During February’s ARRL DX CW contest on February 19, my band partner Doug, K1DG and I were sitting at the 15 meter position of the K3LR multi-multi station waiting for the band to pop open... and waiting... and waiting. It felt so close! Recent rumblings on the solar surface gave every indication that there would be a dramatic increase in activity... but when? The answer to my grumbles was not long in coming. On March 1, the solar flux suddenly jumped from 98 to 111 and kept rising right through the ARRL DX Phone contest on March 5 and 6, all the way to 155 — a level not seen since January 2005 and comparable to the contest weekend in 2003! Furthermore, the A index was only 5 and the average K index just over 1 making for a stable ionosphere and sustained DX openings with an average sunspot number of 116. Welcome back, ol’ Sol!

How did that play out on the bands? With word spreading rapidly the week before the contest, schedules were rearranged to operate in the contest and submitted log totals set another all-time mark at 3343 — 1812 logs were from W/VE stations and 1531 DX logs. This is a solid 5% increase from last year which was also a record. Club log submissions jumped by 10% as well, to a total of 76 with the increase in the Medium and Local categories — the heart and soul of the ARRL-Affiliated Club Competition.

The wide-open bands kept more butts in more chairs with the result being a 24% increase in QSOs reported by W and VE stations (a total of 676,546). DX logs contained 812,262 QSOs, a 17% increase. (Those missing 135,716 QSOs are in un-submitted logs — it’s never been easier to submit a log so why not give it a try next year if you’re a non-submitter?)

Clearly, there were a lot more stations on the air. Three DX stations reported single-band QSO totals over 3000 QSOs: HK1K had 3022 QSOs on 20 meters and PJ4G reported 3459 on 15 meters and 3345 on 10 meters. From the W-VE end, the team at K3LR logged 2480 DX stations on 20 meters and 2684 on 15 meters — the first year in quite a while that Tim’s 15 meter team surpassed 20 meter totals! Tim’s minions also found another four DXCC entities on the airwaves this year, pushing the single-band bar to 149.

The changing solar tides are reflected in the year-to-year changes in single-band log submissions shown in Figure 1. There were more single-band logs than ever (247) and the big increase this year was — no surprise — 10 meter logs which went from 13 in 2010 to 60 in 2011. Stations that may have stayed on 20 meters for the past few years are now venturing up to 15 and 10 meters. For those of you chasing your DXCC Challenge band-entities, the trends are good if you need higher totals on the higher bands!

“Big News: 15 Meters Crosses the Rockies!”
— VE7XF

The big headline may have been 10 meters this year but the real news was on 15 meters as we learned last year. Even a middling opening on 15 changes the complexion of the contest dramatically. As operators at smaller stations know well (or quickly learn), it is a lot easier to make DX contacts on 15 and 10 meters because a multiband antenna can be more effective as wavelength falls (and electrical height rises).

With such good 15 meter conditions this year, operators were encouraged to participate for longer periods and that benefited all bands. The wide-open spaces (comparatively) of 15 meters — an extra 100 kHz of General

Figure 1 — Single-Band entries from W-VE stations from 2002 through 2011 illustrate the link between sunspots and high-band activity.

Figure 2 — The distribution of log sizes clearly shows the importance of smaller logs. 56% of all logs have 200 or fewer QSOs, making up the majority of contest QSOs.
phone band compared to 20 meters — made operating a lot more fun for the Little Pistol and casual operator just looking to put a few contacts in the log and hand out some points. I certainly hope the ARRL QSL Bureau staff has their calendars clear for some overtime!

Just how important are the logs from Little Pistols and part-time or casual operators? They are very important as Figure 2 shows. Nearly 56% of all logs received — W/VE and DX — contain 200 or fewer QSOs! Every QSO is important and we would like to have your contacts in the database next year.

Extended Results
Look to the online extended version of these results (www.arrl.org/contests) for more commentary and the following features:

- Accuracy rankings and charts
- A PDF file of Top Ten call signs since 2002
- Changes in QSOs and multipliers as a percentage of the 2002 totals
- DX entries tracked by category from year to year

You’ll also find a Regional Analysis write-up for your Division or Continent written by a volunteer author from the area. There’s also a close look at the results from the Caribbean’s annual festival of DXing frenzy.

The complete Soapbox comments of all stations from the popular 3830 score posting website and from submitted logs are included as an online feature. These entries as each comment builds up a Seurat-like image of the contest, point by point.

Records
“Best. Score. Ever.” W2IRT (SOAHP)
Talk about going out with a bang. John, K9A has been filling contest logs as P4ØA for an SOLP entry. In 2010 he had a string of six straight wins — the second-longest since 2002. All good things must come to an end and John has closed down his “Iguana Village” Aruba QTH. He decided to make one last go of it as a SOQRP entry. And what a go! John smashed the old 1993 all-time SOQRP record with a monster score of 3,073 Mpoints — a leap of around 50%. John, KK9A has been filling contest logs as P4ØA since 2004.

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Active Winning Steaks

Affiliated Club Competition

Category Abbreviations

Contest results are easier to read if you know the abbreviations for the different categories. You’ll find the complete description for all of these in the contest rules:

- **SO**: Single Operator
- **HP, LP, QRP**: High Power, Low Power, QRP
- **AB**: All Band
- **SB**: Single Band
- **A or U**: Assisted or Unlimited (see note below)
- **MO**: Multioperator
- **MS**: Multioperator, Single-Transmitter
- **M2**: Multioperator, Two-Transmitter
- **MM**: Multioperator, Multiple Transmitters

These abbreviations are usually combined, such as SOAB-LP for a Single Operator, Low Power entry. (Usually the “AB” is omitted and you can assume that SO-LP is the same.) A band number will be added to a Single Operator, Single Band entry, such as SO-10 or SOSB-15.

A or U indicates that the operator made use of information from the call sign spotting networks — it doesn’t refer to “assistance,” meaning physical help with operating, for example.
we’ll miss you on the bands!

The New Record for 2011 table contains another pair of all-time records set this year — the MSHP title is now held by the K1LZ team who inched by the 2000 record set from W3BGN. (I am assuming MS records from before this year were set using High Power.) The K1T record on SO40 is also a new all-time record, eclipsing N6TJ’s mark set at 9Y4AA in 1986.

Excluding the flood of new records from 2011’s new LP categories, the mother lode of 2002 still remains the biggest year for records. That could change if we get a sustained period of solar flux in the 150-180 range and quiet ionospheric conditions!

The oldest record broken this year is the 7th district MS 1981 record now held by MSHP entry NK7U from Joe’s Baker City, OR, QTH. Several other old-timers are under new ownership as well: OH8NC operated CR2A to a new European SO15 record last set in 1982, the 1998 SO40 record is now held by N7DD, and 1R1Y took the 1992 SOLP record for EU.

The oldest surviving record is still the K0RF MM record set from Colorado in 1979. At 4.03 Mpoints, it is the smallest of the US district MM records and should be reachable with the great new technology available to station builders. Nevertheless, that it has stood so long is a tribute to the K0RF station that set the record — and continues to set records such as the new SOHP 10th district record set by W0UA at the station this year, another that had lasted twenty years.

What would a table of records be without some close calls, too? Some records may not have been broken but they were seriously challenged. These are shown in the online version of the article’s Record database. Do you think you are record-breaking material? If so, have a look at the KSTR Contest database (www.kknl.net/-l5str/scoredb) where more than 400,000 published scores have been entered by volunteers for you to pick out a target.

New Categories

Two old categories, Single-Op, Assisted (SOA) and Multioperator, Single Transmitter (MS), each split into a pair of High Power and Low Power categories this year — certainly an opportunity to set a record! Seriously, the concern when creating Low Power categories is that the High Power leaders, sensing a new competitive opportunity, will enter and dominate the new category, squeezing out the stations the new category was intended to feature. I’m pleased to report that this was not case — not one of the Top Ten in the new Low Power categories can be found in last year’s High Power Top Ten. That’s not to say no High Power station “dialed it down” and entered as Low Power this year — you’ll surely recognize the call signs of the category winners — but my point is that stations that usually operated with low power were indeed the ones competing for top honors in general. Let’s meet the winners, shall we?

On the W-VE side of things, our first overall SOLP winner is Alexey Yushin, VE2XAA (also UX3UA) a member of the Contest Groupe du Quebec. Alexey is active in many contests and makes a lot of people happy with the Quebec multiplier. His efforts paid off this year! His antenna farm consists of a single tribander and rotatable dipole at about 15 meters in height plus wires.

In the MSLP category, Jim W0UO decided to change his usual CW-only contest style and put together a five-operator team effort, including three who were new to DX contesting. I’d say they learned pretty quick! The team (W0UO, W5AO, K5ANR, KE5SCG, and KP5BH) put together a very good score of 943 kpoints that would have placed within the top twenty scores in MSHP.

Outside the US and Canada, the SOLCP category attracted a lot of attention, too. Our initial winner comes from South America — Soni, PY1NX. Soni’s 2.09 Mpoints would have finished 6th in the SOAHP listings so this was quite a good score from his home station. Soni had big numbers on 15 and 40 meters plus a handful of 80 meter QSOs and multipliers that kept him in the first spot.

You’ll recognize the call signs of both team members in the MSLP top spot — veteran contestants Carl AI6V and Robert W5AJ shared the operating duties at P40V to just squeak by the WP3C and KP4WW team with nearly 5.5 Mpoints. What made the difference — aside from contesting savvy — was “10 meters as good as it was in the old days down here,” according to Carl. That one band and 2240 QSOs was the key to their being able to out-score a team far closer to North America and whose QSO totals were higher on every other band!

Staying Power

There is no FCC limit on “staying power” — the ability to produce year after year, contest after contest. The Active Winning Streaks table shows only one DX streak remains. The WE3C crew is establishing their hold on the Multi—Two category with another convincing win. Ed, N1UR once again submitted the top SOLP score and has 5 of the last 6 wins in the category.

Several notable runs have come to an end, as well. While the VY2ZM call sign...
is once again at the top of the W/VE SOHP listing, the usual “K1ZM — op” is not. Jeff yielded the operator’s chair to son Pat who kept the plaque in family by taking the top spot. Dad’s streak may have ended at eight but we have yet to see who can beat the Prince Edward Island Station.

Always present on 10 meters, Juan, LU1HF relinquished his run of five straight years of dominating 10 meter scores to ZX5J. Sergio was still a strong second to the Top Ten spots in the W/VE All-Band contest. With competition in Multi-Multi so going to be hard to sustain. Having won 7 of the last 8 years in ARRL DX Phone, for the second straight year the K3LR multi-op station has taken both modes of the ARRL DX contest with competition in Multi-Multi so intense, it will be hard for Tim to maintain his own intense level of performance with W3PLP and other top stations on his tail!

Westerners in the W/VE Top Ten

“WOW! What just happened?”
— N0MA (M2)

One of the benefits to better conditions on 15 and 10 meters is the geographic spread of Top Ten spots in the W/VE All-Band categories. For example, from about as far southwest as a fifth district station can be and not become “a seven.” Steve, N2IC muscled his way into the SOHP Top Ten in 6th place — no mean feat from anywhere on the continent! The key? Big 15 meter totals including the highest 15 meter multiplier total (118) of any single-op station, including the single-band entries! Elsewhere in the SOLP and SOQRP categories, you’ll see new western calls like NZ7G (9th in SOLP) and N7SS (8th in SOQRP).

On the Single-Band leader boards for 10 and 15 meters, the story continues more draws from longitudes and latitudes normally out-of-the-running on those bands. From Illinois, WB9Z grabbed the #4 position and

Soni, PY1NX, put together a very nice effort on 15 meters to capture the initial SOALP win for South America and Brazil.
you’d have to go back to 2005 before a 9th district call sign made the 10 meter Top Ten. Zut alors! Not content to leave the sweet stuff to somebody else, K7BG is in the 10 meter Top Ten, moving up another place to 8th position due to — you guessed it — big scores on the high bands. This is quite a slice to make the difference. In one of our new categories, SOALP competitors KS1J (1,009,785) and KT4ZB (1,009,014) were only 771 points apart — a minuscule separation of 0.07%. Over in the other new category of MSLP, P4 V lost 59,109 of 5,557,215 claimed points while being pursued by WP3C K only 30,726 points between them — a nasal whisker of only 0.56%!

### Error Rate and Accuracy Index

Error rate is calculated in percent as the number of “bad” QSOs — those listed in your Log Checking Report with a busted call (B), a miscopied exchange (X), or “Not In Logs” that can’t be found in the other station’s log (N) — divided by the total number of verified-good QSOs after duplicates have been removed from that log.

**Error Rate (%) = 100% \times (B+N)/(B+N+X)**

The Accuracy Index is a measure calculated so as to reward lower error rates for large logs. That is, for two logs with equal error rates, the log with more verified contacts has a higher accuracy index. The higher the index, the more accurate the operator(s).

**Accuracy Index = \log\{QSOs\} + 10 \times (1 - Error Rate in \% / 100)***

Blue Ridge ARC, too, placing 4th in this first ARRL Club Competition appearance. **By a Nose**

Who says log checking doesn’t matter? Send in your log, no matter how small! Here we are just two of the top-placing races that were close enough for the log checking razor’s slice to make the difference. In one of our new categories, SOALP competitors KS1J (1,009,785) and KT4ZB (1,009,014) were only 771 points apart — a minuscule separation of 0.07%. Over in the other new category of MSLP, P4 V lost 59,109 of 5,557,215 claimed points while being pursued by WP3C K only 30,726 points between them — a nasal whisker of only 0.56%!

### Accuracy

We’ve listed the top five Accuracy Indexes achieved by SOAH/P, SOHP/LP and MO stations. (See the sidebar for an explanation of the index.) While the order generally tracks number of QSOs, some entries with a smaller, but slightly more accurate, log are rated higher than a larger one. Since starting to track the index last year as shown in the Accuracy Index, we have our first-ever index greater than 14 (14.026 by the PJ4G M2 team)! Tracking your own Accuracy Index from year to year is a great way of improving your operating skills.

### DXing

The top DX count band bananas for multi-op and single-op are really starting to heat up on the high bands. This is quite a change from last year when the top W-VE multiplier total on 10 meters was 30! It’s an open
question whether there will be good enough 80 meter conditions deep enough into the new solar cycle for one of the top stations to bag a 5-Band DXCC — top-mult-sweeping-K3LR is only four DXCC entities away from “hitting for the cycle” and I know Tim is already furrowing his brow trying to figure out from where those QSOs will come!

160: K3LR (MM) 59, W2MF (SO-160) 49
80: K3LR (MM) 96, AA1BU (SO-80) 89
40: K3LR (MM) 119, W5MWU (SO-40) 101, 6 stations made DXCC
20: K3LR (MM) 149, K2TR (SO-20) 123, 37 stations made DXCC
15: K3LR (MM) 140, N2IC (SOHP) 118, 78 stations made DXCC
10: K3LR (MM) 108, W5PR (SO-10) 92, 2 stations made DXCC

On the DX side, which stations had the highest overall multiplier total? Not surprisingly, the station had to be close enough to North America for the low bands to be productive while not so close that 10 and 15 meters skipped over large areas. Thus, all of the top multiplier magicians are found in the Caribbean or near the north shore of South America.

TO7A (UTSUGR, op) - 349 (SOHP)
P2JT (K6AM, op) - 348 (SOHP)
P49Y (AE6Y, op) - 344 (SOHP)
P4JG - 343 (M2)
8P5A (W2SC, op) - 340 (SOHP)

Some Simple Requests
After the statistics and stories, I’d like to relay a simple request: Make sure your station information is correct before sending in your Cabrillo-formatted log! The log checkers have a big enough job to do, so make it easy for them to get your score in the right category and location by double-checking the information in the header and in the exchange for each contact. This information should be updated by using your logging software’s configuration options so that the information is correct every time. You can also use a plain-text editor (such as Notepad — free with the Windows operating system) to change and save the Cabrillo log file before emailing. The ARRL contesting system) to change and save the Cabrillo-formatted log! The log checkers have information is correct before sending in your relay a simple request: Make sure your station QTH (and category) you sent with the log — (18/19 Feb and 3/4 Mar) on your calendar now, with a slowing solar cycle predicted — should during the phone weekend. Next year — even with a slowing solar cycle predicted — should be even better. Get the ARRL DX contests (18/19 Feb and 3/4 Mar) on your calendar now, polish up those high-band antennas, and get ready for a healthy dose of radiospot!