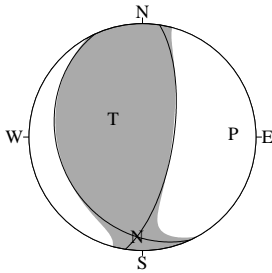


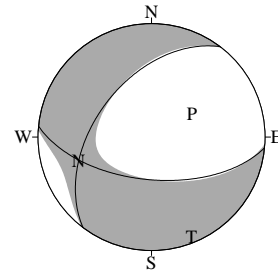
CMT SOLUTIONS FOR EARTHQUAKES IN DECEMBER, 2014

2014/12/05 21:35:49.3  
NEAR TORISHIMA IS  
Hypo.:30°59.6'N 142° 6.0'E 20km



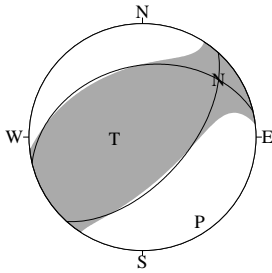
Cent.:31° 4.9'N 142° 5.9'E 11km  $\Delta t = 8.4$   
Mo:  $9.53 \times 10^{16}$  N·m Mw:5.3 Mj:5.0 (sec)  
mrr: 6.21 mtt: 1.10 mff:-7.31  
mrt: 1.64 mrf: 6.39 mtf: 1.02 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 9° 68° 104° P-axis:-9.87 88° 21°  
NP2:155° 26° 59° T-axis: 9.20 302° 65°  
N-axis: 0.67 183° 13°  
V.R.: 77%  $\epsilon$ :-0.07 N:30 COMP:51

2014/12/06 01:01:56.7  
WESTERN FUKUI PREF  
Hypo.:35°30.2'N 135°41.4'E 352km



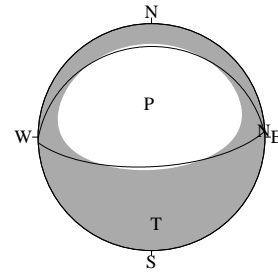
Cent.:35°27.7'N 135°41.6'E 359km  $\Delta t = 0.5$   
Mo:  $5.13 \times 10^{16}$  N·m Mw:5.1 Mj:4.8 (sec)  
mrr:-3.50 mtt: 3.79 mff:-0.29  
mrt:-1.80 mrf: 2.16 mtf: 2.29 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 95° 59° -50° P-axis:-5.37 60° 56°  
NP2:217° 49° -137° T-axis: 4.89 158° 6°  
N-axis: 0.47 252° 33°  
V.R.: 87%  $\epsilon$ :-0.09 N:36 COMP:60

2014/12/07 23:51:54.6  
SE OFF ETOROFU  
Hypo.:44°44.6'N 149°33.4'E 30km



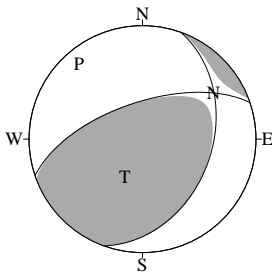
Cent.:44°17.9'N 149°33.3'E 35km  $\Delta t = 4.3$   
Mo:  $0.95 \times 10^{17}$  N·m Mw:5.3 Mj:5.2 (sec)  
mrr: 0.75 mtt:-0.64 mff:-0.11  
mrt: 0.17 mrf: 0.36 mtf:-0.53 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 42° 58° 70° P-axis:-1.03 146° 11°  
NP2:257° 37° 119° T-axis: 0.88 267° 70°  
N-axis: 0.15 53° 17°  
V.R.: 79%  $\epsilon$ :-0.14 N:20 COMP:36

2014/12/11 06:03:40.3  
NW OFF ISHIGAKIJIMA IS  
Hypo.:25°26.4'N 122°27.2'E 250km



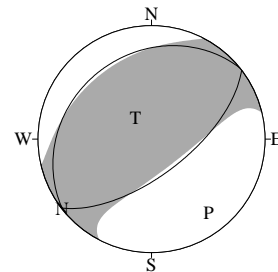
Cent.:25°11.1'N 122°27.3'E 267km  $\Delta t = 2.3$   
Mo:  $1.79 \times 10^{18}$  N·m Mw:6.1 Mj:6.1 (sec)  
mrr:-1.35 mtt: 1.06 mff: 0.29  
mrt:-1.31 mrf:-0.08 mtf: 0.02 ( $\times 10^{18}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 87° 69° -91° P-axis:-1.93 356° 66°  
NP2:269° 21° -88° T-axis: 1.64 177° 24°  
N-axis: 0.29 87° 1°  
V.R.: 77%  $\epsilon$ :-0.15 N:17 COMP:41

2014/12/11 15:07:50.6  
EASTERN YAMANASHI PREF  
Hypo.:35°33.2'N 138°58.0'E 23km



Cent.:35°33.2'N 138°59.1'E 23km  $\Delta t = 0.4$   
Mo:  $4.33 \times 10^{15}$  N·m Mw:4.4 Mj:4.3 (sec)  
mrr: 3.06 mtt:-1.52 mff:-1.53  
mrt:-2.52 mrf: 0.25 mtf:-2.32 ( $\times 10^{15}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 20° 39° 46° P-axis:-4.24 320° 14°  
NP2:251° 64° 119° T-axis: 4.42 205° 60°  
N-axis:-0.18 57° 26°  
V.R.: 47%  $\epsilon$ : 0.04 N:12 COMP:15

2014/12/12 21:31:49.4  
SE OFF ETOROFU  
Hypo.:44°45.0'N 149°30.0'E 30km

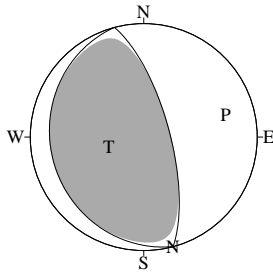


Cent.:44°45.3'N 149°30.4'E 22km  $\Delta t = 0.7$   
Mo:  $2.77 \times 10^{16}$  N·m Mw:4.9 Mj:5.2 (sec)  
mrr: 1.91 mtt:-1.31 mff:-0.60  
mrt: 1.38 mrf: 1.05 mtf:-1.42 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 52° 64° 90° P-axis:-3.03 142° 19°  
NP2:232° 26° 89° T-axis: 2.52 323° 71°  
N-axis: 0.51 232° 0°  
V.R.: 68%  $\epsilon$ :-0.17 N:29 COMP:49

EQUAL AREA PROJECTON, LOWER HEMISPHERE.

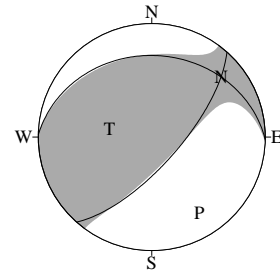
Hypo.:Location of hypocenter, Cent.:Location of centroid,  $\Delta t$ :Centroid time minus origin time  
Mo:Total scalar moment, Mw:Moment Magnitude, Mj:JMA Magnitude  
mrr,mtt,mff,mrt,mrf,mtf: Moment tensor components, STR,DIP,SLIP:Fault parameters of nodal plane  
MOM,AZM,PLG: Moment tensor component, azimuth and plunge of P-, T-, N-axis  
V.R.:Variance Reduction,  $\epsilon$ :Non-double couple component ratio, N:Number of stations, COMP:Number of components

2014/12/16 19:12:51.5  
NEAR TORISHIMA IS  
Hypo.:31°12.2'N 142°10.6'E 67km



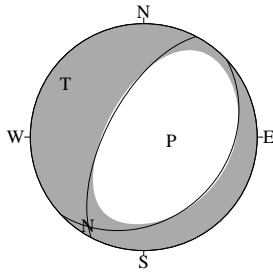
Cent.:31°16.6'N 142°12.4'E 11km  $\Delta t = 0.8$   
Mo:  $3.67 \times 10^{16}$  N·m Mw:5.0 Mj:4.8 (sec)  
mrr:-2.29 mtt:-0.25 mff:-2.04  
mrt:-0.75 mrf: 2.82 mtf: 0.52 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:345° 71° 90° P-axis:-3.62 75° 26°  
NP2:165° 19° 90° T-axis: 3.73 255° 64°  
N-axis:-0.11 165° 0°  
V.R.: 69%  $\epsilon$ : 0.03 N:26 COMP:45

2014/12/19 13:47:40.8  
OFF NEMURO PENINSULA  
Hypo.:42°43.7'N 145°31.3'E 46km



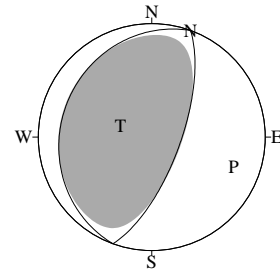
Cent.:42°36.5'N 145°32.2'E 33km  $\Delta t = 4.7$   
Mo:  $1.10 \times 10^{17}$  N·m Mw:5.3 Mj:5.3 (sec)  
mrr: 0.61 mtt:-0.65 mff: 0.04  
mrt: 0.45 mrf: 0.64 mtf:-0.43 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 42° 70° 68° P-axis:-1.10 148° 22°  
NP2:271° 29° 136° T-axis: 1.00 281° 59°  
N-axis: 0.10 49° 20°  
V.R.: 78%  $\epsilon$ :-0.09 N:18 COMP:32

2014/12/19 18:59:11.9  
FAR E OFF NORTH HONSHU  
Hypo.:38°28.1'N 144°38.3'E 54km



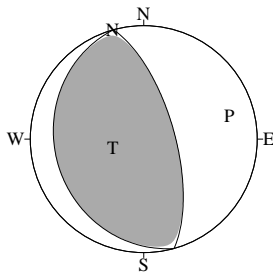
Cent.:38°28.1'N 144°39.8'E 10km  $\Delta t = 0.5$   
Mo:  $7.82 \times 10^{15}$  N·m Mw:4.5 Mj:4.5 (sec)  
mrr:-6.64 mtt: 2.72 mff: 3.92  
mrt: 1.48 mrf: 4.40 mtf: 2.61 ( $\times 10^{15}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 47° 28° -73° P-axis:-8.26 98° 70°  
NP2:208° 63° -99° T-axis: 7.39 304° 18°  
N-axis: 0.86 212° 8°  
V.R.: 79%  $\epsilon$ :-0.10 N:40 COMP:60

2014/12/20 18:29:57.8  
E OFF FUKUSHIMA PREF  
Hypo.:37°25.5'N 141°36.3'E 44km



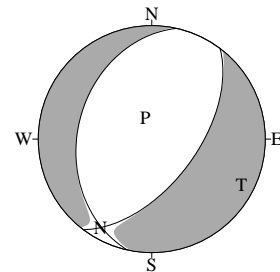
Cent.:37°37.6'N 141°35.7'E 46km  $\Delta t = 7.2$   
Mo:  $9.30 \times 10^{17}$  N·m Mw:5.9 Mj:6.0 (sec)  
mrr: 6.41 mtt:-1.18 mff:-5.23  
mrt: 2.38 mrf: 6.56 mtf:-1.70 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 20° 69° 90° P-axis:-9.00 110° 24°  
NP2:200° 21° 90° T-axis: 9.60 290° 66°  
N-axis:-0.60 20° 0°  
V.R.: 75%  $\epsilon$ : 0.06 N:12 COMP:28

2014/12/21 14:39:33.0  
NEAR TORISHIMA IS  
Hypo.:30°53.5'N 142°11.7'E 33km



Cent.:30°53.4'N 142°15.2'E 10km  $\Delta t = 0.7$   
Mo:  $2.26 \times 10^{16}$  N·m Mw:4.8 Mj:4.8 (sec)  
mrr: 1.60 mtt:-0.13 mff:-1.47  
mrt:-0.43 mrf: 1.55 mtf: 0.40 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:344° 68° 90° P-axis:-2.25 75° 23°  
NP2:165° 22° 90° T-axis: 2.27 254° 67°  
N-axis:-0.02 344° 0°  
V.R.: 67%  $\epsilon$ : 0.01 N:24 COMP:43

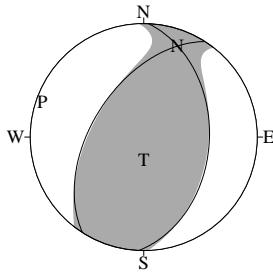
2014/12/25 08:06: 5.3  
E OFF FUKUSHIMA PREF  
Hypo.:37°13.5'N 141°38.8'E 36km



Cent.:37°12.3'N 141°37.2'E 15km  $\Delta t = 6.6$   
Mo:  $1.00 \times 10^{17}$  N·m Mw:5.3 Mj:5.6 (sec)  
mrr:-0.90 mtt: 0.12 mff: 0.78  
mrt:-0.36 mrf:-0.27 mtf: 0.39 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 37° 58° -76° P-axis:-1.00 343° 74°  
NP2:193° 35° -110° T-axis: 1.00 117° 12°  
N-axis: 0.00 210° 11°  
V.R.: 76%  $\epsilon$ : 0.02 N:25 COMP:49

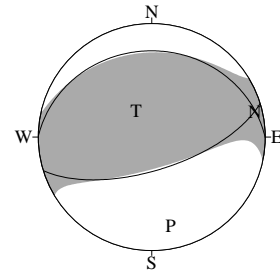
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

2014/12/26 10:49: 8.1  
 E OFF HACHIJOJIMA ISLAND  
 Hypo.:33°41.2'N 141° 8.6'E 53km



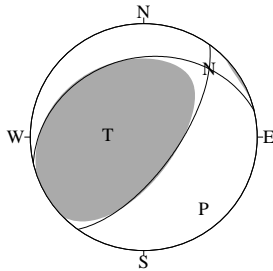
Cent.:33°41.2'N 141° 9.7'E 40km  $\Delta t = 0.5$   
 $M_0: 9.26 \times 10^{15} \text{N}\cdot\text{m}$   $M_w: 4.6$   $M_j: 4.6$  (sec)  
 $mrr: 8.16$   $mtt: 0.27$   $mff: -8.43$   
 $mrt: -2.56$   $mrf: -0.96$   $mtf: -3.12$  ( $\times 10^{15} \text{N}\cdot\text{m}$ )  
 STR DIP SLIP MOM AZM PLG  
 NP1: 2° 42° 66° P-axis: -9.60 289° 6°  
 NP2: 213° 52° 110° T-axis: 8.92 180° 74°  
 N-axis: 0.68 20° 15°  
 V.R.: 63%  $\epsilon: -0.07$  N:33 COMP:41

2014/12/26 20:17: 6.6  
 SE OFF ETOROFU  
 Hypo.:44°35.7'N 149°20.9'E 30km



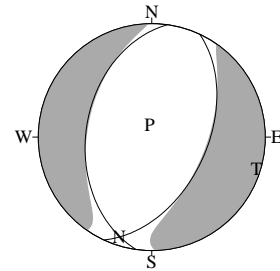
Cent.:44°35.4'N 149°21.1'E 32km  $\Delta t = 0.8$   
 $M_0: 2.64 \times 10^{16} \text{N}\cdot\text{m}$   $M_w: 4.9$   $M_j: 5.3$  (sec)  
 $mrr: 1.80$   $mtt: -2.07$   $mff: 0.27$   
 $mrt: 1.65$   $mrf: 0.60$   $mtf: -0.40$  ( $\times 10^{16} \text{N}\cdot\text{m}$ )  
 STR DIP SLIP MOM AZM PLG  
 NP1: 73° 66° 83° P-axis: -2.79 168° 21°  
 NP2: 270° 25° 106° T-axis: 2.49 329° 68°  
 N-axis: 0.30 76° 7°  
 V.R.: 68%  $\epsilon: -0.11$  N:17 COMP:30

2014/12/28 18:00:55.5  
 S OFF URAKAWA  
 Hypo.:42° 0.9'N 142°35.6'E 60km



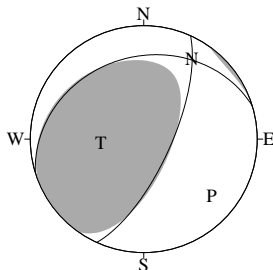
Cent.:42° 1.0'N 142°35.8'E 60km  $\Delta t = 0.5$   
 $M_0: 8.36 \times 10^{15} \text{N}\cdot\text{m}$   $M_w: 4.5$   $M_j: 4.3$  (sec)  
 $mrr: 6.16$   $mtt: -4.57$   $mff: -1.59$   
 $mrt: 1.87$   $mrf: 5.18$   $mtf: -3.06$  ( $\times 10^{15} \text{N}\cdot\text{m}$ )  
 STR DIP SLIP MOM AZM PLG  
 NP1: 36° 66° 70° P-axis: -7.96 140° 19°  
 NP2: 257° 31° 127° T-axis: 8.76 273° 64°  
 N-axis: -0.80 44° 18°  
 V.R.: 65%  $\epsilon: 0.09$  N:32 COMP:48

2014/12/28 20:49:47.4  
 FAR E OFF NORTH HONSHU  
 Hypo.:38°27.9'N 144°13.7'E 47km



Cent.:38°24.4'N 144°16.3'E 29km  $\Delta t = 0.1$   
 $M_0: 2.27 \times 10^{16} \text{N}\cdot\text{m}$   $M_w: 4.8$   $M_j: 4.9$  (sec)  
 $mrr: -2.10$   $mtt: -0.04$   $mff: 2.13$   
 $mrt: -0.37$   $mrf: -0.23$   $mtf: 0.71$  ( $\times 10^{16} \text{N}\cdot\text{m}$ )  
 STR DIP SLIP MOM AZM PLG  
 NP1: 25° 50° -79° P-axis: -2.16 351° 81°  
 NP2: 188° 41° -103° T-axis: 2.37 107° 4°  
 N-axis: -0.21 198° 8°  
 V.R.: 74%  $\epsilon: 0.09$  N:42 COMP:91

2014/12/31 17:17: 5.1  
 OFF NEMURO PENINSULA  
 Hypo.:42°53.5'N 146°22.7'E 43km



Cent.:42°53.5'N 146°22.8'E 30km  $\Delta t = 0.4$   
 $M_0: 3.75 \times 10^{15} \text{N}\cdot\text{m}$   $M_w: 4.3$   $M_j: 4.3$  (sec)  
 $mrr: 2.36$   $mtt: -1.53$   $mff: -0.83$   
 $mrt: 0.54$   $mrf: 2.78$   $mtf: -1.38$  ( $\times 10^{15} \text{N}\cdot\text{m}$ )  
 STR DIP SLIP MOM AZM PLG  
 NP1: 24° 71° 69° P-axis: -3.52 130° 23°  
 NP2: 253° 28° 135° T-axis: 3.98 265° 59°  
 N-axis: -0.46 31° 19°  
 V.R.: 58%  $\epsilon: 0.12$  N:12 COMP:22

EQUAL AREA PROJECTON, LOWER HEMISPHERE.