## On 160, Mother Nature is Always the Winner

As Cycle 24 becomes more active, the past few years of very good conditions on the 160 meter band will become a memory. The first weekend of December 2011 saw a return to more typical conditions on this fascinating band – perhaps discouraging a few casual operators and DX chasers but simply seen as another challenge by competitive contesters and regular denizens of 160 meters. As K7XC opined on the 3830 score-reporting reflector, "The winners of this event will have earned it."

Were conditions really that bad? No, they weren't horrible, just not as good as during the past few years of exceptionally low solar activity. Those great conditions attracted many newcomers to Top Band and its unique place at the low end of the ham radio spectrum. Plenty of those new 160 meter fans operated in this event despite the need for slightly lower expectations. There were 1120 logs submitted, a level of participation that would have been an all-time record just five years ago. In fact, many operators noted that the high activity made the contest fun in spite of the tougher conditions.

It's always fun to try and shed some light on how this enigmatic band operates. Take a look at the high scorers in the various results boxes then let's see if we can find some patterns: (Regional Leaders and Division Winners tables are included at the end of this writeup.)

#### Western US/VE

Although there was one western station among the Top Ten – perennial QRP competitor Gary, N7IR who managed a 6<sup>th</sup>-place from AZ – things were tough in the Old West although there was spirited competition among the top W6/W7 stations in each entry class. "No DX" was a common complaint but it was the propagation path between the eastern and western portions of North America that was the most notable difficulty compared to recent years. Participants at both ends of the continent were frustrated with the smaller number of distant

stations in their logs. For example, only two logs were submitted from the SDG section with a total of just 137 QSOs.

Top Te	n – W/VE	Top Ten - DX				
Call Score		Call	Score			
Single Opera	tor, QRP	Single Operator, QRP				
WØGJ	101,106	OK1CZ	50			
K5RX	93,755	IV3AOL	2			
W3TS	55,284	MI6GTY	2			
VE3MGY	47,628					
N9NE	46,872	·				
N7IR	44,132					
NØUR	41,211					
N4AX	37,960					
K4CNW	37,314					
AA1CA	37,083					
Single Opera	tor, Low Power	Single Operator, Low	Power			
N800	207,744	YN2CC	23,868			
KU1CW	182,070	VP5CW (W5CW, op)	21,068			
NØIM	174,262	F6DDR	3,060			
K8FH	173,788	SP5CJY	1,156			
NE9U	172,215	IKØXBX	874			
K4FT	165,396	UA2FL	768			
N2KW	156,420	DL7UMK	560			
W2TZ	152,240	LZ2ZG	476			
WB8JUI	150,320	JA1BJI	468			
κØΤΙ	148,149	DL8UKE	442			
Single Opera	tor, High Power	Single Operator, Hi	gh Power			
VY2ZM	539,000	ZF2AH	104,976			
K8PO	465,555	CE1/K7CA	65,208			
VE3EJ	461,648	XE2S	42,210			
K1DG	452,628	P4ØTA (K6TA, op)	41,942			
K3ZM	426,377	OK2W	18,800			
AA1K	374,490	DF2PY	8,892			
WF2W	362,520	OM2VL	8,480			
К9СТ	326,300	OK1FPS	7,752			
K5NA	314,895	OLØA (OK1CZ, op)	7,280			
W5MX	309,838	JR5JAQ	7,232			

#### In the Midwest

The Top Ten lists suggest that the middle of the continent was a good place to be! Glenn, WØGJ repeated as the QRP winner, with three other Upper Midwest stations also among the top QRP finishers. The top six

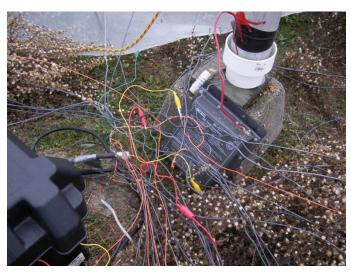
Low Power scorers were from away from the East Coast, most of them Midwesterners. In High Power, Craig, K9CT managed 8<sup>th</sup> place from IL. Toni, NØNI directed his Multioperator, High Power station to the 7<sup>th</sup> place spot in that category.

## **South by Southeast**

Another good place to operate from was below the Mason-Dixon Line. Victor, N8OO topped the Low Power list from LA and the ops at Tom, W8JI's station in GA won the Multiop, High Power wall decoration. Several other excellent performances came from Texas, Florida and Kentucky. Together with the Midwesterners, it seems that a central or south-central location could make a good score, especially for Low Power and QRP entries.

#### **Northeast Notes**

In the Single-Op, High Power and Multioperator categories it usually helps to be closer to the multipliers and QSOs from Europe. A great example is Jeff, K1ZM who operated from his PEI station, VY2ZM for another Single-Op win. The top seven Single-Op and the second through sixth place Multiop scores were from W1, 2, 3 and eastern Canada. We can't give DX all the credit, though – these high scoring stations had very high US/VE QSO totals with a few extra DX multipliers giving them the winning edge.



Like many portable operations, Jim, K6El's antenna wiring lashup wasn't pretty but it worked. This is the base of his temporary 70' inverted L with 52 radials and an SGC237 remote tuner. Jim worked 275 stations and 58 multipliers to lead the Pacific Division in the Single-Op, QRP category. (Photo – Jim K6El)

#### From the DX Side

In the Caribbean, the Multioperator crew at PJ2T edged out the gang at VP2MWG for the top DX score in any category. With a Single-Op, High Power entry, Joe,

ZF2AH gave out the ZF multiplier to 741 US/VE ops, reaching the top of his class. He was followed by Al, CE1/K7CA who made 433 QSOs from the Southern Hemisphere – with a remarkable multiplier total of 76 sections. Multiop station OL7M was the most successful European operation, with Single-Op JR5JAQ achieving the best result from Asia.

We get a different view from each of these geographical areas. That's the joy of a worldwide hobby! And it's also why the results at the regional, division, or section level may be more fun for most participants. Did you beat your buddy over in the next state? How did your station and operating skills compare with the other competitors in your part of North America? Did you beat (or at least come close) to a personal best or even a section record? These are real questions that active contest operators ask. Then, once in a while when everything comes together, a good operator with a respectable station can make it onto the Top Ten list from anywhere.

Top Te	en – W/VE	Top Ten - DX					
Call	Score	Call	Score				
Multioperat	tor, Low Power	Multioperator, Low Power					
VE2OJ	209,035	SP5CJQ	1,520				
K1VW	179,010	ON9CC	630				
WJ9B	168,004	OK2BFN	220				
KØTV	167,130	JA7YCQ	24				
КЗРА	99,549	XU7ACY	18				
W2CCC	65,238	JA1YNE	8				
NØHJZ	63,516						
K2DB	57,680						
K2RS	53,244						
WØANT	46,152						
Multioperat	tor, High Power	Multioperator, High Power					
W8JI	538,750	PJ2T	143,364				
K1LZ	456,692	VP2MWG	141,960				
W2GD	438,495	OL7M	33,700				
N3UA	358,190	ON4WW	8,256				
N1LN	317,196	DF2UU	6,536				
K3WW	311,541	JA3YBK	6,420				
NØNI	304,750	RL3A	4,080				
NX5M	297,324	DL7CX	4,030				
W3UA	237,462	F5IN	3,894				
KC4D	208,472	F4DNW	3,600				

#### The New Multioperator, Low Power Category

Most ARRL contests have added Low Power as an entry option for Multioperator stations. This allows a Low Power entry using spotting or CW Skimmer to compete on an even playing field. It also lets true multi-ham teams operate at low power where RFI or other factors discourage high power operation. The inaugural winner in this new category is VE2OJ, where operators VE3KI, VE3NJ, VE3OP and VE3ZY manned the VA2BW station for the first #1 plaque. Not far behind were K1VW, WJ9B and KØTV, with scores that were

separated by just a few percent. With 77 entries, Multiop, Low Power represented 7% of the total entries—the same number as the Single-Op, QRP category.

## **Club Competition**

Two heavyweights submitted nearly equal number of logs but the Potomac Valley Radio Club outscored the Minnesota Wireless Association in the Unlimited category. The race was very close in the Medium category as the Frankford Radio Club prevailed by just a couple of medium-sized scores over the Yankee Clipper Contest Club. Farther south, the Central Virginia Contest Club took the honors in the Local category. It looks like the East Coast made for some great club activity!

## **Affiliated Club Competition**

·	Score	Entries
Unlimited Category		
Potomac Valley Radio Club	4,621,675	71
Minnesota Wireless Assn	2,791,817	69
Medium Category		
Frankford Radio Club	3,196,142	40
Yankee Clipper Contest Club	3,115,975	49
Society of Midwest Contesters	2,218,827	45
Contest Club Ontario	1,632,298	27
Tennessee Contest Group	1,072,037	24
South East Contest Club	941,474	7
Central Texas DX and Contest Club	878,830	8
Mad River Radio Club	738,740	14
Alabama Contest Group	691,370	14
Maritime Contest Club	677,427	11
Grand Mesa Contesters of Colorado	654,572	9
Northern California Contest Club	565,357	24
Florida Contest Group	561,947	15
Kentucky Contest Group	499,362	3
Western New York DX Assn	410,646	8
Arizona Outlaws Contest Club	410,042	17
Contest Group Du Quebec	360,008	4
Rochester (NY) DX Assn	355,988	7
North Texas Contest Club	317,988	8
CTRI Contest Group	279,654	5
Southern California Contest Club	268,758	13
Hudson Valley Contesters and DX'ers	236,175	9
Western Washington DX Club	207,249	8
Northern Rockies DX Association	179,676	4
Saskatchewan Contest Club	122,645	3
Willamette Valley DX Club	119,636	7
Carolina DX Association	58,028	3
Local Category	,	
		_
Central Virginia Contest Club	697,053	7
Kansas City DX Club	591,311	4
Delara Contest Team	495,947	8
New Mexico Big River Contesters	220,613	5
Bristol (TN) ARC	166,273	8
Mother Lode DX/Contest Club	161,059	4
Sterling Park ARC	156,515	3
West Park Radiops	69,075	5
Spokane DX Association	61,580	4
Low Country Contest Club	38,453	3
Midland ARC	26,219	3

### **Closing Time**

Once again, the 160 meter band proved to be uniquely challenging for serious contesters and casual participants alike. Among the entrants who posted to the ARRL Soapbox website (www.arrl.org/soapbox) and the various reflectors were many hams who had given 160 meters their first try. This has been a continuing trend since LORAN ceased operation at the beginning of 1981, with a big jump in interest over the past 15 years or so as other countries around the world introduced or expanded 160 meter operating privileges.

Do you want to know more about 160 meter contests? The Club Competition listing is the place to start! As with any special interest part of our great hobby, contests are encouraged and supported by local and regional clubs. The experienced operators are great Elmers and those up-and-coming like you are happy to share their experiences as they build better stations and hone their skills. So join in the conversation with these groups and be better prepared next December when long, cold nights lure you into the shack for some Top Band fun!

# How Was the Contest? A Collection of Soapbox Comments Tells the Story!

#### Operating Style

We had decided to run in the M/S LP category this year with the hopes that we could turn in a winning score... So we backed off to low power and managed to work most everything we could hear. - KØTV

Operated portable from a rural location ... the "south bunker" where I set up my radio gear is just a concrete-lined hole in the ground and is not insulated. - K6EI

Well, now I have a better idea how my inverted-L works on 160M. - AA8IA

This is the first RF I have put on this band since 1988 (23 years ago!!!). - AB7ZU

My first 160M contest. I temporarily converted my 80M vertical to an Inverted-L for 160M and it worked great! - K4IKM

This was fun! I ended up 4 Qs and 24 points shy of last year's effort, but 1 more mult than last year. - K6CSL

So this is why this contest is 48 hours! First night to run and the second to get the multipliers. - K9CT

Kinda cool to have 160M as my first real CW contest. - KE7AUB

First time with this contest. Tried a shielded loop for the first time on the receive side. Worked OK. More antenna experiments to come. - KK7Z

I attached a wire to the bottom of the rain gutter on our single level duplex and fed it against ground with two radials get on for the 'test. - NØJK

Where was all the DX? Very little Caribbean activity and almost nothing from EU heard here. Couldn't work anything past the central USA. I need to put up a better 160M antenna. - N1DC

...with 100W Icould work about everyone I could hear. I guess that means I need better receive antennas. - N3QE

This was another field day dxpedition to my out in the middle of nowhere northern Wisconsin cabin (to get away from all the city noise!) - NE9U

Thanks to all who worked my puny 100w with the 80 meter antenna. I was amazed at some of the "ears" out there! - NF4A

This is the additional entry to the OLØA log, just for the QRP contacts. During the condx peak between 0220 and 0320Z Sat/Sun night I was able to work K1LZ, K1DG, N3RS and AA1K. Not to mention VY2ZM who was able to hear my 5W signal even before 2000 UTC. - OK1CZ

This is always a favorite for rate. I got on and kept going until the rate dropped below 100, took a several hour break, then did it again with a new crowd. – WØBH

#### **Band Conditions**

We are obviously coming back to normal conditions after the three marvelous past winters. - VA2EW

Conditions poor to Europe and West Coast the first night... Conditions much better second night and lots of Europeans called. - AA1K

Conditions were poor to the western NA. Like a curtain drawn from MN to TX and nothing further west heard.-DF2PY

Poor conditions, low activity and high noise Friday night. Much better Saturday night. - K1DG

Signals were down too, but good SNRs and lack of atmospheric crashes made the event rather pleasant, aside from the usual assortment of trashy signals. - K1GQ

Missed NL and NWT for sweep but had some decent EU stations call in. Not many JAs though. - K5WA

Missed Alaska and a few other sections. You can tell that the higher MUF is affecting 160 meter propagation. - KO7X

...several very loud JA stations answered my CQ and were easy copy. Best signals during a contest heard from JA for many years! - N5UL

Around 0830Z two things happened that made the remainder of the night an unrelenting slog: 1) something made the ionosphere a giant sponge for 160m RF towards the northeast and, 2) the cold front that blew through here on Thursday night hit Texas and created a large line of thunderstorms, which resulted in summertime static levels. - N7IR

I operated single op low power. found condx poor mostly, hard to work w6 es w7, but had 2 KH6 Qs - VA1ZJ

Conditions poor with high absorption for most of the contest. This absorption cleared up about 0800Z the second night and magically opened up the band to the northeast. - VE7CC

Very poor condx from up here. - WL7E

## Contest Experiences

Great contest (for us little guns) as usual, and already looking forward to next year. - WD8DSB

We kinda limped in to this contest, our amp did not come from Alpha, our beverages were ripped to shreds by the elk and we were short two operators this weekend. - KØDU

Missed Friday night, but that made me more popular Saturday night. Managed a sweep of the 6th and 7th call districts. - K2PO

Amplifier died last month, but I was surprised how well low power worked. - K3PA

Glad I finally put up my first Beverage last week - 400' E/W with \$10 investment. Huge reduction in background noise - band sounds more like 20m now and that is certainly easier on the brain! - KF6T

Tough to Contest on 160 meter QRP, but always lots of fun. My best score by far. - N4AX

I almost gave it up after the first night (few responses from CQing strong stations) but got back in the chair to experience a good band the second night/morning. - N9NE

Another Great one on 160-meters. Bettered last year's score by 20%. Thanks for all the Qs. See you on the next one. - WØPC

We were very glad to have Jorge, CX6VM call in, and it always amazes me how loud CE1/K7CA can be from so far away. The mystique of Top Band communications is alive and well. - W2GD

What tremendous fun! I had absolutely no idea that 5 watts could travel so far on top band! - W2ID

#### Commentary

Will the sponsors ever add an SOA category? - AB2E

I saw some complaining on the reflector about this being a poor contest with no chance to win. I believe I'm winning just by being able to work new stations and having fun doing it. - CE1/K7CA

We need more motivation for VE/US to work DX and maybe to keep DX window clear for DX stations. - E77DX

This is one of my favorite events on the calendar. I guess the challenge of 160M and the quality of the operators does it for me. - NØNB

I thank each of you who managed to get some  $160m\ RF$  into the frozen tundra of central WY (where the temp dropped to minus 18F during the contest). - K7KU

Condx did not seem up to the past few years but plenty of activity made for a good time. - KD2MX

I really like these 160 meter contests. However my antenna is so lousy that it makes life on 160 really difficult. - WO7V

A Gentleman's CW Contest - others can learn a lot from this one! - WU6W

Division Winners								
Sin	Single Operator, QRP							
Atlantic W3TS 55,284								
Central	N9NE	46,872						
Dakota	WØGJ	101,106						
Delta	N4IR	20,884						
Great Lakes	N8BB	28,428						
Hudson	W2DPT	16,512						
Midwest	NØSM	29,810						
New England	AA1CA	37,083						
Northwestern	W7DRA	3,750						
Pacific	K6EI	30,894						
Roanoke	K4CNW	37,314						
Rocky Mountain	W5GZ	4,983						
Southeastern	N4AX	37,960						
Southwestern	N7IR	44,132						
West Gulf	K5RX	93,755						
Canada	VE3MGY	47,628						

Single Operator, Low Power						
Atlantic	W2TZ	152,240				
Central	NE9U	172,215				
Dakota	NØIM	174,262				
Delta	N800	207,744				
Great Lakes	K8FH	173,788				
Hudson	K2UF	90,650				
Midwest	KU1CW	182,070				
New England	N2KW	156,420				
Northwestern Pacific	W7YAQ N6RK	67,040 75,306				
Roanoke	K2AV	115,559				
Rocky Mountain	WØDLE	109,263				
Southeastern	K4CWW	96,876				
Southwestern	W7RH	75,573				
West Gulf	W5RYA	84,931				
Canada	VE3OSZ	76,858				
	Operator, High Power					
Atlantic	AA1K	374,490				
Central	K9CT	326,300				
Dakota	K9DU	99,176				
Delta Great Lakes	WD5R (N5ECT, op) W5MX	265,776 309,838				
Hudson	N2ED	122,655				
Midwest	NØTT	281,214				
New England	K8PO	465,555				
Northwestern	N9RV	121,512				
Pacific	KF6T	109,188				
Roanoke	K3ZM	426,377				
Rocky Mountain	KØRF (WØUA, op)	264,384				
Southeastern	N4PN	206,112				
Southwestern	N6MA	96,564				
West Gulf	K5NA	314,895				
Canada	VY2ZM	539,000				
Atlantic	perator, High Power W2GD	438,495				
Central	W9IU	177,039				
Dakota	KØKX	131,192				
Delta	N4DW	81,744				
Great Lakes	N8TR	116,109				
Hudson	N1EU	131,677				
Midwest	NØNI	304,750				
New England	K1LZ	456,692				
Northwestern	KG7H	133,280				
Pacific	KH6LC	70,882				
Roanoke	N3UA	358,190				
Rocky Mountain	KØDU	197,560				
Southeastern	W8JI	538,750				
Southwestern West Culf	N6SS NVEM	111,542				
West Gulf Canada	NX5M VE3RZ	297,324 176,626				
	pperator, Low Power	170,020				
Atlantic	W2CCC	65,238				
Central	WE9R	38,208				
Dakota	NØHJZ	63,516				
Great Lakes	N9KY	440				
Hudson	KI2P	5,280				
Midwest	K3PA	99,549				
New England	K1VW	179,010				
Northwestern	WO7V	3,072				
Pacific	K9YC	4,080				
Roanoke	N4ZR	20,691				
Rocky Mountain	WØANT	46,152				
Southeastern	WJ9B	168,004				
Southwestern	N7MAL	16,168				
West Gulf	KN8KAZ	9,810				
Canada	VE2OJ	209,035				

						Regional	Leaders							
Northeast Region  New England, Hudson and Atlantic Divisions; Maritime and Quebec Sections		Q = Single-Op QRP, L Southeast	_	Op, Lo	ow Power, HP = Single-Op High Power  Central Region			Great Plains Region			West Coast Region			
		Delta, Roanoke and Southeastern Divisions		Central and Great Lakes Divisions; Ontario Section		Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections			Pacific, Northwestern and Southwestern Divisions; Alberta, British Columbia and NWT Sections					
Call	Score	Cat	Call	Score	Cat	Call	Score	Cat	Call	Score	Cat	Call	Score	Cat
W3TS	55,284	Q	N4AX	37,960	Q	VE3MGY	47,628	Q	WØGJ	101,106	Q	N7IR	44,132	Q
AA1CA	37,083	Q	K4CNW	37,314	Q	N9NE	46,872	Q	K5RX	93,755	Q	K6EI	30,894	Q
N2ZN	33,900	Q	AA4XX	35,298	Q	N8BB	28,428	Q	NØUR	41,211	Q	N6WG	14,136	Q
W2DPT	16,512	Q	AA7JV	26,619	Q	K9WX	19,044	Q	NØSM	29,810	Q	K6MI	10,542	Q
WO2N	9,472	Q	K3TW	25,652	Q	W8GP	18,672	Q	WTØA (KE5RX, op)	26,560	Q	VE7VV	8,652	Q
N2KW	156,420	LP	N8OO	207,744	LP	K8FH	173,788	LP	KU1CW	182,070	LP	W7RH	75,573	LP
W2TZ	152,240	LP	K2AV	115,559	LP	NE9U	172,215	LP	NØIM	174,262	LP	N6RK	75,306	LP
K2UF	90,650	LP	K4CWW	96,876	LP	K4FT	165,396	LP	KØTI	148,149	LP	W7YAQ	67,040	LP
K2ZR	88,576	LP	WA1FCN	93,600	LP	WB8JUI	150,320	LP	KØDI	139,892	LP	AI7H	36,584	LP
N1IX	74,520	LP	K5LG	73,554	LP	K8BL	141,614	LP	WØDLE	109,263	LP	WA6FGV	35,278	LP
VY2ZM	539.000	HP	K3ZM	426,377	HP	VE3EJ	461.648	HP	K5NA	314.895	HP	VE7CC	144,072	HP
K8PO	465,555	HP	WD5R (N5ECT, op)	265,776	HP	K9CT	326,300	HP	NØTT	281,214	HP	N9RV	121,512	HP
K1DG	452,628	HP	N4AF	217,920	HP	W5MX	309,838	HP	KØRF (WØUA, op)	264,384	HP	KF6T	109,188	HP
AA1K	374,490	HP	N4UA	213,750	HP	K1LT	306,769	HP	K5WA	247,752	HP	N6MA	96,564	HP
WF2W	362,520	HP	AD4EB	210,366	HP	VE3PN	238,980	HP	K7KU (KØKR, op)	187,572	HP	VE6BBP	86,584	HP
K1LZ	456,692	М	W8JI	538,750	М	W9IU	177,039	М	NØNI	304,750	М	KG7H	133,280	М
W2GD	438,495	M	N3UA	358,190	M	VE3RZ	176.626	М	NX5M	297,324	M	N6SS	111,542	M
K3WW	311,541	M	N1LN	317,196	M	N8TR	116.109	M	KØDU	197,560	M	AD7AF	108,297	M
W3UA	237.462	M	KC4D	208.472	M	K8MM	87.423	M	KØKX	131.192	M	W7IJ	95,844	M
W2RR	203,991	M	W4HZ	192,042	М	VA3DX	77,064	M	WØIZL	93,755	M	KH6LC	70,882	M
VE2OJ	209,035	ML	WJ9B	168,004	ML	WE9R	38,208	ML	КЗРА	99.549	ML	N7MAL	16,168	ML
K1VW	179,010	ML	N4ZR	20.691	ML	K9IJ	33,988	ML	NØHJZ	63,516	ML	NN6CH	4,212	ML
KØTV	167,130	ML	KS4S	16,920	ML	N9UA	13,846	ML	WØANT	46,152	ML	K9YC	4,212	ML
W2CCC	65,238	ML	ND4V	15,141	ML	N9UA N9LF	11,868	ML	K7OA	40,152	ML	W6OFM	3,770	ML
K2DB	57,680	ML	ND1Y	13,019	ML	K9CW	10.148	ML	ACØW	32,269	ML	WO7V	3,770	ML
ועטט	07,000	IVIL	ווטוו	13,019	IVIL	1/3044	10,148	IVIL	TON!	32,209	IVIL	44 O 7 V	3,072	IVIL