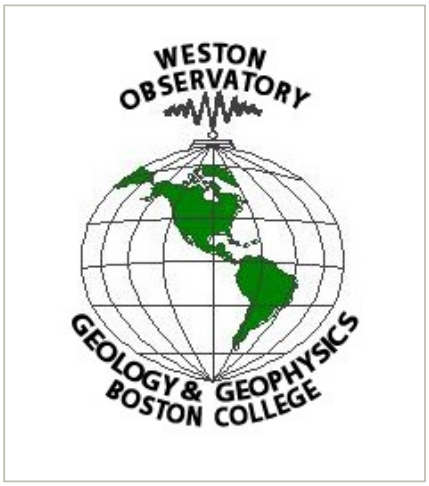
A STUDY OF NEW ENGLAND SEISMICITY

Quarterly Earthquake Report

July-September, 2005

New England

Seismic Network



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NEW ENGLAND SEISMIC NETWORK

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for

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Notice

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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, 2005. 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 7 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 7 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 http://aki.bc.edu/cgi-bin/NESN/recent_events.pl. 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 = st ation 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. D ate = 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. Mag = event magnitude
7. Int = event epicentral intensity
8. 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 Log(FMP) + 0.12Log(Dist) - 2.36 (Rosario, 1979)
   MIT: 2.21 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 se paration, 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 arr ival

   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 = sign al 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 = neares t 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
Michael Hagerty	New England Seismic Network Manager, Seismologist	617-552-8337	hagertmb@bc.edu
		617-552-8300	
Weston Observatory		617-552-8388 (FAX)	

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TABLE 2

SEISMIC STATIONS OF THE NEW ENGLAND SEISMIC NETWORK

WES43.7050-72.3525Belchertown, MATroy, NYWESUMMWES42.3850WESYLEPQI46.6710

Code	Lat	Long	Elev (m)	Location	Operator
BCX *	42.3350	-71.1705	61.0	Chestnut Hill, MA	WES
BRYW	41.9178	-71.5388	380.0	Smithfield, RI	WES
FFD	43.4702	-71.6533	131.0	Franklin Falls Dam, NH	
HNH	-72.2860	180.0	Hanover, NH	WES	
QUA2	42.2789	168.0	WES		
TRY	42.7311	-73.6669	131.0		
44.7100	-67.4583	35.0	Machias, ME	WES	
VT1	44.3317	-72.7536	410.0	Waterbury, VT	WES
-71.3220	60.0	Weston, MA	WES		
WVL	44.5648	-69.6575	85.0	Waterville, ME	
41.3100	-72.9269	10.0	New Haven, CT	WES	
-68.0168	175.0	Presque Isle, ME	WES		

* = not in operation during this quarter

STRONG MOTION STATIONS OF THE NEW ENGLAND SEISMIC NETWORK

SM2-73.10Newport, RISM4-71.30WESSM742.39-71.54WES

Code	Lat	Long	Location	Operator
SM1	44.90	-67.25	Dennysville, ME	WES
44.49	Essex Junction, VT	WES		
SM3	41.45	-71.33	WES	
42.38	-71.32	Weston, MA	WES	
SM5	42.66	Lowell, MA		
SM6	42.30	-71.34	Natick, MA	WES
Huds on, MA	WES			
SM8	44.48	-69.61	North Vassalboro, ME	

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TABLE 3

NEW ENGLAND AND ADJACENT REGIONS

July-September, 2005

Date	Time (UTC)	Lat	Long	Depth	Mag	Int	Location
M/D/Y	Hr:Mn:Sec			(km)			
07/04/2005	11:47:15:01	46.19	-76.82	16.66	2.6		PQ, 72.5 KM WSW OF MANIWAKI
08/14/2005	05:56:56.28	44.48	-69.58	11.26	1.9		ME, 6 KM NE OF AUGUSTA
08/19/2005	15:29:36.69	43.45	-71.54	07.79	1.7		NH, 9 KM E OF FRANKLIN
08/23/2005	00:00:56.41	43.03	-71.85	12.82	1.4		NH, 30.6 KM S OF CONCORD
09/06/2005	02:58:46.05	45.69	-75.40	05.00	2.3		PQ, 10.5 KM N OF BUCKINGHAM
09/06/2005	14:10:52.18	46.30	-75.29	11.80	2.9		PQ, 30 KM SE OF MONT-LAURIER
09/25/2005	03:08:58.45	45.04	-67.28	00.38	3.5		ME, 6.4 KM NW OF AYERS

* indicates Mc rather than Mn.

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TABLE 4

EARTHQUAKE PHASE DATA LIST
NEW ENGLAND AND ADJACENT REGIONS
July-September, 2004

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C5704A.XX
NORTHERN NY AND ADIRONDACKS
05JUL04 CANADA, QC, 72.5KM (45MI) WSW OF MANIWAKI
  DATE     ORIGIN     LAT N     LONG W    DEPTH    MN  MC  ML GAP    RMS  ERH   ERZ Q
  50704 1147 15.01 46-11.67   76-49.20   16.66   2.6  .0      118   .47  1.2   2.9 C
  STN   DIST AZM   RMK HRMN    SEC    TOBS    TCAL    RES    WT AMX PRX XMAG FMP FMAG
  TRQ 174.8  89 EP  0 1147  41.67   26.66   26.35    .31  3.13
                ES  3 1147  60.13   45.12   46.90  -1.78   .39
 VLDQ 218.6 347 EP  0 1147  46.97   31.96   31.75    .19  2.76
                ES  0 1147  71.62   56.61   56.51    .06  2.76
 KGNO 220.1 173 EP  3 1147  48.92   33.91   31.94   1.95   .20
                ES  0 1147  71.97   56.96   56.86    .08  2.75
 SADO 240.9 229 EP  2 1147  48.87   33.86   34.50   -.68  1.26
                ES  3 1147  78.60   63.59   61.41   2.10   .12
  MNT 260.2 107 EP  0 1147  51.92   36.91   36.89    .00  2.41
                ES  0 1147  80.77   65.76   65.66    .06  2.41
 WLVO 281.3 206 EP  4 1147  57.09   42.08   39.49   2.58   .00
                ES  4 1147  87.68   72.67   70.29   2.36   .00
 PKRO 304.7 216 EP  0 1147  57.60   42.59   42.39    .17  2.04
                ES  4 1147  28.56   13.55   75.45-61.95   .00
  DPQ 315.6  80 EP  0 1147  58.33   43.32   43.72   -.41  1.93
                ES  3 1147  90.29   75.28   77.83  -2.55   .02
  MOQ 368.3 105 EP  0 1148   5.66   50.65   50.23    .28  1.51
                ES  4 1148  47.15   92.14   89.41   2.48   .00
 STCO 380.6 209 EP  4 1148  11.28   56.27   51.75   4.50   .00
                ES  3 1148  45.94   90.93   92.12  -1.22   .31
 ACTO 384.9 222 EP  0 1148   7.38   52.37   52.29    .02  1.37
                ES  4 1148  46.29   91.28   93.07  -1.90   .00
  EFO 397.5 210 EP  3 1148   7.61   52.60   53.84  -1.28   .27
 ELGO 400.0 226 EP  2 1148   8.63   53.62   54.15   -.59   .62
                ES  4 1148  49.97   94.96   96.38  -1.53   .00
 TYNO 421.1 215 EP  4 1148  14.16   59.15   56.75   2.37   .00
                ES  4 1148  52.92   97.91  101.02  -3.16   .00
 BRCO 421.8 239 ES  4 1148  54.31   99.30  101.18  -1.97   .00
  QCQ 430.2  81 ES  2 1148  58.77  103.76  103.02    .70   .48
 HGVO 445.1 216 EP  3 1148  13.94   58.93   59.71   -.82   .21
                ES  3 1148  60.55  105.54  106.28   -.82   .21
 BINY 449.6 171 EP  0 1148  15.67   60.66   60.27    .31   .84
                ES  4 1148  58.10  103.09  107.28  -4.34   .00
  HNH 452.6 128 EP  4 1148  23.40   68.39   60.64   7.72   .00  23 .60  2.4
                ES  4 1148  77.30  122.29  107.93  14.30   .00
  TRY 459.3 147 ES  4 1149  80.10  185.09  109.42  75.58   .00  44 .80  2.6
  DAQ 466.9  65 EP  4 1148  15.26   60.25   62.41  -2.32   .00
                ES  0 1148  66.48  111.47  111.09    .09   .69
  FFD 508.7 127 EPD4 1148  31.30   76.29   67.57   8.70   .00
                ES  4 1148  86.80  131.79  120.27  11.48   .00
  A54 508.9  74 EP  3 1148  20.69   65.68   67.59  -1.97   .03
                ES  3 1148  73.65  118.64  120.31  -1.78   .04
  LMQ 517.2  73 EP  3 1148  22.07   67.06   68.62  -1.63   .04
                ES  3 1148  75.20  120.19  122.14  -2.07   .02
  A11 519.7  77 ES  2 1148  76.37  121.36  122.69  -1.35   .10
  A16 538.8  75 EP  1 1148  26.77   71.76   71.29    .47   .07
                ES  4 1148  78.19  123.18  126.89  -3.72   .00
  A61 539.2  72 EP  3 1148  24.28   69.27   71.33  -2.07   .00
                ES  4 1148  78.75  123.74  126.96  -3.24   .00
  A64 557.4  71 EP  3 1148  29.70   74.69   73.58   1.09   .00
                ES  3 1148  84.06  129.05  130.97  -1.96   .00
 QUA2 562.9 141 ES  4 1149  47.50  152.49  132.17  20.26   .00  19 .80  2.4
  A21 568.6  73 EP  3 1148  27.95   72.94   74.97  -2.04   .00
                ES  4 1148  83.79  128.78  133.44  -4.69   .00
  HRV 586.2 134 ES  4 1149  53.70  158.69  137.30  21.33   .00
  WVL 589.8 108 ES  4 1149  60.58  165.57  138.10  27.45   .00  18 .29  2.8
  WES 609.7 134 ES  4 1149  62.30  167.29  142.46  24.81   .00  12 .80  2.3
  YLE 626.7 150 ES  4 1149  71.80  176.79  146.19  30.59   .00  55 .70  3.0
  GGN 787.9  99 EP  4 1148  54.72   99.71  102.03  -2.33   .00
C5814A.XX
SOUTHEAST MAINE CRUSTAL MODEL
05AUG14 ME, 6KM (3.7MI) NE OF AUGUSTA
  DATE     ORIGIN     LAT N     LONG W    DEPTH    MN  MC  ML GAP    RMS  ERH   ERZ Q
  50814   556 56.28 44-28.60   69-35.16   11.26   1.9  .0      155   .17 14.1   7.9 D
  STN   DIST AZM   RMK HRMN    SEC    TOBS    TCAL    RES    WT AMX PRX XMAG FMP FMAG
```

```
  WVL    8.7 313 IPC0  556 58.54   2.26   2.32  -.07 1.69  99 .08  1.2
                 ESC0  556 60.43   4.15   4.13   .01 1.69
  UMM 170.9   81 EP 1  557 22.75  26.47  26.24   .22  .89  10 .11  1.7
                 ES 1  557 42.86  46.58  46.71  -.14  .89
  FFD 200.0 236 EPD1  557 26.09  29.81  29.83  -.04  .82  71 .15  2.6
                 ESD4  557 46.66  50.38  53.10 -2.75  .00
  HNH 232.5 248 EPD2  557 31.98  35.70  33.85  1.83  .03   5 .12  1.7
                 ESD4  557 58.05  61.77  60.25  1.47  .00
  HRV 270.9 216 EPD4  557 37.18  40.90  38.58  2.30  .00
                 ESD4  557 66.70  70.42  68.67  1.70  .00
  WES 271.6 211 EPD4  557 32.34  36.06  38.68 -2.62  .00   3 .10  1.8
                 ESD4  557 60.21  63.93  68.84 -4.93  .00
  PQI 272.9   27 EP 4  557 36.05  39.77  38.83   .91  .00
                 ES 4  557 71.03  74.75  69.12  5.58  .00
 QUA2 331.4 223 EPD4  557 35.54  39.26  46.06 -6.82  .00   2 .08  2.0
                 ESD4  557 76.11  79.83  81.98 -2.20  .00
C5819A.XX
HUGHES AND LUETGERT NH
05AUG19 NH, 9KM (5.6MI) E OF FRANKLIN, 26KM (16MI) N OF CONCORD
  DATE     ORIGIN     LAT N     LONG W    DEPTH    MN  MC  ML GAP   RMS  ERH  ERZ Q
  50819 1529 36.67 43-27.01  71-32.36   7.79  1.7  .0      191   .26  1.4  1.1 B
  STN   DIST AZM  RMK HRMN   SEC   TOBS   TCAL   RES   WT AMX PRX XMAG FMP FMAG
  FFD    9.5 284 EPD0 1529 38.81   2.14   2.08   .04 1.50
                 ES 0 1529 40.26   3.59   3.70  -.15 1.50
  HNH   66.6 295 EPD1 1529 48.25  11.58  11.16   .39  .98  17 .09  1.4
                 ES 0 1529 56.58  19.91  19.86  -.01 1.34
 LBNH   93.1 340 EPD0 1529 52.25  15.58  15.47   .04 1.27
                 ES 1 1529 64.03  27.36  27.55  -.30  .94
  HRV 104.9 181 EPD3 1529 55.52  18.85  17.34  1.47  .01
                 ES 1 1529 67.02  30.35  30.87  -.58  .86
  WES 119.7 171 EPD0 1529 56.36  19.69  19.64   .03 1.19  67 .19  2.2
                 ES 1 1529 71.94  35.27  34.96   .29  .89
 QUA2 146.1 207 EPD2 1529 60.99  24.32  23.74   .55  .53  15 .32  1.6
                 ES 3 1529 77.35  40.68  42.25 -1.63  .00
  TRY 190.7 245 ES 0 1529 90.04  53.37  53.37  -.09 1.00  12 .17  1.8
  NCB 224.0 285 EP 4 1529 72.40  35.73  34.09  1.54  .00
                 ES 4 1529 94.00  57.33  60.68 -3.53  .00
C5823A.XX
HUGHES AND LUETGERT NH
05AUG23 NH, 30.6KM (19MI) SW OF CONCORD
  DATE     ORIGIN     LAT N     LONG W    DEPTH    MN  MC  ML GAP   RMS  ERH  ERZ Q
  50823  0 0 56.41 43- 1.71  71-50.81  12.82  1.4  .0      131   .45  1.9  3.2 C
  STN   DIST AZM  RMK HRMN   SEC   TOBS   TCAL   RES   WT AMX PRX XMAG FMP FMAG
  FFD   51.5  18 EP 0  0 1  5.36   8.95   8.81   .12 1.72
                 ES 2  0 1 11.41  15.00  15.68  -.72  .80
  HNH   83.2 335 EP 3  0 1 11.62  15.21  13.73  1.45  .20   5 .09  1.0
                 ES 0  0 1 21.10  24.69  24.45   .19 1.61
  WES   83.5 149 EPD0  0 1 10.20  13.79  13.78   .00 1.61  20 .09  1.6
                 ES 3  0 1 22.70  26.29  24.52  1.75  .08
 QUA2   93.0 206 EP 1  0 1 12.20  15.79  15.26   .50 1.17  24 .12  1.7
                 ES 0  0 1 23.23  26.82  27.16  -.40 1.56
  BRY 125.9 168 ES 0  0 1 32.68  36.27  36.25  -.08 1.46   8 .08  1.5
 LBNH 134.8 357 EP 3  0 1 19.54  23.13  21.73  1.34  .22
                 ES 3  0 1 34.51  38.10  38.68  -.69  .33
  TRY 152.3 257 ES 1  0 1 39.27  42.86  43.52  -.75  .94   3 .10  1.3
  NCB 218.9 299 EP 0  0 1 29.56  33.15  32.93   .12 1.14
                 ES 0  0 1 55.46  59.05  58.61   .26 1.14
 BINY 352.1 255 ES 4  0 1 57.70  61.29  87.88-26.73  .00
C5906A.XX
NORTHERN NY AND ADIRONDACKS
05SEP06 CANADA, 10.5KM (6.5MI) N OF BUCKINGHAM, QC
  DATE     ORIGIN     LAT N     LONG W    DEPTH    MN  MC  ML GAP   RMS  ERH  ERZ Q
  50906  258 46.05 45-41.53  75-23.77   5.00  2.3  .0       92   .47  2.0  2.9 C
  STN   DIST AZM  RMK HRMN   SEC   TOBS   TCAL   RES   WT AMX PRX XMAG FMP FMAG
 CRLO 158.7 284 EP 1  259 10.85  24.80  24.29   .48 1.50
                 ES 0  259 29.13  43.08  43.24  -.21 2.07
 KGNO 184.4 208 EP 0  259 14.12  28.07  28.18  -.12 1.93
                 ES 3  259 35.27  49.22  50.17  -.96  .39
  NCB 212.6 154 EP 0  259 18.28  32.23  32.04   .10 1.78
                 ES 1  259 42.66  56.61  57.02  -.59 1.29
  DPQ 230.1   61 EP 1  259 19.63  33.58  34.19  -.61 1.21
                 ES 4  259 43.35  57.30  60.86 -3.56  .00
  MIV 232.5 141 EP 1  259 21.03  34.98  34.49   .44 1.23
                 ES 1  259 48.05  62.00  61.40   .51 1.22
  MOQ 249.2 100 EP 0  259 22.56  36.51  36.55  -.18 1.59
                 ES 4  259 47.23  61.18  65.07 -4.13  .00
 ACCN 291.0 152 EP 2  259 28.60  42.55  41.72   .78  .61
                 ES 1  259 60.96  74.91  74.26   .55  .99
  EEO 302.8 290 EP 3  259 28.25  42.20  43.17 -1.04  .25
 VLDQ 311.4 330 EP 2  259 30.97  44.92  44.24   .67  .58
                 ES 1  259 65.27  79.22  78.74   .45  .92
 SADO 311.7 251 EP 1  259 29.75  43.70  44.27  -.60  .90
                 ES 4  259 62.07  76.02  78.79 -2.84  .00
  HNH 331.0 132 ES 4  259 74.72  88.67  83.04  5.58  .00   7 .14  2.2
  TRY 356.9 157 ES 4  259 77.76  91.71  88.73  2.89  .00  14 .26  2.2
  FFD 386.4 130 EP 2  259 38.82  52.77  53.49  -.74  .40
 BINY 391.7 187 EP 0  259 40.23  54.18  54.14  -.04  .84
                 ES 3  259 81.03  94.98  96.37 -1.53  .04
  DAQ 405.4   51 EP 4  259 39.17  53.12  55.84 -2.88  .00
                 ES 4  259 80.16  94.11  99.40 -5.57  .00
 QUA2 451.0 147 EP 2  259 48.20  62.15  61.47   .65  .25  13 .28  2.4
C5906B.XX
NORTHERN NY AND ADIRONDACKS
05SEP06 CANADA, 30KM (18.6MI) SE OF MONT-LAURIER, QC
  DATE     ORIGIN     LAT N     LONG W    DEPTH    MN  MC  ML GAP   RMS  ERH  ERZ Q
  50906 1410 52.18 46-17.92  75-17.43  11.80  2.9  .0      111   .46   .9  1.2 C
  STN   DIST AZM  RMK HRMN   SEC   TOBS   TCAL   RES   WT AMX PRX XMAG FMP FMAG
  GRQ   55.5 308 EP 1 1411  1.43   9.25   8.76   .43 2.03
                 ES 1 1411  8.08  15.90  15.60   .21 2.08
  TRQ   57.3   99 EP 1 1411  1.60   9.42   9.02   .39 2.05
                 ES 1 1411  8.51  16.33  16.06   .26 2.07
  GAC   67.8 192 EP 0 1411  2.83  10.65  10.60   .04 2.70
                 ES 2 1411 10.51  18.33  18.86  -.55 1.31
  OTT 105.9 198 EP 0 1411  8.64  16.46  16.34   .10 2.49
                 ES 2 1411 20.75  28.57  29.09  -.54 1.20
  MNT 156.8 124 EP 0 1411 16.44  24.26  24.04   .19 2.20
                 ES 2 1411 34.36  42.18  42.79  -.65 1.05
 CRLO 163.9 260 EP 0 1411 17.24  25.06  25.12  -.09 2.16
                 ES 1 1411 36.61  44.43  44.71  -.34 1.60
  DPQ 197.5   78 EP 0 1411 21.56  29.38  29.58  -.20 1.97
                 ES 3 1411 45.63  53.45  52.65   .79  .45
  MOQ 260.3 115 EP 3 1411 30.49  38.31  37.33   .84  .36
                 ES 2 1411 59.36  67.18  66.44   .48  .79
  NCB 272.0 162 EP 1 1411 31.56  39.38  38.77   .50 1.13
                 ES 3 1411 62.76  70.58  69.01  1.38  .14
  MIV 283.3 151 EP 0 1411 32.68  40.50  40.17   .28 1.48
                 ES 3 1411 65.03  72.85  71.50  1.26  .21
  EEO 292.9 277 EP 0 1411 33.65  41.47  41.35   .05 1.44
```

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                ES 1 1411 66.10  73.92  73.60   .19 1.08
 QCQ 312.5  80 EP 1 1411 36.25  44.07  43.77   .27  .99
                ES 2 1411 68.94  76.76  77.92 -1.20  .45
 SADO 345.7 241 EP 3 1411 39.07  46.89  47.87 -1.03  .23
                ES 4 1411 74.70  82.52  85.21 -2.77  .00
 ACCN 348.4 158 EP 0 1411 40.46  48.28  48.21   .01 1.13
                ES 3 1411 79.30  87.12  85.81  1.20  .18
  DAQ 358.8  59 EP 2 1411 40.81  48.63  49.49 -1.02  .43
                ES 1 1411 80.48  88.30  88.09  -.08  .80
  HNH 373.1 141 ES 4 1412 34.77 102.59  91.23 11.30  .00  28 .15  2.8
  A54 393.4  71 EP 2 1411 44.95  52.77  53.75 -1.05  .34
                ES 4 1411 85.57  93.39  95.68 -2.40  .00
  A11 402.7  75 EP 3 1411 45.94  53.76  54.91 -1.16  .14
                ES 4 1411 87.17  94.99  97.74 -2.77  .00
  LMQ 403.0  70 EP 2 1411 46.17  53.99  54.94 -1.02  .33
                ES 4 1411 87.70  95.52  97.80 -2.40  .00
  TRY 417.0 162 EP 4 1411 55.38  63.20  56.67  6.47  .00  31 .22  2.8
  A16 422.9  72 EP 1 1411 48.78  56.60  57.40  -.80  .49
                ES 3 1411 92.16  99.98 102.17 -2.19  .00
  A61 424.8  69 EP 1 1411 49.03  56.85  57.64  -.80  .48
                ES 4 1411 62.41  70.23 102.59-32.38  .00
  A64 443.7  67 EP 2 1411 51.24  59.06  59.97  -.94  .26
                ES 3 1411 97.15 104.97 106.76 -1.82  .01
  A21 453.7  70 EP 1 1411 52.58  60.40  61.21  -.82  .37
                ES 4 1411 98.79 106.61 108.95 -2.36  .00
 BINY 459.6 187 ES 4 1412 55.30 123.12 110.23 12.74  .00
 ACTO 480.6 232 EP 2 1411 55.96  63.78  64.52  -.81  .18
  WVL 482.2 114 EP 4 1412 13.30  81.12  64.73 16.38  .00  19 .22  2.8
                ES 4 1412 63.22 131.04 115.21 15.81  .00
 ELGO 499.7 234 EP 1 1411 59.64  67.46  66.88   .52  .20
 QUA2 504.5 152 EP 4 1412  1.89  69.71  67.47  2.20  .00  30 .32  2.8
                ES 4 1412 63.60 131.42 120.10 11.26  .00
  HRV 515.7 145 ES 4 1412 69.90 137.72 122.58 15.09  .00
  WES 538.0 144 ES 4 1412 76.70 144.52 127.47 17.03  .00  15 .25  2.7
  PQI 559.9  86 ES 4 1412 87.96 155.78 132.28 23.44  .00  76 .22  3.5
  CNQ 635.5  58 EP 4 1412 13.57  81.39  83.64 -2.29  .00
                ES 4 1412 76.95 144.77 148.89 -4.17  .00
  MNQ 674.2  46 EP 1 1412 19.78  87.60  88.42  -.92  .00
                ES 4 1412 85.44 153.26 157.39 -4.29  .00
  GSQ 680.5  65 EP 3 1412 20.09  87.91  89.20 -1.30  .00
                ES 4 1412 86.10 153.92 158.77 -4.88  .00
  ICQ 698.5  59 EP 4 1412 21.27  89.09  91.43 -2.35  .00
                ES 4 1412 89.10 156.92 162.75 -5.85  .00
  SMQ 772.2  56 EP 3 1412 30.88  98.70 100.53 -1.89  .00
  LMN 812.3  94 EP 3 1412 36.40 104.22 105.47 -1.32  .00
C5925A.XX
SOUTHEAST MAINE CRUSTAL MODEL
05SEP25 ME, 6.5KM (4MI) NW OF AYERS
  DATE     ORIGIN    LAT N     LONG W    DEPTH    MN  MC  ML GAP   RMS  ERH  ERZ Q
  50925   3 8 57.83 45- 2.18  67-16.88     .38   3.5 3.4     102   .37   .9  1.6 C
  STN   DIST AZM  RMK HRMN    SEC    TOBS    TCAL    RES    WT AMX PRX XMAG FMP FMAG
  GGN   37.3  76  P 0  3 9   3.97    6.14    6.30   -.17 3.16
                 S 2  3 9   8.22   10.39   11.21   -.84 1.38
  UMM   38.9 201 IPD1  3 9   4.72    6.89    6.57    .31 2.33               310  3.4
                ES 0  3 9   9.38   11.55   11.69   -.16 3.15
  PQI 190.4 343 EPC0  3 9 27.47   29.64   29.79   -.19 2.21 398 .08  3.5 273  3.4
                ES 0  3 9 51.16   53.33   53.03    .24 2.19
  WVL 196.9 253 IPD0  3 9 28.47   30.64   30.60    .03 2.17 514 .26  3.3 272  3.4
                ES 3  3 9 50.51   52.68   54.46 -1.80  .01
  LMN 214.0  65 EP 1  3 9 31.05   33.22   32.70    .46 1.50
  HAL 294.7  99 EP 3  3 9 41.60   43.77   42.67   1.09  .22
                ES 1  3 9 74.19   76.36   75.95    .39 1.15
  A11 333.2 317 EP 1  3 9 44.93   47.10   47.41   -.32  .99
                ES 0  3 9 82.07   84.24   84.39   -.17 1.33
  A16 342.4 322 EP 0  3 9 46.66   48.83   48.56    .27 1.26
                ES 3  3 9 82.74   84.91   86.43 -1.52  .05
  LMQ 364.7 320 EP 0  3 9 49.22   51.39   51.31    .01 1.14
                ES 4  3 9 87.20   89.37   91.33 -2.08  .00
  QCQ 365.9 302 EP 1  3 9 49.88   52.05   51.45    .58  .81
                ES 2  3 9 88.81   90.98   91.58   -.64  .54
 LBNH 379.3 257 EPD0  3 9 51.27   53.44   53.10    .28 1.04
                ES 1  3 9 91.65   93.82   94.52   -.81  .71
  FFD 389.9 243 EP 2  3 9 53.02   55.19   54.42    .75  .43
                ES 1  3 9 94.10   96.27   96.86   -.63  .71
  MOQ 391.9 274 EP 1  3 9 52.98   55.15   54.67    .34  .72
                ES 4  3 9 92.94   95.11   97.31 -2.45  .00
  HNH 425.2 250 EP 0  3 9 56.80   58.97   58.78    .16  .77 238 .40  3.5
  GSQ 431.3   2 EP 1  3 9 57.93   60.10   59.53    .56  .52
  WES 439.2 228 EP 0  3 9 58.26   60.43   60.51   -.09  .68 157 .32  3.4
  VT1 440.8 260 EP 4  310  7.00   69.17   60.70   8.45  .00
                ES 4  310 63.96  126.13  108.04  18.05  .00
  HRV 444.4 231 EPC0  3 9 58.93   61.10   61.15   -.08  .65
  DAQ 445.5 317 EP 1  3 9 58.82   60.99   61.28   -.45  .47
  DPQ 464.0 293 EP 1  310  1.71   63.88   63.57    .31  .39
                ES 3  310 49.15  111.32  113.15 -1.83  .00
  CNQ 478.0 353 EP 1  310  2.77   64.94   65.30   -.39  .33
                ES 4  310 50.08  112.25  116.23 -4.04  .00
  ICQ 498.6   0 EP 0  310  5.70   67.87   67.84    .02  .32
                ES 4  310 55.55  117.72  120.76 -3.06  .00
  MNT 500.1 276 ES 1  310 59.32  121.49  121.08    .37  .23
  MIV 507.5 258 EP 0  310  6.80   68.97   68.94   -.02  .26
 QUA2 510.9 233 EP 1  310  7.55   69.72   69.35    .33  .18 219 .31  3.7
                 S 4  310 79.53  141.70  123.45  18.19  .00
  NCB 564.7 258 EP 1  310 13.58   75.75   76.00   -.35  .00
  TRY 573.4 243 EP 2  310 15.81   77.98   77.08    .85  .00 257 .69  3.6
                ES 4  310 96.60  158.77  137.20  21.48  .00
  SMQ 578.3   4 EP 0  310 15.36   77.53   77.68   -.21  .00
                ES 4  310 72.45  134.62  138.27  -3.75  .00
  TRQ 582.7 283 EP 0  310 16.16   78.33   78.22    .11  .00
                ES 3  310 75.90  138.07  139.23  -1.16  .00
  MNQ 620.9 350 EP 3  310 19.78   81.95   82.94  -1.08  .00
                ES 4  310 81.27  143.44  147.64  -4.36  .00
  WBO 630.3 270 EP 0  310 21.78   83.95   84.10   -.16  .00
  GAC 646.1 277 EP 0  310 23.98   86.15   86.05    .09  .00
                ES 3  310 89.59  151.76  153.16  -1.42  .00
  GRQ 689.4 285 EP 2  310 28.55   90.72   91.40   -.73  .00
                ES 4  310 97.44  159.61  162.69  -3.17  .00
 BRNJ 766.8 231 EP 4  310 34.53   96.70  100.94  -4.26  .00
 CRLO 797.2 278 EP 1  310 42.19  104.36  104.70   -.37  .00
  EEO 934.0 281 EP 1  310 58.98  121.15  121.59   -.51  .00
```

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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

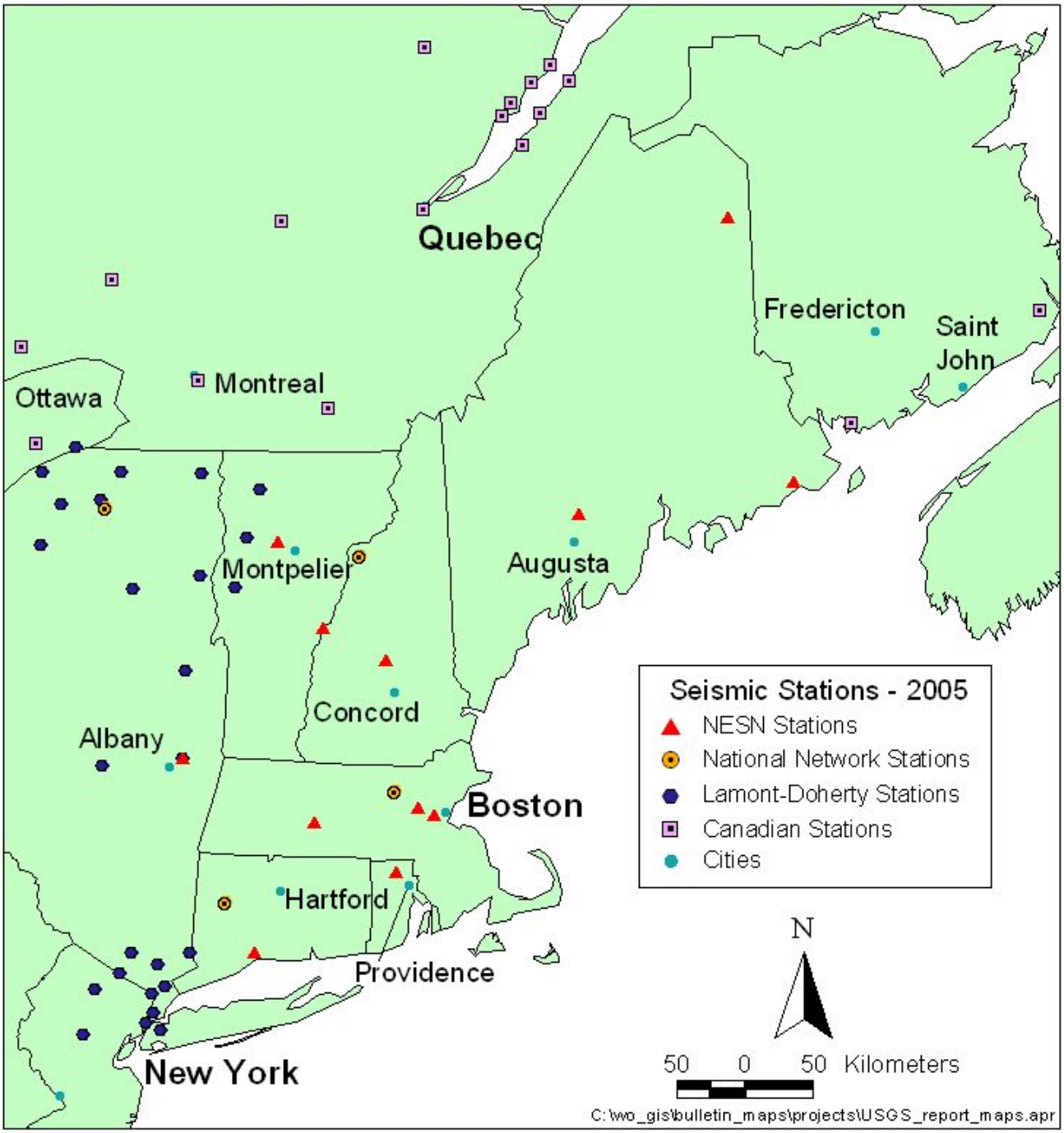

Figure 1: Map of stations of the New England Seismic Network (NESN) in operation during the period of this report. Also included are other Northeast U.S. and Canadian seismic stations in operation during this period.

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NESN Strong-Motion Station Map

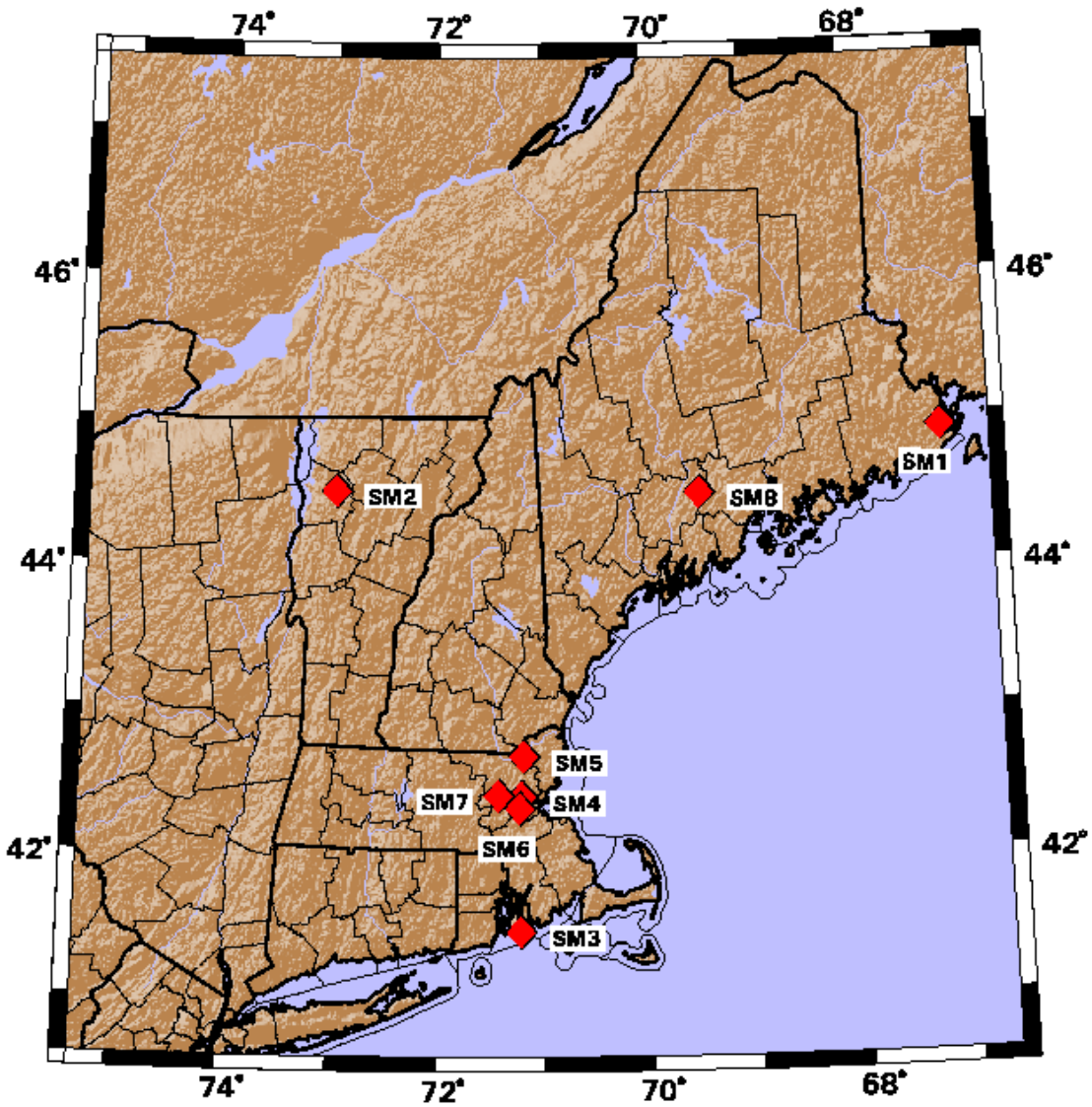

Figure 2: Map of strong-motion stations of the New England Seismic Network (NESN) in operation during the period of this report.

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NESN Quarterly Seismicity Map

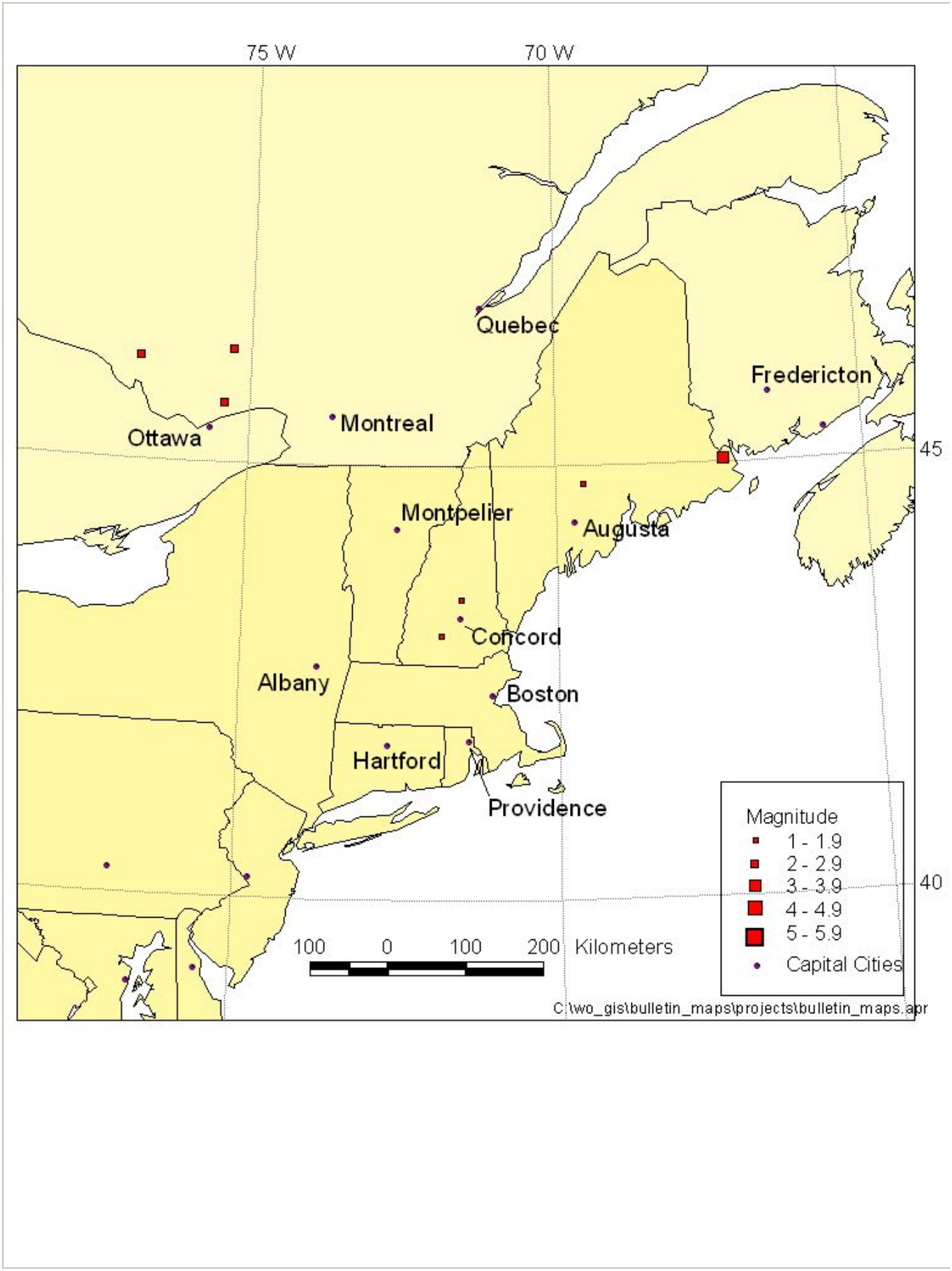

Figure 3: Earthquake epicenters located by the NESN during the period of this report.

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NESN Cumulative Seismicity Map

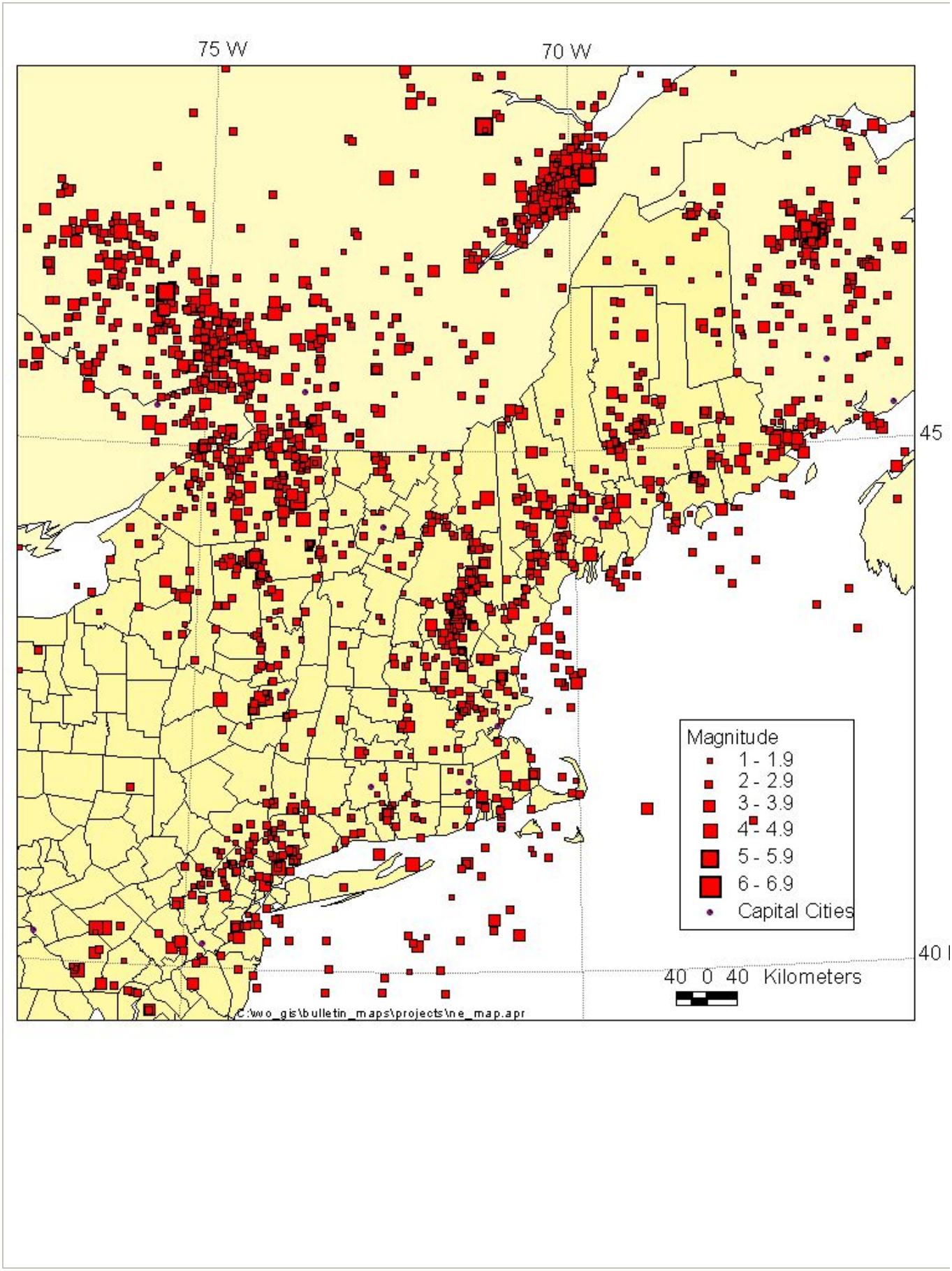

Figure 4: Seismicity for period October, 1975 - September, 2005.

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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.

References

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Ebel, J.E. (1982), M_L measurements for northeastern UnitedStates earthquakes, *Bull. Seism. Soc. Am., 72,* 1367-1378.

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