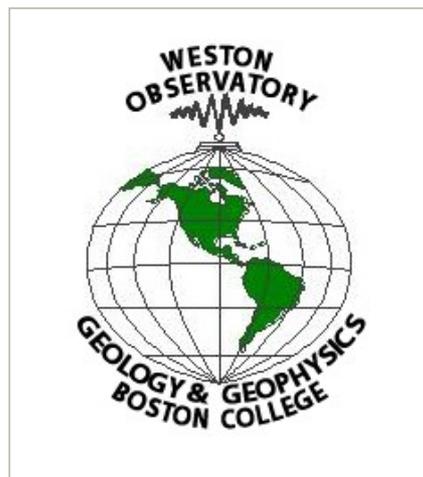


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A STUDY OF NEW ENGLAND SEISMICITY

Quarterly Earthquake Report

July-September, 2006



Weston Observatory

New England Seismic Network

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NEW ENGLAND SEISMIC NETWORK

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Award #04HQAG0020

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for

United States Geological Survey

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Notice

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Quarterly Earthquake Report

July-September, 2006

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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 July-September, 2006. 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 28 earthquakes that occurred within or near the network during this reporting period. Phase information for these earthquakes is included in this report.

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Current Network Operation and Status

The New England Seismic Network of Weston Observatory of Boston College currently consists of 12 broadband three-component and 8 analog strong-motion stations. The coordinates of the stations are given in Table 2, and maps of the weak- and strong-motion networks are shown in Figures 1 and 2, respectively. The 12 stations consist of Guralp CMG-40T three-component sensors. Ground motions recorded by these sensors are digitized at 100 sps with 16-bit resolution. Additional gain-ranging provides 126 dB dynamic range. These stations are operated in dialup mode with waveform segments of suspected events transmitted in digital mode to Weston Observatory for analysis and archiving. Weston Observatory also maintains 8 SMA-1 strong-motion instruments in New England.

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Seismicity

There were 28 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 and detailed hypocenter 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](#), 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.

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Data Management

Recent event locations are available at www.bc.edu/research/westonobservatory/northeast/recenteqs/. Waveform data are saved in Nanometrics, ASCII, and SEED formats and are available by contacting, Anastasia Macherides Moulis, via email. Earthquake lists can be found at www.bc.edu/research/westonobservatory/northeast/eqcatalogs/. Currently available on the Weston Observatory web page is the full catalog of northeastern U.S. earthquake activity to the present time. This will be updated as new Northeastern U.S. Seismic Network Quarterly Earthquake Reports are produced.

For more information on matters discussed in this report or general earthquake information (reports, maps, catalogs, etc.) consult our web site www.bc.edu/westonobservatory or contact:

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Explanation of Tables

Table 1: List of personnel operating the NESN

Table 2: List of 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 Hypocenter List

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. Int = event epicentral intensity
9. Location = event geographic location

Table 4: Earthquake detailed hypocenter and phase data list

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
 $WES: 2.23 \text{ Log}(FMP) + 0.12 \text{ Log}(\text{Dist}) - 2.36$ (Rosario, 1979)
 $MIT: 2.21 \text{ Log}(FMP) - 1.7$ (Chaplin *et al.*, 1980)
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 arriva l
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)

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TABLE 1

WESTON OBSERVATORY PERSONNEL

Name	Position	voice phone	email address
John E. Ebel	Observatory Director, Seismologist, Principal Investigator	617-552-8319	ebel@bc.edu
Alan Kafka	Research Seismologist	617-552-8300	kafka@bc.edu
Anastasia Macherides Moulis	Seismologist, Analyst	617-552-8325	macherid@bc.edu
Dina Smith	Associate Director of Operations, Seismologist	617-552-8335	dina.smith.1@bc.edu
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Weston Observatory		617-552-8300	
		617-552-8388 (FAX)	

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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 Dam, 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

* = not in operation during this quarter

STRONG MOTION STATIONS OF THE NEW ENGLAND SEISMIC NETWORK

Code	Lat	Long	Location	Operator
SM1	44.90	-67.25	Dennysville, ME	WES
SM2	44.49	-73.10	Essex Junction, VT	WES
SM3	41.45	-71.33	Newport, RI	WES
SM4	42.38	-71.32	Weston, MA	WES
SM5	42.66	-71.30	Lowell, MA	WES
SM6	42.30	-71.34	Natick, MA	WES
SM7	42.39	-71.54	Hudson, MA	WES
SM8	44.48	-69.61	North Vassalboro, ME	WES

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TABLE 3

NEW ENGLAND AND ADJACENT REGIONS

July-September, 2006

Date	Time (UTC)	Lat	Long	Depth	Mn	Mc	Int	Location
M/D/Y	Hr:Mn:Sec			(km)				
07/06/2006	05:37:20.23	47.11	-66.69	05.00	1.5			NB, 58KM NE of Plaster Rock
07/14/2006	09:34:49.34	46.92	-68.68	23.87	3.8			ME, 60KM NW of Presque Isle
08/05/2006	00:23:46.79	44.74	-70.77	05.00	1.9			ME, 26KM NW of Rumford
08/20/2006	05:11:21.86	43.10	-71.60	04.09	1.7			NH, 13KM SW of Concord
09/22/2006	00:04:24.24	44.43	-68.17	06.26	1.2			ME, 5KM NNE of Bar Harbor
09/22/2006	08:24:18.06	44.44	-68.17	09.91	1.9			ME, 5.3KM NNE of Bar Harbor
09/22/2006	09:21:05.95	44.44	-68.17	06.76	1.8			ME, 6.4KM NNE of Bar Harbor
09/22/2006	09:21:14.74	44.41	-68.20	6.36	1.4			ME, 3KM N of Bar Harbor
09/22/2006	10:12:57.75	44.39	-68.15	09.53	1.2			ME, 4KM E of Bar Harbor
09/22/2006	10:39:21.43	44.35	-69.19	06.99	3.4			ME, 4KM SSE of Bar Harbor
09/22/2006	10:39:49	44.35	-68.19	6.99	2.6			ME, 4KM SSE of Bar Harbor
09/22/2006	11:03:59.75	44.49	-68.15	05.00	1.0			ME, 12KM NNE of Bar Harbor
09/22/2006	11:50:19.26	44.38	-68.16	05.68	1.7			ME, 3.2KM ESE of Bar Harbor
09/22/2006	11:52:47.96	44.50	-68.16	05.00	0.8			ME, 12.4KM NNE of Bar Harbor
09/22/2006	11:55:09.28	44.46	-68.16	05.00	1.0			ME, 8.5KM NNE of Bar Harbor
09/22/2006	11:56:24.02	44.43	-68.18	05.00	1.0			ME, 5KM NNE of Bar Harbor
09/22/2006	11:57:19.07	44.35	-68.18	05.75	0.9			ME, 4KM SE of Bar Harbor
09/22/2006	12:00:20.49	44.47	-68.18	05.94	0.8			ME, 9.4KM NNE of Bar Harbor
09/22/2006	12:28:20.04	44.43	-68.15	05.00	1.1			ME, 5.8KM NNE of Bar Harbor
09/22/2006	12:45:20.46	44.44	-68.13	19.69	1.3			ME, 8KM NE of Bar Harbor
09/22/2006	13:25:09.01	44.40	-68.19	00.14	2.4			ME, 2KM NE of Bar Harbor
09/23/2006	01:21:23.45	44.41	-68.16	09.00	1.5			ME, 4.5KM NE of Bar Harbor
09/23/2006	01:33:07.03	44.35	-68.17	09.64	1.2			ME, 4.5KM SE of Bar Harbor
09/26/2006	02:48:16.88	44.38	-68.18	04.84	1.6			ME, 2KM E of Bar Harbor
09/26/2006	04:46:47.48	44.57	-68.23	05.00	1.6^			ME, 19KM NNW of Bar Harbor
09/28/2006	13:52:47.58	44.45	-68.19	06.95	2.5			ME, 6.4KM N of Bar Harbor
09/28/2006	13:58:59.31	44.44	-68.19	05.00	1.8			ME, 5.7KM N of Bar Harbor
09/30/2006	08:10:39.95	44.34	-68.18	09.55	2.1^			ME, 4.8KM SSE of Bar Harbor

* indicates magnitude as calculated by Lamont Doherty Earth Observatory
 ^ indicates magnitude as calculated by Earthquakes Canada (Natural Resources Canada)

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TABLE 4

**EARTHQUAKE PHASE DATA LIST
 NEW ENGLAND AND ADJACENT REGIONS
 July-September, 2006**

C6709A.XX
 SOUTHEAST MAINE CRUSTAL MODEL
 06JUL09 CANADA, 58KM (36MI) NE OF PLASTER ROCK, NB
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q

60709	537	20.23	47-	6.87	66-41.71	5.00	2.4	2.3	191	.48	1.6	1.9	C		
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	
PQI	111.9	244	EP	0	537	37.97	17.74	18.02	-.31	2.16	87	.14	2.3	82	2.3
			ES	1	537	51.73	31.50	32.08	-.63	1.57					
GSQ	202.5	351	P	1	537	51.68	31.45	30.76	-.67	1.25					
			S	1	537	74.67	54.44	54.76	-.34	1.29					
GGN	222.2	183	P	0	537	53.45	33.22	33.20	-.01	1.64					
			S	2	537	78.70	58.47	59.09	-.65	.77					
A21	235.4	286	P	0	537	55.31	35.08	34.82	.25	1.57					
			S	3	537	83.25	63.02	61.98	1.02	.33					
A64	253.6	288	P	4	537	59.43	39.20	37.07	2.11	.00					
			S	1	537	86.63	66.40	65.98	-.38	1.10					
CNQ	264.0	337	S	1	537	88.07	67.84	68.27	-.49	1.04					
A61	264.2	284	P	2	537	59.53	39.30	38.38	-.85	.65					
			S	0	537	88.60	68.37	68.32	-.06	1.43					
ICQ	271.1	351	P	2	538	.25	40.02	39.23	-.78	.64					
			S	1	538	29.60	69.37	69.82	-.48	1.02					
EMMW	273.7	192	EP	1	537	59.30	39.07	39.56	-.50	1.00	28	.19	2.4		
			ES	1	537	91.21	70.98	70.41	.55	1.00					
LMQ	278.9	280	P	1	538	1.20	40.97	40.19	.71	.96					
			S	0	538	31.97	71.74	71.54	.07	1.35					
A54	283.7	278	P	3	538	3.08	42.85	40.79	2.00	.01					
DAQ	355.4	285	P	2	538	10.75	50.52	49.64	-.71	.46					
			S	1	538	48.49	88.26	88.37	-.39	.72					
WVL	368.6	219	ES	4	538	59.86	99.63	91.27	8.34	.00					
MNQ	409.8	338	P	0	538	16.55	56.32	56.35	-.12	.70					
			S	2	538	60.20	99.97	100.30	-.50	.34					
LBNH	517.8	232	ES	4	539	42.00	141.77	124.04	17.62	.00					

C6714A.XX

NORTHWEST MAINE CRUSTAL STRUCTURE

06JUL14 ME, 60KM (37.3MI) NW OF PRESQUE-ISLE

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q			
60714	934	49.34	46-55.48	68-40.84	23.87	3.8	3.8	51	.44	.8	1.0	C			
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG	
PQI	58.3	119	IPD0	934	59.35	10.01	10.02	-.04	3.08				361	3.6	
			S	0	934	67.26	17.92	17.84	.02	3.08					
A16	117.4	301	PD0	935	8.17	18.83	18.79	.04	2.71						
			S	1	935	22.55	33.21	33.45	-.24	2.03					
A11	120.5	287	PD0	935	8.77	19.43	19.26	.16	2.69						
			S	2	935	23.12	33.78	34.28	-.52	1.30					
A64	135.7	318	PD0	935	10.62	21.28	21.37	-.11	2.59						
			S	3	935	28.86	39.52	38.04	1.45	.36					
A61	136.6	309	PD0	935	10.83	21.49	21.48	-.05	2.59						
			S	3	935	26.84	37.50	38.24	-.84	.59					
LMQ	142.7	299	PD0	935	11.65	22.31	22.24	.00	2.55						
			S	3	935	28.35	39.01	39.58	-.69	.60					
QCQ	198.4	265	PC0	935	19.20	29.86	29.12	.73	2.11						
			S	3	935	42.96	53.62	51.83	1.76	.13					
BATG	202.8	79	PD0	935	19.08	29.74	29.65	.03	2.17						
			S	3	935	41.23	51.89	52.78	-1.00	.46					
DAQ	225.3	301	PC0	935	22.29	32.95	32.43	.36	2.03						
			S	3	935	48.66	59.32	57.73	1.31	.37					
GGN	247.2	144	PD0	935	24.35	35.01	35.14	-.14	1.89						
			S	3	935	50.35	61.01	62.54	-1.55	.17					
GSQ	250.4	28	PC3	935	26.86	37.52	35.54	1.97	.04						
			S	3	935	54.66	65.32	63.25	2.05	.03					
EMMW	263.9	159	EP	0	935	26.95	37.61	37.19	.41	1.77	1197	.25	3.9	306	3.6
			S	0	935	55.65	66.31	66.21	.09	1.79					
CNQ	268.2	10	PC1	935	27.84	38.50	37.73	.74	1.27						
			S	1	935	55.88	66.54	67.16	-.67	1.27					
WVL	277.0	196	EPD1	935	27.64	38.30	38.82	-.53	1.24	764	.30	3.7	319	3.6	
			S	1	935	58.10	68.76	69.10	-.36	1.27					
ICQ	307.2	20	P	3	935	33.05	43.71	42.54	1.16	.31					
			S	0	935	65.22	75.88	75.72	.14	1.52					
DPQ	313.9	265	PC0	935	32.66	43.32	43.38	-.09	1.48						
			S	3	935	68.93	79.59	77.21	2.33	.00					
LMN	321.0	112	PD0	935	33.35	44.01	44.24	-.29	1.42						
			S	4	935	66.20	76.86	78.75	-2.00	.00					
MOQ	329.4	237	P	0	935	34.79	45.45	45.28	.03	1.38					
			S	4	935	72.76	83.42	80.60	2.57	.00					
LBNH	391.4	220	PC3	935	41.60	52.26	52.94	-.73	.24						
			S	4	935	79.92	90.58	94.23	-3.75	.00					
SMQ	394.7	22	PC0	935	43.47	54.13	53.35	.72	.93						
			S	3	935	82.61	93.27	94.96	-1.80	.03					
MNQ	401.4	359	P	0	935	43.71	54.37	54.17	.11	.93					
			S	3	935	84.81	95.47	96.43	-1.11	.18					
MNT	412.9	247	P	0	935	44.50	55.16	55.60	-.46	.84					
			S	4	935	85.72	96.38	98.97	-2.62	.00					
VT1	429.0	228	EPD4	936	.01	70.67	57.59	13.07	.00						
			S	4	936	43.40	114.06	102.50	11.52	.00					
MRHQ	440.8	255	P	3	935	47.72	58.38	59.04	-.73	.16					
			S	3	935	93.89	104.55	105.09	-.66	.16					
FRNY	446.1	239	EP	2	935	48.56	59.22	59.69	-.51	.31					
			S	2	935	95.43	106.09	106.26	-.24	.32					
FFD	449.4	211	EPD9	940	24.61	335.27	60.10	12.19	.00				295	4.2	
			S	9	940	83.70	59.09	106.98	12.19	****					
HNH	456.1	218	EPD1	935	49.97	60.63	60.92	-.32	.44	285	.30	3.7	400	3.9	
			S	0	935	98.40	109.06	108.45	.56	.58					
TRQ	456.9	260	P	2	935	49.76	60.42	61.03	-.61	.28					
			S	4	935	96.17	106.83	108.63	-1.80	.00					
HAL	470.3	123	PD0	935	52.50	63.16	62.68	.48	.49						
MIV	494.2	230	P	0	935	54.60	65.26	65.63	-.42	.35					
ALFO	499.2	253	P	0	935	54.59	65.25	66.25	-1.00	.27					
LONY	525.6	241	PC2	935	58.35	69.01	69.50	-.56	.07						
GAC	541.0	255	P	3	935	59.81	70.47	71.41	-.95	.00					
HRV	541.4	205	EP	2	936	1.80	72.46	71.46	.97	.02			348	3.8	
			S	3	936	58.60	129.26	127.20	2.01	.00					
NCB	544.0	233	EP	0	936	1.48	72.14	71.77	.27	.04			380	3.9	
			S	0	936	57.30	127.96	127.76	.03	.04					
WES	546.2	203	EP	0	936	1.40	72.06	72.05	.00	.02	200	.40	3.6	334	3.8
			S	0	936	58.10	128.76	128.26	.49	.02					
GRQ	549.2	266	P	3	936	.37	71.03	72.43	-1.45	.00					
			S	3	936	57.41	128.07	128.92	-.94	.00					
WBO	553.8	247	P	3	936	1.04	71.70	72.99	-1.30	.00					
			S	3	936	57.91	128.57	129.92	-1.37	.00					
ACCN	555.3	225	P	3	936	1.44	72.10	73.17	-1.13	.00					
			S	1	936	59.68	130.34	130.25	-.02	.00					
PTN	556.2	242	P	2	936	2.07	72.73	73.29	-.59	.00					
			S	3	936	58.77	129.43	130.46	-1.08	.00					
OTT	569.1	253	P	0	936	4.52	75.18	74.88	.29	.00					
			S	0	936	62.77	133.43	133.28	.13	.00					
GBN	578.4	107	P	0	936	5.08	75.74	76.03	-.29	.00					
			S	4	936	62.19	132.85	135.33	-2.49	.00					
QUA2	592.9	209	EP	3	936	6.40	77.06								

C6922C.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 6.4KM (4MI) NNE OF BAR HA

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q		
60922	921	5.95	44-26.75	68-10.09	6.76	1.8	.0	203	.49	3.8	5.0	C		
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG
EMMW	63.6	62	EP 0	921	16.32	10.37	10.40	-.04	1.26	38	.13	1.6		
			S 0	921	24.86	18.91	18.52	.37	1.25					
WVL	119.5	274	EP 0	921	25.13	19.18	19.28	-.11	1.12	17	.11	1.7		
			S 0	921	39.76	33.81	34.32	-.52	1.08					
PKME	127.1	316	EP 0	921	27.53	21.58	20.48	1.09	.84					
			S 0	921	42.36	36.41	36.45	-.07	1.10					
GGN	130.0	55	EP 0	921	26.91	20.96	20.94	.01	1.09					
			S 0	921	42.47	36.52	37.28	-.78	1.00					
PQI	247.5	3								3	.10	1.7		
LBNH	300.8	266	EP 0	921	50.10	44.15	43.41	-.68	.61					
			S 0	921	83.00	77.05	77.27	-.33	.64					
HNH	339.9	256								12	.40	2.0		

C6922E.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 3KM (1.86MI) N OF BAR HARBOR

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q		
60922	921	14.74	44-24.84	68-12.19	6.36	1.4	.0	222	.35	5.6	5.0	D		
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG
WVL	117.1	276	EP 0	921	33.52	18.78	18.89	-.12	1.07					
PKME	127.9	318	EP 0	921	36.10	21.36	20.60	-.74	.85					
			S 0	921	51.10	36.36	36.67	-.34	1.01					
GGN	134.3	54	EP 0	921	36.37	21.63	21.63	-.01	1.03					
			S 0	921	53.11	38.37	38.50	-.14	1.03					

C6922F.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 4KM (2.5MI) E OF BAR HARBOR

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q		
60922	1012	57.75	44-23.44	68-9.39	9.53	1.2	.0	220	.50	4.6	5.0	C		
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG
EMMW	65.9	57	EP 0	1013	8.70	10.95	10.78	.16	1.15	8	.12	1.0		
			S 0	1013	17.10	19.35	19.19	.14	1.15					
WVL	121.1	277	EP 0	1013	17.40	19.65	19.54	.10	1.02	7	.11	1.3		
			S 0	1013	31.77	34.02	34.79	-.78	.94					
PKME	132.3	317	EP 0	1013	20.03	22.28	21.32	.95	.84					
			S 0	1013	35.59	37.84	37.94	-.13	1.00					
GGN	132.9	53	EP 0	1013	19.48	21.73	21.42	.30	.98					
			S 0	1013	35.16	37.41	38.13	-.73	.92					

C6922D.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 4KM (2.49MI) SSE OF BAR HARBOR

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q		
60922	1039	21.43	44-20.95	68-11.27	6.99	3.4	3.4	167	.50	1.1	1.2	C		
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG
EMMW	70.6	55	IPD0	1039	32.71	11.28	11.51	-.24	2.67	1162	.15	3.2	255	3.3
			S 0	1039	41.57	20.14	20.49	-.37	2.65					
WVL	119.5	280	IPD0	1039	41.60	20.17	19.27	.89	2.10	459	.20	3.0	203	3.1
			S 2	1039	54.65	33.22	34.31	-1.11	.87					
PKME	134.1	319	IPD0	1039	43.90	22.47	21.58	.87	2.08			236	3.3	
			S 0	1039	59.21	37.78	38.42	-.67	2.20					
GGN	137.8	52	IPD0	1039	43.61	22.18	22.18	-.01	2.30			241	3.3	
			S 0	1039	60.75	39.32	39.49	-.18	2.30					
PQI	258.3	3	EP 3	1040	.99	39.56	38.15	1.38	.18	436	.35	3.4	236	3.4
			S 0	1040	29.69	68.26	67.91	.30	1.61					
FFD	295.1	251	EP 2	1040	4.74	43.31	42.69	.60	.69	2116	.27	4.2		
			S 3	1040	36.10	74.67	75.99	-1.35	.15					
LBNH	298.6	268	EPD0	1040	4.80	43.37	43.12	.19	1.40			235	3.4	
			S 1	1040	38.80	77.37	76.75	.51	1.02					
LMN	314.3	58	EP 0	1040	6.88	45.45	45.05	.34	1.30			253	3.5	
			S 0	1040	42.00	80.57	80.20	.27	1.32					
WES	334.8	229	EP 0	1040	9.27	47.84	47.59	.24	1.20	212	.27	3.3	211	3.3
			S 2	1040	45.44	84.01	84.71	-.72	.56					
HNH	336.5	258	EP 1	1040	9.80	48.37	47.79	.55	.87	283	.30	3.4	230	3.4
			S 2	1040	47.20	85.77	85.07	.64	.57					
MOQ	339.1	288	EPC0	1040	9.93	48.50	48.12	.24	1.18			240	3.4	
			S 2	1040	46.60	85.17	85.65	-.73	.54					
HRV	341.3	233	EP 0	1040	9.60	48.17	48.39	-.25	1.16			234	3.4	
			S 2	1040	46.90	85.47	86.13	-.72	.54					
A11	357.6	334	EPC2	1040	12.64	51.21	50.40	.80	.49					
			S 0	1040	51.30	89.87	89.71	.14	1.07					
QCQ	361.9	318	EP 0	1040	12.20	50.77	50.94	-.19	1.05					
			S 0	1040	51.80	90.37	90.67	-.34	1.04					
BRYW	383.5	225	EP 0	1040	14.60	53.17	53.60	-.49	.91	167	.27	3.4		
			S 2	1040	56.20	94.77	95.41	-.74	.43					
LMQ	392.4	335	EP 0	1040	16.30	54.87	54.71	.10	.88			264	3.5	
			S 1	1040	58.40	96.97	97.38	-.53	.64					
QUR2	408.8	236	EP 0	1040	18.00	56.57	56.72	-.18	.79	193	.30	3.4	240	3.5
			S 0	1040	62.50	101.07	100.96	.05	.79					
UCCT	434.3	229	EP 0	1040	21.10	59.67	59.87	-.23	.65					
			S 0	1040	68.00	106.57	106.57	-.06	.65					
MNT	448.0	287	EP 0	1040	22.80	61.37	61.57	-.22	.57					
			S 0	1040	70.60	109.17	109.60	-.46	.56					
TRY	478.2	248	EPD2	1040	27.30	65.87	65.29	.53	.19	117	.40	3.3		
			S 2	1040	78.30	116.87	116.22	-.56	.19					
NCB	484.2	265	EPD0	1040	27.30	65.87	66.04	-.27	.37			273	3.6	
			S 3	1040	80.10	118.67	117.55	-.94	.08					
LONY	509.5	273	EP 0	1040	30.30	68.87	69.16	-.36	.22			246	3.5	

C6922G.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 4KM (2.49MI) SSE OF BAR HARBOR

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q		
60922	1039	49	44-20.95	68-11.27	6.99	2.6		167	.50	1.1	1.2	C		
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG
EMMW	70.6	55												
			S 0	1040	00.57	20.14	20.49	-.37	2.65					
WVL	119.5	280												
			S 2	1040	15.92	33.22	34.31	-1.11	.87					
PKME	134.1	319												
			S 0	1040	18.80	37.78	38.42	-.67	2.20					
GGN	137.8	52												
			S 0	1040	19.80	39.32	39.49	-.18	2.30					

C6922I.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 12KM (7.5MI) NNE OF BAR HARBOR

DATE	ORIGIN	LAT N	LONG W	DEPTH	MN	MC	ML	GAP	RMS	ERH	ERZ	Q		
60922	11	3	59.75	44-29.77	68-8.91	5.00	1.0	.0	247	.29	13.5	26.3	D	
STN	DIST	AZM	RMK	HRMN	SEC	TOBS	TCAL	RES	WT	AMX	PRX	XMAG	FMP	FMAG
EMMW	59.8	67	EP 0	11	4	9.13	9.38	9.81	-.44	1.05				

LMN 302.8 60 S 4 11 4 76.10 76.35 78.04 -1.79 .00
 C6922H.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 3.2KM (2MI) ESE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1150 19.26 44-22.95 68- 9.89 5.68 1.7 2.5 220 .40 3.2 3.6 C
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 67.0 57 EP 0 1150 30.08 10.82 10.93 -.12 1.28 33 .11 1.6
 S 0 1150 38.70 19.44 19.46 -.04 1.28
 WVL 120.6 278 EP 0 1150 38.59 19.33 19.44 -.12 1.14 22 .14 1.8
 S 0 1150 53.66 34.40 34.61 -.22 1.13
 PKME 132.5 318 EP0 1150 41.60 22.34 21.33 .99 .75 91 2.5
 S 0 1150 57.12 37.86 37.98 -.15 1.11
 GGN 134.1 53 EP 0 1150 41.43 22.17 21.59 .57 1.06 89 2.5
 S 0 1150 57.04 37.78 38.44 -.67 .99
 LBNH 300.6 267 EP 4 1151 6.10 46.84 43.50 3.29 .00
 S 4 1151 40.40 81.14 77.42 3.61 .00
 LMN 310.8 58 EP 0 1151 4.12 44.86 44.75 .05 .63
 S 0 1151 39.11 79.85 79.66 .09 .63

C6922J.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 12.4KM (7.7MI) NNE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1152 47.96 44-30.16 68- 9.55 5.00 .8 .0 246 .23 7.7 14.9 D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 60.3 67 EP 0 1152 57.60 9.64 9.89 -.26 1.09 6 .14 .8
 S 0 1152 65.40 17.44 17.61 -.19 1.12
 PKME 123.2 313 EP 0 1153 8.20 20.24 19.88 .34 .90
 S 0 1153 23.20 35.24 35.38 -.18 .97
 GGN 125.9 57 EP 0 1153 8.50 20.54 20.32 .21 .96
 S 0 1153 24.30 36.34 36.16 .16 .97

C6922K.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 8.5KM (5.28MI) NNE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1155 9.28 44-27.49 68- 9.83 5.00 1.0 .0 252 .46 14.2 27.8 D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 62.6 63 EP 0 1155 19.13 9.85 10.27 -.43 1.11 8 .12 1.0
 S 0 1155 27.10 17.82 18.29 -.48 1.11
 PKME 126.3 315 EP 0 1155 30.00 20.72 20.38 .32 .99
 S 0 1155 45.45 36.17 36.28 -.14 1.00
 GGN 129.0 55 EP 0 1155 30.20 20.92 20.80 .11 .99
 S 0 1155 47.22 37.94 37.02 .90 .80

C6922L.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 5KM (3.1MI) NNE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1156 24.02 44-23.99 68-10.63 5.00 1.0 .0 255 .57 6.6 13.3 D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 64.9 62 EP 0 1156 34.38 10.36 10.63 -.28 1.14 7 .10 1.0
 S 0 1156 42.05 18.03 18.91 -.90 1.04
 PKME 127.7 316 EP 0 1156 44.80 20.78 20.60 .16 .99
 S 0 1156 60.55 36.53 36.67 -.17 .99
 GGN 131.4 55 EP 0 1156 45.70 21.68 21.19 .48 .97
 S 0 1156 62.68 38.66 37.72 .92 .88

C6922M.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 4KM (2.5MI) SE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1157 19.07 44-21.14 68-10.72 5.75 .9 .0 264 .52 4.7 **** D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 69.8 55 EP 0 1157 30.54 11.47 11.38 .08 1.14 6 .11 .9
 S 0 1157 38.62 19.55 20.25 -.72 1.05
 WVL 120.2 279 EP 4 1157 17.50 999.00 19.38-20.96 .00
 S 4 1157 23.70 4.63 34.50-29.89 .00
 PKME 134.3 319 EP 0 1157 41.50 22.43 21.62 .79 .90
 S 0 1157 57.21 38.14 38.48 -.37 .98
 GGN 137.1 52 EP 0 1157 41.70 22.63 22.06 .56 .95
 S 0 1157 58.13 39.06 39.26 -.22 .98

C6922O.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 9.4KM (5.8MI) NNE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 12 0 20.49 44-28.54 68-10.87 5.94 .8 .0 249 .54 15.4 **** D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 63.1 66 S 0 12 0 37.89 17.40 18.36 -.97 1.01 5 .09 .8
 PKME 124.0 315 EP 0 12 0 40.60 20.11 19.99 .11 1.02
 S 0 12 0 56.10 35.61 35.57 .00 1.02
 GGN 129.0 56 EP 0 12 0 41.49 21.00 20.78 .21 1.00
 S 0 12 0 58.19 37.70 36.99 .69 .95

C6922P.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, OFFSHORE, 5.8KM (3.6MI) NE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1228 20.04 44-25.72 68- 9.26 5.00 1.1 .0 255 .40 22.0 44.1 D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 63.5 60 EP 0 1228 30.10 10.06 10.41 -.36 1.11 10 .09 1.1
 S 0 1228 38.36 18.32 18.53 -.23 1.12
 PKME 129.3 316 EP 0 1228 41.30 21.26 20.86 .38 .96
 S 0 1228 56.74 36.70 37.12 -.46 .95
 GGN 130.2 54 EP 0 1228 41.20 21.16 21.00 .14 .98
 S 0 1228 58.13 38.09 37.39 .68 .88

C6922Q.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 8KM (5MI) NE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1245 20.46 44-26.47 68- 8.06 19.69 1.3 .0 205 .33 4.1 2.2 C
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 61.5 61 EP 0 1245 30.70 10.24 10.39 -.16 1.33 16 .14 1.3
 S 0 1245 38.74 18.28 18.49 -.23 1.33
 GGN 128.2 54 EP 0 1245 41.45 20.99 20.46 .52 1.08
 S 0 1245 56.85 36.39 36.42 -.05 1.14
 PKME 129.3 315 EP0 1245 41.46 21.00 20.64 .34 1.12
 S 0 1245 57.17 36.71 36.73 -.06 1.14
 LBNH 303.4 266 S 0 1245 94.80 74.34 75.56 -1.32 .20
 LMN 305.3 59 S 0 1245 96.47 76.01 75.98 -.07 .66

C6922N.XX
 NORTHWEST MAINE CRUSTAL STRUCTURE
 06SEP22 ME, 2KM (1.24MI) NE OF BAR HARBOR
 DATE ORIGIN LAT N LONG W DEPTH MN MC ML GAP RMS ERH ERZ Q
 60922 1325 9.01 44-24.21 68-11.24 .14 2.4 .0 207 .50 2.9 3.9 D
 STN DIST AZM RMK HRMN SEC TOBS TCAL RES WT AMX PRX XMAG FMP FMAG
 EMMW 67.2 60 EP0 1325 19.73 10.72 11.26 -.55 1.43 101 .14 2.1
 S 0 1325 28.38 19.37 20.05 -.69 1.40
 WVL 118.5 277 EP0 1325 28.57 19.56 19.40 .15 1.32 83 .13 2.3
 S 0 1325 43.43 34.42 34.54 -.14 1.32
 PKME 129.6 318 EP0 1325 31.05 22.04 21.16 .86 1.15
 S 0 1325 46.51 37.50 37.67 -.20 1.29

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TABLE 5
MICROEARTHQUAKES AND OTHER NON-LOCATABLE EVENTS

Date Yr/Mo/Dy	Sta	Arrival Time Hr:Mn:Sec
None recorded this period.		

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NESN Station Map

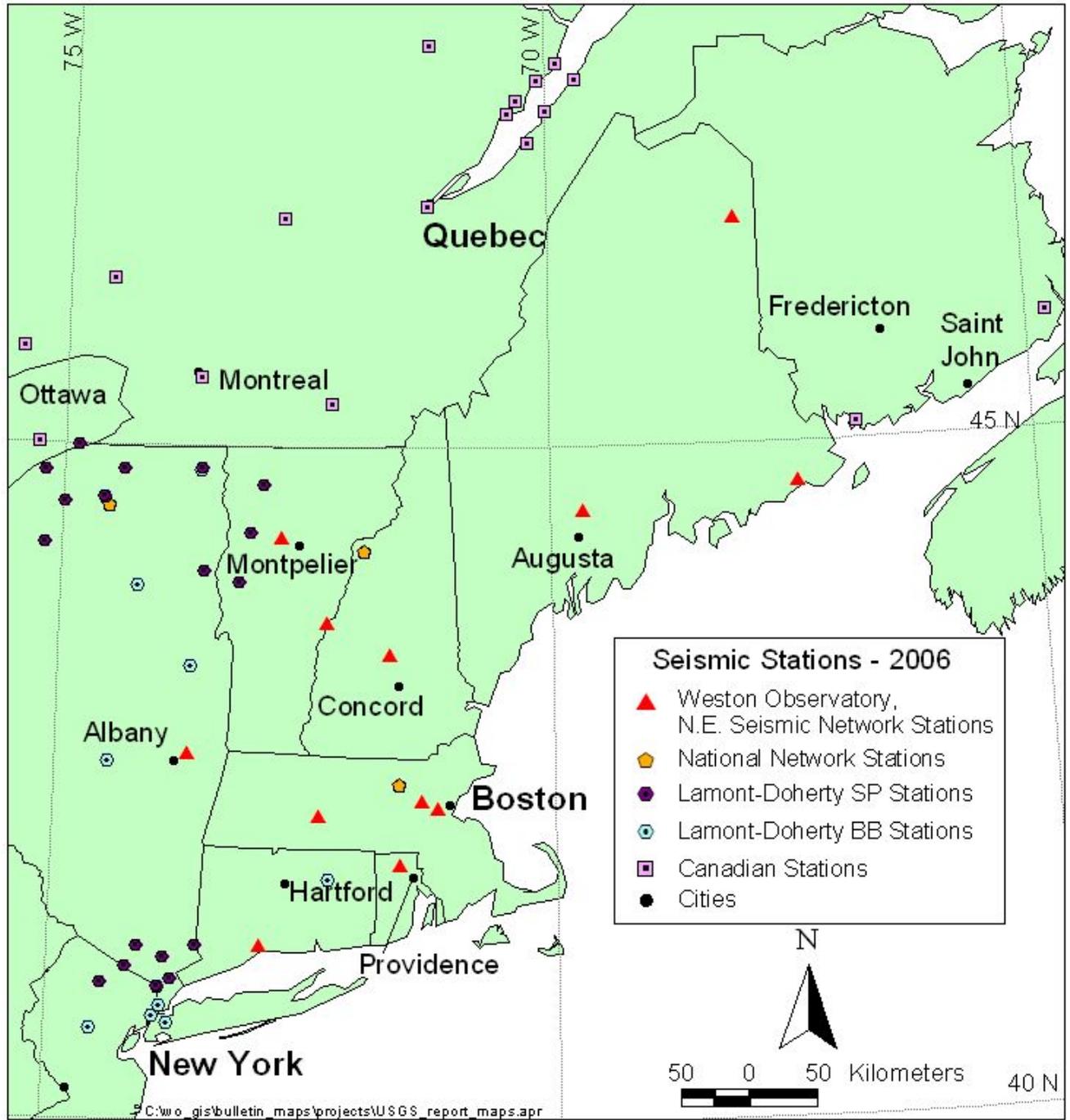


Figure 1: Map of stations of the New England Seismic Network (NESN) in operation during the period of this report. Also included are other Northeast U.S. and Canadian seismic stations in operation during this period.

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NESN Strong-Motion Station Map

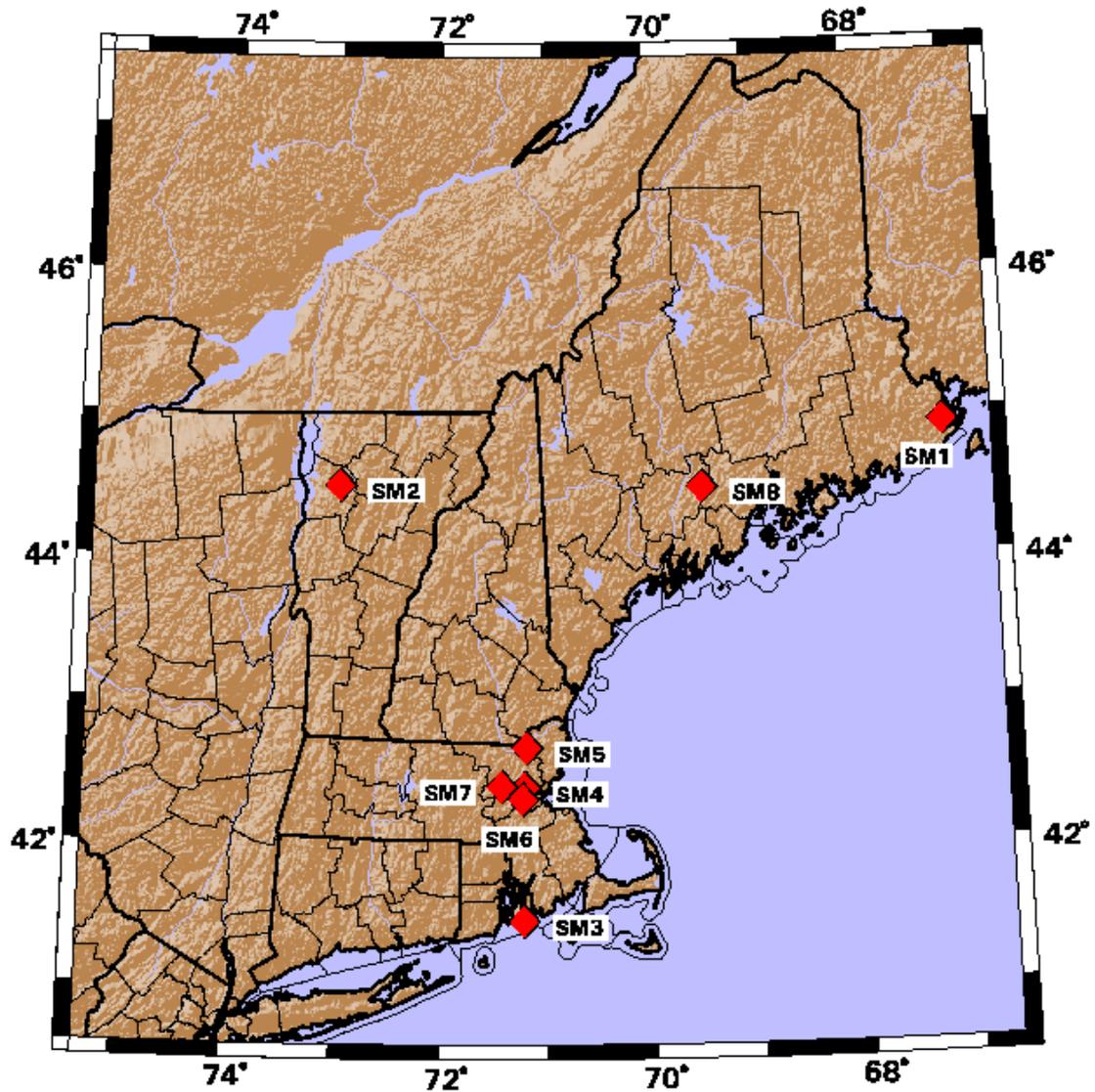


Figure 2: Map of strong-motion stations of the New England Seismic Network (NESN) in operation during the period of this report.

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NESN Quarterly Seismicity Map

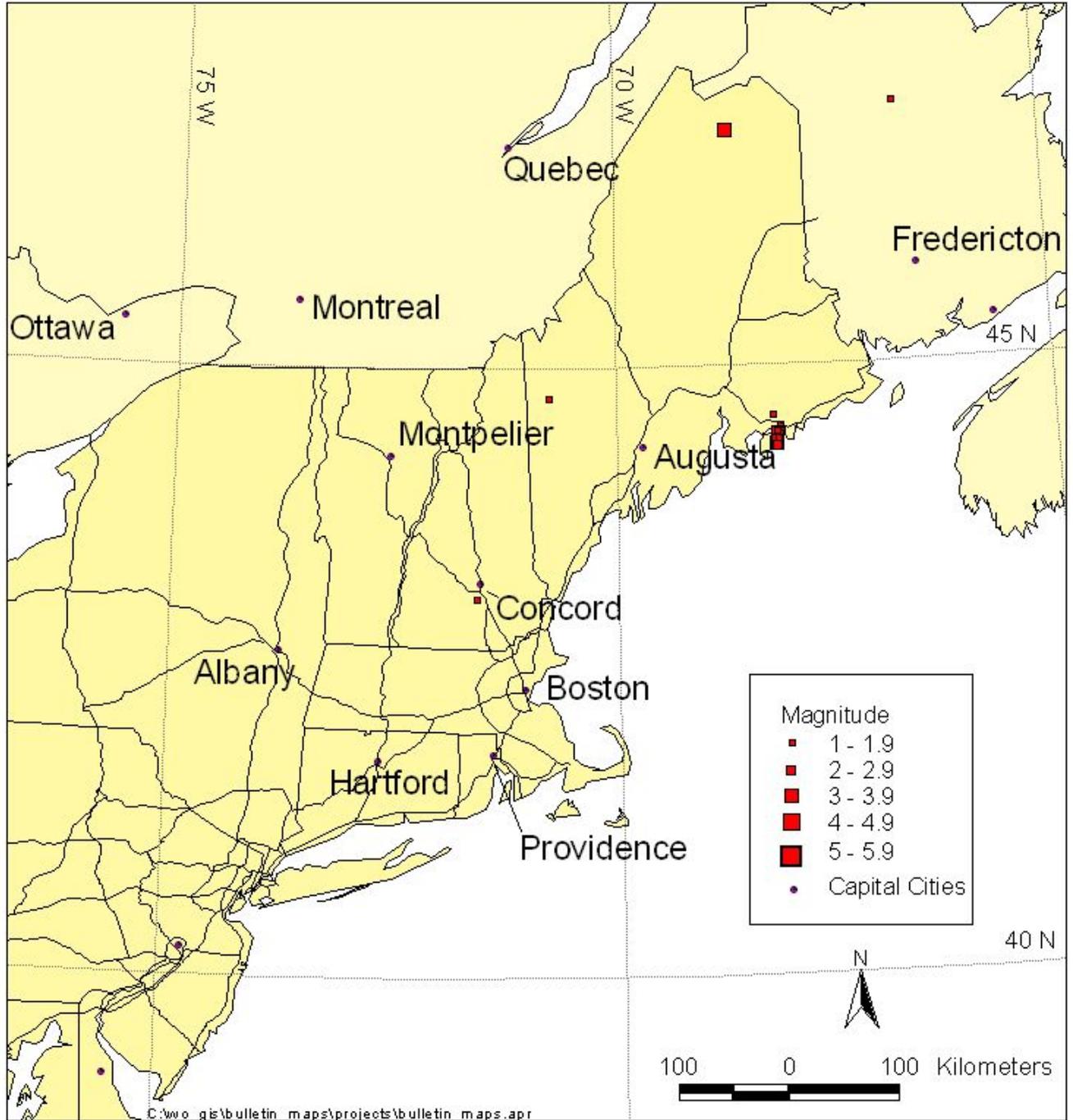


Figure 3: Earthquake epicenters located by the NESN during the period of this report.

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NESN Cumulative Seismicity Map

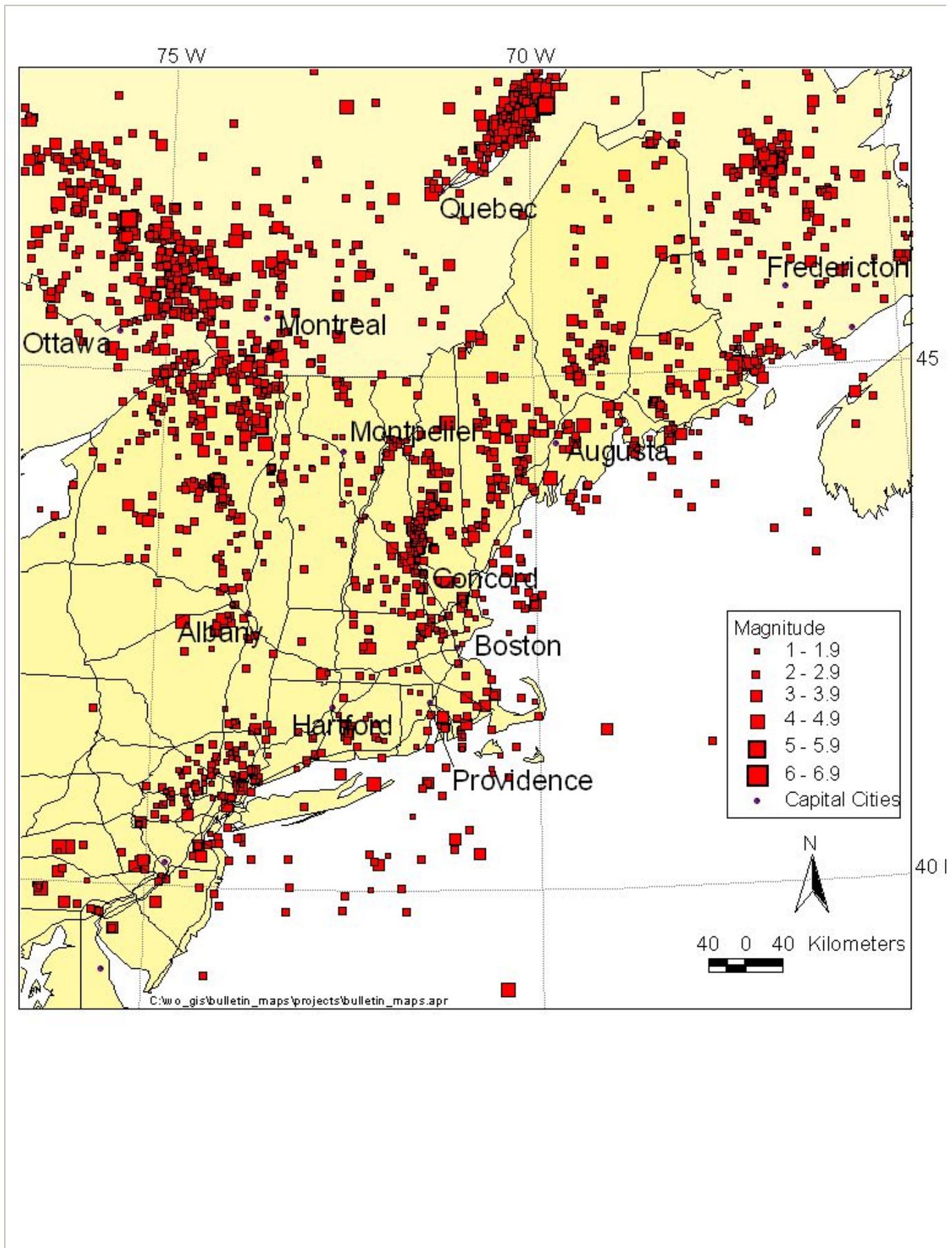


Figure 4: Seismicity for period October, 1975 - September, 2006.

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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.

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