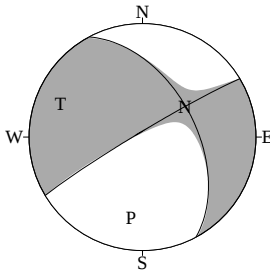


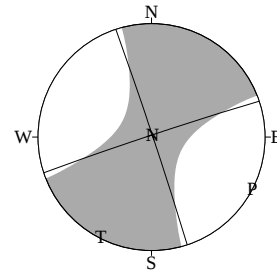
# CMT SOLUTIONS FOR EARTHQUAKES IN OCTOBER, 2016

2016/10/01 18:40:23.6  
FAR SE OFF BOSO PEN  
Hypo.:34°37.5'N 141°32.7'E 35km



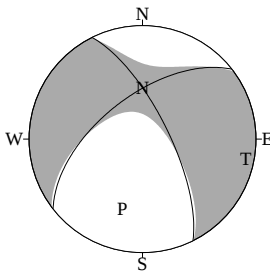
Cent.:34°33.7'N 141°32.5'E 14km  $\Delta t = 0.9$   
Mo:  $1.39 \times 10^{16}$  N·m Mw:4.7 Mj:4.8 (sec)  
mrr:-0.08 mtt:-0.90 mff: 0.98  
mrt: 0.80 mrf: 0.34 mtf: 0.54 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:239° 86° -38° P-axis:-1.42 188° 29°  
NP2:332° 52° -175° T-axis: 1.36 292° 23°  
N-axis: 0.07 54° 52°  
V.R.: 82%  $\epsilon$ :-0.05 N:47 COMP:77

2016/10/03 17:48:25.2  
S OFF URAKAWA  
Hypo.:41°55.3'N 142°26.2'E 67km



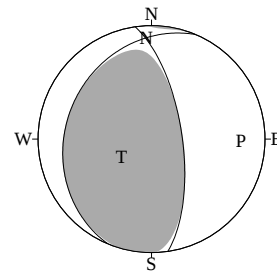
Cent.:41°55.3'N 142°26.0'E 60km  $\Delta t = 0.4$   
Mo:  $5.35 \times 10^{15}$  N·m Mw:4.4 Mj:4.5 (sec)  
mrr: 1.14 mtt: 2.63 mff:-3.77  
mrt:-0.08 mrf: 0.07 mtf:-4.29 ( $\times 10^{15}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:252° 89° 179° P-axis:-5.92 117° 0°  
NP2:342° 89° 1° T-axis: 4.78 207° 2°  
N-axis: 1.14 20° 88°  
V.R.: 69%  $\epsilon$ :-0.19 N:12 COMP:21

2016/10/04 21:13:48.8  
SE OFF BOSO PENINSULA  
Hypo.:34°42.6'N 141°21.6'E 36km



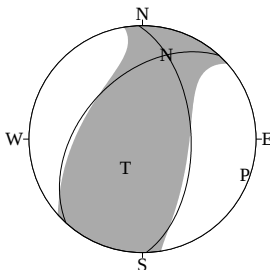
Cent.:34°58.2'N 141°20.7'E 12km  $\Delta t = 7.7$   
Mo:  $7.08 \times 10^{16}$  N·m Mw:5.2 Mj:5.3 (sec)  
mrr:-1.95 mtt:-4.00 mff: 5.95  
mrt: 3.65 mrf:-1.86 mtf: 2.49 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:232° 59° -22° P-axis:-7.49 196° 36°  
NP2:334° 71° -147° T-axis: 6.67 101° 8°  
N-axis: 0.82 0° 53°  
V.R.: 79%  $\epsilon$ :-0.11 N:15 COMP:33

2016/10/04 23:00:48.6  
NEAR CHICHIJIMA ISLAND  
Hypo.:27°43.7'N 142° 5.6'E 43km



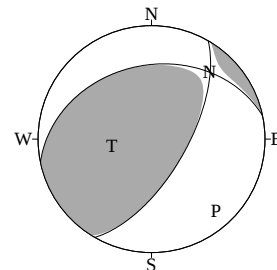
Cent.:27°49.9'N 142° 7.7'E 53km  $\Delta t = 3.7$   
Mo:  $5.60 \times 10^{17}$  N·m Mw:5.8 Mj:5.8 (sec)  
mrr: 3.87 mtt: 0.05 mff:-3.92  
mrt:-1.08 mrf: 3.80 mtf:-0.57 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:352° 68° 77° P-axis:-5.50 91° 22°  
NP2:203° 25° 119° T-axis: 5.70 240° 65°  
N-axis:-0.20 357° 12°  
V.R.: 82%  $\epsilon$ : 0.04 N:20 COMP:51

2016/10/07 00:51:59.5  
TAIWAN REGION  
Hypo.:22°47.2'N 121°31.1'E 0km



Cent.:22°28.8'N 121°31.9'E 22km  $\Delta t = 8.4$   
Mo:  $5.80 \times 10^{17}$  N·m Mw:5.8 Mj:5.8 (sec)  
mrr: 4.43 mtt: 1.02 mff:-5.45  
mrt:-1.01 mrf: 1.42 mtf:-2.62 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:358° 55° 60° P-axis:-6.50 109° 5°  
NP2:223° 45° 125° T-axis: 5.20 211° 66°  
N-axis: 1.30 16° 24°  
V.R.: 76%  $\epsilon$ :-0.20 N:7 COMP:19

2016/10/07 09:14:20.6  
S OFF URAKAWA  
Hypo.:41°58.4'N 142°33.6'E 63km

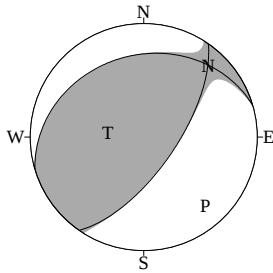


Cent.:41°58.4'N 142°33.4'E 63km  $\Delta t = 0.4$   
Mo:  $5.46 \times 10^{15}$  N·m Mw:4.4 Mj:4.2 (sec)  
mrr: 3.83 mtt:-2.81 mff:-1.02  
mrt: 0.65 mrf: 3.28 mtf:-2.60 ( $\times 10^{15}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 30° 65° 65° P-axis:-5.38 138° 16°  
NP2:258° 35° 132° T-axis: 5.54 261° 61°  
N-axis:-0.16 41° 23°  
V.R.: 71%  $\epsilon$ : 0.03 N:13 COMP:15

## EQUAL AREA PROJECTON, LOWER HEMISPHERE.

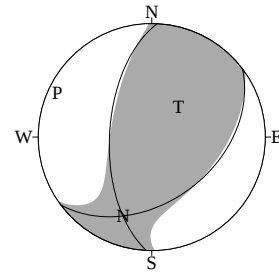
Hypo.:Location of hypocenter, Cent.:Location of centroid,  $\Delta t$ :Centroid time minus origin time  
Mo:Total scalar moment, Mw:Moment Magnitude, Mj:JMA Magnitude  
mrr,mtt,mff,mrt,mrf,mtf: Moment tensor components, STR,DIP,SLIP:Fault parameters of nodal plane  
MOM,AZM,PLG: Moment tensor component,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

2016/10/12 04:02:27.1  
HIDAKA MOUNTAINS REGION  
Hypo.:42°19.5'N 143° 2.5'E 50km



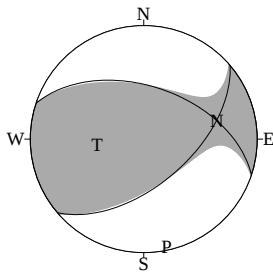
Cent.:42°20.1'N 143° 2.1'E 50km  $\Delta t = 2.0$   
Mo:  $3.84 \times 10^{16} \text{N}\cdot\text{m}$  Mw:5.0 Mj:5.0 (sec)  
mrr: 2.58 mtt:-1.81 mff:-0.77  
mrt: 1.12 mrf: 2.32 mtf:-1.69 ( $\times 10^{16} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 35° 67° 73° P-axis:-3.90 138° 20°  
NP2:254° 29° 125° T-axis: 3.78 276° 64°  
N-axis: 0.13 42° 16°  
V.R.: 73%  $\epsilon$ :-0.03 N:12 COMP:22

2016/10/12 08:05:31.9  
FAR S OFF BOSO PENINSULA  
Hypo.:34°13.7'N 140°18.6'E 63km



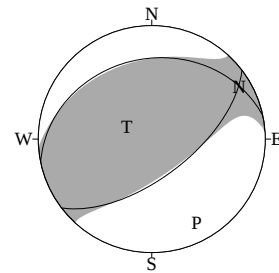
Cent.:34°13.8'N 140°19.1'E 63km  $\Delta t = 0.4$   
Mo:  $4.83 \times 10^{15} \text{N}\cdot\text{m}$  Mw:4.4 Mj:4.4 (sec)  
mrr: 3.47 mtt: 0.14 mff:-3.62  
mrt: 0.82 mrf:-1.91 mtf:-2.59 ( $\times 10^{15} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 53° 43° 132° P-axis:-5.15 295° 9°  
NP2:183° 59° 58° T-axis: 4.50 42° 61°  
N-axis: 0.65 200° 27°  
V.R.: 77%  $\epsilon$ :-0.13 N:18 COMP:19

2016/10/16 16:37: 4.8  
KINKAZAN REGION  
Hypo.:38°19.4'N 141°31.6'E 20km



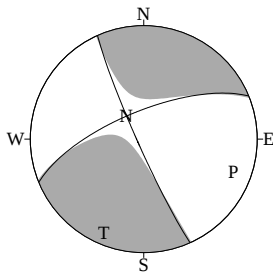
Cent.:38°16.8'N 141°32.6'E 23km  $\Delta t = 0.8$   
Mo:  $1.49 \times 10^{16} \text{N}\cdot\text{m}$  Mw:4.7 Mj:5.2 (sec)  
mrr: 1.01 mtt:-1.47 mff: 0.46  
mrt: 0.01 mrf: 0.62 mtf:-0.40 ( $\times 10^{16} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 50° 57° 48° P-axis:-1.56 168° 3°  
NP2:288° 51° 136° T-axis: 1.43 263° 56°  
N-axis: 0.13 76° 34°  
V.R.: 75%  $\epsilon$ :-0.08 N:14 COMP:23

2016/10/20 11:49:53.6  
SOUTHERN IBARAKI PREF  
Hypo.:35°51.7'N 140°31.4'E 37km



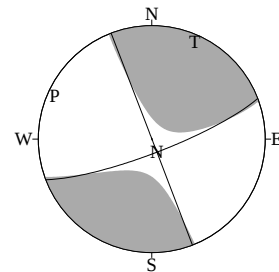
Cent.:35°49.5'N 140°32.1'E 38km  $\Delta t = 4.3$   
Mo:  $1.00 \times 10^{17} \text{N}\cdot\text{m}$  Mw:5.3 Mj:5.3 (sec)  
mrr: 0.76 mtt:-0.71 mff:-0.05  
mrt: 0.41 mrf: 0.40 mtf:-0.41 ( $\times 10^{17} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 53° 63° 78° P-axis:-1.10 152° 17°  
NP2:258° 30° 112° T-axis: 1.00 297° 70°  
N-axis: 0.10 59° 11°  
V.R.: 83%  $\epsilon$ :-0.10 N:17 COMP:27

2016/10/21 12:12:23.0  
EASTERN TOTTORI PREF  
Hypo.:35°22.8'N 133°51.2'E 10km



Cent.:35°22.8'N 133°50.8'E 10km  $\Delta t = 0.3$   
Mo:  $2.04 \times 10^{15} \text{N}\cdot\text{m}$  Mw:4.1 Mj:4.2 (sec)  
mrr:-0.24 mtt: 1.50 mff:-1.26  
mrt:-0.20 mrf: 0.65 mtf:-1.33 ( $\times 10^{15} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1:248° 70° -175° P-axis:-1.96 110° 17°  
NP2:156° 85° -20° T-axis: 2.12 203° 11°  
N-axis:-0.16 323° 69°  
V.R.: 71%  $\epsilon$ : 0.07 N:17 COMP:24

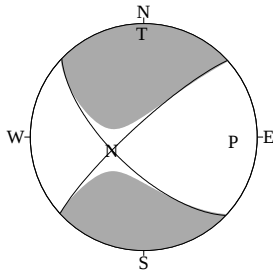
2016/10/21 14:07:22.5  
EASTERN TOTTORI PREF  
Hypo.:35°22.8'N 133°51.3'E 11km



Cent.:35°18.6'N 133°52.0'E 10km  $\Delta t = 8.7$   
Mo:  $2.46 \times 10^{18} \text{N}\cdot\text{m}$  Mw:6.2 Mj:6.6 (sec)  
mrr:-0.24 mtt: 1.74 mff:-1.50  
mrt: 0.21 mrf:-0.38 mtf:-1.81 ( $\times 10^{18} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 69° 80° -180° P-axis:-2.34 294° 7°  
NP2:339° 90° -10° T-axis: 2.59 24° 7°  
N-axis:-0.25 158° 80°  
V.R.: 83%  $\epsilon$ : 0.10 N:32 COMP:77

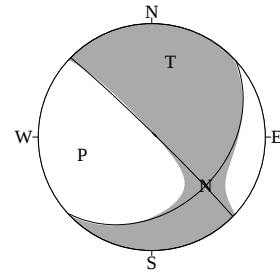
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

2016/10/21 14:53:17.5  
EASTERN TOTTORI PREF  
Hypo.:35°21.6'N 133°52.0'E 9km



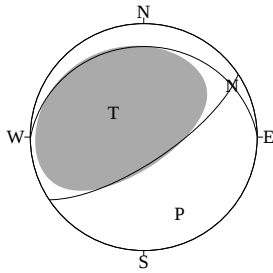
Cent.:35°26.6'N 133°52.0'E 10km  $\Delta t = 0.7$   
Mo:  $1.43 \times 10^{16}$  N·m Mw:4.7 Mj:5.0 (sec)  
mrr:-0.25 mtt: 1.43 mff:-1.19  
mrt: 0.28 mrf: 0.46 mtf:-0.02 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:228° 81° -157° P-axis:-1.38 93° 22°  
NP2:134° 67° -10° T-axis: 1.48 359° 10°  
N-axis:-0.10 247° 65°  
V.R.: 83%  $\epsilon$ : 0.07 N:15 COMP:19

2016/10/22 03:08:33.8  
W OFF OGASAWARA  
Hypo.:28°46.8'N 139° 6.4'E 529km



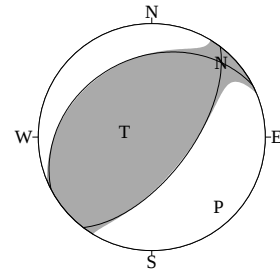
Cent.:28°53.5'N 139° 1.1'E 527km  $\Delta t = 0.0$   
Mo:  $2.45 \times 10^{16}$  N·m Mw:4.9 Mj:5.2 (sec)  
mrr:-0.17 mtt: 1.53 mff:-1.36  
mrt: 1.28 mrf:-1.52 mtf: 0.03 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 48° 36° -176° P-axis:-2.54 256° 37°  
NP2:314° 87° -54° T-axis: 2.37 14° 32°  
N-axis: 0.18 132° 36°  
V.R.: 81%  $\epsilon$ :-0.07 N:13 COMP:13

2016/10/22 03:33:46.4  
HYUGANADA REGION  
Hypo.:32°47.1'N 131°56.1'E 55km



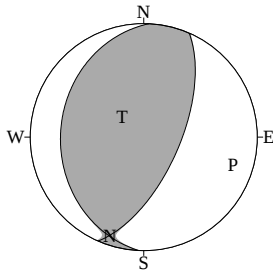
Cent.:32°47.1'N 131°55.9'E 55km  $\Delta t = 0.5$   
Mo:  $8.46 \times 10^{15}$  N·m Mw:4.6 Mj:4.4 (sec)  
mrr: 5.49 mtt:-4.69 mff:-0.80  
mrt: 5.10 mrf: 4.44 mtf:-0.83 ( $\times 10^{15}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 56° 72° 79° P-axis:-7.81 155° 26°  
NP2:269° 21° 121° T-axis: 9.11 309° 62°  
N-axis:-1.30 60° 11°  
V.R.: 77%  $\epsilon$ : 0.14 N:24 COMP:40

2016/10/24 05:25:24.8  
E OFF HOKKAIDO  
Hypo.:43°46.0'N 147°58.0'E 0km



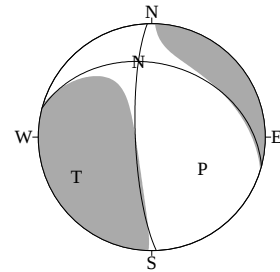
Cent.:43°38.5'N 147°57.4'E 41km  $\Delta t = 13.1$   
Mo:  $9.30 \times 10^{17}$  N·m Mw:5.9 Mj:6.0 (sec)  
mrr: 7.27 mtt:-4.32 mff:-2.95  
mrt: 2.44 mrf: 4.56 mtf:-4.46 ( $\times 10^{17}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 37° 62° 77° P-axis:-9.60 136° 16°  
NP2:243° 30° 113° T-axis: 9.10 280° 70°  
N-axis: 0.50 43° 11°  
V.R.: 80%  $\epsilon$ :-0.05 N:19 COMP:40

2016/10/25 05:52:16.6  
FAR E OFF SANRIKU  
Hypo.:40°15.0'N 143°46.8'E 14km



Cent.:40°10.6'N 143°47.1'E 15km  $\Delta t = 7.7$   
Mo:  $1.71 \times 10^{16}$  N·m Mw:4.8 Mj:4.7 (sec)  
mrr: 1.32 mtt:-0.02 mff:-1.31  
mrt: 0.53 mrf: 0.91 mtf:-0.32 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1: 24° 64° 99° P-axis:-1.72 107° 19°  
NP2:183° 27° 71° T-axis: 1.71 313° 69°  
N-axis: 0.01 199° 9°  
V.R.: 84%  $\epsilon$ :-0.01 N:24 COMP:47

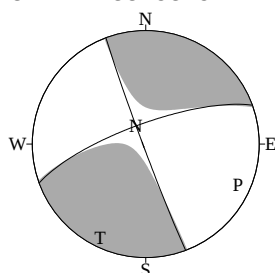
2016/10/25 20:12:20.6  
SE OFF BOSO PENINSULA  
Hypo.:34°40.1'N 140° 6.6'E 62km



Cent.:34°37.2'N 140° 6.9'E 62km  $\Delta t = 0.7$   
Mo:  $1.17 \times 10^{16}$  N·m Mw:4.6 Mj:4.5 (sec)  
mrr:-0.38 mtt:-0.04 mff: 0.42  
mrt:-0.02 mrf: 0.88 mtf:-0.68 ( $\times 10^{16}$  N·m)  
STR DIP SLIP MOM AZM PLG  
NP1:285° 35° -159° P-axis:-1.08 122° 46°  
NP2:178° 78° -56° T-axis: 1.25 242° 26°  
N-axis:-0.17 350° 33°  
V.R.: 80%  $\epsilon$ : 0.14 N:24 COMP:40

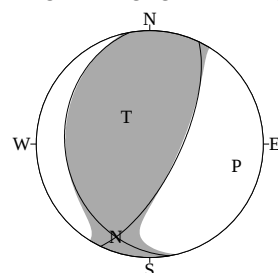
EQUAL AREA PROJECTON, LOWER HEMISPHERE.

2016/10/29 13:43:37.7  
EASTERN TOTTORI PREF  
Hypo.:35°23.2'N 133°53.5'E 7km



Cent.:35°23.2'N 133°53.5'E 10km  $\Delta t = 0.3$   
Mo:  $2.48 \times 10^{15} \text{N}\cdot\text{m}$  Mw:4.2 Mj:4.5 (sec)  
mrr:-0.21 mtt: 1.66 mff:-1.45  
mrt:-0.20 mrf: 0.58 mtf:-1.83 ( $\times 10^{15} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1:250° 75° -178° P-axis:-2.39 114° 12°  
NP2:159° 88° -15° T-axis: 2.57 206° 9°  
N-axis:-0.19 332° 75°  
V.R.: 71%  $\epsilon$ : 0.07 N:17 COMP:25

2016/10/29 16:17:11.9  
FAR E OFF SANRIKU  
Hypo.:39°21.8'N 143°34.7'E 37km



Cent.:39°15.1'N 143°35.3'E 19km  $\Delta t = 0.7$   
Mo:  $1.82 \times 10^{16} \text{N}\cdot\text{m}$  Mw:4.8 Mj:4.8 (sec)  
mrr: 1.17 mtt: 0.21 mff:-1.38  
mrt: 0.67 mrf: 1.09 mtf:-0.26 ( $\times 10^{16} \text{N}\cdot\text{m}$ )  
STR DIP SLIP MOM AZM PLG  
NP1: 26° 68° 105° P-axis:-1.89 104° 22°  
NP2:170° 26° 57° T-axis: 1.76 320° 64°  
N-axis: 0.13 200° 14°  
V.R.: 80%  $\epsilon$ :-0.07 N:22 COMP:31

EQUAL AREA PROJECTON, LOWER HEMISPHERE.