

# 2005 ARRL September VHF QSO Party Results

*Saving the best for last.*

Jeff Klein, K1TEO

**T**he 2005 VHF Contesting season is now behind us. After a somewhat slow start with flat conditions in January, June saw a nice pickup with increased activity over 2004, some E-skip openings and a nice Aurora across the northern part of the country. For participants in the September contest, 2005 clearly saved the best for last.

VHF contest operators are always on the lookout for enhanced propagation to add to the fun. This year saw an aurora opening on Saturday and early Sunday morning that led to many DX QSOs including some transcontinental Auroral E<sub>s</sub> contacts on 6 meters. Throughout the day on Sunday the East Coast saw some enhanced tropo conditions which peaked during the closing hours of the contest. Several Midwest participants noted enhanced local tropo conditions. And, while we don't usually expect 50 MHz E-skip openings in September, there was a very good one for several hours on Sunday. KC4PX (NW5E operator) in Florida made almost 350 QSOs during the opening, and added over 100 grids to his 6 meter total. K9NS in Illinois even added a 144 MHz E-skip QSO to Florida during the opening — perhaps the first time a 2 meter E-skip contact has been made in a September contest!

On top of the exciting conditions, there was an 11% increase in submitted logs over 2004 with a total of 630. Activity plus enhanced conditions was a great recipe for a successful end to the 2005 VHF contesting season.

## Operating Conditions

### Aurora

After a terrific Aurora in the June contest, what were the chances of another in the September contest? As it turned out it happened again! This one wasn't all that strong and was mostly workable by northern stations. As Peter, VE3AX, noted "this aurora was not particularly strong most of the time but generated some really terrific grids." VE9AA in FN66 to the East and WDØT in DN94 to the West certainly qualified Peter for some great 2 meter DX! 'AX also worked some Auroral E<sub>s</sub> on 6 with QSOs with W7-land and some VE5's. Bill, KØAWU, in Minnesota was in the middle of the aurora action and had a ball working both coasts on 6 meters and many grids in between. 25% of his QSOs



**Elliot, K14AEI, busy working as part of the K9ES Multiop station.**

were made during the Aurora including 6 on 222 MHz.

One challenge with the Aurora is that it really came to life at about 0700Z. Many missed the event having called it a night before the Aurora arrived. K8GP made about 70 QSOs on aurora but being short staffed in the early morning hours, ended up focusing on 6 meters. They were able to work 38 grids on 6 during the opening and a few more on 2 and 222. From their grid map you can see that many grids north of them from Minnesota to Maine were workable (see Figure 1). It's quite possible that given 'GP's location the Aurora wasn't as strong on 2 as for more northerly stations. K9NS had fantastic results during the Aurora working 63 grids on 6, 32 on 2 meters and 9 on 222. K1WHS reported that they were armchair copy on 222 in Maine! From a look at their grids-worked map you can see the range of the grids they worked on Aurora (see Figure 2). They seemed to do especially well working many Eastern grids on 2 meters. K1WHS's Maine location was also well positioned to take advantage of the Aurora. Like K9NS they worked 9 grids on 222. They also did well on 2 meters working as far west as Minnesota. On 6 meters they worked some Transcontinental Auroral E<sub>s</sub>, picking up CO88, CN85 and DN06 (see Figure 3). W2SZ also worked some Auroral E<sub>s</sub> to the West Coast among their 27 grids worked on 6 meter Aurora (see the W2SZ Au map with the expanded Web write-up at [www.arrl.org/contests/](http://www.arrl.org/contests/)). Single Op K3EAR was probably a bit far south to really make hay with the Aurora but still picked up 18 grids on 6 and 11

on 2 during the Aurora including what were probably a couple of Auroral E<sub>s</sub> contacts out to VE5/6 (see the K3EAR Au map with the expanded Web write-up).

### Tropo

The September contest is often a great time for enhanced tropo conditions. VE3AX and KB8U both noted enhanced "local" tropo in the Midwest this time. While no real DX was worked, the enhanced conditions made it possible to find more stations to work especially on the higher bands. Starting Sunday AM, stations along the East Coast experienced some tropo enhancement. W4IY and AA4ZZ in FM08 and EM96 were blasting into New England throughout the day. As the day wore on, the bands improved with more distant DX becoming workable. Stations in New England were working down to the Carolinas. W4NH in EM85 was quite loud 600+ miles away into the Northeast. KU4BP, operating QRP Portable in EM96 on the Blue Ridge Parkway, found "awesome" conditions and was able to work many stations even with his 10 W. Reduced to 100 W after an amplifier failure, W4IY noted being able to run stations right up to the end on 2 meters utilizing the tropo enhancement. Over the last few hours of the contest, K1TEO in Connecticut was able to make a number of 700 mile+ QSOs as far as Tennessee and Georgia up through 432 MHz. One rover in FM08 was a full pin on all bands up through 10 GHz! The attached map shows the K1TEO grids worked Sunday night via tropo beyond normal tropo-scatter range (see Figure 4).

### E-Skip

VHF contesters expect to be on the lookout for 6 meter E-skip in a June contest. An opening in a September contest may catch some by surprise. Gary, NW5E, was operating at KC4PX and first caught the opening at about 2000Z Sunday afternoon. Many other alert operators got in on the fun that extended from Texas and the Dakotas in the West and from Maine to Florida in the East. A look at Gary's log shows about 350 QSOs over a 6 hour period, with a peak hour of 147 QSOs starting around 2130Z. Gary started working mostly stations in the Midwest with a few Eastern FN grids thrown in. As the opening intensified, he began working closer in sta-



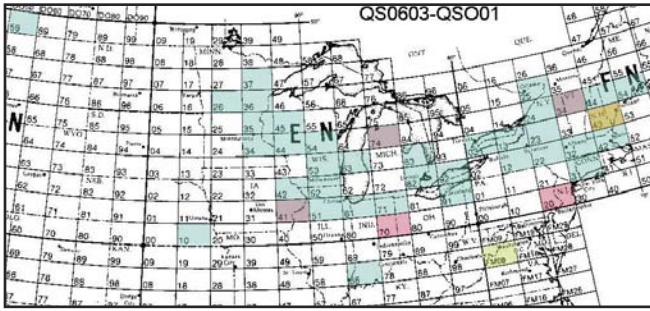


Figure 1 — K8GP AU map.

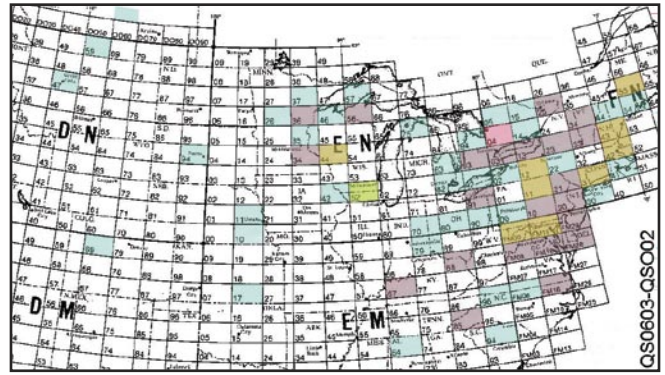


Figure 2 — K9NS AU map.

### Map Keys:

AU: 6-meter-only grids are light blue, 2-meter-only is in red, 1.25-meter-only is in yellow. 6 meter/2 meter are slate gray and 6 meter/2 meter/1.25 meter a greenish gray. The station's "home grid" is light green.

Tropo: The red/pink is 2 meters only, the dark purple is 2/1.25 meters/70 cm. The mustard color is 2/1.25 meters and the light purple is 2 meters and 70 cm.

E-skip: All grids shown are 6 meters.

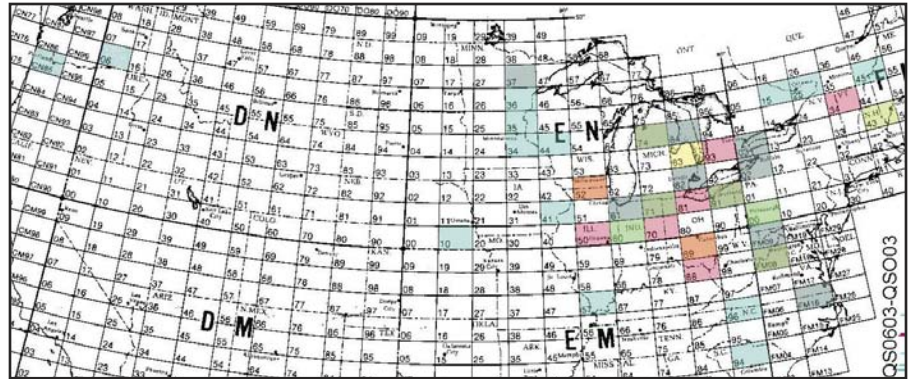


Figure 3 — K1WHS AU map.

tions in the Southeast and what was either some long single-hop or even double hop to Minnesota and the Dakotas. Eventually, the opening swung further West and many of his later QSOs were with W5s and even an XE station. A look at Gary's map (see Figure 5) and the large number of EN QSOs suggests that the strongest part of the E cloud was over the Northern Georgia / Tennessee / Kentucky area. All in all 109 new grids were worked from his EL98 QTH.

We can get a sense of what the opening sounded like from the Midwest from the K9NS multi-op team. Their E-skip results show they worked all of the Florida grids and added quite a few further north in the Southeast and to the West in the W5 area. The number of lines focused toward Florida in their grids-worked map shows the opposite end of the path experienced by KC4PX (see Figure 6). The 'NS team worked over 40 new grids during the opening. Toward the east the K8GP team also got in on the fun using the same intense cloud over Tennessee and Kentucky. While they worked most of the Florida grids, the best path for them was to the west working many W5 grids and as far to the north as Kansas. 50 new 6 meter grids were worked while the band was open (see Figure 7).

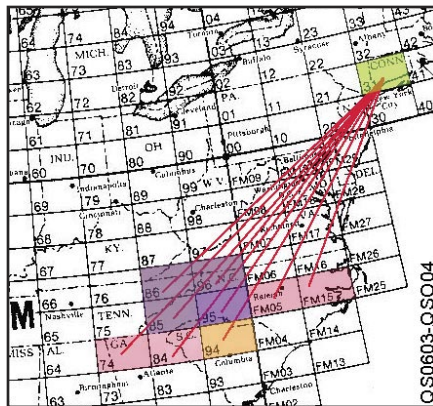


Figure 4 — K1TEO tropo map.

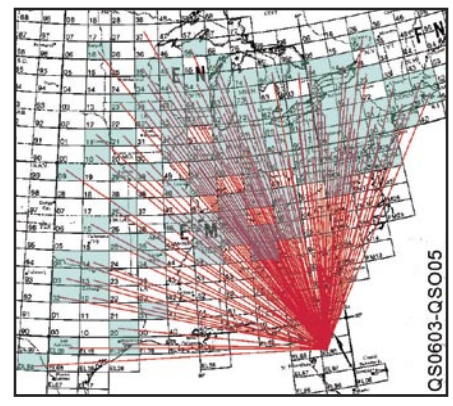


Figure 5 — NW5E KC4PX tropo E<sub>s</sub> map.

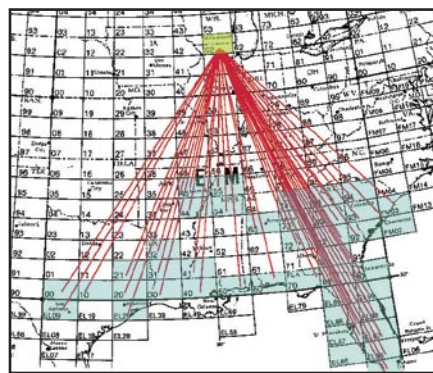


Figure 6 — K9NS E<sub>s</sub> map.

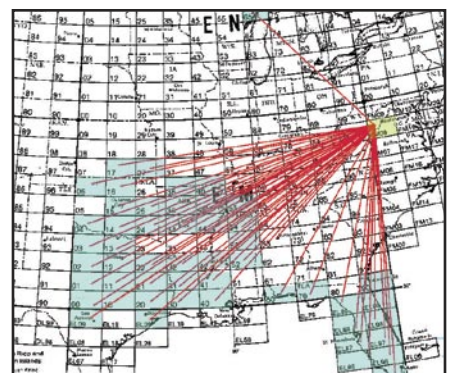


Figure 7 — K8GP E<sub>s</sub> map.

## Top 10

Single Operator, Low Power		Single Operator, High Power		QRP Portable		Limited Multioperator		Multioperator		Rover	
KB8U	220,500	K3EAR	734,212	KA1LMR	121,204	W3SO	545,713	W2SZ	1,999,375	VE3OIL	122,576
K2DRH	171,216	(K9PW, op)		K6MI	21,677	W4IY	525,366	K8GP	1,816,176	KC3WD	103,292
WB1GQR	167,676	K1TEO	719,950	N7OEP	7,232	K9NS	478,080	K1WHS	888,470	K3LFO	78,440
(W1SJ, op)		K1RZ	394,238	W4RXR	6,020	AA4ZZ	318,206	N2PA	589,472	N4OFA	76,875
WB2SIH	88,595	W4RX	306,138	N7SS	4,740	K8EP	269,392	K3YTL	532,623	WA2IID	71,068
W4SHG	71,960	K3TUF	250,632	N8XA	4,186	W3DOG	200,583	K5QE	335,920	VE3SMA	46,463
W1PM	70,720	VE3AX	223,448	KM3G	3,600	W1QK	192,394	N2NK	301,596	N2MH	42,688
AF1T	64,350	W3SZ	183,330	WB2AMU	3,182	W4NH	165,418	K3EOD	216,486	KE3HT	41,820
N9DG	61,053	K8MD	171,360	W9SZ	2,871	W2MMD	138,387	W2EA	139,944	W1AUV	31,590
N0VZJ	51,569	K8EB	170,500	VE3BHI	1,352	K2BAR	132,328	W3KWH	131,396	W3HMS	28,560
WA3EOQ	49,250	WB9Z	164,020								

Northeast Region (New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections)			Southeast Region (Delta, Roanoke and Southeastern Divisions)			Central Region (Central and Great Lakes Divisions; Ontario Section)			Midwest Region (Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)			West Coast Region (Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections)		
WB1GQR	167,676	A	W4SHG	71,960	A	KB8U	220,500	A	N0VZJ	51,569	A	KC6ZWT	16,170	A
(W1SJ, op)			W3IP	44,722	A	K2DRH	171,216	A	N0KP	41,410	A	W6OMF	9,947	A
WB2SIH	88,595	A	WN1GIV	29,900	A	N9DG	61,053	A	N0LL	30,174	A	K6XN	5,440	A
W1PM	70,720	A	(N4BP, op)			WO9S	45,056	A	W6ZI	23,108	A	K17JA	5,180	A
AF1T	64,350	A	NJ2F	28,336	A	VA3KA	43,798	A	W0JT	22,590	A	KG7P	2,880	A
WA3EOQ	49,250	A	K9HUY	27,930	A									
K3EAR	734,212	B	W4RX	306,138	B	VE3AX	223,448	B	N0URW	70,728	B	KG6IYN	23,363	B
(K9PW, op)			K4QI	151,960	B	K8MD	171,360	B	W0GHZ	54,405	B	WA7TZY	18,900	B
K1TEO	719,950	B	W4ZRZ	103,992	B	K8EB	170,500	B	K9MK	50,806	B	N7EPD	16,416	B
K1RZ	394,238	B	W4WA	95,090	B	WB9Z	164,020	B	K0AWU	44,748	B	W6KBX	16,315	B
K3TUF	250,632	B	KC4PX	88,407	B	K8TQK	115,575	B	WB5ZDP	37,387	B	K6TSK	12,555	B
W3SZ	183,330	B	(NW5E, op)											
KA1LMR	121,204	Q	W4RXR	6,020	Q	N8XA	4,186	Q	N0JK	130	Q	K6MI	21,677	Q
KM3G	3,600	Q	K9GY	1,302	Q	W9SZ	2,871	Q	KD7WPJ	28	Q	N7OEP	7,232	Q
WB2AMU	3,182	Q	KU4BP	576	Q	VE3BHI	1,352	Q				N7SS	4,740	Q
N2FMC	70	Q	W4IY	525,366	L	KG9N	168	Q				KQ6EE	880	Q
WB0IWG	20	Q												
W3SO	545,713	L	AA4ZZ	318,206	L	K9NS	478,080	L	KE5BAV	14,184	L	VE7DXG	12,825	L
W3DOG	200,583	L	K8EP	269,392	L	N8ZM	101,314	L	W5LCC	2,627	L	K7XC	3,920	L
W1QK	192,394	L	W4NH	165,418	L	K8FH	38,940	L				W6LPW	1,540	L
W2MMD	138,387	L	NN4RR	17,052	L	K8ZIZ	25,344	L						
K2BAR	132,328	L												
W2SZ	1,999,375	M	K8GP	1,816,176	M	N2BJ	126,157	M	K5QE	335,920	M	K0DI	23,528	M
K1WHS	888,470	M	WC4J	53,958	M	AB8LB	1,632	M	KB0HH	43,778	M	W6MMM	21,896	M
N2PA	589,472	M	AG4V	45,125	M				W0EEA	25,370	M	KD6VNQ	19,028	M
K3YTL	532,623	M	W3PGA	20,079	M				KE5CIF	20,982	M	N6SPE	2,575	M
N2NK	301,596	M	N4JQQ	12,024	M									
K3LFO	78,440	R	KC3WD	103,292	R	VE3OIL	122,576	R	KD5SHM	16,287	R	N6DN	25,088	R
WA2IID	71,068	R	N4OFA	76,875	R	VE3SMA	46,463	R	KB5KYJ	12,320	R	AL1VE	10,080	R
N2MH	42,688	R	WA4JA	899	R	WB8BZK	20,376	R	N1JFU	10,602	R	K6EU	8,436	R
KE3HT	41,820	R	KB4JHU	663	R	K9JK	16,758	R	KA0KCI	9,690	R	KG6ONE	2,090	R
W1AUV	31,590	R	AF4OD	630	R	VE3WCC	12,006	R	AE5P	9,374	R	W6YV	1,660	R

Further to the Northeast the band wasn't quite as good as the K1TEO and W2SZ results demonstrate. 'TEO was able to add about 25 grids with some Florida and W4/5 grids. Likewise W2SZ wasn't quite as into the opening as others further to the south and west but still managed to add 27 new 6 meter grids. As with Jeff's results, the SZ grid maps are spottier as the Northeast appears to have been more in the periphery of the opening. TEO did manage some DX just before the main E-skip opening working HI and VP5 (see the W2SZ and K1TEO E<sub>s</sub> map with the expanded Web writeup).

K3EAR, with Pete, K9PW, operating from FM19 in Pennsylvania was a bit closer to the action. He was able to make better use of the opening. Pete worked 38 new grids on E-skip

utilizing the path southwest toward W5-land to work many of his grids and added several in Florida as well (see the K3EAR E<sub>s</sub> map in the expanded Web writeup). One station that really made hay during the opening was the K5QE multi-op team in EM31. Station owner QE was operating alone as his operating team had to head home late Sunday afternoon, when he noticed the band scope on his 6 meter rig looked very active around 2200Z. He got on and over the next 3 hours worked 350 stations on E-skip! The QE score went up over 75% during those few hours.

Part of the fun in VHF contests is that openings can occur at any time. But to find them you often have to really be on your toes. Those that found the 6 meter opening late in the contest, or the Aurora that started in the

middle of the night had a great time and really improved their scores. Paying attention to indicators such as the WWV solar report (which did send warnings of a solar storm before the contest), or the various tropo prediction Web sites (Hepburn, for example) are helpful. But at the end of the day those that are on testing the bands are most successful in finding the openings. This is especially true because some last only minutes — the Transcontinental Auroral E<sub>s</sub> this time being a very good example.

This year there were just over 100,000 QSOs logged by participants, an increase of about 14% from 2004. With the E-skip and Aurora openings favoring 6 meter DX opportunities, most of the increase in QSO count was on that band. 144 through 432 MHz totals were about the same, but



reversing a trend of the last several years, microwave contact totals were down. Competition in the SOLP class was up considerably with 348 entries this time, while SOHP entrants were also up with 136. Rover entries were down this time, not surprising given the aftermath of Hurricane Katrina and the impact of \$3+ per gallon gasoline. Fewer Rovers likely impacted the microwave QSO totals as well.

## Overall Category Results

### Single-Operator

The Low-power category had a new champion this year in KB8U. Russ made some improvements to his 6 meter setup but says the main thing that propelled him to the top spot was the great propagation. EN71 turned out to be a great spot to utilize the Aurora conditions and the 6 meter E-skip. Even in the low power category he was able to work many AU QSOs on 6, 2, and 222 and add about 30 grids during the E-skip opening. Right behind KB8U was top-gun K2DRH. Bob continued his contesting success with a score of 171k. Next was another regular top-scorer, WB1GQR, with Mitch, W1SJ, as the operator. Mitch's portable location on Mt Equinox, Vermont, allowed him to enjoy the excellent propagation enhancement this time. WB2SIH's antenna improvements paid off handsomely with a 4<sup>th</sup> place finish followed by Steve, W4SHG, who moved up a notch from 2004 into 5<sup>th</sup> position. SOLP Division records were set by KB8U, WB2SIH and W4SHG in their efforts. NØVZJ just missed setting a Division record with his 9<sup>th</sup> place finish.

The last few years have been a horse race between K3EAR and K1TEO in the SOHP category. In 20003, 'EAR, piloted by KA1ZE nosed out K1TEO. Then Jeff returned the favor edging out K3EAR (K9PW opr) in 2004. This year the tables were turned as Pete, K9PW, returned to operate K3EAR and edge Jeff, 734k to 719k. This marked the third straight year that the winner has set an all-time single op record score, and in fact this year was the first time any single ops have broken 700k in a VHF contest. The difference this year? Pete did very well in the Sunday evening E-skip opening on 6. Both did well on the Au while K1TEO had some tropo Sunday evening that Pete didn't seem to get into as well. At the end of the day Pete's QSOs on 24 and 47 GHz were the difference. Congratulations to K9PW on a FB effort! Dave, K1RZ, did his usual great job from FM19 just missing the 400k mark to place 3<sup>rd</sup> followed by W4RX who replicated his 2004 4<sup>th</sup> place finish. Phil, K3TUF, increased his score by over 150% to move up to 5<sup>th</sup> place followed by VE3AX who set a new all-time Canadian Division record, exceeding VE3ASO's 1992 score. W4ZRZ became the first Southeastern Divi-

sion station to break 100k in setting a new Division record.

In the Single Operator Portable Category, Chris, KA1LMR, repeated his 2004 top place while doubling his score. His Hilltop location in Southern NH was well placed to take advantage of the Aurora, E-skip and tropo openings that occurred. Even with QRP, Chris was able to work great DX with the enhancement, helping him achieve the large score increase. K6MI repeated in 2<sup>nd</sup> place ahead of N7OEP and W4RXR who were in a tight battle for 3<sup>rd</sup> and 4<sup>th</sup>. 'LMR's score was a new Division record and one of the highest Portable category scores ever in a September contest.

### Multipoperator

After a couple of close 2<sup>nd</sup> place finishes the crew at W3SO reached the top spot in 2005. They noted the added flexibility of multiple antennas on 6 and 2 as one factor for their success. They made good use of the enhanced conditions though observed that they could have used more operators when the AU broke out in the middle of the night! W4IY gave them lots of competition as they finished right behind with a score of over 500k, just missing their own division record by a mere 3k points. The crew at K9NS gave the Eastern stations a real run for their money, breaking their own 2003 division record by over 50%. Take a look at their AU and 6 meter E-skip results elsewhere to see the amazing number of grids they were able to work on these modes. AA4ZZ more than doubled their prior year score to hold onto 4<sup>th</sup> followed once again by the K8EP group.

W2SZ repeated as MM champs in a close battle with K8GP. SZ just missed the 2 million mark with the Grid Pirates right behind with over 1.8 million points. Both groups worked the openings to the max to achieve terrific grid totals this time around (see their AU and E-skip results elsewhere in this article). K1WHS continued their September success with almost 900k followed by WNY's N2PA group. K3YTL moved up from LM to MM to take 5<sup>th</sup> followed by K5QE. The K5QE group continued to move up as they tripled their own 2004 Division record. I can attest that they sure were loud during the 6 meter E-skip! Marshall, K5QE is planning some more antenna improvements and to add some new microwave bands to further improve their results in 2006. Out West, WØEEA was the other Division record setting group. While conditions their way weren't as good as in the Eastern half of the country, they attributed their new record to good local participation.

### Rover

The Rover category National top 10 saw complete turnover from 2004. VE3OIL led the way with their 1st overall victory in the category. They noted the higher local activity

from both home stations and rovers in helping them more than double their 2004 score. They also were well positioned to utilize the enhanced tropo, Aurora and E-skip propagation they found. Close behind the 'OIL crew in 2<sup>nd</sup> was KC3WD with over 100k. Third through 5<sup>th</sup> place was very tight with K3LFO, N4OFA and WA2IID all in the 70k range. WA2IID and VE3OIL set new Division records with their efforts. Three cheers, as always, for all the rovers for helping to make the contest so much fun for everyone, especially this time with all the cost and availability issues for gasoline at contest time.

### Affiliated Club Competition

Activity was also up in the Club Competition in 2005. 28 Clubs submitted scores up from 20 in 2004. Local Club submissions more than doubled with the Mt Frank Contesters leading the way nearly reaching 500,000 points. The Chippewa Valley VHF Contesters were 2<sup>nd</sup> followed very closely by the Eastern Connecticut ARA.

After finishing 2<sup>nd</sup> the last two years, the Potomac Valley Radio Club returned to the top spot with over 3.7 million points. Their 30 entries more than doubled last year's score of 1.7 million points. 2003 and 2004 champs, the North East Weak Signal Group took 2<sup>nd</sup> this time with over 2 million points. January's Club leaders, the Mt Airy VHF Radio Club took 3<sup>rd</sup> with 1.1 million points. Kudos to the Contest Club Ontario, which more than quintupled their 2004 score to finish 4<sup>th</sup>. The Society of Midwest Contesters and Badger Contesters were right behind using the improved conditions to also better their 2004 scores.

### Looking Forward

After a fine 2005 VHF contesting season, we can hope that 2006 also provides interesting propagation. As KG6IYN noted in his soapbox comments, "Hopefully everything learned will make the efforts for 2006 that much better." The September 2005 contest demonstrated that VHF ops need to constantly be on the lookout for openings at oddball times and to be prepared for the unexpected. Here's to more of the same in future contests — it's one of the things that make VHF contests so much fun!

Special thanks to K3EAR/K9PW, W2SZ, K1WHS, K9NS, KC4PX and K8GP for allowing their data to be used to analyze the different openings. Additional thanks go to Gene, W3ZZ, who not only helped with the K8GP data but also in the preparation of the Grid maps.

It's not too early to dream about what the VHF gods could have in store for us September 9-11. Great tropo? More unexpected E-skip? Start planning now and enjoy the experience. 