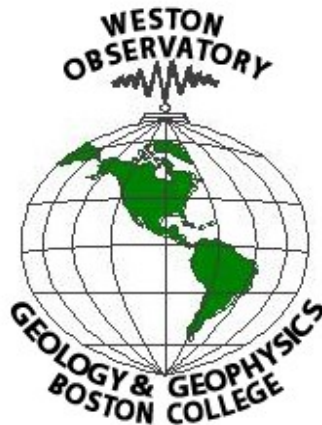


A STUDY OF NEW ENGLAND SEISMICITY

Quarterly Earthquake Report

October - December, 2010



**Weston Observatory
New England Seismic Network
381 Concord Road
Weston, MA 02493**

NEW ENGLAND SEISMIC NETWORK (NESN)

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Notice

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NESN Quarterly Earthquake Report

October - December, 2010

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Introduction

The New England Seismic Network (NESN) is operated by the Weston Observatory (WES) of Boston College. The mission of the NESN is to operate and maintain a regional seismic network with digital recording of seismic ground motions for the following purposes: 1) to determine the location and magnitude of earthquakes in and adjacent to New England and report felt events to public safety agencies, 2) to define the crust and upper mantle structure of the northeastern United States, 3) to derive the source parameters of New England earthquakes, and 4) to estimate the seismic hazard in the area.

This report summarizes the work of the NESN for the period October - December, 2010. It includes a brief summary of the network's equipment and operation, and a short discussion of data management procedures. A list of participating personnel is given in Table 1. There were 22 earthquakes that occurred within or near the network during this reporting period. Phase information for these earthquakes is included in this report.

Current Network Operation and Status

The New England Seismic Network of Weston Observatory of Boston College currently consists of 14 broadband three-component and 8 analog strong-motion stations. The coordinates of the broadband stations are given in Table 2, and maps of the weak- and strong-motion networks are shown in Figures 1 and 2, respectively. The 14 stations consist of Guralp CMG-40T three-component sensors. Ground motions recorded by these sensors are digitized at 40 sps with 16-bit resolution. Additional gain-ranging provides 126 dB dynamic range. These stations are operated

in continuous mode with all waveform data transmitted via the internet to Weston Observatory for analysis and event archiving.

Seismicity

There were 22 earthquakes that occurred in or adjacent to the NESN during this reporting period. A summary of the location data is given in Table 3. Figure 3 shows the locations of these events. Figure 4 shows the locations of all events since the beginning of network operation in October, 1975.

Table 4 gives the station phase data for each event listed in Table 3. In addition to NESN data, arrival time and magnitude data sometimes are contributed for seismic stations operated by the Geological Survey of Canada (GSC), the Lamont-Doherty Cooperative Seismographic Network (LD), and the US National Seismic Network. Final locations for this section were computed using the program HYPO78. For regional events (those too far from the NESN to obtain accurate locations and magnitudes) phase data are given for NESN stations, but the entry in Table 3 lists the hypocenter and geographic location information adopted from the authoritative network. Accordingly, the epicenter is plotted on the maps using the entry from Table 3.

Data Management

Recent event locations are available at http://quake.bc.edu:8000/quakes_recent.htm. Waveform data are saved in SAC, and SEED formats and are available through the IRIS DMC at: <http://www.iris.edu/dms/dmc/>. Earthquake catalogs can be found at: www.bc.edu/research/westonobservatory/northeast/eqcatalogs/ and http://quake.bc.edu:8000/cgi-bin/NESN/recent_events.pl. Currently available on the Weston Observatory web page is the full catalog of northeastern U.S. earthquake activity. For more information consult our web site, <http://www.bc.edu/research/westonobservatory/> or contact:

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Explanation of Tables

Table 1: Personnel operating the NESN

Table 2: Seismic and Strong Motion Stations

1. Code = station name
2. Lat = station latitude, degrees north
3. Long = station longitude, degrees west
4. Elev = station elevation in meters
5. Location = geographic location
6. Operator = network operator

Table 3: Earthquake Hypocenters

1. Date = date event occurred, Yr (year)/Mo (month)/Dy (day)
2. Time = origin time of event, Hr (hour):Mn (minute):Sec (second) in UCT (Universal Coordinated Time, same as Greenwich Mean Time)
3. Lat = event location, latitude north in degrees
4. Long = event location, longitude west in degrees
5. Depth = event depth in kilometers
6. Mn = Nuttli Magnitude
7. Mc = Coda Magnitude
8. Location = event geographic location

Table 4: Earthquake Phase Data

1. Geographic location
2. DATE = date event occurred, yr/mo/dy (year/month/day)
3. ORIGIN = event origin time (UCT) in hours, minutes, and seconds
4. LAT N = latitude north in degrees and minutes
5. LONG W = longitude west in degrees and minutes
6. DEPTH = event depth in kilometers
7. MN = Nuttli Lg phase magnitude with amplitude divided by period
8. MC = signal duration (coda) magnitude
WES: $2.23 \text{ Log}(\text{FMP}) + 0.12 \text{ Log}(\text{Dist}) - 2.36$ (Rosario, 1979)
9. ML = local magnitude
WES: calculated from Wood-Anderson seismograms (Ebel, 1982)
GSC (Geological Survey of Canada): Richter Lg magnitude
10. GAP = largest azimuthal separation, in degrees, between stations
11. RMS = root mean square error of travel time residual in seconds
12. ERH = standard error of epicenter in kilometers
13. ERZ = standard error of event depth in kilometers
14. Q = solution quality of hypocenter
A = excellent
B = good

C = fair
D = poor

Table Body: earthquake phase data

1. STN = station name
2. DIST = epicentral distance in kilometers
3. AZM = azimuthal angle in degrees measured clockwise between true north and vector pointing from epicenter to station
4. Description of onset of phase arrival
I = impulsive
E = emergent
5. R = phase
P = first P arrival
S = first S arrival
6. M = first motion direction of phase arrival
U = up or compression
D = down or dilatation
7. K = weight of arrival
0 = full weight (1.0)
1 = 0.75 weight
2 = 0.50 weight
3 = 0.25 weight
4 = no weight (0.0)
8. HRMN = hour and minute of phase arrival
9. SEC = second of phase arrival
10. TCAL = calculated travel time of phase in seconds
11. RES = travel time residual (error) of phase arrival
12. WT = weight of phase used in hypocentral solution
13. AMX = peak-to-peak ground motion, in millimicrons, of the maximum envelope amplitude of vertical-component signal, corrected for system response
14. PRX = period in seconds of the signal from which amplitude was measured
15. XMAG = Nuttli magnitude recorded at station
16. FMP = signal duration (coda), in seconds, measured from first P arrival
17. FMAG = coda magnitude recorded at station

Table 5: Microearthquakes and other non-locatable events

1. Date = date event occurred, Yr (year)/Mo (month)/Dy (day)
2. Sta = nearest station recording event
3. Arrival Time = phase arrival time, Hr (hour):Mn (minute):Sec (second)

TABLE 1**WESTON OBSERVATORY PERSONNEL**

Name	Position	Phone #	Email Address
John E. Ebel	Director, Seismologist, Principal Investigator	617-552-8319	ebel@bc.edu
Alan Kafka	Research Seismologist	617-552-8300	kafka@bc.edu
Anastasia M. Moulis	Seismologist, Analyst	617-552-8325	macherid@bc.edu
Michael Hagerty	NESN Manager, Seismologist	617-552-8337	hagertmb@bc.edu
Justin Starr	Research Assistant	617-552-8335	starrjb@bc.edu
Weston Observatory	617-552-8388 (FAX)	617-552-8300	weston.observatory@bc.edu

TABLE 2**SEISMIC STATIONS OF THE NEW ENGLAND SEISMIC NETWORK**

Code	Lat	Long	Elev (m)	Location	Operator
BCX	42.3350	-71.1705	61.0	Chestnut Hill, MA	WES
BRYW	41.9199	-71.5342	107	Smithfield, RI	WES
FFD	43.4700	-71.6539	131	Franklin Falls, NH	WES
HNH	43.7051	-72.2865	180	Hanover, NH	WES
QUA2	42.2790	-72.3521	168	Belchertown, MA	WES
TRY	42.7305	-73.6658	131	Troy, NY	WES
EMMW	44.7101	-67.4580	34	Machias, ME	WES
VT1 *	44.3317	-72.7536	125	Waterbury, VT	WES
WES	42.3848	-71.3218	60	Weston, MA	WES
WVL	44.5648	-69.6575	85	Waterville, ME	WES
YLE	41.3165	-72.9209	10	New Haven, CT	WES
PQI	46.6701	-68.0133	175	Presque Isle, ME	WES
WSPT	41.1710	-73.3275	~70	Westport, CT	WES
ORNO	44.9045	-68.6622	~40	Orono, ME	WES

* = not in operation during this quarter

TABLE 3

EARTHQUAKE HYPOCENTERS

DATE	TIME	LAT	LONG	DEPTH	Mn	Mc	LOCATION
2010/12/25	18:32:31.50	40.86	-74.17	00.85	1.8	2.5	NJ, 0.0KM W OF CLIFTON
2010/12/16	10:02:26.80	45.51	-70.02	09.27	1.3	2.5	ME, 34.0KM W OF GREENVILLE
2010/12/15	07:39:27.63	46.41	-67.67	06.30	1.7	2.7	NB, 59.0KM SSW OF PLASTER ROCK
2010/11/30	15:45:54.93	39.85	-71.62	12.27	3.8	3.4	NY, OFFSHORE, 155KM SE OF EAST PATCHOGUE
2010/11/19	07:32:17.07	44.10	-70.71	05.79	1.4	2.7	ME, 5.0KM N OF BRIDGTON
2010/11/14	17:05:09.65	45.83	-66.37	08.55	1.8	2.6	NB, 25.0KM SE OF FREDERICTON
2010/10/29	23:40:41.04	42.48	-70.81	24.12	0.9	1.5	MA, 8.0KM SE OF SALEM
2010/10/29	07:41:07.11	48.92	-68.51	22.25	2.1	2.8	NB, 170.0KM NW OF CAMPBELLTON
2010/10/29	04:58:01.00	43.58	-71.58	11.24	0.9	1.8	NH, 5.0KM SW OF MEREDITH CENTER
2010/10/28	23:06:08.85	47.43	-70.47	09.12	2.4	2.7	PQ, 89.0KM NE OF QUEBEC
2010/10/28	00:42:57.57	42.20	-71.20	09.62	1.2	1.8	MA, 1.0KM N OF NORWOOD
2010/10/24	04:53:22.35	47.21	-66.31	00.93	1.5	2.1	NB, 89.0KM ENE OF PLASTER ROCK
2010/10/21	17:09:50.38	47.07	-65.67	05.59	1.3	2.4	NB, 129.0KM SE OF CAMPBELLTON
2010/10/20	06:46:27.24	45.33	-73.14	10.62	1.1	2.6	PQ, 45.0KM ESE OF MONTREAL
2010/10/18	04:29:55.26	44.31	-72.37	00.11	1.3	2.4	VT, 5.0KM SSW OF MARSHFIELD
2010/10/18	01:58:21.51	47.70	-69.96	24.21	2.6	2.8	PQ, 137.0KM NE OF QUEBEC
2010/10/13	17:30:44.31	44.24	-73.58	04.14	2.0	2.6	NY, 45.0KM ESE OF SARANAC LAKE
2010/10/08	11:08:34.42	47.14	-70.70	22.36	2.5	3.0	PQ, 53.0KM NE OF QUEBEC
2010/10/08	05:49:05.80	45.24	-71.49	17.40	1.0	2.5	PQ, 37.0KM ESE OF SHERBROOKE
2010/10/08	03:16:50.36	44.65	-71.31	16.00	1.9	2.5	NH, 23.0KM NNW OF BERLIN
2010/10/07	23:10:53.04	47.42	-70.35	14.23	2.3	2.6	PQ, 94.0KM NE OF QUEBEC
2010/10/03	00:47:40.72	43.52	-71.75	06.96	0.6	1.4	NH, 7.0KM S OF BRISTOL

* indicates magnitude as calculated by Lamont Doherty Earth Observatory

^ indicates magnitude as calculated by Earthquakes Canada (Natural Resources Canada)

TABLE 4

EARTHQUAKE PHASE DATA

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 13:48:12 2010 SM E R
 CRUST MODEL 1: 2. HUGHES AND LUETGERT NH
 NH, 7.0KM S OF BRISTOL

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q
201010030047	40.72	43-31.46	71-44.79	6.96	0.6	1.4		178	0.20	12.0	8.8	

NSTA NPHS DMIN N.XMG N.FMG
 6 10 9.60 2 3

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
FFD	9.6	128	EPC0	47	42.84	2.12	2.02	0.08	1.31				22	0.8	122
			S 0	47	44.26	3.54	3.60	-0.09	1.31						
HNH	48.0	295	S 4	47	50.45	9.73	14.47	-4.79	0.00						91
LBNH	80.8	350	EPC0	47	54.18	13.46	13.48	-0.08	1.24	0.0	.20	0.7	43	1.8	90
			S 1	48	3.84	23.12	23.99	-0.98	0.11						
HRV	114.1	172	EPC4	47	51.29	10.57	18.76	-8.22	0.00	0.1	.11	0.5	34	1.6	72
			S 0	48	13.98	33.26	33.39	-0.19	1.18						
WES	131.2	164	EPC1	48	2.65	21.93	21.42	0.50	0.85						72
			S 1	48	17.17	36.45	38.13	-1.70	0.00						
TRY	179.4	242	S 4	48	1.36	20.64	50.96	30.41	0.00						49

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 13:44:41 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 PQ, 94.0KM NE OF QUEBEC
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010072310 53.04 47-24.97 70-20.99 14.23 2.3 2.6 63 0.33 0.6 0.7

NSTA NPHS DMIN N.XMG N.FMG
 17 29 6.50 2 5

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
A54	6.5	314	EPC0	2310	56.08	3.04	2.54	0.44	1.45						154
			S 0	2310	57.81	4.77	4.52	0.14	1.45						
LMQ	14.8	6	EPC0	2310	56.76	3.72	3.33	0.32	1.45				114	2.4	132
			S 2	2310	58.82	5.78	5.93	-0.27	0.72						
A11	22.5	149	EPC0	2310	57.39	4.35	4.31	0.03	1.45	5.5	.06	2.3	91	2.2	120
A16	26.6	76	EPC0	2310	58.04	5.00	4.89	0.11	1.44						116
			S 0	2311	1.27	8.23	8.70	-0.47	1.44						
A61	36.5	32	EPC0	2310	59.70	6.66	6.34	0.26	1.44						108
			S 0	2311	4.20	11.16	11.29	-0.23	1.44						
A64	57.1	36	EPC0	2311	2.72	9.68	9.51	0.15	1.41						101
			S 0	2311	9.67	16.63	16.93	-0.33	1.41						
DAQ	90.6	313	EPC0	2311	8.09	15.05	14.76	0.13	1.36						96
			S 0	2311	19.27	26.23	26.27	-0.33	1.36						
QCQ	99.8	226	EPC0	2311	10.36	17.32	16.21	1.09	0.28						95
			S 0	2311	21.41	28.37	28.85	-0.52	1.34						
PQI	196.0	114	EPC1	2311	22.95	29.91	29.73	0.15	0.78				137	2.9	51
DPQ	201.8	247	EPC0	2311	24.59	31.55	30.44	1.08	0.24						51
			S 0	2311	47.07	54.03	54.18	-0.21	1.02						
PKME	252.7	160	EPC0	2311	30.64	37.60	36.72	0.86	0.64	0.3	.12	2.2	173	3.1	51
CNQ	269.1	37	EPC0	2311	33.38	40.34	38.75	1.56	0.00						51
			S 0	2312	2.59	69.55	68.97	0.52	0.75						
MOQ	276.0	213	EPC0	2311	34.38	41.34	39.60	1.60	0.00						51
			S 0	2312	2.70	69.66	70.49	-1.08	0.16						
ICQ	326.6	43	EPC0	2311	40.42	47.38	45.84	1.53	0.00						51
			S 0	2312	13.03	79.99	81.60	-1.62	0.00						
TRQ	347.4	250	EPC0	2311	41.40	48.36	48.42	-0.06	0.44						51
			S 0	2312	18.23	85.19	86.19	-1.00	0.18						
GGN	373.2	131	EPC0	2311	44.98	51.94	51.61	0.32	0.34				72	2.6	51
GRQ	428.8	260	S 0	2312	34.47	101.43	104.06	-2.72	0.00						51

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 13:24:51 2010 SM E R
 CRUST MODEL 1: 2. HUGHES AND LUETGERT NH
 NH, 23.0KM NNW OF BERLIN
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010080316 50.36 44-39.04 71-18.85 16.00 1.9 2.5 126 0.12 1.7 5.2

NSTA NPHS DMIN N.XMG N.FMG
 9 14 66.70 3 4

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
LBNH	66.7	228	IPC0	317	1.47	11.11	11.15	-0.10	1.08	0.3	.15	1.5	152	2.8	95
			S 0	317	10.18	19.82	19.85	-0.13	1.08						
MOQ	104.4	316	IPC0	317	7.62	17.26	16.98	0.14	1.02				71	2.2	92
			S 0	317	20.75	30.39	30.22	-0.08	1.02						
HNH	130.7	217	S 0	317	28.09	37.73	37.47	0.21	0.97						91
WVL	131.5	93	S 1	317	25.58	35.22	37.72	-2.52	0.00						91
FFD	134.0	192	EPC3	317	13.50	23.14	21.56	1.56	0.00	2.7	.10	2.8	77	2.4	91
			S 0	317	28.77	38.41	38.38	0.00	0.96						
PKME	173.6	66	EPC0	317	17.33	26.97	27.00	-0.05	0.87						52
			S 1	317	37.40	47.04	48.06	-1.06	0.00						
ORNO	211.8	81	S 3	317	48.01	57.65	56.46	1.19	0.00						52

HRV	239.1	185	S 4	317	57.96	67.60	62.44	5.10	0.00								52
LONY	259.4	271	EPC3	317	30.70	40.34	37.60	2.67	0.00	0.0	.19	1.4	85	2.6			52
			S 4	318	3.14	72.78	66.93	5.73	0.00								

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 13:09:14 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 PQ, 37.0KM ESE OF SHERBROOKE

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q
201010080549	5.80	45-14.32	71-29.38	17.40	1.0	2.5		110	0.23	0.7	1.1	

NSTA NPHS DMIN N.XMG N.FMG
 11 18 60.50 2 4

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
MOQ	60.5	279	EPC0	549	16.06	10.26	10.15	-0.03	1.72				76	2.2	103
LBNH	116.2	198	EPC1	549	25.62	19.82	18.80	0.96	0.27	0.1	.05	0.8	86	2.4	70
			S 1	549	39.33	33.53	33.46	-0.04	1.19						
PKME	172.6	88	EPC0	549	32.25	26.45	26.52	-0.09	1.38						51
			S 1	549	51.76	45.96	47.21	-1.28	0.00						
DPQ	188.8	329	EPC0	549	34.61	28.81	28.52	0.26	1.31						51
			S 0	549	56.29	50.49	50.77	-0.33	1.31						
FFD	197.0	184	S 4	550	2.76	56.96	52.56	4.36	0.00						51
LONY	253.7	256	EPC4	549	39.59	33.79	36.54	-2.82	0.00	0.0	.11	1.2	73	2.5	51
			S 3	550	13.02	67.22	65.04	2.05	0.00						
TRQ	262.5	296	EPC3	549	44.62	38.82	37.62	1.20	0.00						51
			S 0	550	13.02	67.22	66.96	0.26	0.95						
ALFO	269.2	281	EPC1	549	43.53	37.73	38.45	-0.72	0.59						51
LMQ	271.9	18	EPC0	549	44.79	38.99	38.78	0.14	0.91			114	2.8		51
			S 1	550	15.20	69.40	69.03	0.25	0.68						
DAQ	303.6	3	EPC4	549	50.59	44.79	42.69	1.94	0.00						51
GAC	316.3	281	EPC1	549	51.26	45.46	44.26	1.19	0.00						51
			S 0	550	24.85	79.05	78.78	0.25	0.68						

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 13:00:29 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 PQ, 53.0KM NE OF QUEBEC

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q
201010081108	34.42	47-	8.30	70-41.73	22.36	2.5	3.0		73	0.26	0.5	0.8

NSTA NPHS DMIN N.XMG N.FMG
 28 55 39.50 7 9

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
A11	39.5	72	IPC0	1108	41.84	7.42	7.26	0.15	1.88				125	2.6	111
			S 0	1108	43.79	9.37	12.92	-3.57	0.00						
A54	41.4	31	EPC0	1108	42.27	7.85	7.53	0.26	1.88						109
			S 0	1108	48.27	13.85	13.40	0.34	1.88						
LMQ	53.4	31	EPC1	1108	43.86	9.44	9.26	0.11	1.39				142	2.7	101
			S 0	1108	51.10	16.68	16.48	0.07	1.86						
QCQ	59.6	229	EPC0	1108	44.43	10.01	10.17	-0.18	1.85						97
			S 1	1108	52.08	17.66	18.10	-0.48	1.39						
A16	63.9	54	EPC0	1108	45.31	10.89	10.81	0.08	1.84						96
			S 0	1108	53.57	19.15	19.24	-0.09	1.84						
A61	76.8	36	EPC0	1108	47.17	12.75	12.72	-0.03	1.81						93
			S 0	1108	56.95	22.53	22.64	-0.22	1.81						
A64	97.6	38	EPC0	1108	49.95	15.53	15.83	-0.32	1.76						91
			S 0	1109	2.26	27.84	28.18	-0.37	1.76						
DAQ	100.6	337	EPC0	1108	50.90	16.48	16.29	0.03	1.75						91
			S 0	1109	3.62	29.20	29.00	-0.08	1.75						

			S 3	1731	16.36	32.05	32.72	-0.72	0.24							
LBNH	132.3	89	EPC0	1731	5.27	20.96	20.29	0.61	1.13	0.4	.10	1.9	130	2.8	90	
			S 1	1731	20.32	36.01	36.12	-0.21	0.87							
MNT	140.5	359	S 4	1731	21.19	36.88	38.32	-1.48	0.00						90	
MOQ	159.0	40	EPC0	1731	9.03	24.72	24.33	0.25	1.08	5.1	.04	2.0	117	2.7	90	
			S 1	1731	27.96	43.65	43.31	0.09	0.81							
TRY	167.7	183	S 3	1731	30.66	46.35	45.67	0.59	0.26						90	
FFD	177.0	118	S 3	1731	30.75	46.44	48.17	-1.76	0.00						90	
WES	275.8	137	S 4	1731	54.63	70.32	71.02	-0.72	0.00						54	
PKME	358.4	69	EPC3	1731	41.82	57.51	50.11	7.38	0.00						54	
			S 3	1732	21.83	97.52	89.20	8.29	0.00							
LMQ	446.3	33	EPC4	1731	59.45	75.14	60.95	14.12	0.00						54	
			S 4	1732	42.90	118.59	108.49	9.97	0.00							

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 12:43:52 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 PQ, 137.0KM NE OF QUEBEC
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010180158 21.51 47-41.94 69-57.72 24.21 2.6 2.8 86 0.26 0.6 0.4

NSTA NPMS DMIN N.XMG N.FMG
 25 43 9.60 1 4

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
A61	9.6	267	EPC0	158	25.98	4.47	4.15	0.26	1.50						156
			S 0	158	29.09	7.58	7.39	0.09	1.50						
A64	15.1	20	EPC0	158	26.17	4.66	4.55	0.09	1.50						145
			S 0	158	29.38	7.87	8.10	-0.26	1.50						
A21	20.4	88	EPC0	158	26.71	5.20	5.05	0.14	1.49						136
			S 0	158	30.30	8.79	8.99	-0.22	1.49						
A16	25.6	188	EPC0	158	27.48	5.97	5.62	0.35	1.49						129
			S 0	158	31.10	9.59	10.00	-0.41	1.49						
LMQ	32.1	239	EPC0	158	27.96	6.45	6.41	-0.03	1.49	89.1	.13	2.6	148	2.7	121
			S 1	158	32.90	11.39	11.41	-0.14	1.11						
A54	43.3	232	EPC0	158	29.68	8.17	7.90	0.21	1.48						112
			S 0	158	35.85	14.34	14.06	0.17	1.48						
DAQ	100.3	288	EPC0	158	37.79	16.28	16.25	-0.13	1.38						93
			S 0	158	50.58	29.07	28.92	-0.14	1.38						
QCQ	142.7	225	S 0	159	0.62	39.11	39.52	-0.44	1.26						55
PQI	186.8	127	EPC1	158	49.70	28.19	27.65	0.51	0.77			122	2.8		55
CNQ	226.4	37	EPC0	158	54.47	32.96	32.53	0.40	0.96						55
			S 0	159	20.38	58.87	57.90	0.91	0.00						
DPQ	241.6	244	EPC0	158	56.34	34.83	34.41	0.39	0.89						55
			S 0	159	22.91	61.40	61.25	0.10	0.89						
ICQ	283.6	43	EPC0	159	0.90	39.39	39.60	-0.22	0.71						55
			S 0	159	31.57	70.06	70.49	-0.45	0.71						
BATG	297.9	97	EPC1	158	59.30	37.79	41.36	-3.63	0.00			110	2.8		55
MOQ	318.4	215	EPC0	159	4.90	43.39	43.89	-0.64	0.31						55
			S 0	159	39.50	77.99	78.12	-0.38	0.57						
MNQ	326.9	14	EPC0	159	6.64	45.13	44.95	0.09	0.53						55
			S 0	159	39.94	78.43	80.01	-1.74	0.00						
SMQ	368.4	39	S 0	159	50.50	88.99	89.12	-0.24	0.37						55
GGN	375.1	138	EPC0	159	12.57	51.06	50.89	0.16	0.34			108	2.9		55
			S 2	159	49.49	87.98	90.58	-2.62	0.00						
TRQ	386.4	247	EPC0	159	14.72	53.21	52.29	0.92	0.00						55
			S 0	159	54.03	92.52	93.08	-0.56	0.25						
LBNH	413.5	203	EPC2	159	18.57	57.06	55.64	1.36	0.00						55
ALFO	441.6	241	EPC0	159	25.90	64.39	59.10	5.29	0.00						55
			S 0	160	6.19	104.68	105.20	-0.52	0.13						
LMN	444.3	115	EPC2	159	18.74	57.23	59.43	-2.26	0.00						55

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 15:40:50 2010 SM E N
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 NB, 129.0KM SE OF CAMPBELLTON
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010211709 50.38 47- 4.07 65-40.02 5.59 1.3 2.4 204 0.48 13.2 11.5

NSTA NPHS DMIN N.XMG N.FMG
 6 10 37.80 2 1

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
BATG	37.8	309	EPC0	1709	56.82	6.44	6.29	0.09	1.56						90
			S 1	1710	0.98	10.60	11.20	-0.70	1.17						
LMN	150.5	153	EPC0	1710	14.54	24.16	24.18	-0.08	1.30	0.5	.05	1.1	85	2.4	90
			S 1	1710	32.61	42.23	43.04	-0.92	0.94						
PQI	184.3	257	EPC1	1710	20.34	29.96	29.14	0.79	0.88						51
			S 0	1710	41.89	51.51	51.87	-0.41	1.18						
GGN	234.5	203	EPC0	1710	27.35	36.97	35.35	1.61	0.00	0.6	.05	1.6			51
			S 0	1710	53.42	63.04	62.92	0.10	0.97						
ICQ	297.7	338	S 2	1711	4.58	74.20	76.79	-2.61	0.00						51
PKME	344.4	236	S 4	1711	12.90	82.52	87.06	-4.58	0.00						51

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 15:01:31 2010 SM E N
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 NB, 89.0KM ENE OF PLASTER ROCK
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010240453 22.35 47-12.75 66-18.76 0.93 1.5 2.1 104 0.33 1.5 2.6

NSTA NPHS DMIN N.XMG N.FMG
 5 7 20.40 1 1

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
BATG	20.4	69	EPC0	453	25.89	3.54	3.46	0.02	1.21	5.5	.04	1.5	85	2.1	71
			S 0	453	28.40	6.05	6.16	-0.22	1.21						
PQI	142.8	246	EPC0	453	46.10	23.75	23.21	0.51	1.03						64
			S 0	454	3.17	40.82	41.31	-0.55	1.01						
LMN	190.3	142	S 0	454	16.75	54.40	54.13	0.16	0.89						44
GGN	236.2	190	S 0	454	28.82	66.47	64.22	2.23	0.00						44
ICQ	266.4	345	S 0	454	33.48	71.13	70.86	0.25	0.64						44

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 11:52:11 2010 SM E R
 CRUST MODEL 1: 1. SOUTH & COASTAL NEW ENGLAND
 MA, 1.0KM N OF NORWOOD
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010280042 57.57 42-11.98 71-11.94 9.62 1.2 1.8 236 0.17 1.6 1.8

NSTA NPHS DMIN N.XMG N.FMG
 5 10 22.90 4 3

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
WES	22.9	334	EPC0	43	1.48	3.91	4.13	-0.23	1.21	2.0	.05	1.4	61	1.9	112
			S 0	43	5.02	7.45	7.35	0.08	1.21						
BRYW	42.1	222	EPC0	43	4.96	7.39	7.17	0.16	1.20	0.8	.05	1.3	50	1.8	102
			S 0	43	10.32	12.75	12.76	-0.12	1.20						
HRV	45.1	320	EPC1	43	5.62	8.05	7.66	0.36	0.90	0.9	.10	0.8	52	1.8	101
			S 0	43	11.22	13.65	13.63	-0.04	1.19						
FFD	145.9	346	EPC0	43	20.77	23.20	23.24	-0.06	1.02						66
			S 0	43	38.04	40.47	41.37	-0.93	0.09						
LBNH	234.2	346	EPC2	43	27.05	29.48	34.44	-5.02	0.00	0.0	.10	1.2			48
			S 0	44	1.19	63.62	61.30	2.21	0.00						

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 12:49:01 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 PQ, 89.0KM NE OF QUEBEC
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010282306 8.85 47-25.80 70-28.21 9.12 2.4 2.7 83 0.20 0.3 0.4

NSTA NPHS DMIN N.XMG N.FMG
 32 53 5.30 5 8

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
A54	5.3	55	EPC0	2306	10.77	1.92	1.73	0.13	1.87						148
			S 0	2306	11.91	3.06	3.08	-0.13	1.87						
LMQ	17.0	39	EPC0	2306	12.04	3.19	3.17	-0.05	1.87	226.8	.10	2.6	144	2.6	114
A11	29.3	135	EPC0	2306	13.91	5.06	5.02	0.03	1.86	1.6	.07	2.0	78	2.1	102
A16	35.3	82	EPC0	2306	15.01	6.16	5.95	0.21	1.85						99
			S 0	2306	19.26	10.41	10.59	-0.18	1.85						
A61	40.9	44	EPC0	2306	15.93	7.08	6.83	0.19	1.85						97
			S 0	2306	21.07	12.22	12.16	-0.04	1.85						
A64	61.9	44	EPC0	2306	19.16	10.31	10.14	0.15	1.82						94
			S 0	2306	26.56	17.71	18.05	-0.37	1.81						
A21	66.1	62	EPC0	2306	20.05	11.20	10.82	0.37	1.81						94
			S 0	2306	28.12	19.27	19.26	-0.01	1.81						
DAQ	83.0	316	EPC0	2306	22.42	13.57	13.49	-0.08	1.77						93
			S 0	2306	33.23	24.38	24.01	0.08	1.77						
QCQ	94.8	221	EPC1	2306	23.88	15.03	15.36	-0.35	1.30				79	2.3	92
DPQ	194.1	246	EPC0	2306	39.25	30.40	30.00	0.37	1.36						51
			S 0	2307	1.97	53.12	53.40	-0.33	1.36						
PQI	204.9	113	EPC0	2306	40.17	31.32	31.34	-0.05	1.30				146	2.9	51
PKME	257.3	158	EPC0	2306	47.33	38.48	37.80	0.66	0.11	0.3	.20	2.4	119	2.8	51
MOQ	272.5	211	S 0	2307	19.06	70.21	70.65	-0.69	0.03						51
CNQ	273.6	39	EPC0	2306	49.63	40.78	39.82	0.93	0.00						51
			S 0	2307	19.06	70.21	70.88	-0.72	0.00						
ICQ	331.7	44	EPC0	2306	57.28	48.43	46.99	1.43	0.00				123	2.9	51
BATG	333.8	91	EPC2	2306	55.10	46.25	47.24	-1.05	0.00				149	3.1	51
TRQ	339.5	249	EPC0	2306	56.60	47.75	47.95	-0.20	0.60						51
			S 0	2307	33.21	84.36	85.35	-0.99	0.00						
LBNH	372.2	199	EPC0	2307	0.21	51.36	51.99	-0.69	0.01	0.1	.20	2.3			51
FRNY	375.9	221	EPC0	2307	1.50	52.65	52.44	0.17	0.43						51
			S 0	2307	40.00	91.15	93.34	-2.26	0.00						
GGN	381.1	131	EPC0	2307	1.88	53.03	53.09	-0.07	0.40						51
			S 0	2307	42.02	93.17	94.50	-1.35	0.00						
EMMW	381.7	141	EPC0	2307	1.90	53.05	53.17	-0.13	0.40						51
ALFO	393.6	242	EPC0	2307	2.75	53.90	54.63	-0.73	0.00						51
			S 0	2307	44.96	96.11	97.24	-1.13	0.00						
SMQ	415.9	40	EPC0	2307	6.10	57.25	57.39	-0.20	0.26						51
			S 0	2307	49.93	101.08	102.15	-1.18	0.00						
GRQ	420.1	260	EPC0	2307	6.58	57.73	57.90	-0.22	0.25						51
			S 0	2307	49.79	100.94	103.06	-2.21	0.00						
GAC	429.4	246	EPC0	2307	7.83	58.98	59.06	-0.09	0.21						51
			S 0	2307	53.95	105.10	105.13	-0.04	0.21						
LONY	446.2	228	EPC1	2307	9.48	60.63	61.12	-0.56	0.05	0.1	.27	2.5	161	3.2	51
			S 2	2308	8.88	120.03	108.79	11.11	0.00						
WBO	458.8	236	EPC0	2307	12.13	63.28	62.68	0.59	0.04						51
			S 0	2307	58.76	109.91	111.57	-1.68	0.00						
LMN	468.0	109	EPC0	2307	11.57	62.72	63.82	-1.16	0.00						51
			S 0	2307	59.20	110.35	113.60	-3.36	0.00						
VLDQ	529.3	281	EPC0	2307	20.30	71.45	71.39	0.04	0.01						51
CRLO	550.8	257	EPC0	2307	21.23	72.38	74.04	-1.69	0.00						51
			S 0	2308	19.67	130.82	131.79	-1.02	0.00						
PEMO	555.4	252	EPC0	2307	21.93	73.08	74.61	-1.56	0.00						51
			S 0	2308	17.83	128.98	132.81	-3.88	0.00						
PLVO	575.0	245	EPC0	2307	26.31	77.46	77.03	0.43	0.00						51
			S 0	2308	22.13	133.28	137.11	-3.83	0.00						

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 04:26:24 2010 JE E N
 CRUST MODEL 1: 2. HUGHES AND LUETGERT NH
 NH, 5.0KM SW OF MEREDITH CENTER
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010290458 1.00 43-34.98 71-34.55 11.24 0.9 1.8 191 0.32 2.5 1.7

NSTA NPHS DMIN N.XMG N.FMG
 6 10 14.00 3 4

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
FFD	14.0	207	EPC0	458	4.18	3.18	3.00	0.16	1.46				68	1.9	126
			S 0	458	6.16	5.16	5.34	-0.22	1.46						
HNH	58.9	284	EPC4	458	2.43	1.43	9.96	-8.56	0.00	0.2	.15	1.2	40	1.5	97
			S 2	458	19.27	18.27	17.73	0.49	0.71						
LBNH	78.2	340	EPC0	458	14.46	13.46	12.99	0.41	1.39	0.0	.10	0.5	58	2.0	72
			S 0	458	23.80	22.80	23.12	-0.43	1.39						
HRV	119.6	179	S 2	458	35.36	34.36	34.55	-0.24	0.65						72
WES	134.7	171	EPC3	458	23.13	22.13	21.75	0.37	0.31	0.0	.10	1.0	40	1.9	72
			S 2	458	39.71	38.71	38.72	-0.02	0.63						
WVL	188.2	53	S 4	459	23.28	82.28	52.10	30.16	0.00						49

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Fri Oct 29 11:20:45 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 NB, 170.0KM NW OF CAMPBELLTON
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201010290741 7.11 48-55.46 68-30.38 22.25 2.1 2.8 110 0.39 1.1 1.3

NSTA NPHS DMIN N.XMG N.FMG
 20 37 52.50 3 3

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
CNQ	52.5	36	EPC0	741	16.55	9.44	9.13	0.28	1.60						101
			S 0	741	22.92	15.81	16.25	-0.49	1.60						
ICQ	111.8	53	EPC0	741	24.75	17.64	17.96	-0.33	1.48				118	2.6	91
A64	159.5	221	EPC0	741	31.67	24.56	24.44	0.10	1.32						55
			S 0	741	50.08	42.97	43.50	-0.57	1.32						
A21	161.6	214	EPC0	741	32.02	24.91	24.70	0.20	1.32						55
			S 0	741	50.86	43.75	43.97	-0.23	1.32						
MNQ	180.0	354	EPC0	741	34.60	27.49	26.97	0.43	1.25						55
			S 0	741	54.76	47.65	48.01	-0.52	1.25						
A61	180.4	222	EPC0	741	34.54	27.43	27.02	0.35	1.24						55
			S 0	741	54.94	47.83	48.10	-0.37	1.24						
SMQ	194.6	41	EPC0	741	36.26	29.15	28.77	0.32	1.19						55
			S 0	741	58.96	51.85	51.21	0.53	1.19						
A16	196.4	216	EPC0	741	36.43	29.32	28.99	0.33	1.18						55
			S 0	741	58.44	51.33	51.60	-0.27	1.18						
LMQ	204.2	223	EPC0	741	37.52	30.41	29.96	0.38	1.15	6.5	.06	2.5	166	3.0	55
			S 0	742	0.35	53.24	53.33	-0.21	1.15						
A54	216.1	222	EPC0	741	39.01	31.90	31.43	0.41	1.09						55
			S 0	742	1.49	54.38	55.95	-1.67	0.00						
A11	225.5	215	S 4	742	6.53	59.42	58.01	1.39	0.00						55
DAQ	228.9	244	EPC0	741	39.97	32.86	33.00	-0.30	1.04						55
			S 0	742	6.73	59.62	58.74	0.60	1.03						
PQI	253.3	171	EPC1	741	43.78	36.67	36.03	0.61	0.69						55
BATG	258.4	134	EPC0	741	43.94	36.83	36.65	0.12	0.90				124	2.9	55
			S 1	742	11.72	64.61	65.24	-0.73	0.57						
DPQ	405.8	234	EPC0	742	1.66	54.55	54.85	-0.33	0.26						55
			S 0	742	42.10	94.99	97.63	-2.70	0.00						
PKME	411.2	189	EPC1	742	2.89	55.78	55.52	0.24	0.18						55
			S 1	742	44.59	97.48	98.83	-1.38	0.00						
LMN	441.3	139	EPC0	742	5.76	58.65	59.23	-0.64	0.15	0.2	.15	1.7			55

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Tue Nov 23 15:00:56 2010 SM E R
 CRUST MODEL 1: 11. SOUTHEAST MAINE CRUSTAL MO
 ME, 5.0KM N OF BRIDGTON
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201011190732 17.07 44- 5.90 70-42.88 5.79 1.4 2.7 121 0.47 1.0 1.8

NSTA NPHS DMIN N.XMG N.FMG
 11 19 98.20 3 3

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
LBNH	98.2	280	EPC0	732	32.93	15.86	15.86	-0.06	1.75	0.2	.10	1.2	164	2.9	90
			S 0	732	45.53	28.46	28.23	0.12	1.75						
FFD	102.9	228	EPC0	732	34.13	17.06	16.62	0.42	1.73						90
			S 0	732	45.87	28.80	29.58	-0.82	1.73						
HNH	133.6	252	EPC2	732	39.17	22.10	21.46	0.61	0.82	0.1	.15	1.5	110	2.6	90
			S 3	732	54.76	37.69	38.20	-0.56	0.41						
PKME	171.8	40	EPC0	732	44.22	27.15	26.89	0.24	1.47	0.1	.10	1.3	91	2.5	51
			S 0	733	4.36	47.29	47.86	-0.61	1.47						
MOQ	181.9	319	EPC2	732	47.02	29.95	28.13	1.68	0.00						51
			S 2	733	8.92	51.85	50.07	1.53	0.08						
WES	196.7	195	EPC1	732	47.14	30.07	29.96	0.10	1.02						51
			S 1	733	11.06	53.99	53.33	0.64	1.02						
FRNY	242.9	291	EPC0	732	53.23	36.16	35.67	0.45	1.12						51
			S 0	733	20.55	63.48	63.49	-0.08	1.12						
EMMW	268.2	74	S 0	733	26.50	69.43	69.06	0.35	0.98						51
NCB	281.6	269	S 1	733	34.24	77.17	72.00	4.99	0.00						51
LONY	313.9	282	EPC0	733	0.20	43.13	44.43	-1.37	0.27						51
			S 0	733	36.33	79.26	79.09	0.05	0.74						
GGN	329.2	68	S 0	733	38.40	81.33	82.45	-1.14	0.51						51

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Mon Dec 6 15:20:54 2010 SM E R
 CRUST MODEL 1: 3. SE OF NEW YORK, HUGHES & LU
 NY, OFFSHORE, 155KM SE OF EAST PATCHOGUE

DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 201011301545 54.93 39-51.04 71-36.92 12.27 3.8 3.4 283 0.28 1.1 1.6

NSTA NPHS DMIN N.XMG N.FMG
 17 34 196.80 12 9

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
YLE	196.8	327	EPC0	1546	24.78	29.85	29.85	0.00	1.77	13.9	.15	3.9	189	3.1	74
			S 0	1546	48.14	53.21	53.13	0.08	1.77						
TCHZ	206.9	22	EPC0	1546	26.29	31.36	31.10	0.26	1.71				229	3.3	53
			S 0	1546	50.50	55.57	55.36	0.21	1.71						
BRYW	229.6	1	EPC0	1546	28.40	33.47	33.90	-0.49	1.55	15.5	.10	4.0			53
			S 0	1546	55.26	60.33	60.34	-0.12	1.55						
PAL	233.0	305	EPC0	1546	29.61	34.68	34.33	0.34	1.53	21.1	.10	4.1	211	3.3	53
			S 0	1546	55.93	61.00	61.11	-0.13	1.53						
QUA2	276.7	348	EPC0	1546	34.26	39.33	39.72	-0.42	1.23	12.0	.15	3.9	277	3.5	53
			S 0	1547	8.42	73.49	70.70	2.74	0.00						
WES	282.5	4	IPC0	1546	34.95	40.02	40.43	-0.42	1.18	6.2	.20	3.9	213	3.3	53
			S 0	1547	8.20	73.27	71.97	1.29	0.03						
TRY	363.0	333	EPC0	1546	45.97	51.04	50.38	0.61	0.64	1.8	.15	3.6			53
			S 0	1547	26.38	91.45	89.68	1.68	0.00						
FFD	402.0	0	EPC0	1546	50.60	55.67	55.19	0.46	0.42						53
			S 2	1547	43.10	108.17	98.24	9.90	0.00						
HNH	431.7	353	EPC0	1546	54.58	59.65	58.86	0.76	0.26	4.0	.30	4.1	247	3.5	53
			S 0	1547	47.90	112.97	104.77	8.15	0.00						
BINY	450.4	307	EPC0	1546	57.43	62.50	61.16	1.26	0.01				199	3.4	53
			S 0	1547	49.70	114.77	108.86	5.76	0.00						
LBNH	488.2	358	EPC0	1547	0.78	65.85	65.83	-0.04	0.08				273	3.6	53

			S 0	1548	2.63	127.70	117.18	10.42	0.00							
NCB	506.5	336	EPC0	1547	3.85	68.92	68.08	0.74	0.04	1.7	.20	3.7	340	3.8	53	
			S 0	1548	4.02	129.09	121.18	7.73	0.00							
WVL	547.9	16	EPC2	1548	2.49	127.56	73.20	54.35	0.00	0.7	.15	3.7			53	
			S 0	1548	22.83	147.90	130.30	17.59	0.00							
LONY	583.6	337	EPC1	1547	13.53	78.60	77.61	0.92	0.00	0.7	.35	3.6			53	
			S 0	1548	26.54	151.61	138.15	13.34	0.00							
PKME	630.9	16	EPC0	1547	18.46	83.53	83.45	0.06	0.00						53	
			S 4	1548	49.70	174.77	148.54	26.19	0.00							
EMMW	639.6	31	EPC0	1547	18.81	83.88	84.52	-0.65	0.00	0.4	.15	3.8			53	
			S 0	1548	33.81	158.88	150.45	8.42	0.00							
PQI	812.1	19	EPC0	1547	40.91	105.98	105.82	0.13	0.00	0.5	.40	3.8			53	
			S 0	1549	36.60	221.67	188.36	33.26	0.00							

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Thu Dec 23 12:20:11 2010 SM E R
 CRUST MODEL 1: 12. NORTHWEST MAINE CRUSTAL ST
 NB, 59.0KM SSW OF PLASTER ROCK

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q
201012150739	27.63	46-24.71	67-40.47	6.30	1.7	2.7		93	0.33	0.8	1.9	

NSTA NPHS DMIN N.XMG N.FMG
 10 18 38.70 4 4

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
PQI	38.7	318	EPC0	739	34.07	6.44	6.45	-0.04	1.66	0.4	.05	1.0	135	2.6	92
BATG	156.2	51	EPC0	739	53.43	25.80	25.10	0.64	1.37						90
			S 0	740	12.04	44.41	44.68	-0.37	1.37						
GGN	158.5	154	EPC0	739	52.87	25.24	25.45	-0.22	1.36						90
			S 1	740	11.02	43.39	45.30	-1.93	0.00						
PKME	179.0	226	EPC0	739	56.01	28.38	28.43	-0.07	1.28	0.3	.20	2.1	107	2.7	51
			S 1	740	16.65	49.02	50.61	-1.62	0.00						
ORNO	184.4	206	EPC2	739	56.64	29.01	29.08	-0.07	0.63	0.2	.10	1.8	94	2.6	51
			S 3	740	17.04	49.41	51.76	-2.35	0.00						
EMMW	189.9	174	EPC1	739	57.83	30.20	29.76	0.43	0.93	0.2	.15	2.1	119	2.8	51
			S 2	740	18.98	51.35	52.97	-1.64	0.00						
LMN	230.3	104	EPC1	740	2.20	34.57	34.75	-0.24	0.79						51
			S 2	740	30.72	63.09	61.85	1.13	0.20						
LMQ	238.1	304	EPC0	740	3.43	35.80	35.72	0.01	1.02						51
			S 1	740	31.52	63.89	63.58	0.18	0.76						
DAQ	320.8	304	EPC4	740	20.92	53.29	45.93	7.20	0.00						51
			S 0	740	49.14	81.51	81.76	-0.53	0.62						
MOQ	376.2	253	S 4	741	11.87	104.24	93.93	10.06	0.00						51

HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Thu Dec 23 12:28:40 2010 SM E R
 CRUST MODEL 1: 11. SOUTHEAST MAINE CRUSTAL MO
 ME, 34.0KM W OF GREENVILLE

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q
201012161002	26.80	45-30.55	70- 1.48	9.27	1.3	2.5		113	0.22	1.0	1.9	

NSTA NPHS DMIN N.XMG N.FMG
 8 14 63.50 3 1

STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	ANG
PKME	63.5	115	EPC0	1002	37.28	10.48	10.37	0.09	1.29						95
			S 0	1002	45.18	18.38	18.46	-0.11	1.29						
MOQ	175.9	264	EPC0	1002	53.99	27.19	27.05	0.00	1.02	1.0	.04	1.4			51
			S 0	1003	15.34	48.54	48.15	0.14	1.02						
All	193.1	357	EPC0	1002	56.30	29.50	29.18	0.31	0.97						51
			S 0	1003	18.37	51.57	51.94	-0.39	0.97						

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PQI 202.1 49 S 0 1003 21.00 54.20 53.92 0.23 0.94 51
LBNH 206.1 228 EPC0 1002 57.77 30.97 30.77 0.14 0.92 0.0 .10 1.1 83 2.5 51
      S 0 1003 21.48 54.68 54.77 -0.20 0.92
A54 218.5 353 S 3 1003 26.73 59.93 57.51 2.31 0.00 51
LMQ 227.9 355 EPC0 1002 59.90 33.10 33.46 -0.43 0.83 0.3 .15 1.4 51
      S 0 1003 26.64 59.84 59.56 0.16 0.84
FFD 261.0 211 EPC3 1002 38.48 11.68 37.56 25.90 0.00 51
      S 3 1002 49.19 22.39 66.86 44.50 0.00

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HYPOINVERSE 2000 (10/2006 VERSION) RUN ON Tue Jan 4 11:39:46 2011 SM E R
CRUST MODEL 1: 3. SE OF NEW YORK, HUGHES & LU
NJ, 0.0KM W OF CLIFTON

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DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
201012251832 31.50 40-51.53 74-10.08 0.85 1.8 2.5 152 0.19 0.5 7.0

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NSTA NPHS DMIN N.XMG N.FMG
13 26 23.80 6 7

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STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG ANG
FOR 23.8 88 EPC0 1832 35.09 3.59 3.68 -0.09 1.39 90
      S 0 1832 38.10 6.60 6.55 0.05 1.39
PAL 27.3 53 EPC0 1832 35.56 4.06 4.21 -0.16 1.39 88 2.2 90
      S 0 1832 38.82 7.32 7.49 -0.19 1.39
BRNJ 38.9 240 EPC0 1832 37.65 6.15 5.98 0.16 1.38 90
      S 0 1832 42.21 10.71 10.64 0.05 1.38
ODNJ 44.4 305 EPC0 1832 38.20 6.70 6.82 -0.15 1.38 90
      S 0 1832 43.42 11.92 12.14 -0.27 1.38
BRNY 63.0 11 EPC0 1832 41.41 9.91 9.67 0.19 1.36 90
      S 0 1832 49.12 17.62 17.21 0.32 1.36
TRY 212.0 11 EPC4 1833 6.54 35.04 32.41 2.58 0.00 0.1 .16 1.7 48 2.2 90
      S 3 1833 29.17 57.67 57.69 -0.11 0.24
BINY 212.0 315 IPC0 1833 4.90 33.40 32.41 0.91 0.02 0.1 .20 1.6 60 2.3 90
      S 1 1833 29.53 58.03 57.69 0.20 0.71
QUA2 218.7 43 EPC1 1833 5.68 34.18 33.43 0.72 0.33 0.2 .10 1.9 74 2.5 90
      S 1 1833 31.01 59.51 59.51 -0.05 0.69
BRYW 249.4 61 EPC2 1832 50.91 19.41 37.38 18.03 0.00 0.3 .10 2.2 89 2.5 53
      S 3 1833 37.96 66.46 66.54 -0.18 0.20
HRV 284.1 49 EPC4 1833 28.61 57.11 41.66 15.42 0.00 53
      S 3 1833 50.22 78.72 74.15 4.51 0.00
WES 291.6 53 EPC3 1833 17.50 46.00 42.58 3.41 0.00 53
      S 2 1833 50.81 79.31 75.79 3.50 0.00
LBNH 418.3 25 EPC4 1833 56.09 84.59 58.23 26.30 0.00 0.0 .20 1.7 64 2.8 53
      S 4 1834 26.07 114.57 103.65 10.81 0.00
LONY 419.2 356 EPC4 1833 29.55 58.05 58.33 -0.35 0.00 0.0 .15 1.7 106 2.9 53
      S 4 1834 22.51 111.01 103.83 7.06 0.00

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TABLE 5

MICROEARTHQUAKES AND OTHER NON-LOCATABLE EVENTS

Date yr/mo/day	Arrival Time (UTC)	Station	Possible Location
2010/11/30	0102	PKME	MAINE
2010/11/30	0257	PKME	MAINE

NESN Station Map

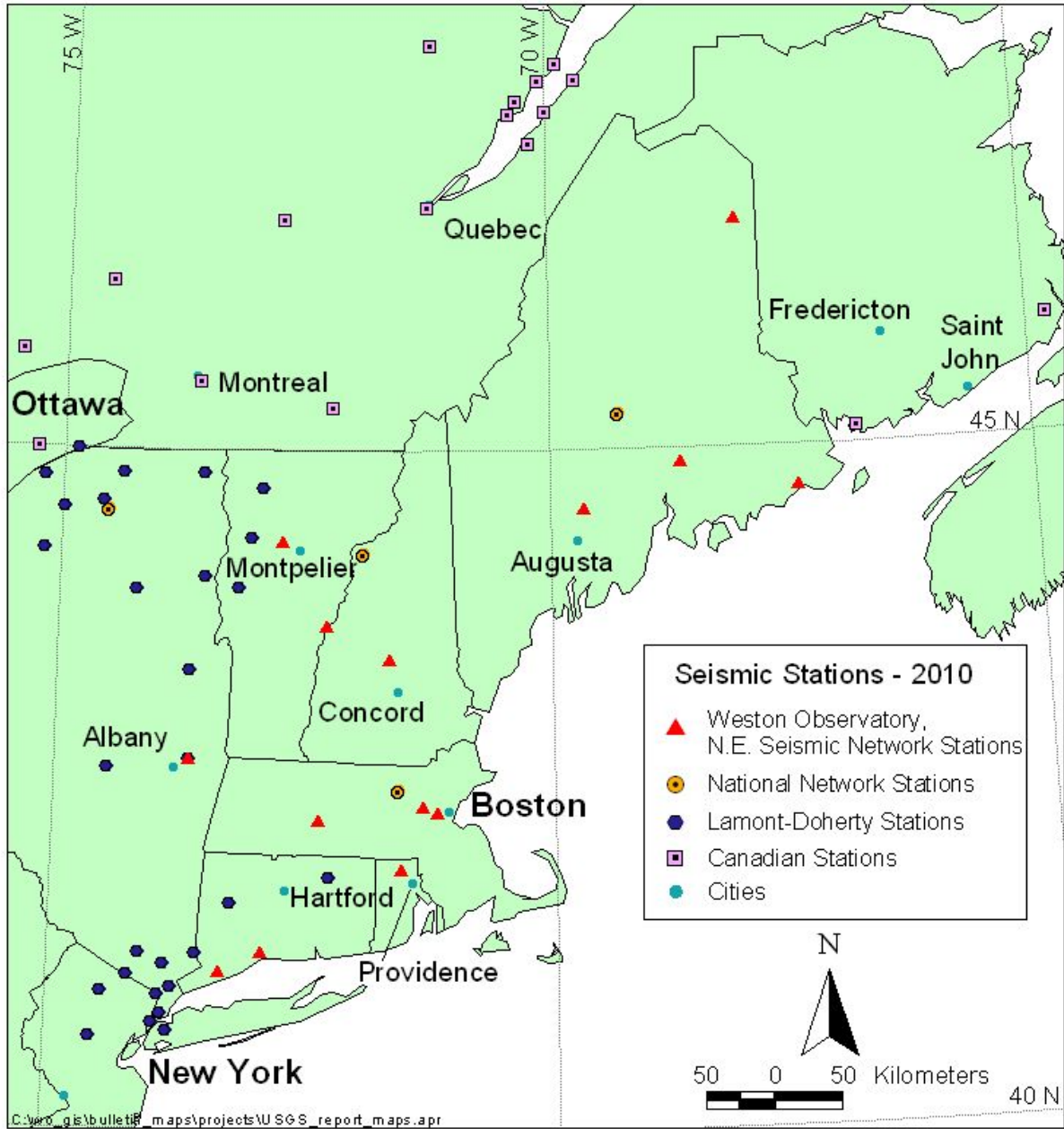


Figure 1: Map of stations of the New England Seismic Network (NESN) in operation during the period of this report. Also included are other Northeast U.S. and Canadian seismic stations in operation during this period.

NESN Strong-Motion Station Map

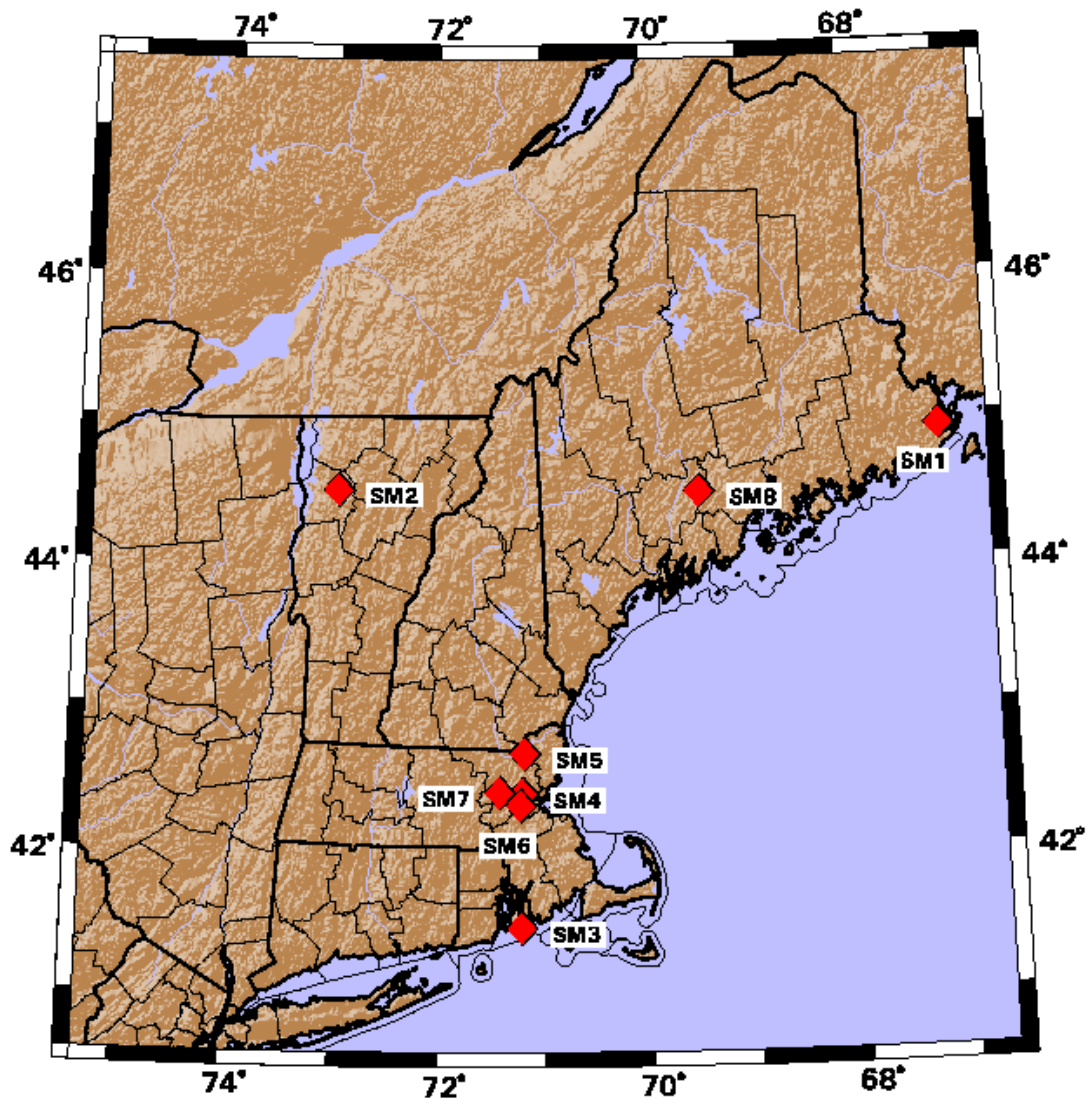


Figure 2: Map of strong-motion stations of the New England Seismic Network (NESN).

NESN Quarterly Seismicity Map

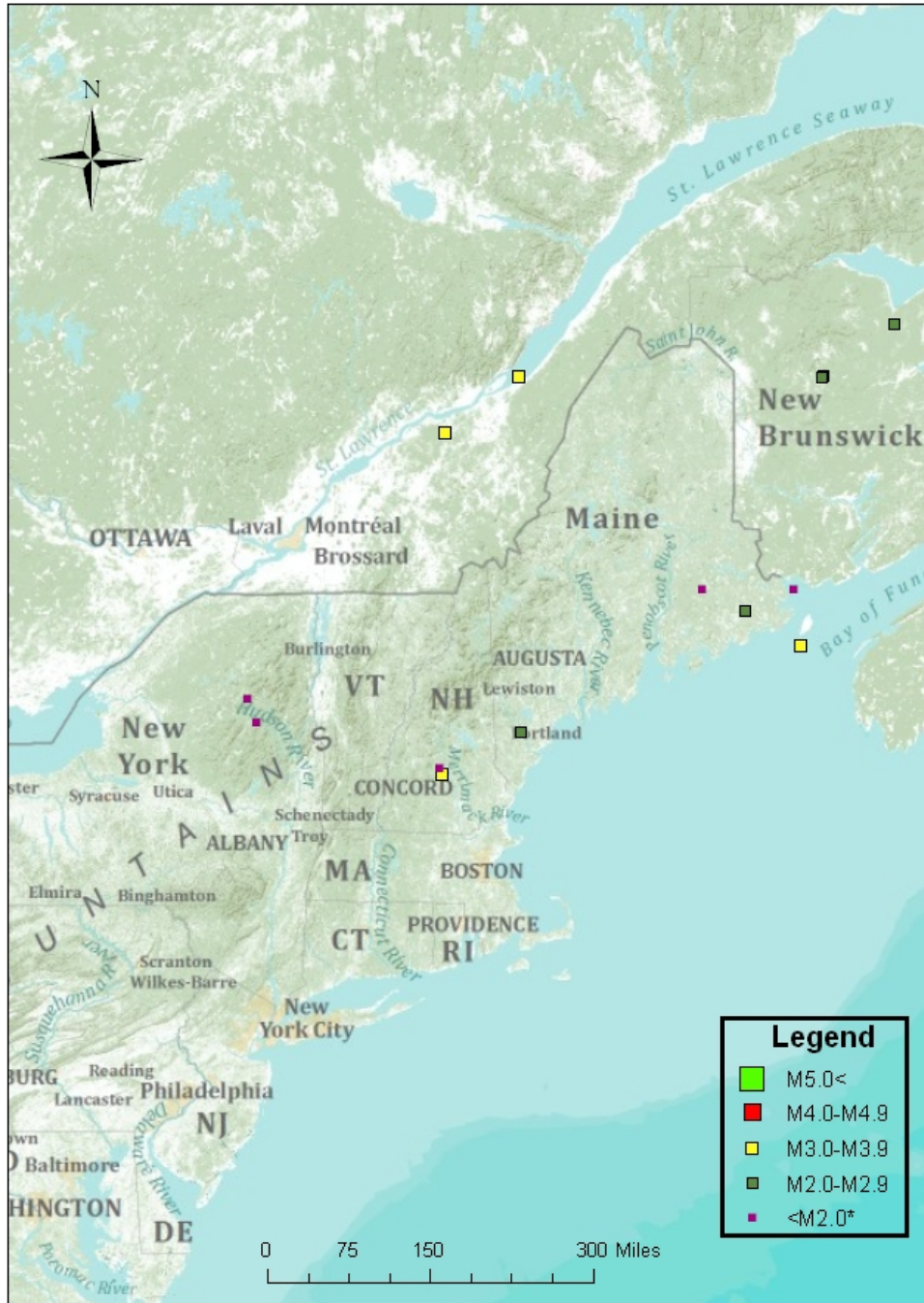


Figure 3: Earthquake epicenters located by the NESN during the period of this report.

Acknowledgments

Our map database has been developed in-house using ArcView and in part basemap data provided by ESRI, Inc., USGS GTOPO30 Elevation Data, and TIGER/Line '94, '95, and '97 (US Census Bureau) spatial data.

References

Chaplin, M.P., Taylor, S.R., and Toksöz, M.N. (1980), A coda length magnitude scale for New England, Earthquake Notes, 51, 15-22.

Ebel, J.E. (1982), ML measurements for northeastern United States earthquakes, Bull. Seism. Soc. Am., 72, 1367-1378.

Rosario, M. (1979), A coda duration magnitude scale for the New England Seismic Network, Master's Thesis, Boston College, 82 pp.

Figure 3 & 4 Basemap is the "World Topographic Map" developed by the USGS, FAO, NPS, EPA, NRCAN, GeoBase, Esri, DeLorme, TANA, Intermap, AND, other suppliers, and the GIS community. URL:

<http://www.arcgis.com/home/item.html?id=f2498e3d0ff642bfb4b155828351ef0e>