB completed the Top Ten in ninth and tenth places.

DX 10 Meter Top Ten			
Call	Score	QSOs	Mults
LU1HF	145728	1012	48
PP5NW	96801	787	41
LU9DAG	83721	649	43
LQ5H	83664	664	42
LU4DX	41268	362	38
LU6FOV	40182	362	37
LU6DU	35442	358	33
CX4DX	34047	291	39
LW1HR	23970	235	34
PY2SRB	23343	251	31

#### 15 meters

Almost the same as 10 meters, only three stations from north of the equator (YV1CTE, KH7Y, and HK3JJH) managed to break into the Top Ten and no Europeans were present in the Top Ten at all. PP5JR operated the big ZX5J station and won the category quite handily with a nice score. There was a real log jam of multipliers at 59, so all three of the top places were determined by QSO totals. LS1D (op LW9EOC) and ZX2B (op PY2MNL) placed second and third. Still in South America, but quite far north of the winners, YV1CTE came in fourth and PY5HOT (must be the weather?) was fifth. From Hawaii, KH7Y brought some 15 meter aloha to the airwaves to claim the sixth position and then the bands went back to Argentina and LU2QC in seventh. A35RK adjusted his lava-lava and topped 1000 QSOs to place a welcome eighth. South America finished out the table with KH3JJH and PY2DN.

<b>DX 15 Meter Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
ZX5J (PP5JR, op)	575604	3252	59
LS1D (LW9EOC, op)	406038	2294	59
ZX2B (PY2MNL, op)	375240	2120	59
YV1CTE	288585	1749	55
PY5HOT	265677	1501	59
KH7Y	257739	1621	53
LU2QC	235296	1376	57
A35RK	162552	1042	52
HK3JJH	156933	987	53
PY2DN	137862	851	54

#### 20 meters

Even as the "good" band, 20 meters was not open enough to give more than a few areas a realistic chance of making a top score. While the band was open to everywhere at some point, only the north-south paths were open long enough and deep enough for the big numbers to be achieved.

Returning to the station that helped jump-start the many-membered Caribbean contest expeditions, AI6V not only won, but set a new record in the process from P40V. Right behind P40V, IV3IYH decided that if 20 meters would not come to Europe, then he would go to where 20 meters was hot and placed second from HT2N. Another record fell in third place, as KH7B displaced a long-time record set back in 1989. One of our profiled operators, HI3TEJ, drove the HI3T station to a nice score in fifth place. Finding two extra multipliers to make the highest total of any station in the SOSB category, HK1X placed fifth, while nearby, 4M5IR was running up enough points to place fifth. Passing the baton to Europe, TM1W (op F5HRY) placed sixth, following by South Americans, LS2D (op LU1DK) and ZV5K. We close out the Top Ten with a second European, IT9STX.

<b>DX 20 Meter Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
P40V (AI6V, op)	670299	3787	59
HT2N (IV3IYH, op)	631890	3570	59
KH7B	559143	3159	59
HI3T (HI3TEJ, op)	493653	2789	59
HK1X	437187	2389	61

4M5IR	374001	2113	59
TM1W (F5HRY, op)	298584	1716	58
LS2D (LU1DK, op)	249747	1411	59
ZV5K	234900	1350	58
IT9STX	234783	1373	57

#### 40 meters

Five active continents had a place in the 40 meter Top Ten! Africa, nearly shut out of Top Ten's entirely, lead the charge with a winning score (and a record) from AO8A on the Canary Islands. Swinging all the way 'round, ZL3A's potent signal blanketed North America and put the Kiwi's in second place. Europe was next as F6CTT maneuvered TM5C to third place. Not content to stay in one region, the Top Ten list then jumped to South America where PR7AP is in fourth place. CT2ITR and S53S (op S52X) finished fifth and sixth. YV6BXN was sandwiched in between pairs of European scores for sixth place, with IR2C (op IK2NCJ) and EA3BOX in seventh and eighth. Our jaunt finishes in South America, where PY6KY and PY1NB were the ninth and tenth place scores.

<b>DX 40 Meter Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
AO8A	293436	1716	57
ZL3A	196896	1172	56
TM5C (F6CTT, op)	133776	929	48
PR7AP	96195	605	53
CT2ITR	90099	639	47
S53S (S52X, op)	64512	512	42
YV6BXN	44160	320	46
IR2C (IK2NCJ, op)	42435	345	41
EA3BOX	39360	328	40
PY6KY	17928	166	36
PY1NB	17010	162	35

#### 80 meters

The disturbed condition and higher-than-usual absorption really hurt 80 meters. At a time of the solar cycle when this band should shine, it took a big hit right around the time of the contest. There were not nearly as many Europeans and northern stations, like KL7RA, represented this time around. Stations in or around the shores of the Caribbean and Gulf of Mexico filled up the top half the Top Ten list for 80 meters.

ZF2AH took advantage of proximity to the US and VE to finish first, hotly pursued by KP4KE on another island. XE2K, last year's winner, was also on-hand in third, and Cuba was represented by CM6CAC. On the south shore, YV5LMW finished fifth. West Africa was close enough for CT3DZ to place sixth and HP3AK snagged the seventh spot. Two northern Europeans with good stations finished eighth and ninth; GM3PPG (op G4BYB) and SN3A. A far South American, LU1FDU, made enough long-haul contacts to finish tenth.

<b>DX 80 Meter Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
ZF2AH	284838	1637	58
KP4KE	217170	1270	57
XE2K	200718	1239	54
CM6CAC	133878	842	53
YV5LMW	125328	746	56
CT3DZ	82368	572	48
HP3AK	64872	424	51
GM3PPG (G4BYB, op)	60630	470	43
SN3A	55692	476	39
LU1FDU	49113	321	51

### 160 Meters

Down, but not out, 160 meters continues to attract a crowd. KV4FZ led all comers on this band with a score not far reduced from last year's first-place finish. CM6RCR was nearly NVIS to the southern US and so did quite well, finishing second. Out in the center of the Atlantic, CU2AF tapped into the big East Coast population and finished third. Somewhat hampered by tropical noise, LU2DVI/H was fourth. There was some joy in Mudville as the rest of the 160 meter Top Ten is populated by Europeans; DF2UU, ES5RW, F6KCP (op F5VHN), UA2FT, HA8BE, and EU3AR all made a few QSOs. You may think that the 1 QSO and 3 Mults of tenth-place finished EU3AR is a typo, but the QSOs represent the total remaining after log checking removed QSO points for busted call, Not-In-Logs, a miscopied exchanges.

<b>DX 160 Meter Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
KV4FZ	89712	534	56
CM6RCR	64944	451	48
CU2AF	13857	149	31
LU2DVI/H	3666	47	26
DF2UU	1296	27	16
ES5RW	975	25	13
F6KCP (F5VHN, op)	210	10	7
UA2FT	60	5	4
HA8BE	27	3	3
EU3AR	9	1	3

### **DX Multi-Operator**

A lot of QSOs get made in the DX Multi-Operator categories and we are all the better off for it. These teams generate a lot of interest in the casual operators who take the time to work their strong signals that maybe spark an interest in DXing or contesting. And lots of points are scored for the benefit of a home club, sometimes, too. There are lots of reasons to go on an adventure like this – the thrill of being on the right side of a pileup for a change is just one of several. You can set up a simple adventure Field-Day style

with one or two people, join a team making a big push, or just use one of the vacation ham rentals sprinkled around the world. Wherever you go, your signal will be welcome!

### Multi-Single

The Frankford Radio Club (FRC) collected a big payday from the efforts of K2NG and K2TW at PJ4G where they finished in first place by a good margin. Another two-operator team of K1XX and W1MD gave chase from V26X to take second. Three Dominican operators (HI3CCP, HI8ROX, and HI3K) and a Spaniard (EA4ATI) made more than 5000 QSOs to claim third place. No doubt enjoying having warm feet in mid-winter, the Minnesotans W0GJ, K0MD, and KL7YL munched the VP5H team to fourth. It was all South American from there as fifth-place 4A2S confused a few operators with that Venezuelan call. LP1H from Argentina and CW6V from Uruguay grabbed the sixth and seventh spots. LT1F was just barely behind in eighth, PW2D in ninth, and HD2A in tenth.

<b>DX Multi-Single Top Ten</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
PJ4G	6232110	7090	293
V26X	5595759	6591	283
HI3C	4679532	5454	286
VP5H	4186080	4845	288
4A2S	4067295	5155	263
LP1H	3538647	4977	237
CW6V	3352590	4139	270
LT1F	3215124	4236	253
PW2D	2901273	3763	257
HD2A	2691792	3348	268

### Multi-Two and Multi-Multi

While we didn't see any new records set in either M/2 or M/M, there were lots of QSOs to be made. And by a lot of operators - 255 calls were listed in the DX Multi-ops scores! That represents a great deal of effort and about 1/8th as many operators as unique DX call signs.

Six stations entered M/2 and the 6Y1V team of KY1V, W4OI, and K9NW scored more than 9M points to make a good run at the record, finishing first by a convincing margin of more than 40%. Second-place team V47KP, composed of W2OX and K3NM, shoveled enough to make 5M points and take second ahead of a big TI8M team of both US and TI operators in third.

<b>DX Multi-Two Top Six</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
6Y1V	9159945	9755	313
V47KP	5061738	6226	271
TI8M	3978828	4986	266
ZY7C	3463425	5131	225
TM6M	1919190	3367	190
9A7A	841725	1935	145

Costa Rica was also well-represented with the winning DX M/M entry of TI50DX staffed by another big team of stateside operators. Fighting poor high-band conditions and distance, the KH7X team at KH6YY's QTH didn't take home any walnut for the first time in years, but did place second from out there in the blue Pacific. Europe's 9A1A made a very good score over the poles from Croatia to place third. A pair of big JA club stations, JA3YBK and JA1YPA, were in fourth and fifth.

<b>DX Multi-Multi Top Seven</b>			
<b>Call</b>	<b>Score</b>	<b>QSOs</b>	<b>Mults</b>
TI50DX	8660925	9165	315
KH7X	5945670	6954	285
9A1A	1127061	2223	169
JA3YBK	515778	1457	118
JA1YPA	423315	1227	115
DR1A	68076	366	62
IQ6RS	46110	290	53

### *Accuracy*

"Note to DX stations, there is no rest of my call" NR8U

Are you new to HF contesting? What's an LCR, anyway? These are the right questions to be asking. Accurate high-speed operating is the hallmark of a good contester. With enough practice you can achieve solid copy in the face of QRM and QRN that would wilt a lesser op. Paying attention to copying every bit of information reliably also helps your score because you avoid the dreaded penalty reductions in QSO points that results from miscopy.

An LCR is a Log Checking Report and it tells you about every mistake it found in your log. An LCR is generated by cross-checking your submitted log against those logs of other operators. This is why it's important to learn how to submit your log – so that the largest fraction of contacts can be automatically cross-checked. The LCR shows you all of the copying errors you made and quite a number of the errors others made. The latter are useful because they help you track down and eliminate problems with your technique. For example, if your amplifier is cutting off the first part of a sent character, you might see consistent copying errors by other stations turning your call into something else. Maybe you have a copying problem with letters that sound the same – B, T, P, E, C, etc. The LCR raises the flags so that you can do the rest.

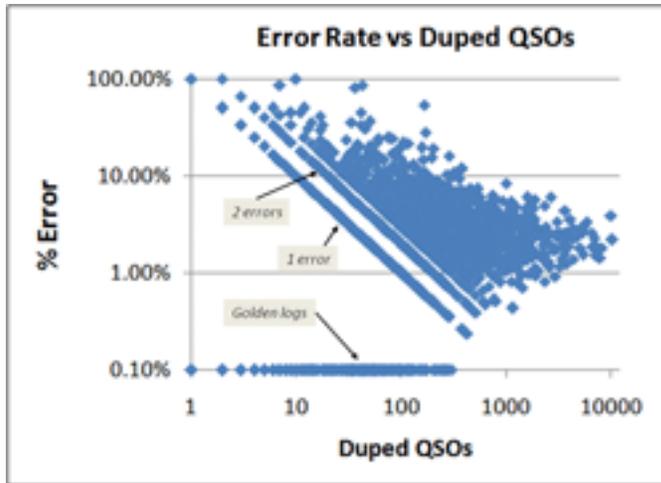


Fig 22: Accuracy versus QSOs not counting duplicate QSOs

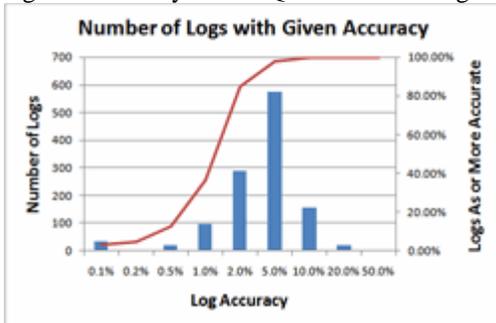


Fig 23: Percent of logs with a specified accuracy

Your computer-generated LCR is available from the ARRL Contest Web site. Only you can see it and its unlikely that anyone in the contest administration has looked at it, either. There's no reason to feel embarrassed about the report because nearly everyone makes mistakes. The trick is to learn from the mistakes. Make it a habit of downloading your LCR after every contest for which one is available. You'll surely see your skills improve along with your contest scores!

The accuracy of a log is considered to be its error rate in percent. Errors are incorrect or "busted" calls, not-in-log (NIL) where the claimed QSO can't be matched to any other log, and incorrect or busted exchange information. The log checking process keeps track of all the various errors, subtracts QSO points as penalties for errors, and outputs a table containing the information. Figure 22 shows how the accuracy for all of the logs looks when compared to the size of the log. (Duplicate QSOs are not counted in the total log size.) Golden logs, those without any errors, lie on the horizontal axis. Logs with more errors are located higher on the chart. Larger logs are located towards the right of the chart. Your job is to move the point describing your log lower (more accurate) and to the right (larger). Figure 23 shows a cumulative distribution showing how many logs have a specified range of accuracy and the percentage of all logs with that accuracy or better.

To recognize some of the stations with exceptional accuracy, the following tables show the top two stations with an error rate in the ranges shown in the 'Pct Error' column. For the 0.5% entries, the error rate is between 0 and 0.5% (but not exactly 0%). For 1.0% entries, the error rate is between 0.5% and 1.0%. And so forth. A second table shows the error rate of the top stations in each category. These high levels of accuracy – and of an entire team, mind you – establish what you should shoot for as you improve your skills every time out.

<b>US/VE Accuracy Leaders</b>			
<b>Pct Error</b>	<b>Call</b>	<b>Category</b>	<b>QSOs</b>
0.5	AA3B	SO-Assist	1165
0.5	W1GD	SO-Assist	798
1.0	VY2ZM	SOAB-HP	2933
1.0	K1CX	M/M	2322
1.5	K3LR	M/M	3206
1.5	WE3C	M/2	2576
2.0	W3LPL	M/M	3017
2.0	W1UE	M/M	2360
2.5	W4RM	M/2	1804
2.5	K0TV	M/2	1464
<b>Accuracy of Category QSO Leaders</b>			
<b>Category</b>	<b>Call</b>	<b>Pct Error</b>	<b>QSOs</b>
SOAB-QRP	K4CIA	0.78	257
SOAB-LP	K1BX	1.23	1055
SOAB-HP	VY2ZM	0.92	2933
SO-Assist	K1IG	1.51	7176
MS	K9RS	1.52	1775
M2	WE3C	1.16	2576
MM	K3LR	1.15	3206

And here are the DX accuracy leaders:

<b>DX Accuracy Leaders</b>			
<b>Pct Error</b>	<b>Call</b>	<b>Category</b>	<b>QSOs</b>
1.0	GM7V	SOAB-HP	306
1.0	XE3N	SO-20	244
1.5	8P1A	SOAB-HP	7785
1.5	KH6LC	SOAB-HP	4362
2.0	HC8A	SOAB-HP	8150
2.0	PJ4G	M/S	7328
2.5	6Y1V	M/2	10195
2.5	V26X	M/S	6898
<b>Accuracy of Category QSO Leaders</b>			
<b>Category</b>	<b>Call</b>	<b>Pct Error</b>	<b>QSOs</b>
SOAB-QRP	CO6LP	1.97	304
SOAB-LP	P40A	1.86	6521
SOAB-HP	HC8A	1.79	8150

SO-Assist	PJ2T	1.51	7176
MS	PJ4G	1.68	7328
M2	6Y1V	2.19	10195
MM	TI50DX	3.86	9928

A “Golden Log” is one with zero detected errors. Once you get past a hundred QSOs or so, making every QSO perfectly becomes very difficult. All of our Golden Loggers this year deserve applause. The station with the largest golden log, US/VE or DX, was KC1F (now, sadly, an SK since the contest) with a 303 perfect QSOs! The largest golden log from a DX station was OH6NIO's with 159 QSOs.

<b>Top Ten US/VE Golden Logs</b>		
<b>Call</b>	<b>Category</b>	<b>QSOs</b>
KC1F	SO-Assist	303
N7IR	SOAB-LP	280
W6ZL	SOAB-LP	277
KE0L	SO-Assist	266
K1HT	SOAB-LP	259
NE4M	SOAB-HP	255
KQ2M	SOAB-HP	251
K8AZ	SO-Assist	239
W6QU	SOAB-QRP	223
N4QS	SO-Assist	211

<b>Top Ten DX Golden Logs</b>		
<b>Call</b>	<b>Category</b>	<b>QSOs</b>
OH6NIO	SO-Assist	159
VK7GN	SO-Assist	148
S51F	SO-20	125
F1RHS	SOAB-LP	122
IZ5ASZ	SO-20	119
Z36W	SOAB-LP	112
9K2HN	SO-20	98
CT/LZ3ND	SO-20	98
YO3FRI	Checklog	94
IK1HSS	SO-80	86

## ***CQ DX***

"Lotsa 5BDXCC cherry picking." N3TR

It's hard to resist the lure of the pileup and watching your multiplier total click upwards and your score make big jumps. After all, this *is* a DX contest, isn't it? And while it's not always the best strategy to chase those multipliers, it is fun and that's what contesting is about!

Once again, the winner of the multi-multi category, K3LR, had the highest total multiplier count (429). K3LR also had the highest single-band total of multipliers of any US or VE stations—131 on 20 meters. Single-band DXCCs were only accomplished on 20 meters, but 28 stations managed to make the grade.

- 160 meters – VY2ZM worked 59 multipliers
- 80 meters – Both K3LR and W3LPL worked 86 multipliers
- 40 meters – K3LR worked 91 multipliers, with W3LPL logging 90
- 20 meters – K3LR (there they are again) logged 131 multipliers, the largest total on any band
- 15 meters – No DXCC's this year, but NR5M found 62 multipliers
- 10 meters – W3LPL and K4WI both found 17 multipliers

Which stations did the best at finding multipliers? Did it hurt their competitiveness to work so many mults, as opposed to possible holding a run frequency?

- SOAB-QRP – K4CIA with 135 multipliers
- SOAB-LP – KU1CW 254 multipliers
- SOAB-HP - VY2ZM with 339 multipliers
- SO-Assisted – N2NT with 326 multipliers
- MS – K9RS with 336 multipliers
- M2 – WE3C with 398 multipliers
- MM - K3LR with 429 multipliers

Every one of these stations was their category leader, so they must have balanced running and tuning quite well! This is obviously a skill all testers might want to learn.

### ***Concluding Remarks***

"Very small score. However could enjoy." 7N4CPT

Contesting in these low-flux times is a "character-building experience" and we all like to think of those "best of times", fuzzy around the edges in our memories, of contest weekends when the pileups were bottomless and DX answered every CQ. But the same excitement hits at the starting bell regardless of the level of flux, the boasts just as big, the triumphs even a bit sweeter in adversity, and the jests and ripostes just as sharp afterwards. Yet, if you need something to revitalize your contesting spirit, there is a guaranteed tonic - to become a contesting Elmer. Take the opportunity to offer encouragement and guidance to newcomers. After all, these are their "best of times"!

Keep it ever so—see you next year!

73, Ward Silver N0AX

## 2008 ARRL DX Phone - Divisional Writeups

Once again, a big contest community THANK YOU to the volunteers who root through their division and regional scores and try to give adequate recognition to those of us not in advantaged locations and climates. The Divisional reviews, whether modest or expansive, capture some of that local flavor to recognize the big efforts put in all around the world. Give your division or continental reviewer a pat on the back!

### Atlantic Division by Charles Fulp K3WW

So you think things have hit rock bottom? It seems like that is what we thought last year, but this year in the Atlantic Division, scores were down and total entries were down. The only bright spot was that 235 operators participated. That is eight more than last year. It probably took more guys to keep each other awake at the multi-ops.

Once again the Single Op Assisted class had the most entries with a total of 37 (down 11). [K3WW](#) edged out [N3KS](#) (last year's winner) with [AA3B](#) a few points back in third, all just breaking the million point barrier. [K3PP](#) just missed a meg with his big comeback effort. Glenn edged out perennial high scoring N3AD.

The second most popular class was Single Op High Power, as 33 entrants could not resist firing up their amplifiers. This is an increase of 3 over last year. [NN3W](#) grabbed the top spot from the [N3HBX](#) super station. Last years Division champ, [AA1K](#) hung in for a good second place effort. [W3BGN](#) was the only other Single Op High entry to surpass a million points. [K3ZO](#) came in under 1 M followed by W3RJ, K3TC and N3UM.

Next were the ever-popular Single Op Low Power guys with 32 entrants down by 12. W3LL was first again with 526K points. [K2PS](#) was second with 380K. They were followed by KB3LIX, N8NA, KV2M, K3JD, and N3ALN all under 100K - hard work by all.

The Single Op Single band classes had 16 representatives. No one was able to tolerate 10 meters, but KE3WM persisted to win the division on 15. WR3H edged out N3YZ for the most popular 20 Meter single band win. [AD8J](#) beat out NQ3N on 40. N3YD ran away with 80, and W2MF led on 160, beating out WF2W, [W3GH](#) and [W2VO](#).

Multi Two surpassed Multi Single as the most popular Multi class, with 11 entrants and 43 ops. [WE3C](#) turned the tables on the [N3RS](#) crew this year. Both were followed by a big effort by the teams at K2AX and NE3F.

There were 6 Multi Single efforts with 24 operators participating. [K9RS](#) won with a real strong effort. [W3MF](#) and KD3TB battled for the next 2 positions.

The Atlantic Division was represented by 3 Multi Multi efforts, employing 28 operators. [K3LR](#) led [W3LPL](#) and [W3PP](#).

Three braver-than-brave souls entered QRP and again K3TW won the division, trailed by N3HU and N3TEP.

It looks like more folks sought support in numbers by participating in multi ops. Is it possible that conditions could be even worse next year?

## Central Division by Ralph Bellas K9ZO

### Single-Operator – High Power

Some might say he incessantly putters around, never satisfied, always trying something new. Building, tweaking, modifying, yet using science to guide him. Finding out what works, designing, modeling, forever looking for that elusive fraction of a dB, changing the pattern of an antenna system to see if it brings in more QSOs – that's the story. And it's a never-ending battle against nature, too. Putting something up, having a storm disable it. It's not just contesters who are the competitors. Wind, lightning, ice, are yet other foes. Perhaps this describes all of the Central Region leaders. John (VE3EJ – 4th overall), Ron (VE3AT @VC3E – 5th overall), Mike (W9RE - 9th overall), Jerry (WB9Z), and John (N8AA) work hard in their effort to improve their individual contest scores. And when you are on top of the heap, it still takes devotion and work to stay there. They have impressive stations and for years have displayed a resolve to keep improving, and experimenting, in a quest to stay on top. Face it, it takes hard work to build and maintain a first-rate station.

### Single-Operator – Low Power

In the sunspot lows, perhaps running low power is an early sign of insanity. The rock-solid score from Terry, N4TZ, in Indiana was supported by 6 Yagis on a single tower, and a 4-square on 80. He placed 5th overall. He was followed by KD9MS, AC9X, VE3AD, and W8KIC.

### Single-Operator – QRP

I think these guys have really lost it! Conditions are so poor out here that at times it's difficult to be heard, even with a KW. Yet VA3DF – 4th overall and N8XA – 7th overall turned in impressive scores. They were followed by KT8K, W8BS, and N8QE. It's a tough job, but someone is bound to do it.

### Single-Band 10

W9GXR used an interesting strategy for the sunspot low and turned in a single contact entry to win the region! Nate, you've got this sunspot minimum figured out. Make a contact, take a nap.

### Single-Band 15

There were no single-band 15 meter entries here. Midwest multiband entrants made about 100 QSOs with 36 mults here, so it was obvious that there were no big runs to Europe.

### Single-Band 20

This was a good place to be because there was variety, but it was difficult to work DXCC over the weekend. W9NY managed 82 mults, followed by W9OP with 78. W9WJ managed 62 mults. KG9N, who likes to run stations, put in a partial effort, perhaps because of boredom.

### Single-Band 40

No entries were received which was surprising, but perhaps the big guns with Yagis were occupied with multiband efforts.

### Single-Band 80

WO9S scanned the bands and worked 23 countries, gaining the only low-band place.

### Single-Band 160

There were no entries here and I suppose, just as with 40, those with superior antennas were using them for their multiband efforts. But the multi-multis of the Midwest only managed a handful of contacts on the low bands.

### Single-Operator Assisted

This was a good category to enter because it presented the opportunity to work a variety of multipliers. WO9Z and N2BJ battled it out for first and second in the Central. They were followed by N9ZM and W9GIG who both had very few 160 and 80 QSOs.

### Multi-Single

The crew at KD9ST had a good distribution of contacts and multipliers across the bands with 20 being the big money band. It's apparent, though, that there were some slow times, but the guys persisted and had a nice solid score.

### Multi-Two

KI9A and K9IU kept their transmitters running, but obviously suffered from the conditions. K9IU did not log any 160, 80, or 10 meter contacts which impacted their multiplier totals.

### Multi-Multi

You had to log carefully and not confuse W0AIH and K9AIH, the multi-multi stations. Let's face it, but W0AIH is too far north and averaged only 5 multipliers per tower. However, with over 50 towers it was an impressive multiplier count.

### Affiliated Club Competition

The Society of Midwest Contesters put together 70 logs to post a 27 million point score and placed 5th in the Unlimited Club category. East Coast clubs dominated, were able to submit twice as many logs, and far outpaced the Midwest group. SMCers are just waiting for sunspots so they can use their 10 and 15 meter antennas again. They were followed by the Contest Club Ontario who gathered together 58 logs for their 19 million point score.

### Dakota Division by Bill Lippert ACØW

While many Dakota Division stations thought they had seen the bottom of the cycle in 2007, the 2008 running of the ARRL DX SSB Contest proved to be even more challenging and difficult. A sampling of comments from the Minnesota Wireless Association reflector after the 2008 ARRL DX SSB Contest weekend provide some insight into what the Dakota Division stations face. Comments include: "Brutal", WBØN; "Search and Beating my head against the wall", NØKBD; "I soon realized low power and beating the wall with my head were synonymous", NØIM; "Amen to this one", K4IU; "The bands were kind of sad", KØMPH; "24 hrs into the contest and my rate is less than 10 Q's/hr", ACØW; "Think I will go and do something fun like work on taxes", WØZQ.

Mark, KØKX, commented the last time he saw conditions so bad was the mid 1970's when the sunspots were also at zero. The two postings that summarized it best are: "It's over, Yippee!!!!", WBØHCH and "Not pretty.....", WGØM.

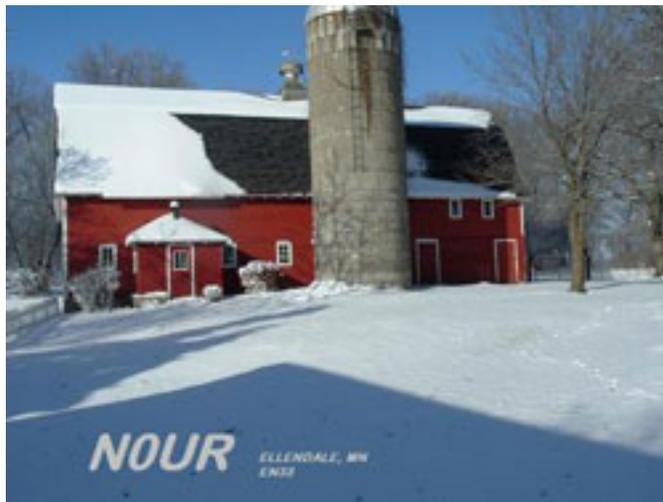
Then as I'm working on this article the power goes out. I thought what a fitting tribute for a weekend of such terrible conditions. As you can see the conditions were extremely difficult in the Dakota Division for the 2008 running of the ARRL DX SSB Contest.

Even with the horrendous conditions, we had another 12% increase in participation in the Dakota Division. With the terrible conditions no new scoring records were set this year. However, there are plenty of opportunities for someone to set a new scoring record in the Dakota Division next year. You can see the complete Dakota Division scoring records at [www.W0AA.org](http://www.W0AA.org) for this and other contests.

Last year we saw a significant drop in scores in all categories. This year the Division Winners in the Single Op High Power and Single Op Low Power categories roughly doubled last years scores. So things couldn't have been too rough. However, the Single-Op Assisted category did see about a 30% decrease in score from last year.

For the second year in a row, Dakota Division stations were shut out from the Top Ten boxes. Even the multi-multi station of WØAIH that many MWA members operate barely managed to make it into the Top Ten of that category by finishing at number 10.

Our only consolation is that three stations made it into the Midwest Region Top 5 Box. ACØW landed in the number 3 spot in the Low Power category with NDØC and NØUR finishing in the number 4 and 5 spots respectively in the QRP category.



NØUR placed fifth in the Midwest Region in the Single-Op All-Band QRP category

Even with all the bad news and conditions there was a very close battle for top Single-Op Unassisted spot. However, instead of the high power guys battling it out, it was a battle between one high power op, NØOK, and one low power op, ACØW. NØOK managed to eek out the win by a margin of only 42 points, which represents a difference in score of only 0.02 %. Looking at my log submission, I see I lost 14 Q's in the log checking process, or roughly 5,000 points. This may or may not be the difference. We will have to wait until the full results are posted to find out.

As mentioned above, Curt, NØOK, earned the Single-Op High Power All-Band title this year. Curt's score was 169,092 points with 366 Q's and 154 mults. This is the second year in a row that Curt has won this title.

Returning to take the top spot in the popular Single-Op Low Power All-Band is Bill, ACØW. This makes 20 out of the last 22 years I have taken the Dakota Division LP Title ending Jim's, KØHW, streak at 2. Things didn't work out for me to return to WØAIH this year so my station was back on the air in this event after the two year absence. It felt good to be back in the saddle again. My score was 169,050 points with 350 Q's and 161 mults. The Single-Op Low Power All Band category had 19 entries.

The second most popular category in the Dakota Division this year is the Single-Op Assisted Category with 17 entries. As in the past, Mark, KØKX, battled Ron, NØAT, for the top spot in this category. For the second year in a row Mark came out on ahead with a score of 308,052 points as determined by making 516 Q's and 199 mults. Mark is also fortunate enough to have the highest score in the Division this year. Looking at the results it is clear that a person needed both high power plus being assisted to score more than 200,000 points. There were only four stations in the Dakota Division scoring above 200,000 points this year and all were high power and assisted.

In the Multi-Op Single Transmitter category, the title goes to KØJA, operated by KØJA and KØJE. The team at WØZT did not show to defend their title giving Janice and Janet clear sailing to capture the title. The twins scored 73,584 points with 219 Q's and 112 mults.



Twins KØJA and KØJE won the Multi-Op Single-Transmitter category



WA2MNO took the Single-Op 40 meters title from this fine station



WØTUP is a happy camper after winning the SOLP-AB category for the Dakota Division

Not to be forgotten are the QRP stations. This year we had two stations brave enough to fight both the pile-ups and the conditions. Randy, NDØC, managed to beat Jim, NØUR for the title with a score of 10,512 from 73 Q's and 48 mults. Randy returns to win this category from 2006 with no QRP entries in 2007.

In the single-band categories there are two entries that earned a certificate. Taking the Single-Op 20 meters title is Paul, KØPK. Paul's score is 31,620 points with 170 Q's and 62 mults. Paul decided to try a different band this year. Last year he earned the SO 80 meter certificate.

Earning the Single-Op 40 meters certificate is Bob, WA2MNO. Bob finished with a score of 756 points with 21 Q's and 12 mults.

After listing all the Dakota Division Certificate winners I noticed that all the winners are located in Minnesota. Quite an accomplishment when both North Dakota and South Dakota are sections that are people look for due to their rarity. Speaking of being rare, out of the 50 entries only 7 were in North or South Dakota.

Of those seven stations, four of them are receiving Section Certificates in the Dakota Division. The first is Jim, KØHW, in the Single-Op Low Power All-Band South Dakota Section. This is the fourth year in a row Jim has won either a section certificate or a division certificate. Jim scored 83,538 points with 238 Q's and 117 mults.

The next is Nels, WØTUP, winning the Single-Op Low Power All-Band North Dakota Section from Minot, ND. Nels scored 15,738 points with 86 Q's and 61 mults.

The third section certificate goes to Dennis, NTØV in Devils Lake, ND. Dennis earned the Single-Op Assisted North Dakota Section Certificate. His score was 97,860 points with 233 Q's and 140 mults. The final section certificate goes to Rich, KØPIR, in Pierre, SD. Rich earned the Single-Op 20 meter South Dakota Section Certification. Rich scored 5,184 points with 54 Q's and 32 mults.

Missing from this years report is the multi-op two transmitter category. We historically have seen the team from KTØR in the write-up. However, with Dave's untimely passing last fall, the station was silent for this event. Dave was a great operator and a great friend to many. He will be missed in the contest community. Some of the operators at Dave's station have formed a club and have preserved the call. So we do hope to hear the station on in the future under Dave's call and possibly under the direction of one of Dave's sons. 73 Dave, from all of us in the Dakota Division, you will be missed.

### **Delta Division by Kirk Pickering K4RO**

The Single Operator Low Power category was the most popular, with 24 entrants from the Delta Division. K5ER led the pack with 443 QSOs x 170 multipliers for 220,830 points. Mark generated a healthy 2X point advantage over second place KC5R.

K5GO led the Single Operator High Power category with 1236 QSOs x 271 multipliers for 1,004,868 points. Stan also doubled the runner up score from W5WMU. The Single Operator High Power category had 15 Entries.

The Single Operator Assisted category had 10 entries. When the smoke had cleared and the log-checking was done, K1GU led the Division with 482 QSOs x 207 mults for 299,332 points. Ned's multiplier count put him ahead of number two AD4EB with 511 x 186 for 285,138 points.

K5KLA was the only brave soul to enter the QRP Phone category. William made 105 hard-earned QSOs, and wound up in the National Top Ten at number 9.

In the single band categories, WO4O led the Division on 20 meters with 50,820 points. KN4Q led 15 meters with only 50 QSOs. W5MK had the 10 meter high score with only 12 QSOs, and made # 8 National as well.

K5UA was the only Multi-Operator score submitted for the Delta Division. Running Multi Single, the two-man crew of K5UA and NA5Q made 402 QSOs x 174 multipliers for 209,844 points from Louisiana.

In the club competition, the Tennessee Contest Group made its first-ever appearance in the Unlimited club category, bringing up the rear with 9,343,602 points from 56 entries. Way to go TCG!

### **Great Lakes Division by Greg Surma K8GL**

And it was a true battle of the Titans! Five grown men decided to ignore all other distractions and spend the weekend in front of Kenwood and Icom rigs. Multiple transmitters were used.....coax ran out the window to feed a variety of antennas....contest food was eaten...the whole 48 hours were operated. In the end the results were good...To quote the main operator: "...We'll be back at it again next year!" K8AZ? K8CC? Not quite. It was KC8YXF, the club call of the Riverside Radio Amateurs, operating from the QTH of KC8SIV, located near Lowell MI. Tim and crew mentioned operating barefoot into a variety of wire and vertical antennas. A contact with a ZL was one of their highlights.

Tim will be happy to learn that he had the highest M/M score (albeit the ONLY M/M score) from the Great Lakes Region during the 2008 ARRL Phone DX Contest. What was the old saying about being in the right place at the right time?

The 2008 ARRL Phone DX Contest is in the books. Also penciled in are comments about the horrible conditions. The low bands had their bright moments; 20 meters once again carried the ball; 15 and 10 were like 15 and 10 in low sunspot years. Yet 50 stations in OH, 21 stations in MI and 6 stations in KY found enough interest in the contest to make it worth their while.

N8TR was the only station in the Division to make over 1000 QSO's. Pete laments that "I felt conditions were the worst I have experienced since I started contesting in late 1979". Perennial 20 meter Division-leader W8TWA looks at the bright side. "Could conditions be much worse? I guess we could have had a geomagnetic storm!" Pete ended up with the #6 USA 20 meter score but was disappointed in not making DXCC on the band.

There were some bright spots. QRP'er KT8K mentions that "...the thrill was Saturday afternoon around 2100Z-2400Z when my 5 watts was heard around Europe first call, as if there was no difference between my QRP wires and the Big Guns". ND8L found solace in the brief 20 meter opening to Japan; others mentioned 75 meters as being one of the star bands.

Speaking of 75 meters, long time contestant ND8DX picks up all the marbles with his #1 USA 75 meter score! Karl was 25% ahead of the #2 finisher. He quips that "Conditions were not that good...I did not have any European runs". His station features a 3/8-wave vertical as well as 5 beverages and K9AY loops for receive. Karl already is making plans for station improvements and a bigger effort in 2009!

40 meter power house K8DJC had antenna problems with an intermittent trap. Nelson led the Division on the band and was #5 overall in the US/Canada. W8JMF had the second highest 40 meter total in the Division while using a KWM-2, 51S-1 receiver, and a 30L1 amplifier. Any of us licensed in the 60's or 70's would have given anything to operate a rig like this in a contest. John also mentioned having bigger and better plans for the next contest.

Congratulations are in order to the North Coast Contesters for having the #1 USA/VE combined score in the Medium Affiliated Club Category with 24 entries. The Mad River radio Club took #4 combined with 27 entries in the same category.

### **Midwest Division by Toni Radebaugh NØNI**

This year 45 operators submitted logs – ten more than last year. The most entries were from Kansas, with Iowa and Missouri tied for second, followed by Nebraska. Twenty meters continues to be the best band, producing more QSOs than the other five bands combined. There were no QRP entries this year.

Single Op All Band High Power. Bill W0HBH in Missouri was the top scorer. Second place went to Keith N9KZ in Iowa. W0BH Bob in Kansas placed third. Iowa's Tom WEOM came in fourth, followed by Richard KB0ARZ in Nebraska.

Single Op All Band Low Power. This continues to be the most popular category, gaining ten more entries than in 2007.

Alex KU1CW took top honors in the Midwest Division and the Midwest Region from Missouri. His effort also earned him second place in the U.S. John ND1X placed second and also was the first place winner in Nebraska and placed fourth in the Midwest Region. Third place went to Don NT0F, who also placed first in Iowa and fifth in the Midwest Region. N0YO Don came in fourth in the Division and first in Kansas. John K0WHV came in fifth in the Division and second place in Iowa.

Single Op All Band Assisted. This is the second most popular category in the Division this year. The top two stations were from Missouri with George AB0RX placing first, followed by Eric W0TT in second. The next two spots went to Iowa, with Joe W0MJN placing third and Pat N0HR in fourth. Jan KCODEB came in fifth place from Kansas. This category had no entries from Nebraska.

Single Band Entries. Single band entries were not very popular this year, but most single band entrants chose 20 meters. W0CEM John was the top competitor on 20 meters in Kansas, followed by KB8PXV (now N0HIO) David in Missouri. Third place went to Henry W0IE from Kansas. KORH Jim tried his luck on 15 meters this year and placed ninth in the U.S. WA0FQK also ranked ninth nationally with his 10 meter entry.

Multi Operator. First place was earned by the team of N0MA in Iowa. Second place went to the team of AK9D in Kansas.

Hopefully next year band conditions will be better and the competition trend will continue with even more entries.

### **New England Division by Jim Monahan, K1PX**

*"To be challenged is inevitable, to be defeated is optional...Daniel Perron"*

This quote more than sums up the challenge that were faced by the combatants in the 2008 ARRL DX Phone Contest. Despite yet another year of poor conditions, New England's finest showed up and persevered to the "bitter" end.

With the sun simply not cooperating to provide some reasonable propagation, except maybe for the lowbanders, the stalwarts from the Northeastern states were not dissuaded and prepared themselves with armor and weapons to do battle.

Despite all of the odds against them, outstanding scores and finishes were achieved. Congratulations to all for the fine showing!

The popular Single Op AB Low Power category had the most participants with 41 entries. Topping the list and coming in 1st in the Top Ten U.S. winning the SOLP Phone Plaque is Art, K1BX from NH with a blistering 1047 Q's, 248 mult's and just under 775K points. Also, he won the New England Division SOLP Phone and W/VE SOLP Combined Score Plaques. Wow!

Closely behind were John, N1PGA, ( 6th in the U.S. Top Ten), Dave, W1CTN, (8th in the U.S. Top Ten), Mike, W1JQ and Ed, W1KT all with hard earned high scores.

Mark, K1RX, also in NH, led the Single Op High Power top guns with 1,487 Q's, 269 mult's and just under 1.2 million points with a Top Ten U.S. finish.

Right behind in his footsteps were Randy, K5ZD, Bill, N1HRA, Gerald, N1DD and Leslie, N1SV with great scores.

Tom, N1TM certainly deserves special mention as the lone entry in the SO QRP category. And, he succeeded in placing third in the Top Ten U.S. with 172 Q's, 91 mult's for just over 45K points. Talk about doing it the hard way in a phone DX contest!

There were 39 entries in the SOAB Assisted category and when the dust settled, Malcolm, KI1G representing the CTRICG group from RI came out on top with a stout 1,639 Q's, 326 mult's for a final tally of just under 1.6 million points. Congratulations on winning the W/VE Single Op Assisted Phone and New England Division SO Assisted Phone Plaques.

Second through fifth place were Donald, N1DG, Dave, K1ZZ, Gustav, W1GUS and Chester, N8RA with big scores.

The team at KB1H in CT led the pack in the Multi 2 category with 1,680 Q's, 339 mult's and 1.66 million plus points. In addition to Richard, the others ops were Tom, W1TJL, Dave, AA1CE and Frank, K1EBY. Just behind were the group from K0TV in NH ( +K1BG, K1HI, K1UZK, K2TE, KB1NYQ, N1ICE, W1ZZ and WO1N ) and the gang at K1KP ( +KB1NOW ) in EMA.

The Multi-Multi category featured Dennis, W1UE in EMA with an outstanding 2,329 Q's, 376 mult's adding up to just over 2.6 million points. Assisting in this fine effort were Paul, K1XM, Alfred, W1FJ, Andrew, K2TJ, Tim, KT1D and Michael, W1NR.

Just a few points behind, were the team at the club station, K1CX in NH. It seems that NH is the place to be to run a contest. There must be some "secret" ground conductivity spread throughout the state!! The operators there were K1GQ, KA1R, W1FV, WA1Z and WC1M. Third place in the MM standings were the operators at K1TTT in WMA with K1EP, K1MK, K2WR, N1AW, NJ1F, W1EQO, W1MAW and W1TO.

There were three entries also in the Multi Single category and first place went to Tom, N1MM at his CT location. Assisting him with 1,552 Q's, 306 mult's and just over 1.4 million points was Richard, N1IXF. Closely following in second place with the W1QA call were NC1L and K9PW. Third place went to N1FD with WB1ADR and KA1ARB assisting.

The Single Band entries featured Michael, KA1EKR on 15 meters with 4,125 points, Robert, W1AVK leading KG1V, KT1I and N1ZMB on 20 meters with 13,536 points, Robert, N1UED on 40 meters with 1,428 points and the Topbanders with Ted, KT1V, the W/VE 1.8 MHz Plaque winner, blasting through with 12,282 points followed by K1HAP and K8PO respectively.

Finally, in the Club Competition, The YCCC finished with 121,365,369 points from 181 log entries ending up just slightly behind the lead in second place and nearly twice the score of the third place finisher in the Unlimited Category.

Kudos to all for the outstanding performances under difficult conditions!

Hopefully by the running of the 2009 ARRL DX Phone Contest that Sol will get the message and provide us with better conditions.

### **Northwestern Division by Ward Silver NØAX**

It's telling when our resident Big Dog – Mitch K7RL – walks away with the Division Single-Op High-Power All-Band title and doesn't even make the US/VE Top Ten! But things were tough all over and when the going got tough, you can see that the tough, well, they toughed it out! And let's congratulate our category winners!

**Table 1 – Category Winners in the Northwestern Division**

Category	Call	Score	West Coast	US/VE Top Ten
SOAB-HP	K7RL	695784	1st place	
SOAB-LP	W3CP	74469		
SOAB-QRP	K7MM	17010	2nd place	
SOSB-20	W7WA	317349		2nd place
SOSB-15	K7MH	3588		
SOAB-Assisted	W7YED	71703		
Multi-Single	WX7P	182352		
Multi-Multi	K7ZSD	873042		9th place

Noteworthy in the face of propagational adversity is the 2nd place US/VE finish of our reliable 20 meter maven, W7WA. I do believe that Dan has a lock on 20 meters for which he and he alone holds the key – it's just his band! There is nothing like being on the band day and night and learning its secrets. That and excellent operator stamina put W7WA "in the box" every year. Another 2nd place national finisher was K7MM who has been placing higher and higher in the national QRP totals every year! K7MM was the only Northwest division entry in this category.

Back to the high-power crowd and this *was* a year

to turn on the amp. K7RL, the Voice of Camano Island, was by far the best score in the category. Way to go! In 2nd through 4th, however was a real dogfight as N6TW held off W7JY and K0IP – all finishing close together in QSOs and multipliers. It's good to see entrants from all over the Division.

**Table 2 – Single-Op High-Power All-Band Category**

Call	Score	QSOs	Mults	Section
K7RL	695784	1094	212	WWA
N6TW	114912	304	126	OR
W7JY	110400	320	115	OR
K0IP	104601	293	119	ID
NB7V	87822	357	82	MT
KI7AO	74472	214	116	EWA
K7EG	68544	238	96	WWA
N7TL	20520	114	60	OR
KS7T	16992	96	59	MT
N7VS	14112	98	48	OR
KG7P	12672	96	44	WWA
KC7UP	11388	73	52	MT
W9PL	3306	58	19	WWA
W7JAM	2376	36	22	WWA
W7GKF	1800	25	24	WWA
W7VS	1725	25	23	OR
KD6WAB	162	9	6	OR

Low-power had much the same pattern, as W3CP outdistanced the pack to claim first place in the Division. Right behind W3CP, KD7MSC and NW7E really went toe-to-toe in one of the closest finishes in the entire contest! It looks like the Oregon stations had a lock on Low Power, this year – well done!

**Table 3 – Single-Op Low-Power All-Band Category**

Call	Score	QSOs	Mults	Section
W3CP	74469	241	103	OR

KD7MSC	46368	184	84	OR
NW7E	46314	166	93	OR
WA7MR	37410	145	86	OR
KE7NO	36240	151	80	MT
W7SO	33864	166	68	OR
N7VZU	28416	148	64	EWA
NF7T	27900	124	75	ID
WG7X	24375	125	65	WWA
W7QN	18894	134	47	WWA
N7VJ	18762	106	59	ID
K6UM	15651	111	47	OR
W7NNN	14850	110	45	WWA
K7SAM	11088	84	44	MT
N3CJD	10320	80	43	OR
KD7DCR	7680	64	40	MT
K7AWB	7524	76	33	EWA
KB7N	6936	68	34	WWA
WA0WWW	4704	56	28	EWA
KF7CQ	4356	44	33	ID
WM7DX	1725	25	23	ID
K7GZP	756	21	12	OR
AD7T	231	11	7	WWA

Single-Op Assisted scores look a lot like Single-Op Low Power as W7YED won handily with three closely-spaced challengers, N7FLT, W7WHY, and K7VI, right behind. With spotting networks so widespread and easily accessible, there is little geographical advantage of proximity to a packet network – just TELNET in to any cluster on Earth!

**Table 4 – Single-Op Assisted Category**

Call	Score	QSOs	Mults	Section
W7YED	71703	257	93	WWA
N7FLT	32625	145	75	MT
W7WHY	32175	165	65	OR
K7VI	30858	139	74	WWA
K7VIT	26460	140	63	OR
W7SST	6528	64	34	OR
N1KEZ	5250	50	35	OR
AF7O	690	23	10	WWA
AK7S	168	8	7	WWA

In the multi-operator categories, K7ZSD's fine and growing station jumped into the multi-multi category this year and placed 9th in the US/VE totals. That is a big feather in the cap for the 'ZSD team! NK7U is in a rebuilding phase at the moment and so this is the opportunity for K7ZSD to solidify the team and begin to shine!

**Table 5 – Multi-Op Category**

Call	Category	Score	QSOs	Mults	Section
K7ZSD	MM	873042	1282	227	OR

WX7P	MS	182352	464	131	EWA
W7TVC	MS	31080	148	70	OR

15 and 20 meters were the only bands to draw a single-band entry from the Northwestern Division. I was a little surprised that there were no 40 meter entries from the division. Farther south, in the Pacific Division, W6YI was able to win the category from Southern California, so there must have been plenty of stations active. Nevertheless, congrats to K7MH who stuck it out on a very sparsely populated 15 meter band. We've already mentioned W7WA's nice national second-place finish, but one can never hear enough of such things, so congratulations Dan!

**Table 6 – Single-Op Single-Band Category**

Call	Category	Score	QSOs	Mults	Section
K7MH	SOSB-15	3588	46	26	WWA
NG7Z	SOSB-15	48	4	4	WWA
W7WA	SOSB-20	317349	953	111	WWA
W7BJN	SOSB-20	90936	421	72	EWA
WA7AR	SOSB-20	71610	341	70	OR
W6AEA	SOSB-20	37572	202	62	EWA
K7ABV	SOSB-20	32922	177	62	MT
KB7QFE	SOSB-20	6534	66	33	ID
KB7STO	SOSB-20	312	13	8	WWA
K7PWL	SOSB-20	36	4	3	WWA

**Pacific Division by Mark Schreiber K6OWL**

If one were to claim that propagation conditions must truly have reached their nadir during this year's ARRL DX Phone contest, one would also have to concede the error of having put forth the same (optimistic in retrospect) conclusion last year, and perhaps the year before. Nevertheless, again preferring optimism over experience, we assert that the propagation conditions for this year's ARRL DX Phone contest must have truly achieved rock bottom.

Indeed, this sentiment seems to reflect the feelings of many of the division's most experienced participants. Ken Keeler N6RO of the Pacific Division's leading multi-multi effort, wrote that "this was the lowest score in this contest since we started in Oakley 30 years ago. Not only multi, but it's lower than any Single-op score from here! So, prop[agation] can only get better." Rusty Epps W6OAT, from another multi-operator group, agreed succinctly that, "These were the worst conditions we have ever experienced."

Bob Wolbert K6XX, the division winner in the single-op high power category, adopted the strategy of many West Coasters of starting this contest on 15 meters. However, after having worked everyone he could on fifteen in just eight minutes, he joined the fray on twenty. He finished the first hour with just over 100 QSOs in his log, a disappointing result for such an excellent contester with such excellent facilities. Nevertheless, he observed, "The really bad news was that this was my best hour of the weekend." On the bright side, he found "One benefit of working hours with the rate meter hovering around 0006 is the time you have to play with the rig 'bells and whistles.'" One would doubt whether quality time with a new K3 makes up for the lack of action.

Despite the challenging propagation, Pacific Division participation was reduced by just eight percent this year, measured by the number of logs submitted. Clearly, the Pacific Division members are undaunted by the challenge of operating in the ARRL DX contest, even with the minimal boost from sol.

On a nationwide level, the N6RO multi-multi finished eighth nationwide. No Pacific Division single-operator all-band contestant broke into the top ten. Among single band entries, W6GMT placed third nationwide on 10 meters, Ken K7AO placed eighth nationwide on 40 meters, and KI6PG placed tenth nationwide on 80 meters. In the West Coast Region, five all-band participants from our Division (K6XX,

N6NF, K7ACZ, N6WG, and K6RM) placed among the top five entries in the region's three power categories.

#### Single Operator High Power

Bob K6XX took top honors in the Pacific Division from the Santa Clara Valley section (and also placed second in the West Coast Region) with 448,140 points (770 Qs and 194 mults). Last year, Bob submitted his entry in the single band 15 meter category and placed second nationwide. K6MM, also in Santa Clara Valley, moved up to second place with 265 Qs, 112 mults, and 89,040 points. K7LV, in the Nevada Section, finished third in the category (252 Qs, 115 mults, 86,940 points). K9JDV, (33,066), N6YMM (30,672), WA6ST (30,222), K6LRN (25,536), K6YV (21,204), W0YK (19,215), N6XI (13,113), and K6UUW (12,144) rounded out the Pacific Division's top ten list in the SOABHP category.

#### Single Operator Low Power

Tom N6NF from the Santa Clara Valley Section was last year's division winner in the high power category. This year, he turned off the amp and won the low power category with 153,468 points, resulting from 441 Qs and 116 mults and also took third place in the West Coast Region. He displaced last year's winner, K7ACZ in Nevada who submitted a log with 144,699 points, 347 Qs, and 139 mults. K7ACZ also placed fourth in the West Coast Region. K7XE from Sacramento Valley finished third in the Division with 32,760 (182 Qs and 60 mults). The remainder of the top ten of the SOABLP class consisted of K6KWB (13,200), AF6EV (11,088), K6AAB (9,198), K6GZA (6,417), AE6YB (4,263), KD7VOK (3,900) KE6SHL (3,888).

#### Single Operator QRP

Bob N6WG, the "Little Station with Attitude" from the East Bay Section again won QRP honors in the Pacific Division (and took fourth place in the West Coast Region) with 8,436 points, made up of a 76 contacts and 37 multipliers. K6RM in Santa Clara Valley submitted an entry in this category (2,331 points, 37 Qs and 21 multipliers), substantially increasing his score from the prior year's entry. KI6ADA from San Francisco reported 585 points (15 Qs and 13 mults).

#### Single Operator Single Band

Three single band operators from the Pacific Division appeared in the nationwide top ten boxes this year, down from five in the prior year. Brock W6GMT stayed on 10 meters throughout the contest for a third place nationwide finish with 1,692 points (47 Qs and 12 mults) from San Joaquin Valley. Last year, Brock placed tenth nationwide on ten meters. Ken K7AO from the Nevada Section submitted the nationwide eighth place 40 meter single band entry with 9,711 points (83 Qs and 39 mults). Bill KI6PG in San Joaquin Valley placed tenth nationwide on 80 meters (570 points, 19Qs, and 10 mults). AB1U from Sacramento (5,022), W6DPD from San Joaquin Valley (4,836), and K7XC from Nevada (2,760) submitted 15 meter single band entries. K6HNZ of Santa Clara Valley (69,597 points, 407 Qs, and 57 mults) again won the Pacific Division honors on 20 meters. K6JAT (13,209), N6HK (7,326), N1WC/W6 (6,216), AJ6V (2,346), KO6JF (240), KI6CYT (90), and KC6ZZT (30) also filed 20 meter single band reports. W6RKC submitted another 40 meter single band entry in the Pacific Division. We had no 160 meter single band entry. As disappointing as the high bands were this year, the participants also reported that the low bands were also sadly unsatisfying.

#### Single Operator Assisted

Ken K6TA in Sacramento Valley (281,232 points, 504 Qs, and 186 mults) led this category with a score almost 100K larger than last year's winner. W7RN in Nevada was runner up (153,639 points, 397 Qs, and 129 mults). N6MW in Santa Clara Valley finished third with 67,716 points (198 Qs and 114 mults). K6RIM (53,607), W6SA (47,730), W6DR (28,080), N2NS (23,328), K6GT (16,686) W6RQ (10,296), and K6III (9,588) rounded out the top ten among the Pacific Division packet users.

## Multi-Op

The Pacific Division fielded eight multi-operator entries this year, more than twice as many as last year. N6RO (K6AW, K6VVA, K9YC, K0UK, N6RO, WA6O, WX5S, ops.) participated in a multi-multi effort this year from the East Bay Section, completing 1,418 contacts and recording 260 mults resulting in 1,106,040 points to lead the Division and place eighth nationwide. K6LRG (K6CMD, K6EWN, K6VUG, KG6D, KI6BEN, KT6YL, and N6SPP, ops) also submitted a multi-multi entry from the East Bay (39,990 points). K6IDX (K2RD, K6IDX, KH8A, and W6OAT, ops), in Sacramento Valley, submitted the Division's only multi-two-log resulting in 342,348 points, 607 Qs, and 188 mults. Five multi-single efforts were mounted. W6WB (AD6E, K6WG, KX7M, N6KJ, and W6NV, ops.) led the pack from the East Bay with 750,9655 points (1051 Qs and 235 mults). KG6OJB (with co-operator NT6K) in Sacramento Valley came in second with 121,404 points (302 Qs and 134 mults). AE6AY (along with K1BKH, K6BLS, KF6PQM, and W6JEX) in Sacramento Valley was third (40,014 points, 171 Qs, and 78 mults). K6TWT (operated by W6HF and KL1WE) in the San Francisco Section finished with 133 Qs, 62 mults, and 24,738 points, all logged by hand. NE6M (with K1VHR) in Santa Clara Valley submitted a log with 72 Qs and 38 mults for 8,208 points.

## Propagation

Not surprisingly, 20 meters was the most productive band in this year's contest (4,938 Qs and 1,570 mults). Fifteen meters was almost one-third less productive than last year (2,808 Qs and 1,045 mults). Over seventy percent of this year's contacts were on these two bands alone (compared with over 80 percent last year, the drop apparently reflecting less relative productivity on fifteen meters this year). Forty (1,524) and eighty meters (691) combined for just about 2,200 contacts. Ten meters was a surprise (714 contacts), yielding more Qs than 80 meters. Only 90 contacts were completed on 160 meters.

## **Roanoke Division by Don Daso K4ZA**

With 51 entries in this year's running of the DX Phone Test, North Carolina was the place to be--perhaps not for the really BIG scores, but it certainly contributed to Roanoke Division club coffers and its fair share of fun. Some highlights: Perennial low power entrant K4CIA went QRP this year, and Bill's single tower station in Raleigh obviously plays--he topped the pile. Single Op Assisted finds N4ZC back at the top, of the category that is, a welcome return to contesting for Roger's down-sized station.

Up in Virginia, with a total of 48 DX Test entries, it was Larry, K7SV, who proved victorious over Kevan, N4XL, in one of the closest races of the Test. Kevan had more QSOs, but Larry's higher Mult count prevailed. Kudos to both for great 300K efforts!

Also in Virginia, PVRC President K4ZW managed a solid Single Op High Power effort, scoring 1.82M points for the club. Way to go, Ken! In these conditions, 1878 Qs represents an outstanding effort. Not too far away (neither geographically nor score-wise), was M2 entrant W4RM, also running up 1.6M for the PVRC.

With only 15 and six entries, the scores from South Carolina and West Virginia ranged, of course, from high to low, but I'm sure their efforts were appreciated by our DX brethren. Makes you think it's time to buy some WV mountaintop and put up a big station, huh?

As always, it's not the conditions, it's the camaraderie, the constant bursts of excitement and enthusiasm that keep us coming back to the radio. DXers, ready in soul and spirit, just like the South Carolina state motto!

## **Rocky Mountain Division by Steve London N2IC**

When will it end!?! Or, better yet, when will the new sunspot cycle begin? For the fourth consecutive year, the ARRL DX Phone contest weekend was nothing to write home about. Frankly, I'm in awe of those of you with the fortitude to put in a major effort this year. Comments from those duking it out in the Rocky Mountain Division include "I hope this is the bottom" (N0KE), "Only about 40 QSO's all day on Sunday"

(K0IZ), “No EU 15m or 40m here” (W0ETT), “Europe on 20m was ESP” (N0OJ), “Saturday was terrible and Sunday was worse” (K0IZ). However, there were a few (very few?) bright spots: “Hope this test puts me over the 100 mark for DXCC” (N0KM), “Had a great time as always in the contest...when the band was dead I was feeding the birds and watching it snow” (WD0BGZ @ W0LSD).

Anyway, there WERE some interesting contests in the Rocky Mountain Division. There was a hot competition for #1 in the single-op, high-power, all-band category between NN7ZZ (Don, N5LZ operator) and Phil, N0KE. They were almost dead-even in total multipliers (176 vs. 177), but Don had 52 more QSO's for the winning edge. Those 52 extra QSO's included not just more JA's, but also more Europe than Phil was able to eke out of the ether. In 3rd place was Bob, W6PU, from New Mexico. Honorable mention goes to fourth place finisher N0QO, only 0.7% behind Bob. This was Ken's second contest - ever ! In the single-op, low-power, all-band category, Ken, W0ETT was the winner, toughing it out for 148 QSO's, beating Richard, NS7K by 49 contacts. George, WF4U, in Utah, was one of two QRP entrants, with 71 hard-earned contacts.

Lew, K0RI, put in a big single-op, assisted effort, soundly winning the division with 513 QSO's/199 multipliers. Mike, N5KM, came in 2nd with 325/135.

There were some very notable single-band entrants from our black hole. Alan, WD0BGZ, operating from W0LSD's station, again came in 3rd place nationally on 40 meters. Del, KC6R, operating from Colorado Springs, placed 6th nationally on 15 meters. Both of these guys put in a lot of hours, for not many total QSO's under these poor conditions. On 20 meters, John, K0IZ, put his unique long wire vee-beam to work (see June 2005 *QST*, page 40), winning the Rocky Mountain division with 259 QSO's and 77 countries. In second place on 20 meters was Bruce, N0KIS, sharing the W0LSD station with 40 meter winner WD0BGZ.

You can get the complete rundown of scores for the Rocky Mountain division at [tinyurl.com/5n3eqv](http://tinyurl.com/5n3eqv). Conditions can only improve next year, right ?

**Southeastern Division by Jeff Clarke K0UE**



Inside shack of SOAB HP Winner K4SSU

**SOAB High Power Top 5**

<b>K4SSU (NA4BW)</b>	<b>1339/258</b>	<b>804,186</b>
K2EK	728/270	589,680
K1TO	868/223	580,692
K4PV	809/194	470,838
N6AR	592/217	385,392

Brian, **NA4BW**, did an guest operation from **K4SSU** and had the top score in the division. Right behind him was **K2EK** followed by Dan, **K1TO** in 3rd.

**SOAB Low Power Top 5**

<b>K9OM</b>	<b>419/191</b>	<b>240,087</b>
W4TAA	532/132	210,672
WB4JFS	343/142	146,118
W4NBS	221/118	78,234
N4JF	201/113	68,139

The top two scores in the battle for the top SOAB low power score was in Florida. Dick, **K9OM** edged out Charlie, **W4SAA** for the top spot. Just behind in 3rd place was **WB4JFS**.

**SOAB QRP**

<b>W5JBV</b>	<b>4/4</b>	<b>48</b>
--------------	------------	-----------

The lone entry and winner in the SOAB QRP category this year was **W5JBV**.

**SOAB Assisted**

<b>N4KG</b>	<b>636/246</b>	<b>469,368</b>
KR4F	487/209	305,359
W4LT	387/165	191,565
N4DL	385/145	167,475
N4GG	306/182	167,076

Long time contester Tom, **N4KG** has the top spot in the SOA category. Just behind him in 2nd place was fellow Alabama station **KR4F**. In 3rd place was **W4LT** in Florida.



Top 160 meter operator, Mark W4SVO

**Single Band Categories - Top Scores**

<b>W4SVO</b>	35/28	2940	160
No Entry			80
N4QV	154/64	29,568	40

N4PN	704/103	217,536	20
N8PR	147/43	18,963	15
K4WI	72/17	3672	10

In the single band categories **W4SVO** was tops on 160, **N4QV** on 40, **N4PN** on 20 **N8PR** on 15 and **K4WI** on 10. Congratulations to Cort, **K4WI**, for toughing it out on 10 meters and placing #1 in the USA.

#### Multi-Multi

<b>NQ4I</b>	<b>722/250</b>	<b>541,500</b>
-------------	----------------	----------------

The lone entry and winner in the Multi-Multi category this year was **NQ4I**.

#### Multi Single

<b>N4BP</b>	<b>393/113</b>	<b>134244</b>
WU4N	153/90	41310

Two Florida stations battled it out in the Multi-Single category. **N4BP** came out on top followed by **WU4N**.

#### West Gulf Division by Larry Hammel K5OT

Despite less-than-exciting band conditions, West Gulf Division entrants still managed to make the best of a tough year.

Ken WM5R piloted K5TR to a division-leading finish in the high power category. In previous years, he's been part of a multi-op or single-band entry. This year, Ken made his inaugural 48-hour single-op showing and nailed the top spot.

From his hilltop QTH in central Texas, Marv N5AW invested only 36 hours and was rewarded with the top single-op low power score and another top-10 W/VE finish at #4 overall. Improvements during the past year helped his 40M production, but it was still very tough going on the higher bands. Marv lamented that this year netted his lowest multiplier totals on 10M and 15M in over 20 years from Texas. More sunspots, please!

Want a challenge? Try a QRP SSB entry in a DX contest from W5-land. KA5PVB had the winning formula this year with the top QRP honors and #8 in W/VE. Close behind was K5ZE, who also finished in the top-10 overall.

Mike K5NZ was the single-op assisted winner this year.

Single-band high scorers included K5RX (160M), NA4M (80M), N5DO (20M), and NR5M (15M).

You need to watch what is happening down near Hempstead, Texas, as George NR5M is getting back into competitive contesting in a big way. His focus was on 15M this time, and multiple antennas and a central location helped him achieve the #1 W/VE spot on the band. Here's some of George's firepower on 15M: a 4-stack of K3LR/W3TX OWA (48 ft boom) yagis at 165/125/85/45 feet. Legacy KLM 5el beams on one tower at 45 ft. and another at 35 feet. Another KLM stack on a 105 ft. tower is in progress. Oh yes, did I mention the 7el – 48 ft. OWA at 204 feet on top of the 20M stack? Watch for future high finishes as additional antenna work on the other bands is completed at the growing NR5M superstation. Check out [www.nr5m.com](http://www.nr5m.com) for the latest status.



Quite an equipment line-up at KB5TX



The KB0HH 20M & 15M operating positions

Despite what K5NA described as “the contest from hell,” Richard and his CTDXCC team (K5NA, K5DU, K2UR, AB5K, KU5B and KG5U) overcame some tough challenges to win the top division score in the multi-single category and #4 in W/VE. Running was difficult on most bands, and they were forced to focus almost exclusively on finding QSOs by search-and-pounce and relying on packet spots. Richard commented that it was the first time that he recalls not working at least 100 countries on 20M in this contest. Final words from K5NA seem appropriate: “I think band conditions can only get better after this. I sure hope so!”

Multi-op contesting is a great way to build individual contesting skills and have a great time working as a team towards a common goal. In a developing West Gulf M/M rivalry, the Kendall Amateur Radio Society put in another dedicated effort and took the top spot and 12th place in W/VE this year, operating as KB5TX from the K4RMC QTH outside of San Antonio. Their bountiful operator line-up included K4RMC, WC0B, W5XW, KM5SY, N5BBI, KK5RZ, AA7FW, KE5NUQ, WO5F, W5WGE and K5FDG. Meanwhile, up in northwestern Oklahoma the KB0HH team (KE5OHL, KC5DPT, KA0KCI, WC0X, and KB0HH) dodged a supercell thunderstorm and placed a close second this year. Last year, the order of finish was reversed, with KB0HH edging out KB5TX. Wonder who will break the tie in 2009?

## Canada by John Sluymer VE3EJ

At the risk of sounding repetitive, conditions for the 2008 running of the ARRL DX SSB contest were nothing less than terrible. In 2006 your scribe commented that conditions were poor and indicated that things were worse in 2007. There was hope that we would be climbing out of the sunspot doldrums in 2008 but there was no sign of any solar activity in mid-February and as a result 15 and 10 meters were tough places to be.

VE3EJ managed a division-leading 10 QSO's on 10 meters and a whopping 4 multipliers. The total number of QSO's on ten meters by all VE entrants combined was only 38! 15 was not far behind with VE3UTT digging for a mere 115 QSO's and 40 multipliers to lead the division on that band. Expectations were low for 10 meters but at least a little performance on 15 would have been nice.

Scores were down in '07 versus '06 and way down in '08. Total VE entries in all categories was only 75 compared to 88 last year, a drop of just over 7%. Category breakdown are as follows:

- Single operator unassisted: 46
- Single operator assisted: 10
- Single band: 15
- Multi Single: 2
- Multi Two: 2
- Multi Multi: None

There were 44 high power entries, 28 were low power and 3 QRP'ers.

All call areas except Saskatchewan (VE5) and the elusive Yukon (VY1) and Nunavut (VY0) were represented with Ontario taking the lead with 35 entries or 47% of the total. British Columbia was next with 8 entries followed closely by Alberta with 7.

Despite the poor conditions Canadian stations finished well in the overall contest standings. The highlights are:

### Single Operator unassisted all band HP

- **VY2ZM** – Overall contest winner, top Canadian and top North East region
- **VE3EJ** – Fourth overall, # 2 Canada and top score in the Central region
- **VC3E** – (VE3AT op) – Fifth overall, #3 Canada.

### Single Operator Assisted all band HP

- **VE3UTT** – Eighth place overall and #1 in Canada

### Single Operator all band QRP

- **VA3DF** – Fourth overall, #1 Canada and # 1 Central region

### Single Band 20 Meters

- **VOIHE** – Fourth overall and #1 Canada
- **VOIKVT** – Fifth overall and #2 Canada

### Single Band 40 Meters

- **VA3XH** – Number eight overall, #1 Canada

### Multi Two

- **VE3RM** – Number ten overall, # 1 Canada

Top Canadian finishers and scores:

- Single operator all band high power: **VY2ZM** – 2,929,977
- Single operator all band low power: **VE3AD** – 128,781
- Single operator all band QRP: **VA3DF** – 32,625
- Single operator assisted: **VE3UTT** – 751,230
- Single operator 10 meters: No entry (Wonder why!)
- Single operator 15 meters: **VE6SF** – 6,804
- Single operator 20 meters: **VO1HE** – 158,730
- Single operator 40 meters: **VA3XH** – 7,104
- Single operator 80 meters: No entry
- Single operator 160 meters: **VE3CUI** - 192
- Multi single: **VE6AO** – 121,404
- Multi two: **VE3RM** – 648,870
- Multi Multi: No entry

No contest, regional or Canadian division records were set by VE stations this year. With a little luck conditions will improve for 2009 with a corresponding increase in Canadian activity. Propagation is tough from the North and we can use a bit of a boost from “Old Sol”.

**The Caribbean Scene – by Jeff Clarke KU8E**

[Editor’s note: This report covers stations operating from the entire Caribbean area and is not limited to islands in North America. – KX9X]



8P1A QTH on Barbados



P40A – SOAB LP Winner

The Caribbean region is the place everyone goes for the ARRL DX Contest if they want to try to win from outside of the USA. It offers favorable propagation and a beautiful tropical climate when you take a break from contesting. This is even more the case now that we are at the bottom of the sunspot cycle. Now, on to the results:

#### Band Breakdowns of Highest Score in Region by Category

Call	Category	160	80	40	20	15	10
<b>8P1A</b>	SOHP	376/53	892/58	1396/58	2738/59	2285/58	47/15
P40A	SOLP	197/44	532/56	1428/58	1992/58	2292/58	19/3
CO6LP	SOAB QRP	0/0	34/17	48/17	207/37	6/5	3/2
PJ2T	SOA	356/53	658/58	1361/59	2095/59	2569/58	83/9
TI50DX	MM	216/36	978/55	1798/59	3123/60	2991/59	507/46
6Y1V	M2X	519/54	1261/59	2592/60	3665/60	1712/58	284/22
PJ4G	MS	314/46	894/58	1075/57	1972/60	2918/58	87/14

#### SOAB High Power Top 5

<b>8P1A (W2SC)</b>	<b>7734</b>	<b>301</b>	<b>6938652</b>
KP2M (N2TK)	5328	266	4212642
TO5A (F5VHJ)	4674	255	3523590
NP2I	3411	210	2109240
HQ2W (HR2DMR)	2941	206	1789728

Tom Georgens, **W2SC**, once again traveled to his contest station on Barbados, **8P1A**, to try for a repeat as the SOAB High Power champion. He ended up just behind the eventual SOAB HP winner, **HC8A**. 10 meters turned out to be the difference in the hotly contested battle between Tom and Rich (**N6KT**) at HC8A. Tony, **N2TK**, was 2nd operating from **KP2M**. Not far behind was **TO5A** on Martinique.

#### SOAB Low Power Top Five

<b>P40A (KK9A)</b>	<b>6460</b>	<b>277</b>	<b>5317569</b>
HQ9R (WQ7R)	3596	240	2553120
VP9/W6PH	3745	227	2540130
J88DR (G3TBK)	3561	213	2253114
8P6EX	1773	180	942840

Another regular winner of in ARRL DX contest is John, **P40A (KK9A)**. He, too, built a contest station on the beautiful island of Aruba. In the 2008 SSB contest he decided to give the SOAB Low Power category a try. **P40A** won this category by a pretty large margin, doubling the score of the 2nd place finisher. Grouped in a close battle for the 2nd – 4th place spots were **HQ9R**, **VP9/W6PH** and **J88DR**.

## SOAB QRP

CO6LP	298	78	68328
-------	-----	----	-------

Luis, **CO6LP**, was the sole entry in the region in the SOAB QRP category. Congratulations to him for having the top QRP score in the world.

## SOAB Assisted

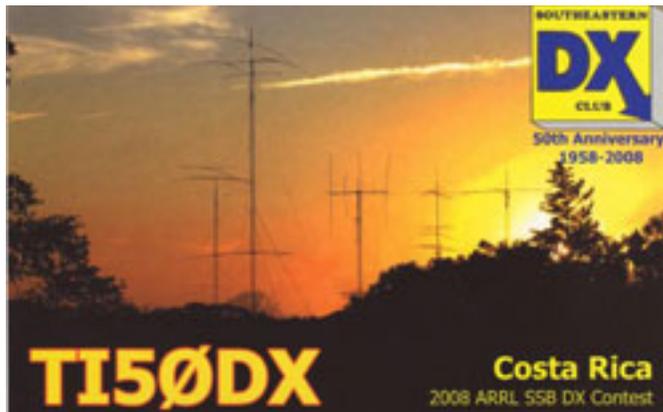
PJ2T (WE9V)	7122	296	6276384
-------------	------	-----	---------

**PJ2T** has been a perennial winner in the Multi-Operator categories for many years. In 2008 Chad, **WE9V**, was given the keys to take the CCC contest station for a ride in the Single Operator category. He responded with a new South American SOA record score! Way to go, Chad!!

## Single Band Categories - Top Scores

<b>KV4FZ</b>	545	56	90384	160
ZF2AH	1713	58	290058	80
CM8GJ	140	29	11484	40
P40V (AI6V)	3884	59	679503	20
P40LE (K2LE)	161	40	18960	15
No Entries				10

Many of the top Single Band entries from the Caribbean were also #1 in the world. That would include **KV4FZ** on 160, **ZF2AH** on 80 meters and **P40V** on 20 meters. Congratulations to Carl, **AI6V**, for setting a new South American 20 meter single band record from P40V. **CM8GJ** had the top region score on 40 meters and **P40LE** on 15 meters.



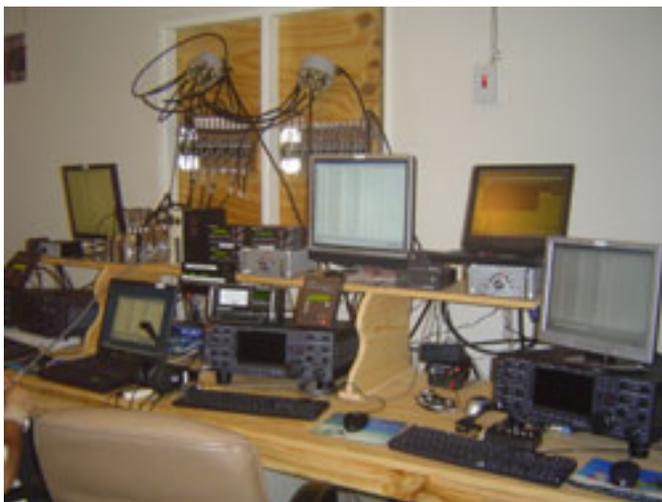


The Multi-Multi winning team from the SEDXC – TI50DX

### Multi-Multi

TI50DX	9613	315	8790390
--------	------	-----	---------

The lone entry in the Multi-Multi category this year was **TI50DX**. This operation was put together by members of the **Southeastern DX Club** to celebrate the 50th anniversary of their club. In addition to having the #1 score in the region they were also #1 in the world.



Multi-two winner 6Y1V

### Multi-Two

<b>6Y1V</b>	<b>10033</b>	<b>313</b>	<b>9278259</b>
V47KP	6428	271	5125152
TI8M	5154	266	4025112

Krassy, **K1LZ** and David, **KY1V** have built a large contest station on the north coast of Jamaica. **KY1V**, **K9NW** and **W4OI** operated at **6Y1V** in 2008 in the M2X category. They had the #1 score in the world and also the #1 score of any category. Congratulations to David and his team! They should be a force to reckon with in the coming years.

### Multi Single

<b>PJ4G</b>	<b>7260</b>	<b>293</b>	<b>6328800</b>
V26X	6790	283	5679810
HI3C	5675	286	4743024
VP5H	4968	288	4243104
4A2S	5342	263	4122525

The winner of the **Multi-Single** category in 2008 was **PJ4G**. Noah, **K2NG**, and his team have built a first-class contest station on a hilltop on the island of Bonaire. I am very familiar with this station since I have operated at this location in the past as **PJ4R** and **PJ4A**.

In 2nd place was the **V26X** team. **HI3C** was 3rd and a close 4th was the **VP5H** team from the Minnesota Wireless Assn.

### Europe by Andy Cook G4PIQ

Last year I wrote, "Boy does the bottom of this cycle seem to be a long one. This year 10m played absolutely zero part in the 2007 running of the ARRL DX Phone contest from Europe - not even the odd QSO was made on the band from Spain or even from the Azores. 15 suffered as well with very few folks topping the 50 multiplier level, and those who did were all in Southern Europe." When I wrote that, I had absolute confidence that 2008 would be better. How wrong can you be. For 2008, not a peep, a squark or a burble on 10m, and no-one with more than 22 mults and 60 QSOs on 15m. Just amazing.

With conditions like this, the big multi-operator sections of Multi-Multi and Multi-Two aren't heavily populated from Europe - there's usually only one band properly open at a time. However, congratulations are due to the TM6M team operating from their super site on the Northwest tip of France for repeating their success of last year and not only coming top in the Multi-2 section, but also scoring higher than the leading Multi-Multi entry from those stalwarts at 9A1A. I'm sure that once upon a time, somewhere back in ancient history when we had sunspots, there used to be 3, 4 or even 5 bands open at once to North America from Europe in this contest and there was some advantage to being in the Multi-Multi section.....

Multi-Single was a battle of the Italians. The top 4 scores in this section were all from that powerhouse of contest activity, with IR4X ending up clearly ahead of IR4M and IR4T. Now - there are a set of call signs which you could get confused if they were down in the noise - but this is Italy we're talking about and they don't do weak signals!

With these conditions, it's not surprising that the Single Op, All Band, High Power leader also comes from Southern Europe, this time in the shape of EA4KR, who ended up 30% ahead of OE4A who in turn only narrowly pushed Steve Cole, GW4BLE into third spot. Had it not been for a 40m antenna fault, Steve might have gained second place.

Guess who's leading the low power section – yes – it's Filipe CT1ILT again – with a massive margin over IZ5EBL in second place – and he did this with just 14 hours of operating – great job.

On a weekend like this, running QRP on SSB is not for the faint hearted, by F5BEG continues to bash away at this section and was rewarded by the top slot for a remarkable 6th occasion in a row.

If you were going to do single band on this weekend, 20m and 40m were the obvious big choices, and were dominated by two great French stations. On 20m F5HRY operated TM1W to dominance, and on 40m, F6CTT operated as TM5C in an attempt to set another record score. Unfortunately this year, conditions just didn't co-operate and even Joseph from his super site couldn't make 1000 good QSOs on 40m.

However – all of you sitting who were sitting in your warm shacks complaining about the conditions should spare a thought for 80m single band leader, GM3PPG – (operator G4BYB). Rick operated from his car with a field day style temporary station, 100m from the Atlantic coast on the island of North Uist in the Outer Hebrides. Anyone not familiar with the geography of Scotland should take a look at a map and realise just what a brutal place that would be to operate from in the middle of winter with driving rain and force 11 (one notch off a hurricane) winds. But – he didn't just turn up and put up a small antenna – oh no – he put up a full size 6 element vertical array and was rewarded with conditions where, on night one, the East Coast big guns of W3LPL and K3LR were 30 – 40 dB down on good conditions. Rick stuck with it however, and takes a very well deserved first place on the band.

We all might like to think that Africa was a better place to be than Europe, but – no – not really this year. Still not a sniff on 10m and not a lot on 15m. Once again, EA8ZS posts a big number from Africa in this contest with the leading multi-single score, and another Canary Island station, EA8CDI, posts the leading Single op Low power score, finishing well ahead of the high power section leader CT3BD.

However, the big news is that the only new record posted from Europe and Africa in the 2008 event came from AO8A (op EA8AH/OH1RY), operating single band on 40m, with a great total of 193k points from 1713 QSOs – an amazing job in the hell of 40m SSB QRM, and under such dreadful conditions.

Now – for 2009 it must get better - mustn't it? It's nearly September now – the flux must be climbing – just let me check ..... oh .... 66..... hum..... Shall I get ready to cut and paste my opening paragraph again for 2009.....

### Oceania by David Burger VK2CZ

The conditions and activity levels in Oceania were marginally improved over 2007 noting the number of active stations participating in this contest has remained near constant for the past 6 years.

Figure OC-1 shows the participation level from entities located in Oceania since 2001, and illustrates the patchy nature of the island activations here. Only 4 DX entities in Oceania were active in 2008. The performance and participation charts shown in Figure OC-2 shows the number of stations submitting logs has remained static over past few years.

Entity	2001	2002	2003	2004	2005	2006	2007	2008
AF	1	1						
AK								
AL								
AO								
AP								
AS								
AT								
AW								
AX								
AY								
AZ								
BB								
BC								
BD								
BE								
BF								
BG								
BH								
BI								
BJ								
BK								
BL								
BM								
BN								
BO								
BP								
BQ								
BR								
BS								
BT								
BV								
BW								
BX								
BY								
BZ								
CA								
CB								
CC								
CD								
CE								
CF								
CG								
CH								
CI								
CJ								
CK								
CL								
CM								
CN								
CO								
CP								
CQ								
CR								
CS								
CT								
CU								
CV								
CW								
CX								
CY								
CZ								
DA								
DB								
DC								
DD								
DE								
DF								
DG								
DH								
DI								
DJ								
DK								
DL								
DM								
DN								
DO								
DP								
DQ								
DR								
DS								
DT								
DU								
DV								
DW								
DX								
EK								
EL								
EM								
EN								
EO								
EP								
EQ								
ER								
ES								
ET								
EU								
EV								
EW								
EX								
EY								
EZ								
FA								
FB								
FC								
FD								
FE								
FF								
FG								
FH								
FI								
FJ								
FK								
FL								
FM								
FN								
FO								
FP								
FQ								
FR								
FS								
FT								
FU								
FV								
FW								
FX								
FY								
FZ								
GA								
GB								
GC								
GD								
GE								
GF								
GG								
GH								
GI								
GJ								
GK								
GL								
GM								
GN								
GO								
GP								
GQ								
GR								
GS								
GT								
GU								
GV								
GW								
GX								
GY								
GA								
GB								
GC								
GD								
GE								
GF								
GG								
GH								
GI								
GJ								
GK								
GL								
GM								
GN								
GO								
GP								
GQ								
GR								
GS								
GT								
GU								
GV								
GW								
GX								
GY								
GA								
GB								
GC								
GD								
GE								
GF								
GG								
GH								
GI								
GJ								
GK								
GL								
GM								
GN								
GO								
GP								
GQ								
GR								
GS								
GT								
GU								
GV								
GW								
GX								
GY								
GA								
GB								
GC								

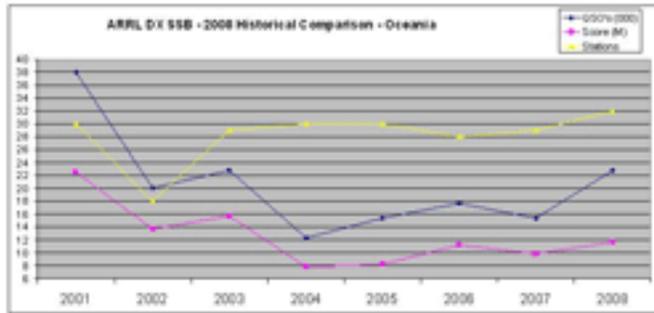
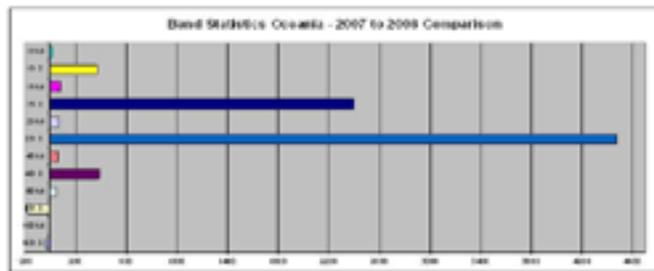


Fig OC-2: Trend in Activity levels over the past 7 years



be. Given conditions, rates were never that fantastic, a few periods of higher rates but they weren't sustainable. My best 60 minute rate was 272, with numerous 10 minute rates of 375+/HR but it just wouldn't hold. It seemed like there just weren't that many people on the bands. I had hoped the sunspot that appeared earlier in the week would have helped conditions, but even at this time of the cycle, the low bands were poor. I didn't hear much at all the first night on 160M, and the second night was extremely noisy, so I slept instead! A 2 element yagi on 75M worked well once the band opened but again, just not that many people on the band. 40M didn't produce like I had hoped either (probably because I didn't spend too much time there), and 10M actually opened both days! A big mahalo to everyone who worked me in the contest and especially to the few 6-bander contacts we made. It was a grueling event but definitely fun!"



Fig OC-5: Dule ZL3WW at the nearby lake

From Dule, ZL3WW ex-ZL3A: "I moved to New Zealand two and a half years ago from Belgrade Serbia, where I was active from my club station YT0A and also using my call signs YZ1WW and YZ5A. "Frank ZL1SLO has helped me a great deal right at the beginning and I worked my first IARU contest with an GP antennae from the Waitekere Hill, right next to Auckland. In the middle of contest, I've got a visit from some 'mates' saying that my power generator is way too loud and that is going to 'wake-up' their ancestors, sadly I had to stop working. I was disappointed. Later, I had a chance meeting with a guy named Kerry, who gracefully allowed me to work from the hill overseeing the mine that happened to be his property. Of course, there was no road all the way up to that hill, but Kerry just said 'No problem' and he made it! He spent two days and 900 litres of diesel to pave the road all the way up – and would not accept payment ! So this time I was not disappointed.

"Frank ZL1SLO came to the rescue again by providing the 12m tower that I extended to 22 meters. It has a 3-element, full-size beam for the 40m band, which I've been using ever since. That beam used to be 9.5 meters long boom and now it has been extended to 14 meters long.

"The tin shack built on that hill was initially 3.3 x 3.6 meters and now it is triple that size, having more than enough space for the normal contest activity. The equipment is powered with generator, as there is no electricity available, with the first neighbor being 8 kilometers away. I've also got lot of help from Armin ZL1KMN, who helped me with setting up the computer, installing software and hooking it up to the rest of the gear. The antenna farm currently consists of an ground plane vertical for 160m, 3 element beam for 40m, another GP for 40m and very soon an OptiBeam OB3-16 for 20/15/10 meters. There is also one parabolic dish of 3.8m to be used for SHF. Kerry also helped me to get another 3, 20 meter towers that I will put up next year. The rest of equipment consists of 2 Kenwood's TS-930 and 2 TS-850, linear amplifier KNTD400 and I am also planning to get one TS-950. I am active only during the major contests, both CW and SSB.

**Central and South America by Ramon Santoyo, XE1KK**  
*México y Centro América*



La operación de TI50DX desde la estación de Keko TI5KD  
TI50DX operation from Keko TI5KD's station



4A2S: Larry XE2/N7DD con Gerardo XE2Q y Marco XE2S

4A2S: Larry XE2/N7DD with Gerardo XE2Q and Marco XE2S

*Este año en la categoría MM el único participante fue TI50DX que con 12 operadores del Southeastern DX Club celebraron su 50 aniversario con un resultado impresionante.*

This year, in the MM category, the sole participant was TI50DX; with 12 operators from the Southeastern DX Club they celebrated their 50th anniversary with impressive results.

*También desde Costa Rica TI8M fue la única estación M2 de la región con un equipo de operadores de Costa Rica y de EEUU.*

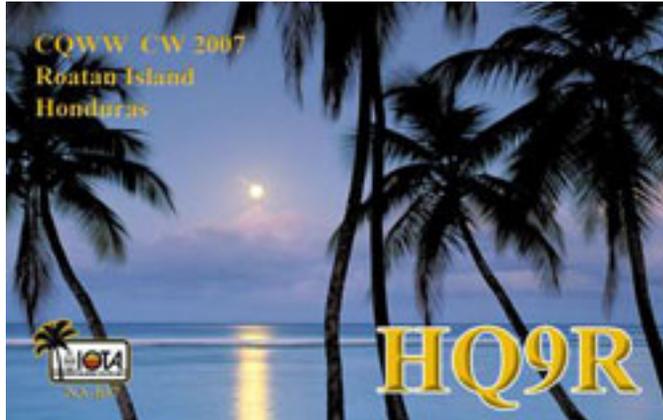
Also from Costa Rica, TI8M was the only M2 station in this region with an operating team from Costa Rica and the USA.

*4A2S, comandados por Marco XE2S, fue el ganador de esta región en la categoría MS operando desde el noroeste de México.*

4A2S, commanded by Marco XE2S, was the winner in this region, in the MS category, operating from Mexico's northwest.

*En SO-HP el primer lugar fue para Daniel HR2DMR joven y entusiasta radioaficionado cuyos resultados siempre parecen mejorar, seguido por el experimentado Olli HP1WW operando como V31XX. En tercer lugar Jorge XE2WWW uno de los jóvenes aficionados más activos en México.*

In SO-HP, first place was for Daniel HR2DMR, a young and enthusiastic radio amateur whose results always seem to improve, followed by the experienced Olli HP1WW operating as V31XX. In third place was Jorge XE2WWW, one of the most active amateurs in Mexico.



HQ9R opero desde la isla de Roatán  
HQ9R operated from Roatán Island

*En SO-LP el primer lugar fue para HQ9R operada por Ray WQ7R desde la isla de Roatán el resultado individual más alto de la región independientemente de la categoría. El segundo y tercer lugar fueron para Miguel XE1XOE y Pepe XE2MX respectivamente.*

In SO-LP the first place was awarded to HQ9R operated by Ray WQ7R from Roatán Island, the highest individual result in the region, independent of category. The second and third places were for Miguel XE1XOE and Pepe XE2MX, respectively.

*En SOSB-20 Roberto IV3IYH se llevó el primer lugar operando como HT2N. Le siguieron Francisco TG9ANF y Arturo XE1BY. SOSB-20 fue junto con SO-LP la categoría con mayor participación.*  
In SOSB-20 Roberto IV3IYH obtained the first place operating as HT2N. He was followed by Francisco TG9ANF and Arturo XE1BY. SOSB-20 was, together with SO-LP, the category with the highest participation.



Hector XE2K



LP1H Team

*En SOSB-80 fue Héctor, XE2K, que una vez mas hace gala de su conocimiento de la banda y excelente ubicación seguido por Jay HP3AK.*

In SOSB-80 it was Héctor, XE2K, who once more displayed his knowledge of the band and his excellent placement, followed by Jay HP3AK.

### **Sudamérica** **South America**

*Con más de 11 participaciones MS en la región el primero lugar se lo llevó LP1H desde el QTH de Ramón LU5HM en Córdoba. Le siguieron CW6V comandados por Jorge con un equipo internacional y en tercero los famosos "Bad power" de LT1F (<http://www.qrz.com/callsign/LT1F>). En la categoría M2 la única participación vino de Brasil con ZY7C desde Fortaleza.*

With more than 11 MS participations in the region, the first place was awarded to LP1H from the QTH of Ramón LU5HM, in Córdoba. He was followed by CW6V commanded by Jorge with an international team and, in third place, the well-known and self-named "Bad Power" team of LT1F (<http://www.qrz.com/callsign/LT1F>). In the M2 category, the sole participation came from Brazil, with ZY7C, from Fortaleza.

*Otra categoría muy popular este año fue SO-Assisted en donde Brasil se llevó los tres primeros lugares con Eger PY2EX a la cabeza y seguido por Vigand PY2EX y por Marcio PY4OG.*

Another very popular category this year was SO-Assisted, where Brazil obtained the first three places with Eger PY2EX ahead, followed by Vigand PY2EX and by Marcio PY4OG.



Vitor PY2NY

*En SO-HP la grata sorpresa fue ver de regreso a Rick N6KT operando HC8A con un resultado impresionante. Los dos siguientes lugares fueron también para Brasil: con Vitor PY2NY siempre presente y muy activo en segundo y con Waldir PY2WC en tercero.*

In SO-HP a pleasant surprise was to see Rick N6KT back, operating HC8A with an impressive result. The next two awards were also for Brazil: with Vitor PY2NY - always present and very active - in second place, and with Waldir PY2WC in third.

*SO-LP fue la categoría más activa en el continente y las estaciones más al norte fueron las ganadoras. Luis Felipe HK6P gana el primero seguido por su vecino Emilio YV5EAH. El tercero se lo lleva José Luis CE1KR desde Iquique al norte de Chile.*

SO-LP was the most active category in the continent, and the northernmost stations were the winners. Luis Felipe HK6P wins first place, followed by his neighbor Emilio YV5EAH. The third place went to José Luis CE1KR, from Iquique, in the north of Chile.

*Mientras que en el resto del mundo añoramos una pequeña apertura en 10 metros las estaciones de Sudamérica parecen vivir una situación distinta. Juan Manuel LU1HF desafiando a la propagación hace más de 1,000 contactos como SO-10 se lleva, una vez más, el primer lugar. Le siguen Rodrigo PP5NW y Germán LU9DAG.*

While in the rest of the world we long for a small window on 10 meters, stations in South America seem to live a different situation. Juan Manuel LU1HF, defying propagation, achieved more than 1,000 contacts as SO-10 and carries, once more, first place. Rodrigo PP5NW and Germán LU9DAG, come after him in second and third.



Sergio PP5JR

*En SO-15 es Sergio PP5JR, operando desde su impresionante estación ZX5J, quién se lleva el primero, seguido de LS1D operada por Tim LW9EOC y de ZX2B operada por Wanderley PY2MNL. El primer lugar de la región en SO-20 se quedó en Colombia con Pedro HK1X, seguido de Jhonny 4M5IR y de LS2D operada por Daniel LU1DK.*

In SO-15 it is Sergio PP5JR, operating from his impressive ZX5J station, who wins first, followed by LS1D operated by Tim LW9EOC and by ZX2B operated by Wanderley PY2MNL. The first place in the region, in SO-20 stayed in Colombia with Pedro HK1X, followed by Jhonny 4M5IR, and by LS2D operated by Daniel LU1DK.

*En SO-40 fue Alberto PR7AP el ganador de la región seguido de Ismael YV6BXN y de Ramón PY6KY. In SO-40, the winner for the region was Alberto PR7AP, followed by Ismael YV6BXN and by Ramón PY6KY.*

*En SO-80 Antonio YV5LMW se llevó el primero. Ezequiel LU1FDU y Lucas PP5KR tuvieron un muy buen papel desde el sur del continente llevándose el segundo y tercero respectivamente.*

In SO-80 Antonio YV5LMW took first. Ezequiel LU1FDU and Lucas PP5KR did very good work from the south of the continent, taking home the second and third places.