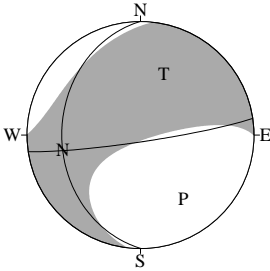


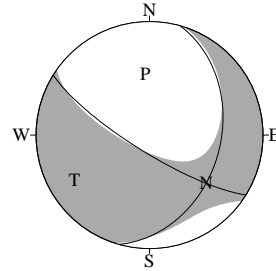
CMT SOLUTIONS FOR EARTHQUAKES IN DECEMBER, 1999

1999/01/09 12:05:38.6  
E OFF HOKKAIDO  
Hypo.:44° 7.7'N 147°25.5'E 119km



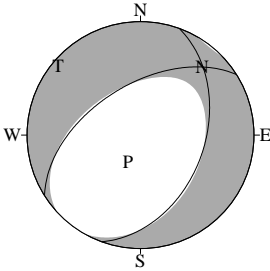
Cent.:44°29.0'N 147°24.1'E 152km  $\Delta t = 1.4$   
Mo:  $3.60 \times 10^{17}$ N·m Mw:5.6 Mj:5.5 (sec)  
mrr: 0.42 mtt:-0.44 mff: 0.02  
mrt: 2.92 mrf: 0.94 mtf:-2.06 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 82° 85° 121° P-axis:-4.10 146° 33°  
NP2:180° 31° 9° T-axis: 3.10 21° 42°  
N-axis: 1.00 259° 31°  
V.R.: 39%  $\epsilon$ :-0.24 N:14 COMP:20

1999/01/12 11:32:28.8  
W OFF OGASAWARA  
Hypo.:26°51.3'N 140°41.6'E 469km



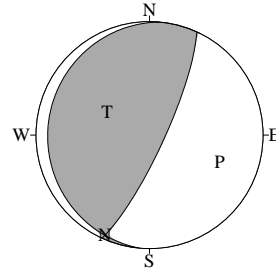
Cent.:27° 2.0'N 140°29.2'E 464km  $\Delta t = 4.0$   
Mo:  $7.50 \times 10^{17}$ N·m Mw:5.8 Mj:6.0 (sec)  
mrr:-2.51 mtt:-2.09 mff: 4.60  
mrt:-5.63 mrf: 1.61 mtf:-2.51 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 15° 37° -20° P-axis:-8.00 356° 45°  
NP2:122° 78°-126° T-axis: 7.00 239° 24°  
N-axis: 1.00 130° 35°  
V.R.: 29%  $\epsilon$ :-0.12 N:11 COMP:33

1999/01/15 20:14:51.4  
W OFF OGASAWARA  
Hypo.:27°49.6'N 139°25.8'E 541km



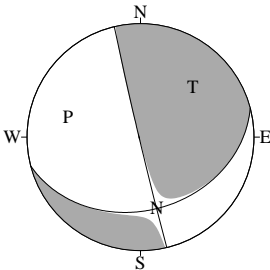
Cent.:28° 5.4'N 139°31.1'E 578km  $\Delta t = 1.1$   
Mo:  $1.50 \times 10^{17}$ N·m Mw:5.4 Mj:5.6 (sec)  
mrr:-1.35 mtt: 0.51 mff: 0.84  
mrt: 0.60 mrf:-0.15 mtf: 0.69 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 20° 43°-120° P-axis:-1.60 205° 69°  
NP2:238° 54° -65° T-axis: 1.40 310° 6°  
N-axis: 0.20 42° 20°  
V.R.: 34%  $\epsilon$ :-0.11 N:7 COMP:21

1999/01/22 07:02:13.0  
FAR E OFF MIYAGI PREF  
Hypo.:38°36.3'N 143° 6.9'E 10km



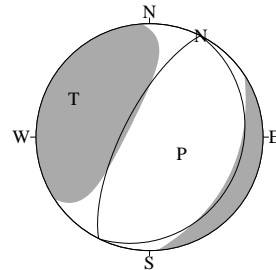
Cent.:38°33.8'N 143°11.3'E 10km  $\Delta t = 3.7$   
Mo:  $6.50 \times 10^{17}$ N·m Mw:5.8 Mj:5.7 (sec)  
mrr: 2.35 mtt:-0.08 mff:-2.27  
mrt: 2.61 mrf: 5.50 mtf:-0.63 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 25° 79° 94° P-axis:-6.60 111° 34°  
NP2:185° 11° 71° T-axis: 6.50 299° 55°  
N-axis: 0.00 204° 4°  
V.R.: 40%  $\epsilon$ : 0.00 N:8 COMP:24

1999/01/24 04:17:16.9  
NEAR NIIJIMA ISLAND  
Hypo.:33°44.1'N 138°34.3'E 291km



Cent.:33°38.0'N 138°37.0'E 275km  $\Delta t = 0.1$   
Mo:  $6.18 \times 10^{16}$ N·m Mw:5.1 Mj:4.9 (sec)  
mrr: 0.18 mtt: 1.53 mff:-1.71  
mrt: 1.35 mrf:-4.84 mtf:-3.21 ( $\times 10^{16}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 75° 36° 178° P-axis:-6.09 286° 34°  
NP2:167° 89° 54° T-axis: 6.27 46° 36°  
N-axis:-0.18 167° 36°  
V.R.: 25%  $\epsilon$ : 0.03 N:8 COMP:24

1999/01/24 09:37: 6.0  
NEAR TANEGASHIMA ISLAND  
Hypo.:30°34.1'N 131°17.4'E 40km

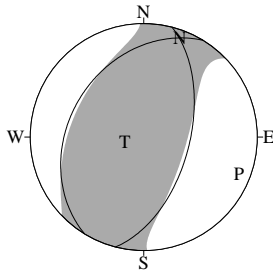


Cent.:30°31.6'N 131°16.9'E 26km  $\Delta t = 6.8$   
Mo:  $5.94 \times 10^{18}$ N·m Mw:6.4 Mj:6.6 (sec)  
mrr:-2.93 mtt:-0.36 mff: 3.29  
mrt: 2.08 mrf: 4.14 mtf: 2.41 ( $\times 10^{18}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 26° 19° -91° P-axis:-5.16 117° 64°  
NP2:207° 71° -90° T-axis: 6.72 297° 26°  
N-axis:-1.56 27° 0°  
V.R.: 39%  $\epsilon$ : 0.23 N:11 COMP:33

EQUAL AREA PROJECTON, LOWER HEMISPHERE.

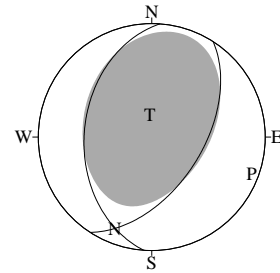
Hypo.:Location of hypocenter, Cent.:Location of centroid,  $\Delta t$ :Centroid time minus origin time  
Mo:Total scalar moment, Mw:Moment Magnitude, Mj:JMA Magnitude  
mrr,mtt,mff,mrt,mrf,mtf: Moment tensor components, STR,DIP,SLIP:Fault parameters of nodal plane  
MOM,AZM,PLG: Moment tensor component, 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

1999/02/01 01:51:50.9  
 E OFF FUKUSHIMA PREF  
 Hypo.:37° 7.6'N 141°31.5'E 45km



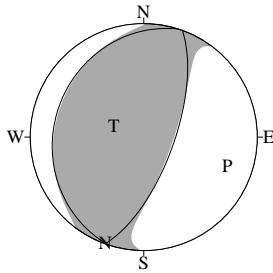
Cent.:37° 6.3'N 141°30.0'E 47km  $\Delta t=12.7$   
 Mo:  $1.10 \times 10^{17}$ N·m Mw:5.3 Mj:5.3 (sec)  
 mrr: 0.90 mtt: 0.03 mff:-0.93  
 mrt: 0.05 mrf: 0.43 mtf:-0.47 ( $\times 10^{17}$ N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 15° 57° 81° P-axis:-1.20 111° 11°  
 NP2:211° 34° 104° T-axis: 1.00 256° 76°  
 N-axis: 0.20 20° 8°  
 V.R.: 16%  $\epsilon$ :-0.17 N:15 COMP:37

1999/02/26 14:18:16.7  
 W OFF AKITA PREF  
 Hypo.:39° 9.3'N 139°50.2'E 21km



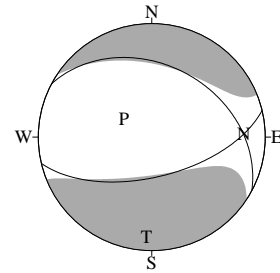
Cent.:39°16.5'N 139°47.6'E 18km  $\Delta t= 5.4$   
 Mo:  $1.10 \times 10^{17}$ N·m Mw:5.3 Mj:5.3 (sec)  
 mrr: 1.12 mtt:-0.17 mff:-0.94  
 mrt: 0.41 mrf: 0.13 mtf:-0.27 ( $\times 10^{17}$ N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 33° 53° 108° P-axis:-1.10 110° 7°  
 NP2:184° 40° 67° T-axis: 1.20 355° 74°  
 N-axis:-0.20 202° 14°  
 V.R.: 24%  $\epsilon$ : 0.14 N:8 COMP:24

1999/03/02 16:12:18.1  
 FAR E OFF KANTO  
 Hypo.:35°40.7'N 142° 7.8'E 53km



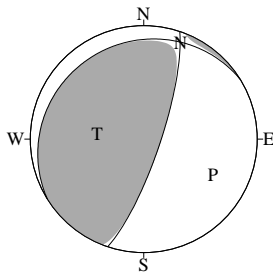
Cent.:35°32.1'N 142° 5.4'E 10km  $\Delta t= 7.6$   
 Mo:  $6.80 \times 10^{17}$ N·m Mw:5.8 Mj:6.3 (sec)  
 mrr: 4.45 mtt:-0.07 mff:-4.38  
 mrt: 1.71 mrf: 4.67 mtf:-1.69 ( $\times 10^{17}$ N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 20° 68° 91° P-axis:-7.10 109° 23°  
 NP2:198° 22° 88° T-axis: 6.60 291° 67°  
 N-axis: 0.50 200° 1°  
 V.R.: 36%  $\epsilon$ :-0.07 N:11 COMP:33

1999/03/07 10:03:42.8  
 OFF NEMURO PENINSULA  
 Hypo.:42°57.6'N 145°57.8'E 39km



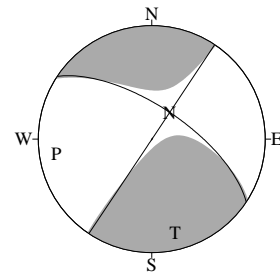
Cent.:42°51.0'N 145°58.7'E 34km  $\Delta t= 0.0$   
 Mo:  $5.24 \times 10^{16}$ N·m Mw:5.1 Mj:5.1 (sec)  
 mrr:-3.78 mtt: 5.13 mff:-1.36  
 mrt:-2.27 mrf:-1.12 mtf:-0.65 ( $\times 10^{16}$ N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 77° 61°-113° P-axis:-4.77 304° 66°  
 NP2:298° 37° -54° T-axis: 5.70 183° 13°  
 N-axis:-0.92 88° 20°  
 V.R.: 18%  $\epsilon$ : 0.16 N:9 COMP:17

1999/03/19 02:55:40.8  
 E OFF AOMORI PREF  
 Hypo.:41° 1.2'N 143°13.3'E 29km



Cent.:41° 5.4'N 143°12.3'E 10km  $\Delta t= 4.4$   
 Mo:  $6.10 \times 10^{17}$ N·m Mw:5.8 Mj:5.8 (sec)  
 mrr: 2.47 mtt:-0.93 mff:-1.55  
 mrt: 1.52 mrf: 5.28 mtf:-1.49 ( $\times 10^{17}$ N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 19° 78° 80° P-axis:-6.00 117° 32°  
 NP2:238° 15° 129° T-axis: 6.10 276° 56°  
 N-axis:-0.10 21° 10°  
 V.R.: 31%  $\epsilon$ : 0.02 N:10 COMP:30

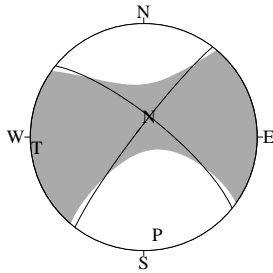
1999/03/24 05:15:22.8  
 NW OFF AMAMI-OSHIMA IS  
 Hypo.:29°33.6'N 128°19.1'E 0km



Cent.:29°33.0'N 128°21.9'E 10km  $\Delta t= 9.7$   
 Mo:  $3.50 \times 10^{17}$ N·m Mw:5.6 Mj:6.1 (sec)  
 mrr:-0.26 mtt: 3.06 mff:-2.80  
 mrt:-0.90 mrf:-1.04 mtf: 1.27 ( $\times 10^{17}$ N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 34° 90°-157° P-axis:-3.30 261° 16°  
 NP2:304° 67° 0° T-axis: 3.60 166° 16°  
 N-axis:-0.30 34° 67°  
 V.R.: 29%  $\epsilon$ : 0.09 N:8 COMP:24

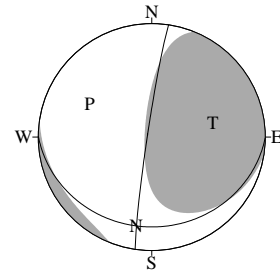
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

1999/03/28 01:37: 3.5  
NEAR NIIJIMA ISLAND  
Hypo.:34° 5.9'N 139° 0.4'E 14km



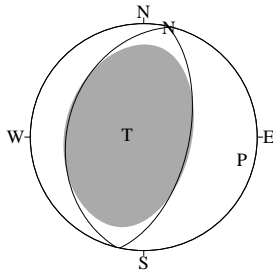
Cent.:33°58.9'N 139° 4.1'E 31km  $\Delta t = 3.5$   
Mo:  $1.00 \times 10^{17} \text{N}\cdot\text{m}$  Mw:5.3 Mj:5.2 (sec)  
mrr: 0.15 mtt:-1.02 mff: 0.87  
mrt: 0.31 mrf: 0.11 mtf:-0.24 ( $\times 10^{17} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1:217° 84° -14° P-axis:-1.10 172° 14°  
NP2:309° 76° -174° T-axis: 0.90 264° 6°  
N-axis: 0.20 15° 75°  
V.R.: 27%  $\epsilon$ :-0.20 N:17 COMP:33

1999/04/08 22:10:34.1  
NEAR VLADIVOSTOK  
Hypo.:43°33.0'N 130°59.4'E 633km



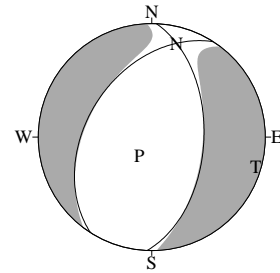
Cent.:43°15.5'N 130°51.8'E 610km  $\Delta t = 12.4$   
Mo:  $4.75 \times 10^{19} \text{N}\cdot\text{m}$  Mw:7.1 Mj:7.1 (sec)  
mrr: 0.80 mtt:-1.30 mff: 0.50  
mrt:-0.03 mrf:-4.44 mtf:-1.52 ( $\times 10^{19} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 90° 22° 171° P-axis:-4.24 298° 38°  
NP2:188° 87° 68° T-axis: 5.26 77° 44°  
N-axis:-1.02 190° 22°  
V.R.: 63%  $\epsilon$ : 0.19 N:17 COMP:51

1999/04/25 21:27: 2.9  
NORTHERN IBARAKI PREF  
Hypo.:36°27.3'N 140°37.3'E 59km



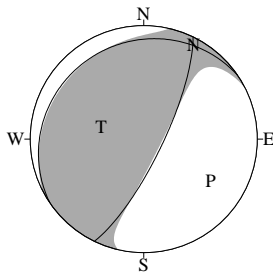
Cent.:36°14.2'N 140°37.4'E 50km  $\Delta t = 4.4$   
Mo:  $1.10 \times 10^{17} \text{N}\cdot\text{m}$  Mw:5.3 Mj:5.2 (sec)  
mrr: 1.06 mtt:-0.19 mff:-0.87  
mrt: 0.08 mrf: 0.44 mtf:-0.17 ( $\times 10^{17} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 12° 57° 89° P-axis:-1.00 103° 12°  
NP2:194° 33° 92° T-axis: 1.20 279° 78°  
N-axis:-0.20 13° 1°  
V.R.: 22%  $\epsilon$ : 0.13 N:8 COMP:24

1999/04/29 16:46: 7.3  
NEAR AMAMI-OSHIMA ISLAND  
Hypo.:28°50.1'N 131° 8.9'E 61km



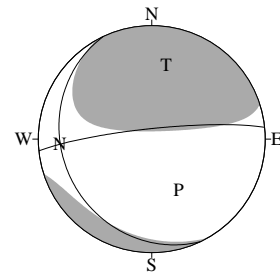
Cent.:28°52.8'N 131° 7.1'E 14km  $\Delta t = 7.3$   
Mo:  $9.90 \times 10^{17} \text{N}\cdot\text{m}$  Mw:5.9 Mj:5.6 (sec)  
mrr:-8.80 mtt:-0.30 mff: 9.10  
mrt: 1.73 mrf:-2.29 mtf: 3.25 ( $\times 10^{17} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 2° 52° -110° P-axis:-9.60 214° 74°  
NP2:213° 42° -66° T-axis:10.30 106° 5°  
N-axis:-0.70 15° 16°  
V.R.: 25%  $\epsilon$ : 0.06 N:8 COMP:24

1999/05/10 16:09:28.9  
E OFF FUKUSHIMA PREF  
Hypo.:37°33.1'N 141°56.7'E 36km



Cent.:37°18.7'N 142° 2.7'E 37km  $\Delta t = 1.1$   
Mo:  $1.86 \times 10^{16} \text{N}\cdot\text{m}$  Mw:4.8 Mj:4.7 (sec)  
mrr: 0.76 mtt:-0.24 mff:-0.52  
mrt: 0.69 mrf: 1.49 mtf:-0.58 ( $\times 10^{16} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 26° 77° 82° P-axis:-1.94 122° 31°  
NP2:236° 15° 119° T-axis: 1.78 286° 58°  
N-axis: 0.17 28° 7°  
V.R.: 23%  $\epsilon$ :-0.09 N:5 COMP:15

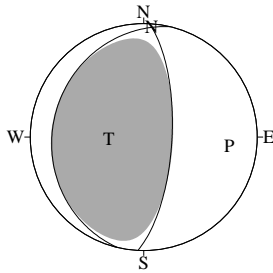
1999/05/13 02:59:23.1  
KUSHIRO REGION  
Hypo.:42°58.0'N 143°52.2'E 106km



Cent.:43° 3.0'N 143°54.1'E 73km  $\Delta t = 5.0$   
Mo:  $2.03 \times 10^{18} \text{N}\cdot\text{m}$  Mw:6.1 Mj:6.3 (sec)  
mrr:-0.36 mtt: 0.84 mff:-0.48  
mrt: 1.83 mrf: 0.08 mtf:-0.61 ( $\times 10^{18} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1:155° 22° -21° P-axis:-1.82 152° 48°  
NP2:264° 83° -110° T-axis: 2.24 11° 34°  
N-axis:-0.42 267° 20°  
V.R.: 35%  $\epsilon$ : 0.19 N:11 COMP:33

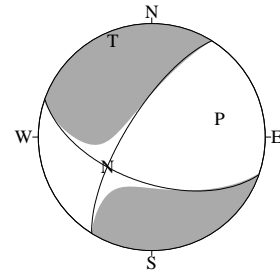
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

1999/06/06 13:46:39.8  
 FAR E OFF IZU ISLANDS  
 Hypo.:32°25.1'N 142° 2.6'E 0km



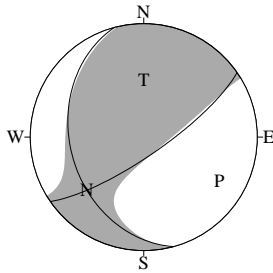
Cent.:32°27.0'N 142° 2.9'E 10km  $\Delta t = 7.2$   
 Mo:  $8.59 \times 10^{16}$  N·m Mw:5.2 Mj:5.4 (sec)  
 mrr:-0.68 mtt:-0.51 mff:-5.29  
 mrt: 0.10 mrf: 6.51 mtf:-0.75 ( $\times 10^{16}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 3° 70° 86° P-axis:-8.36 96° 25°  
 NP2:194° 21° 100° T-axis: 8.81 267° 65°  
 N-axis:-0.44 4° 3°  
 V.R.: 21%  $\epsilon$ : 0.05 N:7 COMP:21

1999/06/12 07:43:24.4  
 E OFF FUKUSHIMA PREF  
 Hypo.:37°26.6'N 141°56.3'E 70km



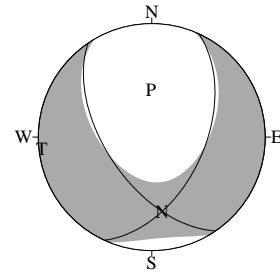
Cent.:37°22.8'N 142° 1.9'E 70km  $\Delta t = 0.4$   
 Mo:  $1.78 \times 10^{16}$  N·m Mw:4.8 Mj:4.8 (sec)  
 mrr:-0.68 mtt: 1.47 mff:-0.79  
 mrt: 0.11 mrf: 0.85 mtf: 0.93 ( $\times 10^{16}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1:212° 72°-145° P-axis:-1.71 75° 38°  
 NP2:109° 57° -22° T-axis: 1.86 338° 9°  
 N-axis:-0.16 236° 51°  
 V.R.: 21%  $\epsilon$ : 0.08 N:8 COMP:24

1999/06/15 16:47:34.3  
 OFF NEMURO PENINSULA  
 Hypo.:43° 1.6'N 146°11.6'E 38km



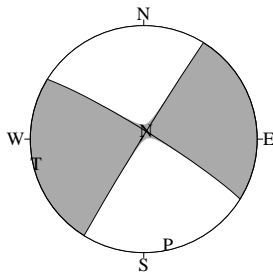
Cent.:42°49.7'N 146°12.1'E 32km  $\Delta t = 9.4$   
 Mo:  $1.10 \times 10^{17}$  N·m Mw:5.3 Mj:5.3 (sec)  
 mrr: 0.41 mtt: 0.27 mff:-0.68  
 mrt: 0.71 mrf: 0.43 mtf:-0.48 ( $\times 10^{17}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 55° 77° 123° P-axis:-1.20 120° 24°  
 NP2:165° 35° 24° T-axis: 1.10 0° 48°  
 N-axis: 0.10 227° 32°  
 V.R.: 28%  $\epsilon$ :-0.11 N:6 COMP:18

1999/07/03 14:30:12.5  
 W OFF OGASAWARA  
 Hypo.:26°34.1'N 141° 9.4'E 449km



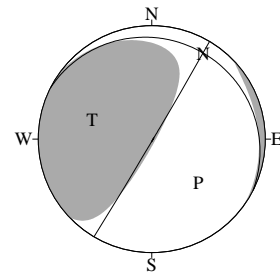
Cent.:26°16.1'N 141° 0.6'E 441km  $\Delta t = -3.3$   
 Mo:  $1.33 \times 10^{18}$  N·m Mw:6.0 Mj:6.1 (sec)  
 mrr:-0.91 mtt:-0.28 mff: 1.19  
 mrt:-0.80 mrf: 0.03 mtf:-0.11 ( $\times 10^{18}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 25° 51° -44° P-axis:-1.45 359° 56°  
 NP2:146° 57°-132° T-axis: 1.20 264° 3°  
 N-axis: 0.25 172° 34°  
 V.R.: 34%  $\epsilon$ :-0.17 N:18 COMP:54

1999/07/20 09:53:25.9  
 NEAR CHICHIJIMA ISLAND  
 Hypo.:27°19.4'N 142°10.9'E 84km



Cent.:27° 0.4'N 142°13.4'E 75km  $\Delta t = 5.1$   
 Mo:  $3.00 \times 10^{17}$  N·m Mw:5.6 Mj:5.1 (sec)  
 mrr: 0.01 mtt:-2.68 mff: 2.67  
 mrt: 0.22 mrf: 0.21 mtf:-1.33 ( $\times 10^{17}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1:212° 89° -6° P-axis:-3.00 167° 5°  
 NP2:302° 84°-179° T-axis: 3.00 257° 3°  
 N-axis: 0.00 18° 84°  
 V.R.: 34%  $\epsilon$ :-0.01 N:11 COMP:33

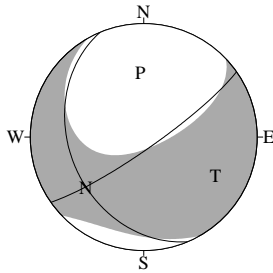
1999/07/26 11:45:48.2  
 E OFF AOMORI PREF  
 Hypo.:40°43.9'N 141°53.0'E 98km



Cent.:40°45.9'N 141°53.7'E 98km  $\Delta t = -0.6$   
 Mo:  $1.57 \times 10^{16}$  N·m Mw:4.7 Mj:4.7 (sec)  
 mrr: 0.14 mtt:-0.43 mff: 0.30  
 mrt: 0.72 mrf: 1.36 mtf:-0.05 ( $\times 10^{16}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 31° 89° 77° P-axis:-1.46 133° 43°  
 NP2:297° 13° 176° T-axis: 1.68 288° 44°  
 N-axis:-0.22 31° 13°  
 V.R.: 25%  $\epsilon$ : 0.13 N:4 COMP:12

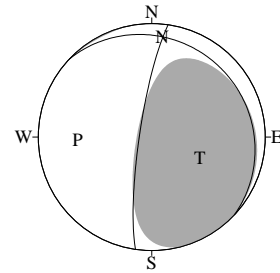
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

1999/07/27 14:30:19.8  
 FAR E OFF NORTH HONSHU  
 Hypo.:39°56.2'N 144°48.5'E 46km



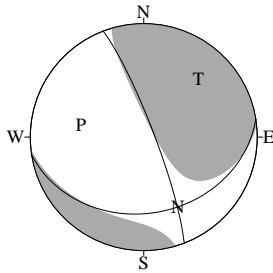
Cent.:39°36.0'N 145° 2.7'E 22km  $\Delta t = -2.3$   
 Mo:  $8.53 \times 10^{16}$  N·m Mw:5.2 Mj:5.0 (sec)  
 mrr:-2.19 mtt:-3.14 mff: 5.33  
 mrt:-7.05 mrf:-2.08 mtf: 1.29 ( $\times 10^{16}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 55° 82° -56° P-axis:-9.75 357° 43°  
 NP2:157° 34° -165° T-axis: 7.31 118° 29°  
 N-axis: 2.44 229° 33°  
 V.R.: 29%  $\epsilon$ : -0.25 N:4 COMP:12

1999/08/16 16:28:59.9  
 NEAR TORISHIMA IS  
 Hypo.:31°51.9'N 138°11.0'E 388km



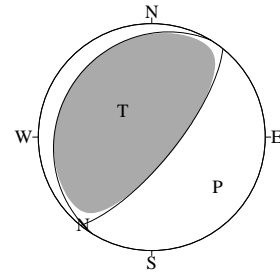
Cent.:32°15.2'N 138°10.3'E 407km  $\Delta t = 5.2$   
 Mo:  $7.90 \times 10^{16}$  N·m Mw:5.2 Mj:5.0 (sec)  
 mrr: 2.83 mtt:-0.58 mff:-2.25  
 mrt:-1.66 mrf:-7.20 mtf: 1.44 ( $\times 10^{16}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1:313° 15° 36° P-axis:-7.35 268° 35°  
 NP2:188° 81° 102° T-axis: 8.45 113° 52°  
 N-axis:-1.10 6° 12°  
 V.R.: 29%  $\epsilon$ : 0.13 N:9 COMP:13

1999/08/21 05:33:11.3  
 CENTRAL WAKAYAMA PREF  
 Hypo.:34° 1.8'N 135°28.2'E 66km



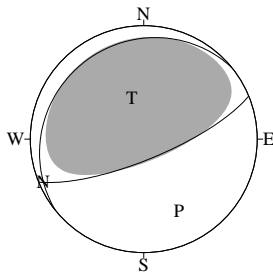
Cent.:34° 9.2'N 135°28.8'E 64km  $\Delta t = 7.1$   
 Mo:  $3.60 \times 10^{17}$  N·m Mw:5.6 Mj:5.6 (sec)  
 mrr:-0.75 mtt: 1.17 mff:-0.41  
 mrt: 1.15 mrf:-2.67 mtf:-1.93 ( $\times 10^{17}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 81° 33° -166° P-axis:-3.30 281° 43°  
 NP2:339° 82° -58° T-axis: 3.90 43° 30°  
 N-axis:-0.60 154° 32°  
 V.R.: 21%  $\epsilon$ : 0.14 N:18 COMP:54

1999/08/23 15:11:26.2  
 SE OFF ERIMOMISAKI  
 Hypo.:41°42.2'N 143°44.7'E 28km



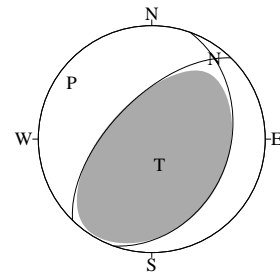
Cent.:41°33.9'N 143°43.8'E 34km  $\Delta t = 6.9$   
 Mo:  $6.23 \times 10^{16}$  N·m Mw:5.1 Mj:5.1 (sec)  
 mrr: 3.64 mtt:-1.26 mff:-2.38  
 mrt: 3.28 mrf: 3.94 mtf:-1.52 ( $\times 10^{16}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 39° 73° 92° P-axis:-6.12 127° 28°  
 NP2:212° 17° 83° T-axis: 6.34 312° 62°  
 N-axis:-0.22 218° 2°  
 V.R.: 31%  $\epsilon$ : 0.03 N:5 COMP:15

1999/09/20 18:32:43.0  
 FAR SE OFF KURILE ISL  
 Hypo.:45°11.0'N 153°46.6'E 60km



Cent.:45°21.5'N 153°31.6'E 10km  $\Delta t = 4.7$   
 Mo:  $2.50 \times 10^{17}$  N·m Mw:5.5 Mj:5.6 (sec)  
 mrr: 1.32 mtt:-0.84 mff:-0.48  
 mrt: 2.00 mrf: 0.74 mtf:-0.42 ( $\times 10^{17}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 68° 75° 94° P-axis:-2.30 154° 30°  
 NP2:231° 15° 74° T-axis: 2.60 344° 59°  
 N-axis:-0.20 247° 4°  
 V.R.: 23%  $\epsilon$ : 0.09 N:10 COMP:22

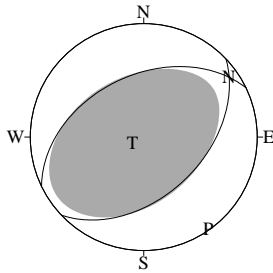
1999/09/21 02:47:28.6  
 TAIWAN REGION  
 Hypo.:23°52.6'N 120°55.8'E 0km



Cent.:23°37.6'N 121° 2.6'E 10km  $\Delta t = 11.5$   
 Mo:  $3.49 \times 10^{20}$  N·m Mw:7.6 Mj:7.7 (sec)  
 mrr: 2.99 mtt:-0.83 mff:-2.17  
 mrt:-1.56 mrf:-0.98 mtf:-1.29 ( $\times 10^{20}$  N·m)  
 STR DIP SLIP MOM AZM PLG  
 NP1: 19° 32° 69° P-axis:-3.39 305° 15°  
 NP2:224° 61° 103° T-axis: 3.59 163° 71°  
 N-axis:-0.20 38° 11°  
 V.R.: 40%  $\epsilon$ : 0.06 N:8 COMP:24

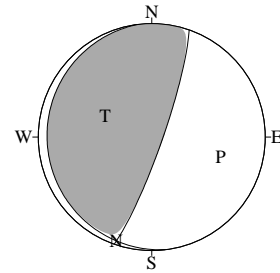
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

1999/09/27 08:38:38.8  
SE OFF ETOROFU  
Hypo.:44° 4.8'N 148°12.7'E 12km



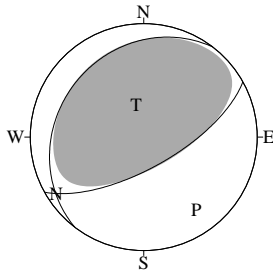
Cent.:43°38.4'N 148°13.6'E 47km  $\Delta t=16.1$   
Mo:  $7.15 \times 10^{16}$ N·m Mw:5.2 Mj:5.2 (sec)  
mrr: 7.31 mtt:-4.77 mff:-2.54  
mrt:-0.52 mrf: 1.19 mtf:-2.93 ( $\times 10^{16}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 46° 47° 78° P-axis:-6.80 145° 1°  
NP2:244° 45° 103° T-axis: 7.51 242° 81°  
N-axis:-0.72 55° 9°  
V.R.: 20%  $\epsilon$ : 0.10 N:12 COMP:18

1999/10/03 06:08:37.8  
FAR E OFF SANRIKU  
Hypo.:40°11.1'N 143°11.6'E 4km



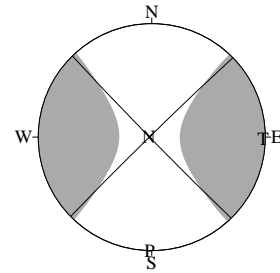
Cent.:40° 2.3'N 143°12.3'E 10km  $\Delta t= 3.4$   
Mo:  $3.30 \times 10^{17}$ N·m Mw:5.6 Mj:5.7 (sec)  
mrr: 0.89 mtt: 0.01 mff:-0.90  
mrt: 1.08 mrf: 2.99 mtf:-0.09 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 19° 82° 94° P-axis:-3.30 106° 37°  
NP2:174° 9° 64° T-axis: 3.30 294° 53°  
N-axis: 0.00 199° 4°  
V.R.: 24%  $\epsilon$ : 0.01 N:9 COMP:27

1999/10/05 09:38:40.9  
E OFF FUKUSHIMA PREF  
Hypo.:37°21.3'N 142°25.7'E 57km



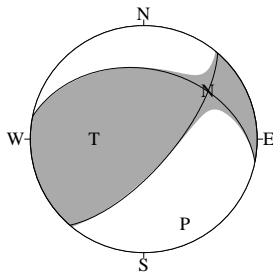
Cent.:37° 8.4'N 142°26.6'E 59km  $\Delta t= 1.9$   
Mo:  $4.58 \times 10^{16}$ N·m Mw:5.0 Mj:5.2 (sec)  
mrr: 3.32 mtt:-1.82 mff:-1.51  
mrt: 2.99 mrf: 1.26 mtf:-1.50 ( $\times 10^{16}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 61° 68° 99° P-axis:-4.42 144° 22°  
NP2:218° 24° 68° T-axis: 4.74 347° 66°  
N-axis:-0.32 237° 9°  
V.R.: 24%  $\epsilon$ : 0.07 N:6 COMP:18

1999/10/21 12:34:17.8  
NW OFF ISHIGAKIJIMA IS  
Hypo.:24° 2.0'N 122°32.5'E 39km



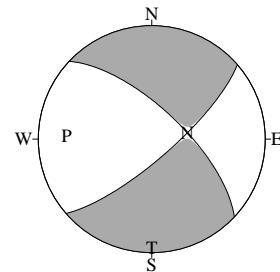
Cent.:23°42.0'N 122°27.7'E 47km  $\Delta t= 5.2$   
Mo:  $1.40 \times 10^{17}$ N·m Mw:5.4 Mj:5.0 (sec)  
mrr:-0.24 mtt:-1.28 mff: 1.52  
mrt: 0.00 mrf:-0.05 mtf: 0.03 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:226° 89° 1° P-axis:-1.30 181° 0°  
NP2:136° 89° 179° T-axis: 1.50 91° 2°  
N-axis:-0.20 275° 88°  
V.R.: 24%  $\epsilon$ : 0.16 N:5 COMP:7

1999/10/22 05:51:51.0  
NW OFF ISHIGAKIJIMA IS  
Hypo.:23°58.5'N 122°29.9'E 42km



Cent.:23°30.3'N 122°29.2'E 25km  $\Delta t= 5.1$   
Mo:  $1.30 \times 10^{17}$ N·m Mw:5.4 Mj:5.2 (sec)  
mrr: 0.75 mtt:-1.00 mff: 0.25  
mrt: 0.38 mrf: 0.78 mtf:-0.51 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 40° 69° 57° P-axis:-1.40 154° 18°  
NP2:282° 38° 145° T-axis: 1.30 270° 54°  
N-axis: 0.10 53° 30°  
V.R.: 18%  $\epsilon$ :-0.04 N:9 COMP:15

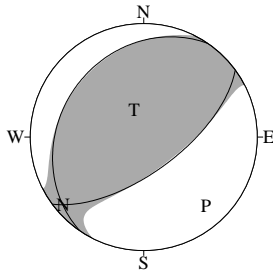
1999/10/22 12:10:18.8  
TAIWAN REGION  
Hypo.:23°14.4'N 120°28.9'E 81km



Cent.:23°20.4'N 120°33.1'E 25km  $\Delta t=11.7$   
Mo:  $4.40 \times 10^{17}$ N·m Mw:5.7 Mj:5.5 (sec)  
mrr:-0.81 mtt: 4.41 mff:-3.59  
mrt:-0.46 mrf:-1.71 mtf:-0.16 ( $\times 10^{17}$ N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 49° 76°-158° P-axis:-4.40 272° 26°  
NP2:313° 68° -15° T-axis: 4.40 180° 5°  
N-axis: 0.00 80° 64°  
V.R.: 28%  $\epsilon$ : 0.01 N:9 COMP:21

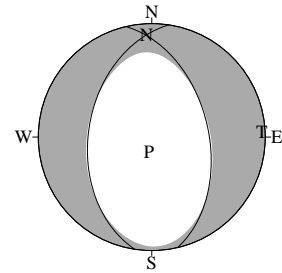
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

1999/10/24 13:21:37.9  
SE OFF ETOROFU  
Hypo.:44°45.9'N 149°52.6'E 30km



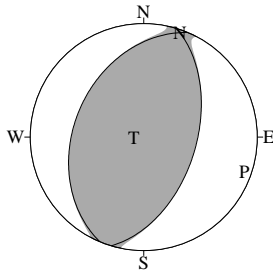
Cent.:44°17.0'N 149°15.3'E 10km  $\Delta t=18.4$   
Mo:  $1.12 \times 10^{18}$  N·m Mw:6.0 Mj:5.9 (sec)  
mrr: 0.82 mtt:-0.40 mff:-0.41  
mrt: 0.60 mrf: 0.37 mtf:-0.50 ( $\times 10^{18}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 54° 65° 99° P-axis:-1.15 138° 19°  
NP2:214° 26° 72° T-axis: 1.08 341° 69°  
N-axis: 0.07 230° 8°  
V.R.: 22%  $\epsilon$ :-0.06 N:13 COMP:39

1999/10/25 16:29:52.4  
FAR E OFF IZU ISLANDS  
Hypo.:31°56.7'N 142°26.9'E 45km



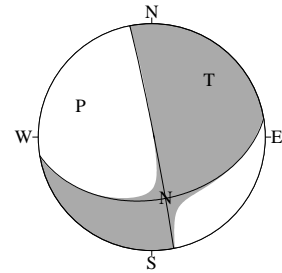
Cent.:32°24.7'N 142°31.6'E 10km  $\Delta t=14.4$   
Mo:  $5.80 \times 10^{17}$  N·m Mw:5.8 Mj:5.6 (sec)  
mrr:-5.71 mtt: 0.20 mff: 5.51  
mrt: 1.23 mrf:-0.46 mtf:-0.20 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:347° 49°-105° P-axis:-6.00 190° 79°  
NP2:189° 43° -74° T-axis: 5.50 87° 3°  
N-axis: 0.40 357° 11°  
V.R.: 24%  $\epsilon$ :-0.07 N:17 COMP:50

1999/11/15 10:34:35.4  
E OFF MIYAGI PREF  
Hypo.:38°19.2'N 142°25.6'E 46km



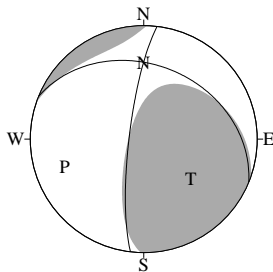
Cent.:38° 6.5'N 142°26.5'E 34km  $\Delta t= 6.3$   
Mo:  $3.50 \times 10^{17}$  N·m Mw:5.6 Mj:5.7 (sec)  
mrr: 3.37 mtt:-0.33 mff:-3.03  
mrt: 0.10 mrf: 0.82 mtf:-1.11 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 17° 52° 86° P-axis:-3.50 109° 7°  
NP2:203° 38° 95° T-axis: 3.50 265° 83°  
N-axis: 0.10 19° 3°  
V.R.: 34%  $\epsilon$ :-0.02 N:9 COMP:27

1999/12/06 07:00:31.0  
NEAR TORISHIMA IS  
Hypo.:29°52.8'N 139°15.1'E 443km



Cent.:29°53.2'N 139°12.8'E 418km  $\Delta t= 0.2$   
Mo:  $3.60 \times 10^{17}$  N·m Mw:5.6 Mj:5.7 (sec)  
mrr:-0.11 mtt: 0.99 mff:-0.88  
mrt: 0.32 mrf:-2.58 mtf:-2.31 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 80° 44°-178° P-axis:-3.70 294° 32°  
NP2:349° 88° -46° T-axis: 3.50 45° 29°  
N-axis: 0.20 167° 44°  
V.R.: 21%  $\epsilon$ :-0.04 N:16 COMP:48

1999/12/31 22:09:11.6  
SEA OF JAPAN  
Hypo.:37°17.8'N 134°49.1'E 395km



Cent.:37°12.4'N 134°50.4'E 412km  $\Delta t= 1.4$   
Mo:  $3.00 \times 10^{17}$  N·m Mw:5.6 Mj:5.4 (sec)  
mrr: 0.92 mtt: 0.08 mff:-1.01  
mrt:-0.91 mrf:-2.27 mtf: 1.46 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:292° 35° 19° P-axis:-2.70 251° 27°  
NP2:187° 79° 123° T-axis: 3.20 130° 45°  
N-axis:-0.50 360° 33°  
V.R.: 37%  $\epsilon$ : 0.16 N:17 COMP:51

EQUAL AREA PROJECTON, LOWER HEMISPHERE.