

2007 ARRL 160 Meter

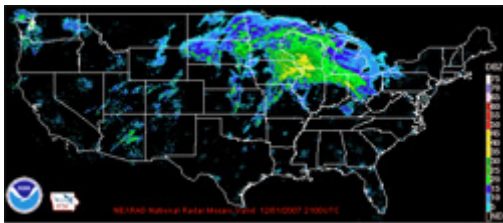
Naughty and Nice - 2007 ARRL 160 Meter Contest Results

Mother Nature stirs up the ionosphere and the weather!

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Mother Nature was naughty and nice during the 2007 ARRL 160 Meter Contest! In the “nice” category was very good DX propagation, which generated comments from operators like, “This year was my personal best,” and “First night had a good European opening to the West Coast!” In last year’s story, I noted that seventeen stations had 100 or more multipliers, but 2007 conditions enabled a whopping 70 stations to reach that mark! Better conditions usually means more participation, which certainly was the case—1197 logs were submitted, which is nearly 14 percent more than the 2006 event.

The naughty behavior showed up after the first night’s excellent band conditions. Parts of the U.S. and Canada experienced a fierce winter storm that brought high winds, rain, sleet ice and snow, breaking antennas and increasing the received noise levels. But contests are all about meeting challenges, and the Top Ten finishers include several operators who, quite literally, “weathered the storm” to persevere in the face of adversity (See the sidebar story, “Weathering the Storm During the 2007 ARRL 160 Meter Contest.”).



This is the U.S. national weather radar at 2100z on Dec. 1, 2007 (Saturday afternoon). Much of the Upper Midwest had a wintry blast of wind, rain, sleet, ice and snow. Through the night, this storm moved eastward, reaching the New England states and eastern Canadian provinces by morning. In its wake were many damaged and ice-encrusted antennas. Other parts of North America also had precipitation of some form, with accompanying high noise levels. (NOAA radar composite image)

Top Ten Highlights —Multioperator

The Multioperator category was highly competitive, with the team at W8JI capturing the top spot from Georgia, making 1900 QSOs and collecting 133 multipliers. A surprising second-place finish was achieved by the operators at WB9Z in central Illinois, who came out ahead of last year’s multiop winners, the well-seasoned crew at W2GD in New Jersey. Following excellent efforts at WE3C, K1LT and K3WW, another Central Time Zone station, WD5R in Arkansas, captured the seventh spot.

The scores of the middle four finishers in this category were separated by less than 5 percent. WE3C, K1LT, K3WW, WD5R may not have known they were so close, but that's how it turned out. In seventh through tenth positions, K1LZ, K8KS and W8MJ were not far behind.

Single Operator High Power

The always-exciting High Power category was topped by VY2ZM, operated by Jeff Briggs, K1ZM. A few years ago, no one would have predicted that 2000 QSOs was possible in this contest, but Jeff's 1957 QSOs came mighty close! A strong second place finish was achieved by Yuri Blanarovich, K3BU, using the callsign N2EE from W8LRL's excellent station in West Virginia. Coming in third was Peter Briggs, K3ZM, in Virginia. (Yes, Peter is Jeff's brother.) Capturing the fourth place spot was W4MYA, another perennial top competitor.

The fifth place finish by John Battin, K9DX, is noteworthy, since it was achieved in little more than one day—John's big 9-circle antenna array was among the casualties of Saturday's ice storm. The rest of the list represents a lot of experience on this band, including a tight race for bragging rights in Ontario. Nick, VE3EY managed to top John, VE3EJ in this year's contest—but only by a one percent score margin, equivalent to perhaps 15 QSOs or one multiplier! Seventh through tenth positions were filled by Jon, AA1K, Dennis, W1UE and Bryan, W5MX. Note on the Top Ten list that the point spread from third through tenth places is less than 15 percent. This category also had some really tough competition!

Single Operator Low Power

Low Power entries totaled 44 percent of the logs submitted, making it by far the most popular category. At the top of the list is a repeat winner, Fred Helwig, K8FH in Ohio. Second and third place winners each moved up a notch from last year, with Julius Fazekas, N2WN from Tennessee coming out ahead of Gene Shea, KB7Q, who operated from Montana. A DX station made it into the Top Ten list with a fourth place showing by Bob Patten, N4BP, who traveled to the Bahamas and competed as C6AKQ.

In the middle of the list are Jim, W0UO in Texas, Paul K0PK up north in Minnesota and Chad, WE9V in Wisconsin. With an eighth place finish from California, Dave Bullard, NT6K made the Low Power category the only one with coast-to-coast (and beyond) representation in the Top Ten listing. Dave, K0DI in Nebraska and Doug, K4LY in South Carolina finish out the list with a big geographical spread.

Single Operator QRP

QRP is always a challenge on the 160 meter band, but the good conditions and activity helped raise the typical scores in this category. Reaching this year's #1 QRP position is "Mike" Michael, W3TS, who topped his second place score of last year (a personal best at that time) by nearly a third! From Arizona, Gary Hembree, N7IR captured second place, with a similar increase over his fifth-place score of last year. As in the Low Power category, a DX station cracked the QRP Top Ten, with a strong third place effort by Joaquin "Yanco" Sanchez,

CM6RCR. Back in the middle of the U.S., John Flinn, W9SE reached fourth place from his station in Illinois. Bill, K4CIA in North Carolina captured the fifth place spot

Like the Low Power category, QRP was geographically diverse, with Top Ten finishers from many different areas. Jim, N0UR captured the sixth position from northern Minnesota, while seventh went to Jay, KT5E in Colorado. Another NC operator, Charlie, W4TMR was eighth, and the last two on the list represented the midwestern states of Ohio (Dan, N8IE) and Michigan (Werner, N8BB).

Although the two DX competitors who made the Top Ten were not located far from the U.S. mainland, their achievements are still quite significant. DX stations can only work ARRL and CRRL sections and thus have a limit of just 80 multipliers. With low power, C6AKP managed to snag 79 of them, while at the QRP level, CM6RCR found 69 mults.

Club Competition

Local and regional contest clubs are a great source of information and support for less-experienced contest operators. Almost all have e-mail lists that provide an ongoing discussion of operating practices and technical information. Clubs also provide a great way to focus on a team effort, which makes it possible for a part-time or antenna-challenged ham to really be part of the “big game.” If you are looking for this kind of involvement to improve your contest enjoyment and success, contact the nearest club listed in the results, or check the ARRL’s list of affiliated clubs.

Two clubs had enough entries to reach the Unlimited club entry category, with the Society of Midwest Contesters reaching the top spot with 61 entries and an aggregate total of nearly 5.4 million points. Not far behind with just under 5.1 million points is the Potomac Valley Radio Club. With a reasonable guess about Multioperator team members, these two clubs had perhaps 170 operators involved in this contest.

In the Medium category, the Frankford Radio Club’s 3.9 million points topped a long list of top-notch clubs. They were followed closely by the Yankee Clipper Contest Club, then the Tennessee Contest Group. This category’s highest participation came from the fourth-place Minnesota Wireless Association, which had 48 entries and 2.5 million points.

The Local category found the Central Virginia Contest Club at the top of the list with its nine entries and 694k points.

Regional Success Stories

The Central, Midwest and West Coast regions had much better propagation than is usually experienced during a 160 meter contest weekend. The presence of Hawaiian stations KH6LC and KH6ZM among the top “West Coast” stations in their respective categories is sufficient evidence for that claim.

A look at the Regional Leaders list includes other notable multiplier and QSO totals. Although no Low Power op managed to get 100 multipliers (K8FH had 99), the only region that did not have someone with at least 90 multipliers was the normally dominant Northeast region! QSO numbers above 900 were also distributed widely across the continent. Some operators' reports suggest that the excellent propagation to Europe on the first night may have been best to locations beyond the northeast U.S. Although openings to Europe (and its many multipliers) were sometimes short, they gave high power and many low power operators in the western half of the continent an opportunity to boost their scores.

In the multiop category, N7DD's multiplier total of 114 from Arizona deserves a special note, as does the 104 multipliers collected at W0AIH, whose northwest Wisconsin QTH often experiences much worse propagation than his 9-land colleagues just a couple hundred miles further south.

The High Power performances in the Midwest region were quite strong, even if not in the overall Top Ten. Among them was W0SD (W0DB, op) in South Dakota, whose 1612 QSOs and 104 multipliers would be welcome in any contester's log, wherever they are located. K5RX in Texas, N0TT in Missouri and well to the north, VE5RAA in Saskatchewan, all had strong performances from the center of North America.

160 Meter Contest Records

Your author was surprised to find that there is no comprehensive listing of records for this contest. There are numerous partial listings, but a single "master list" of results does not yet exist. However, a group of active contesters led by George, K5TR is assembling a database of past contest results, transcribing and compiling the printed results from the years before computer databases were used. I have volunteered to fill in the remaining gaps in data for the ARRL 160 Meter contest. Then you will not only be able to see the records, but review your own past performances.

Although the records are not complete, it is clear that the 2007 contest will have many new records — from all-time best down to the Section level. The combination of growing activity and good conditions always results in a burst of new records. Even with the incomplete score records that are now available, it is clear that several past contests also had the kind of band conditions that result in many all-time best performances.

Finally...

Overall, the 2007 ARRL 160 Meter Contest was a great antidote to the "no sunspots" disease that has nearly shut down the higher HF bands. On the the "3830" scores reflector and among the Soapbox comments, many participants noted especially good conditions at one time or another during the contest. As is typical on the 160 meter band, some saw good early evening propagation, while others saw the classic enhancement near sunrise on the eastern end of the path, e.g., European sunrise or to Japan at North American sunrise.

With the uncertainty about the behavior of upcoming Cycle 24, 160 meters should be a great place to operate for a couple more years. But, newcomers to Top Band should note that high worldwide activity levels and fascinating, unpredictable propagation makes 160 meters a great place to operate anytime in the sunspot cycle!

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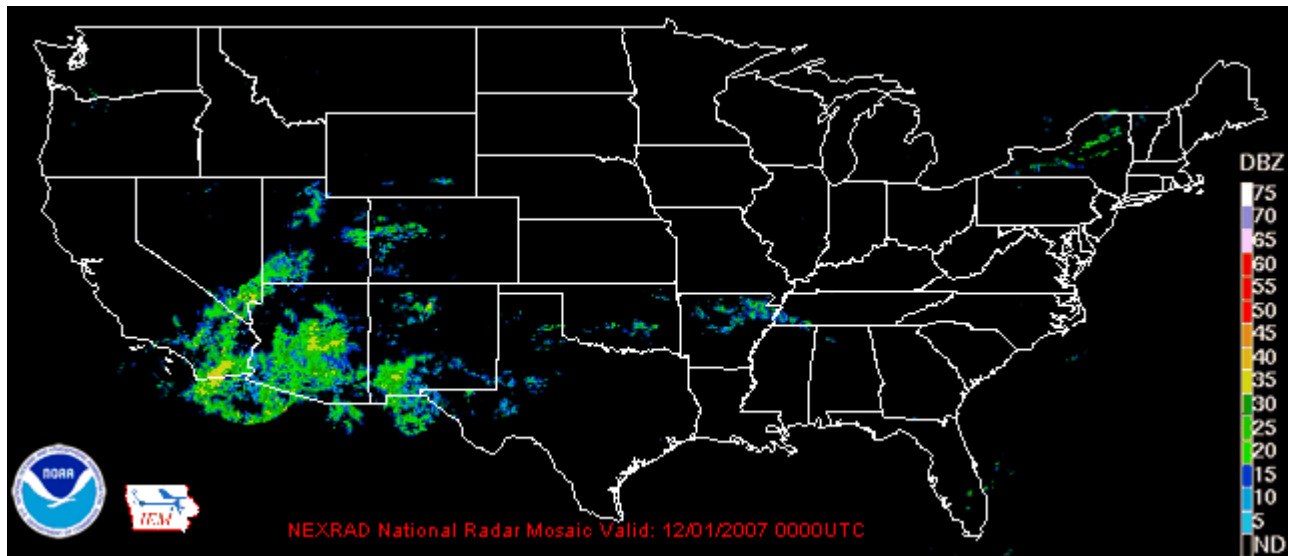
Weathering the Storm During the 2007 ARRL 160 Meter Contest

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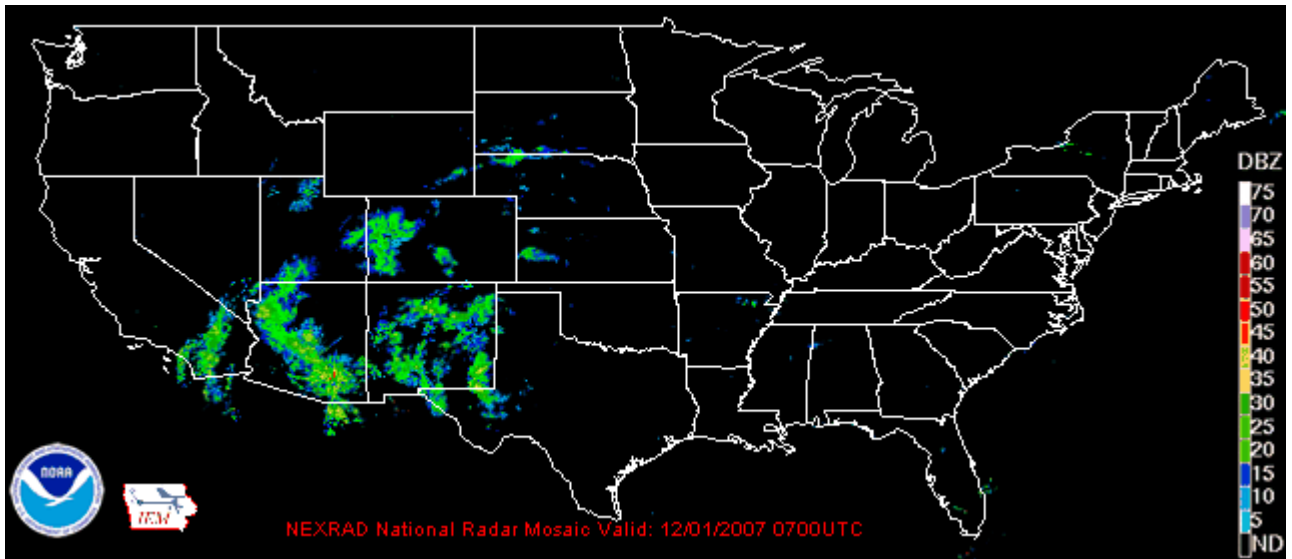
The weather has a big effect on operating success on 160 meters. Raindrops and snow flakes have a small electric charge than can cause intense “precipitation static” as they hit antenna wires and discharge. Even if the ham has used insulated wire for antennas, the noise level increases since some precipitation will contact nearby metal objects that “transmit” the noise just like electrical appliances and other noise sources. And the increase atmospheric turbulence creates lightning and its long-range noise, even in some winter snow storms.

Of course, weather can be damaging due to wind, lightning, ice or heavy snow. This is what happened to part of North America during the 2007 ARRL 160 Meter Contest. In the upper Midwest, wind and ice combined to cause extensive damage at a few stations, while those that survived often had impairments like detuning or sagging wires. A few trips outside during the night to remove ice and snow can slow down any operation!

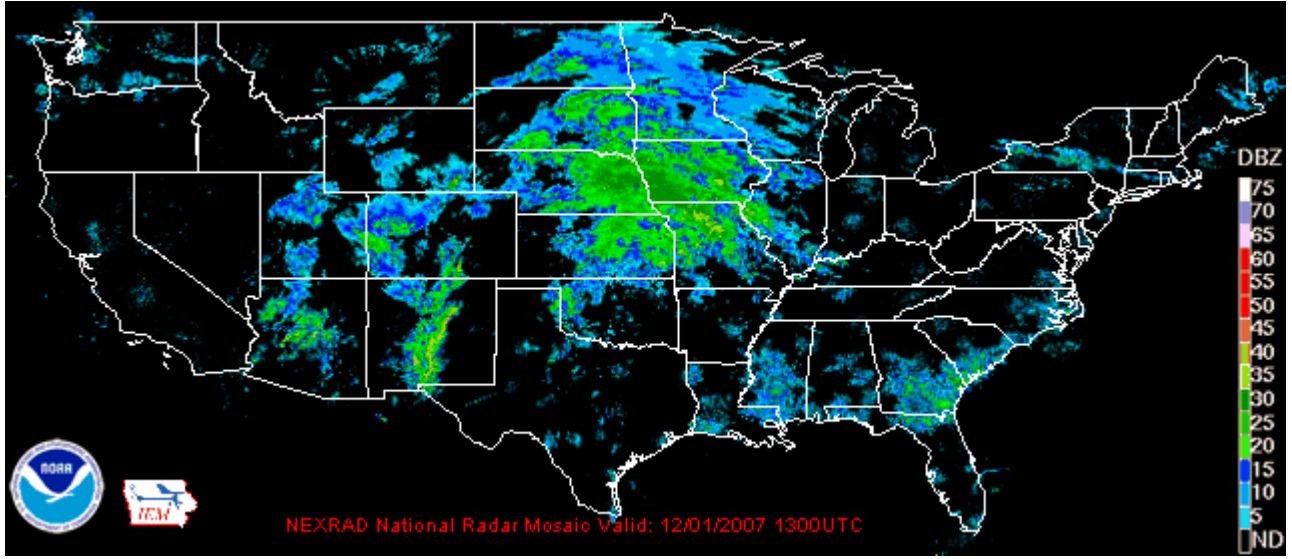
Although the entire continent was not affected, it is interesting to see how weather events progressed during the course of the contest. Let’s start with the early hours of the contest.



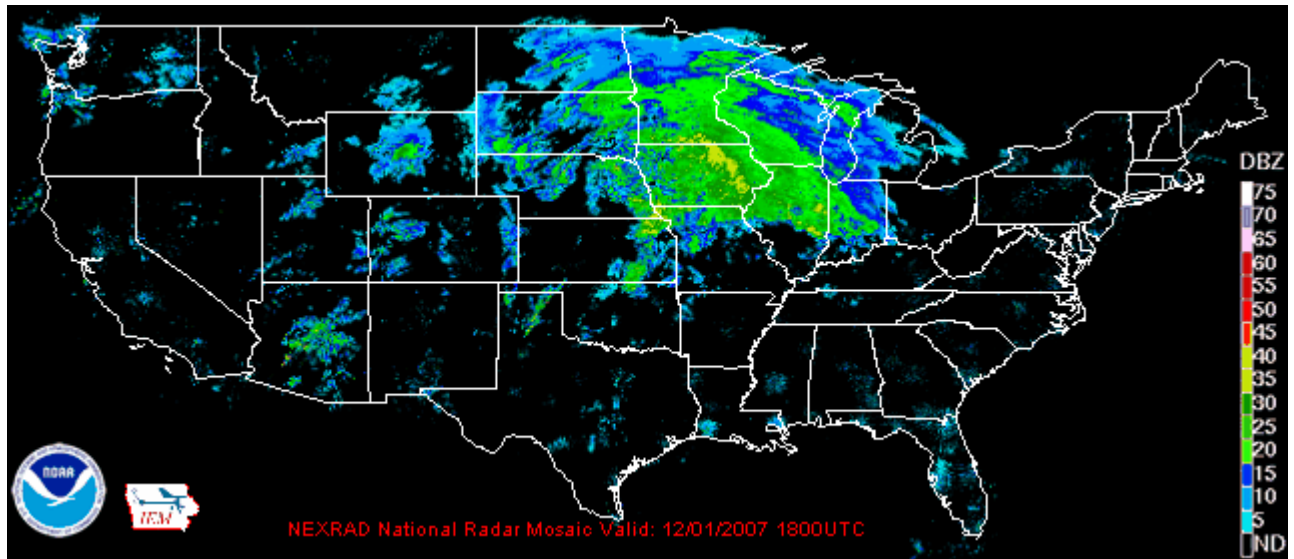
This is the nationwide NOAA radar composite image at 0000z, two hours after the start of the contest on Friday evening local time. There are some significant showers and minor thunderstorms along the border with Mexico, plus a few showers elsewhere in the country.



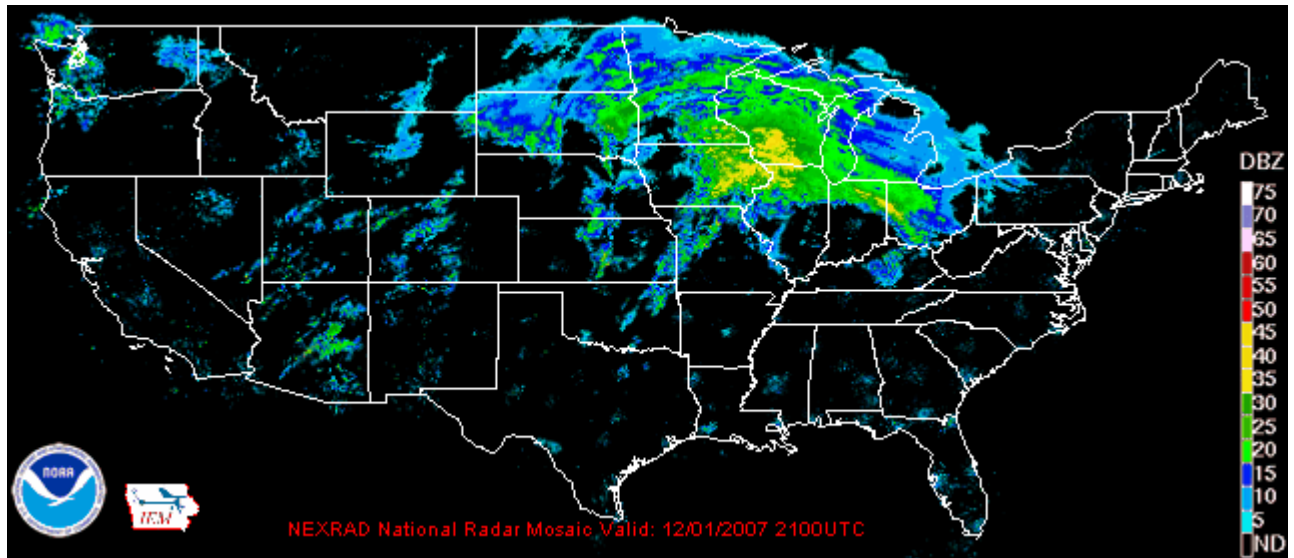
Later on, rainy weather has spread across all the southwestern states, as this 0700z image shows. This weather is fairly benign, and although there may have been some minor inconveniences to operators in these states, the first night of the contest was highly productive for almost all North American participants.



Just six hours later, at 1300z (7 a.m. CST Saturday), things were quite different! A winter storm is building rapidly, centered on the Iowa/Nebraska border. This storm crosses areas with temperatures on both sides of the freezing mark (32°F or 0°C), and includes areas of rain, sleet, ice and snow. The rapid storm development is accompanied by sustained winds of 20 to 40 miles per hour (32 to 64 km/h).



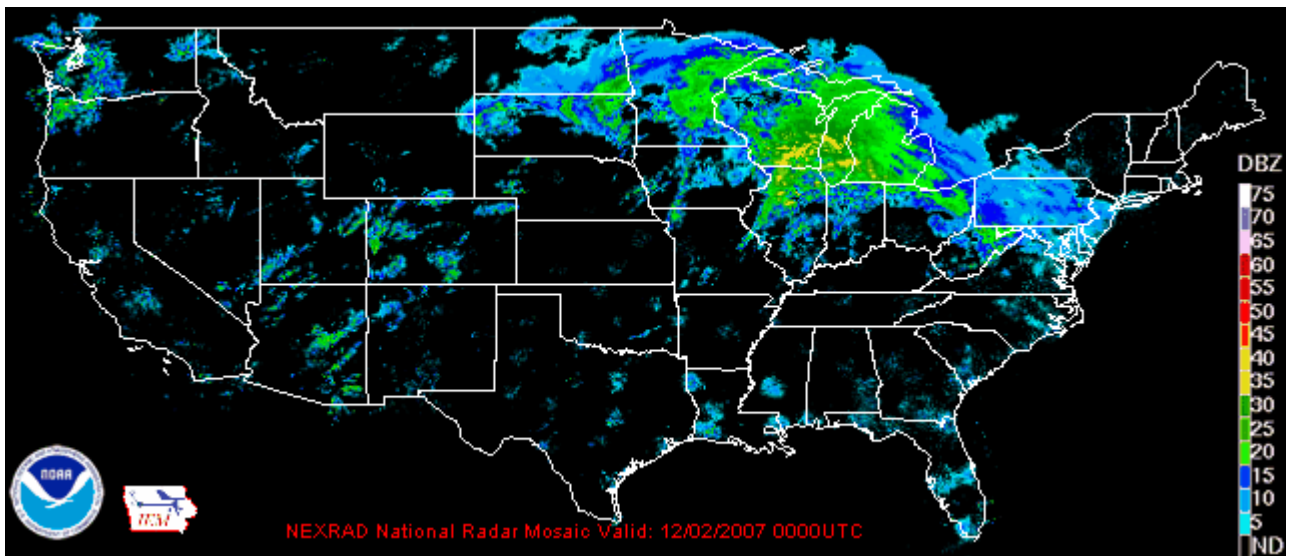
By 1800z (noon CST Saturday), the storm has grown and is affecting most of the 9th and 10th call districts.



The storm is at its peak at 2100z, just when activity is ramping up for the second night of the contest. The center is over northeast Iowa, southern Wisconsin and northern Illinois, all of which have experienced constant winds, with precipitation starting as rain, becoming sleet, then ice, and finally snow. The K9AY QTH is under the yellow area in south central Wisconsin. K9DX is located close to the Illinois/Wisconsin border at the right edge of the yellow area. Both locations saw 3/8 to 1/2 inch of ice, with winds still blowing as they had all day long. All elements of the famous K9DX 9-circle antenna array came down. Since John operated remotely, the system just quit working and he did not know the full extent of the damage until the morning.

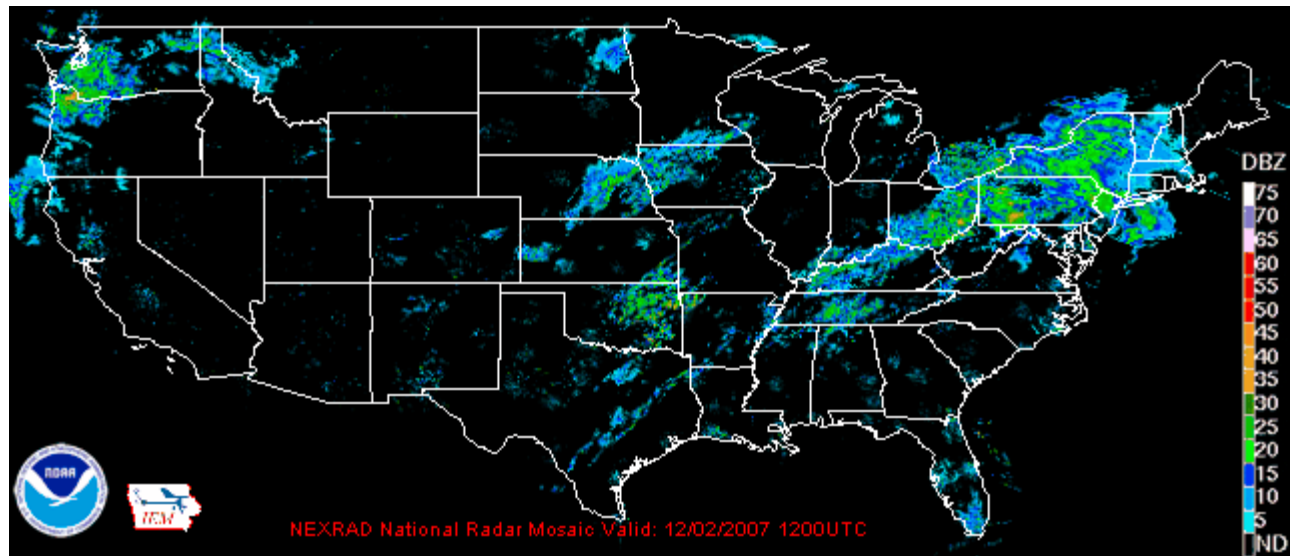


A Monday morning photo shows the damaged northeast Beverage antenna at K9AY. What is not shown in the photo is that the slack portions between the supports are “hermetically sealed” in six inches of snow and ice! Remarkably, this was still the best receiving antenna for European DX after it was broken. Unfortunately, the transmit antenna was also damaged. What had been an inverted-L with a 55-foot high vertical section became a quarter-wave random wire draped through the trees at about 30 to 35 feet high.



At 0000z on December 2 (6 p.m. CST Saturday), the storm is still active, and has moved eastward. Michigan, Ohio and parts of Ontario are getting snow and a little sleet or ice. The

winds have lessened since the storm has passed its peak, but are still having an effect on some stations as it passes through.



By 1200z Sunday, nearing the end of the most intense contest activity, the storm covers an area from Ohio to the New England states. The radar image also shows lingering precipitation in most of eastern half of the U.S., and an area of rain and thunderstorms moving into the northwest. Reports indicate that noise levels were higher the second night, but not extreme. Most areas outside the direct physical effects of the weather continued to have successful contest operations. Thankfully, the weather had a limited area where its effects were severe, and did not keep the majority of participants from enjoying the excellent propagation during the 2007 ARRL 160 Meter Contest.

My personal lesson learned from this experience is that an antenna system needs to withstand the weather! Although the weather damage affected my operation in this contest, most of the problem was that my antennas are wires, supported by trees, temporary posts and masts. In a sense, the timing was perfect — I did not get a planned tower project finished in 2007, and now have a chance to make a few changes that will help it survive in the future.

Credits

The radar images used to illustrate the progress of the weather are from the archives of the National Oceanographic and Atmospheric Administration (NOAA). The ready availability of data such as these is a truly valuable resource.

2007 ARRL 160 Meter

Top Ten US/VE

Single Operator, QRP

W3TS	99,937
N7IR	73,944
W9SE	65,564
K4CIA	64,428
N0UR	58,759
KT5E	57,743
W4TMR	53,724
N8IE	50,540
N8BB	50,344
AA1CA	48,546

Single Operator, Low Power

K8FH	244,530
N2WN	225,600
KB7Q	201,150
W0UO	181,629
K0PK	176,131
WE9V	173,290
NT6K	166,936
K0DI	158,256
K4LY	157,320
N9JF	153,436

Single Operator, High Power

VY2ZM (K1ZM, op)	791,505
N2EE (K3BU, op)	596,909
K3ZM	455,499
W4MYA	443,796
K9DX	434,868
VE3EY	421,724
VE3EJ	417,484
AA1K	414,756
W1UE	405,750
W5MX	401,472

Multioperator

W8JI	598,101
W9AZ	485,478
W2GD	460,928
WE3C	427,136
K1LT	420,840
K3WW	412,672
WD5R	408,012
K1LZ	372,496
K8KS	341,260
W8MJ	315,019

Top DX Scores**Single Operator, QRP**

CM6RCR	67,758
JH4UYB	12

Single Operator, Low Power

C6AKQ (N4BP, op)	185,018
HI3A	154,000
VP5/K7WA	2,808
YV7QP	2,704
UA2FCC	2,100
IK2HDF	2,150
JE1SPY	707

Single Operator, High Power

PJ2T (K8ND, op)	222,456
P40TA (K6TA, op)	120,736
J3/DL5/AXX	92,160
XE2S	77,532
ZF2/AH	43,310
F5IN	19,320
DF2PY	15,288
OM7CW	14,080
UW2M	12,792
OE3GCU	11,844

Multioperator

VP2M3C	139,370
RW0CWA	21,384
JA3YBK	13,776
EA6BF	10,234
HB9CIP	4,884

2007 ARRL 160m contest Club Competition

Affiliated Club Competition

	<i>Score</i>	<i>Entries</i>
Unlimited Category		
Society of Midwest Contesters	5,398,290	61
Potomac Valley Radio Club	5,097,867	64
Medium Category		
Frankford Radio Club	3,934,302	34
Yankee Clipper Contest Club	3,645,181	42
Tennessee Contest Group	2,581,579	32
Minnesota Wireless Assn	2,502,083	48
Contest Club Ontario	2,306,469	34
Northern California Contest	2,099,763	37
Mad River Radio Club	1,841,858	20
South East Contest Club	1,487,113	14
Alabama Contest Group	1,111,367	10
Florida Contest Group	976,489	16
Rochester (NY) DX Assn	881,049	8
Grand Mesa Contesters of	740,060	0
North Texas Contest Club	735,330	7
Central Texas DX and Contest	624,256	9
Southern California Contest	516,991	17
Western New York DX Assn	467,937	6
Carolina DX Assn	416,813	5
Western Washington DX Club	378,096	11
Hudson Valley Contesters and	339,399	10
DC DX Club	323,525	3
Texas DX Society	300,105	3
Magnolia DX Assn	200,027	4
Oklahoma DX Assn	273,175	4
Central Arizona DX Assn	225,641	7
North Coast Contesters	214,636	4
Order of Boiled Owls of New	213,090	4
West Park Radiops	212,940	10
Willamette Valley DX Club	194,194	5
Contest Club Du Quebec	144,557	7
Kentucky Contest Group	139,750	3
East Coast Canada Contest Club	33,920	3
Local Category		
Central Virginia Contest Club	694,145	9
Kansas City DX Club	454,735	5
Medina 2 Meter Group	444,599	5
Spokane DX Association	426,296	5
Redmond Top Key Contest Club	196,540	5
Mother Lode DX/Contest Club	148,045	4
Sterling Park ARC	136,478	3
CTRI Contest Group	106,162	3
Maritime Contest Club	102,509	4
Metro DX Club	74,649	4

2007 ARRL 160 Meter

Northeast Region

(New England, Hudson and Atlantic Divisions;
Maritime and Quebec Sections)

W3TS	99,937	690	73	A
AA1CA	48,546	451	54	A
K3TW	33,275	300	55	A
KR2Q	28,800	297	48	A
KA1LMR	27,269	212	67	A
K1EP	135,828	785	81	B
K1NK	119,685	742	79	B
N1RL	106,560	654	80	B
K2UF	105,193	709	73	B
KS1J	89,712	606	72	B
VY2ZM (K1ZM, op)	791,505	1957	135	C
AA1K	414,756	1555	123	C
W1UE	405,750	1349	125	C
N1BUG	359,020	1365	116	C
W2FU	336,234	1289	116	C
W2GD	460,928	1604	128	D
WE3C	427,136	1448	128	D
K3WW	412,672	1488	124	D
K1LZ	372,496	1278	124	D
N02R	273,372	1029	114	D

Southeast Region

(Delta, Roanoke and Southeastern Divisions)

K4CIA	64,428	300	78	A
W4TMR	53,724	363	74	A
N4JF	48,412	307	76	A
N4AX	33,015	235	71	A
K4ORD	28,026	256	54	A
N2WN	225,600	1144	96	B
K4LY	157,320	805	95	B
WA4FFW	118,437	596	97	B
W04O	118,250	673	86	B
K4CNW	116,424	645	88	B
N2EE (K3BU, op)	596,909	1869	137	C
K3ZM	455,499	1534	129	C
W4MYA	443,796	1575	124	C
NY4A (N4AF, op)	344,214	1323	117	C
K4TD	342,908	1342	118	C
W8JI	598,101	1900	133	D
WD5R	408,012	1532	121	D
W4HZ	271,138	1215	107	D
N2NL	220,542	835	118	D
WW4LL	209,818	1041	98	D

Central Region

(Central and Great Lakes Divisions; Ontario Section)

W9SE	65,564	438	74	A
N8IE	50,540	353	70	A
N8BB	50,344	449	56	A
WB8RIJ	32,966	316	53	A
AD9T	21,828	216	51	A
K8FH	244,530	1200	99	B
WE9V	173,290	998	86	B
N9JF	153,436	845	89	B
WB8JUI	148,320	806	90	B
NE9U	141,050	829	86	B
K9DX	434,868	1592	124	C
VE3EY	421,724	1541	124	C
VC3CJ	417,404	1501	122	C
W5MX	401,472	1498	123	C
K9CT	329,076	1461	108	C
W9AZ	485,478	1774	120	D
K1LT	420,840	1536	126	D
K8KS	341,260	1458	113	D
W8MJ	315,019	1532	101	D
W0AIH	304,304	1424	104	D

Midwest Region

(Dakota, Midwest, Rocky Mountain and West Gulf Divisions; Manitoba and Saskatchewan Sections)

N0UR	58,759	438	67	A
KT5E	57,743	396	73	A
W7JI	46,584	331	72	A
W5ESE	21,489	185	57	A
W3FAF	13,464	133	51	A
W0JO	181,629	961	93	B
K0PK	176,131	975	89	B
K0DI	158,256	940	84	B
K7RE	141,375	801	87	B
K6XT	140,352	810	86	B
K5RX	377,682	1514	114	C
W0SD (W0DB, op)	356,720	1612	104	C
N0TT	300,798	1440	102	C
VE5KAA (VA5DX, op)	289,224	1275	108	C
WS4Y	239,232	1196	96	C
N0NI	274,540	1252	106	D
K9BWI	186,660	1001	90	D
K0KX	170,560	783	104	D
K5NA	164,618	722	106	D
N5TW	162,032	727	104	D

West Coast Region

**(Pacific, Northwestern and Southwestern Divisions;
Alberta, British Columbia and NWT Sections)**

N7IR	73,944	458	79	A
K7TQ	25,186	260	49	A
K6EI	21,056	222	47	A
N6WG	19,194	230	42	A
K6MI	7,068	90	38	A
KB7Q	201,150	1108	90	B
NT6K	166,936	917	88	B
N6RK	137,105	770	85	B
W7RH	106,590	626	85	B
W6JTI	100,212	578	84	B
N7GP (N5IA, op)	262,297	1215	101	C
W7RN (W6EU, op)	223,572	1118	93	C
WA7LT	182,430	982	90	C
VE7CC	176,142	875	93	C
KH6ZM	174,174	803	91	C
N7DD	293,550	1186	114	D
N6RO	229,890	1070	97	D
N6DZ	200,690	979	94	D
K7OX	197,402	1066	89	D
KH6LC	151,452	702	84	D

2007 ARRL 160 Meter

Division Leaders

A

Atlantic	W3TS	99,937	A	2007
Central	W9SE	65,564	A	2007
Dakota	N0UR	58,759	A	2007
Delta	KW4JS	18,460	A	2007
Great Lakes	N8IE	50,540	A	2007
Hudson	KR2Q	28,800	A	2007
Midwest	W7JI	46,584	A	2007
New England	AA1CA	48,546	A	2007
Northwestern	K7TQ	25,186	A	2007
Pacific	K6EI	21,056	A	2007
Roanoke	K4CIA	64,428	A	2007
Rocky Mountain	KT5E	57,743	A	2007
Southeastern	N4JF	48,412	A	2007
Southwestern	N7IR	73,944	A	2007
West Gulf	W5ESE	21,489	A	2007
Canada	VA3DF	12,320	A	2007

B

Atlantic	K2ZR	88,356	B	2007
Central	WE9V	173,290	B	2007
Dakota	K0PK	176,131	B	2007
Delta	N2WN	225,600	B	2007
Great Lakes	K8FH	244,530	B	2007
Hudson	K1NK	119,685	B	2007
Midwest	K0DI	158,256	B	2007
New England	K1EP	135,828	B	2007
Northwestern	KB7Q	201,150	B	2007
Pacific	NT6K	166,936	B	2007
Roanoke	K4LY	157,320	B	2007
Rocky Mountain	K6XT	140,352	B	2007
Southeastern	KA9EKJ	98,564	B	2007
Southwestern	W7RH	106,590	B	2007
West Gulf	W0UO	181,629	B	2007
Canada	VE5UF	128,160	B	2007

C

Atlantic	AA1K	414,756	C	2007
Central	K9DX	434,868	C	2007
Dakota	W0SD (W0DB, op)	356,720	C	2007
Delta	W5ZN	314,253	C	2007
Great Lakes	W5MX	401,472	C	2007
Hudson	K2ONP	103,334	C	2007
Midwest	N0TT	300,798	C	2007
New England	W1UE	405,750	C	2007
Northwestern	WA7LT	182,430	C	2007
Pacific	W7RN (W6EU, op)	223,572	C	2007
Roanoke	N2EE (K3BU, op)	596,909	C	2007
Rocky Mountain	W6PU	218,643	C	2007
Southeastern	K4TD	342,908	C	2007
Southwestern	N7GP (N5IA, op)	262,297	C	2007
West Gulf	K5RX	377,682	C	2007
Canada	VY2ZM (K1ZM, op)	791,505	C	2007

D

Atlantic	W2GD	460,928	D	2007
Central	W9AZ	485,478	D	2007
Dakota	K0KX	170,560	D	2007
Delta	WD5R	408,012	D	2007
Great Lakes	K1LT	420,840	D	2007
Hudson	NO2R	273,372	D	2007
Midwest	N0NI	274,540	D	2007
New England	K1LZ	372,496	D	2007
Northwestern	K7OX	197,402	D	2007
Pacific	N6RO	229,890	D	2007
Roanoke	W4HZ	271,138	D	2007
Rocky Mountain	K9BWI	186,660	D	2007
Southeastern	W8JI	598,101	D	2007
Southwestern	N7DD	293,550	D	2007
West Gulf	K5NA	164,618	D	2007
Canada	VE2OJ	155,210	D	2007