

MONTHLY BULLETIN of REGIONAL and TELESEISMIC EVENTS RECORDED with GRF- and GRSN-STATIONS in GERMANY

(produced by SZGRF/BGR - HANNOVER)

September 2009 UPDATED 12.APRIL.2010

Please note that local events recorded in Germany are part of the "LOCAL BULLETIN".

(Format description at the end of the bulletin)

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|-----|----|--------|
| 2009/09/01 | 00:16:20.3 | 38.628N | 94.503E | 33.0N | 4.8 | 3.9 | | SZGRF |

Qinghai, China

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|-----|----|
| BRG | e P | Z 00:25:52.6 | 55.6 | 69.1 | 1.4 | 11 | 4.7 | | |
| CLL | e P | Z 00:25:55.2 | 56.0 | 68.8 | 1.4 | 14 | 4.8 | | |
| TANN | e P | Z 00:25:59.7 | 56.6 | 67.9 | 1.1 | 5 | 4.5 | | |
| WET | e P | Z 00:26:01.7 | 56.9 | 67.4 | 1.7 | 11 | 4.6 | | |
| ROTZ | e P | Z 00:26:03.0 | 57.0 | 67.3 | 1.0 | 8 | 4.7 | | |
| MOX | e P | Z 00:26:03.3 | 57.0 | 67.5 | 1.3 | 9 | 4.6 | | |
| NRDL | e P | Z 00:26:04.8 | 57.2 | 67.7 | 1.0 | 14 | 5.0 | | |
| CLZ | e P | Z 00:26:04.6 | 57.3 | 67.4 | 0.8 | 14 | 5.0 | | |
| RJOB | e P | Z 00:26:06.8 | 57.5 | 66.5 | 1.2 | 9 | 4.7 | | |
| GRA1 | e P | Z 00:26:07.6 | 57.6 | 66.7 | 1.9 | 48 | 5.2 | | |
| | e L | Z 00:52:23.9 | | | 19.1 | 86 | | 3.9 | |
| FUR | e P | Z 00:26:12.1 | 58.2 | 65.9 | 0.8 | 22 | 5.2 | | |
| BUG | e P | Z 00:26:18.1 | 59.2 | 65.3 | 1.0 | 9 | 4.7 | | |
| BFO | e P | Z 00:26:22.9 | 59.9 | 64.2 | 1.1 | 10 | 4.7 | | |
| WLF | e P | Z 00:26:28.2 | 60.6 | 63.6 | 1.3 | 25 | 4.9 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|-----|----|--------|
| 2009/09/01 | 10:06:58.4 | 36.798N | 94.545E | 33.0N | 4.7 | 3.6 | | SZGRF |

Qinghai, China

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z 10:16:39.4 | 56.8 | 70.7 | 0.9 | 5 | 4.5 | | |
| CLL | e P | Z 10:16:42.0 | 57.2 | 70.4 | 0.7 | 4 | 4.5 | | |
| GEC2 | e | 10:16:48.9 | 57.7 | 69.3 | | | | | |

./2009/bul0909.txt

Thu Apr 23 08:38:25 2020

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| | | | | | | | | |
|------|-----|---|------------|------|------|------|----|-----|
| ROTZ | e P | Z | 10:16:49.8 | 58.2 | 69.0 | 0.8 | 5 | 4.6 |
| | e | | 10:16:52.9 | | | | | |
| MOX | e P | Z | 10:16:49.7 | 58.3 | 69.1 | | | |
| | e L | Z | 10:42:45.0 | | | 19.5 | 42 | 3.6 |
| NRDL | e P | Z | 10:16:51.1 | 58.5 | 69.2 | 1.0 | 9 | 4.8 |
| | e | | 10:16:54.4 | | | | | |
| CLZ | e P | Z | 10:16:51.8 | 58.6 | 69.0 | 0.8 | 7 | 4.7 |
| GRA1 | e P | Z | 10:16:54.3 | 58.9 | 68.3 | 0.6 | 8 | 4.9 |
| | e | | 10:16:57.6 | | | | | |
| | e L | Z | 10:43:04.6 | | | 20.1 | 47 | 3.6 |
| BFO | e P | Z | 10:17:09.3 | 61.1 | 65.8 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/01 | 12:02:18.8 | 35.517N | 141.132E | 10.0G | 5.1 | 4.1 | | SZGRF |

Near east coast of eastern Honshu, Japan

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|-----|----|
| MOX | e L | Z 13:00:00.4 | 83.1 | 39.2 | 19.3 | 83 | | 4.1 | |
| GRA1 | e P | Z 12:14:49.6 | 84.0 | 38.9 | 0.9 | 11 | 5.1 | | |
| | e L | Z 12:58:19.9 | | | 19.6 | 65 | | 4.0 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/01 | 12:02:18.8 | 35.517N | 141.132E | 10.0G | 5.1 | 4.1 | | SZGRF |

Near east coast of eastern Honshu, Japan

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|-----|----|
| MOX | e L | Z 13:00:00.4 | 83.1 | 39.2 | 19.3 | 83 | | 4.1 | |
| GRA1 | e L | Z 12:58:19.9 | 84.0 | 38.9 | 19.6 | 65 | | 4.0 | |
| GRB3 | e P | Z 12:14:49.5 | 84.0 | 39.3 | 1.0 | 13 | 5.1 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|--------|----|----|----|--------|
| 2009/09/01 | 17:33:39.6 | 19.700S | 177.800W | 574.0G | | | | NEIC |

Fiji Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPbc | Z 17:52:13.8 | 145.2 | 13.5 | | | | | |
| RUE | e PKPbc | Z 17:52:16.0 | 146.0 | 19.8 | | | | | |
| NRDL | e PKPbc | Z 17:52:17.2 | 146.6 | 13.6 | | | | | |
| CLZ | e PKPbc | Z 17:52:19.2 | 147.2 | 14.3 | | | | | |
| CLL | e PKPbc | Z 17:52:19.4 | 147.3 | 19.0 | | | | | |
| | e PKPab | Z 17:52:23.0 | | | | | | | |
| BRG | e PKPbc | Z 17:52:20.1 | 147.5 | 20.9 | | | | | |
| | e PKPab | Z 17:52:23.8 | | | | | | | |

| | | | | | |
|------|---------|---|------------|-------|------|
| FBE | e PKPbc | Z | 17:52:20.5 | 147.6 | 19.8 |
| | e PKPab | Z | 17:52:24.6 | | |
| NEUB | e PKPbc | Z | 17:52:20.3 | 147.6 | 17.0 |
| BUG | e PKPbc | Z | 17:52:21.2 | 148.0 | 9.0 |
| MOX | e PKPbc | Z | 17:52:22.1 | 148.2 | 17.0 |
| PLN | e PKPbc | Z | 17:52:21.9 | 148.2 | 18.0 |
| | e PKPab | Z | 17:52:26.5 | | |
| TANN | e PKPbc | Z | 17:52:22.0 | 148.2 | 18.6 |
| | e PKPab | Z | 17:52:26.7 | | |
| WERD | e PKPbc | Z | 17:52:22.1 | 148.2 | 18.3 |
| | e PKPab | Z | 17:52:26.5 | | |
| UBBA | e PKPbc | Z | 17:52:21.7 | 148.3 | 14.1 |
| | e PKPab | Z | 17:52:26.6 | | |
| MANZ | e PKPbc | Z | 17:52:23.3 | 148.7 | 18.2 |
| ROTZ | e PKPbc | Z | 17:52:23.8 | 148.9 | 18.5 |
| TNS | e PKPbc | Z | 17:52:24.0 | 149.1 | 11.5 |
| | e PKPab | Z | 17:52:30.7 | | |
| GRA1 | e PKPbc | Z | 17:52:24.0 | 149.2 | 16.7 |
| | e PKPab | Z | 17:52:31.2 | | |
| WET | e PKPbc | Z | 17:52:24.5 | 149.3 | 20.0 |
| | e PKPab | Z | 17:52:31.8 | | |
| GEC2 | e PKPbc | Z | 17:52:24.9 | 149.4 | 21.7 |
| | e PKPab | Z | 17:52:31.8 | | |
| WLF | e PKPbc | Z | 17:52:26.2 | 149.9 | 7.4 |
| STU | e PKPbc | Z | 17:52:27.3 | 150.4 | 13.4 |
| FUR | e PKPbc | Z | 17:52:27.8 | 150.6 | 17.6 |
| | e PKPab | Z | 17:52:37.0 | | |
| RJOB | e PKPbc | Z | 17:52:27.4 | 150.7 | 20.7 |
| | e PKPab | Z | 17:52:38.0 | | |
| BFO | e PKPbc | Z | 17:52:27.9 | 150.9 | 11.9 |
| | e PKPab | Z | 17:52:38.1 | | |

Date 2009/09/01 Origin Time 20:31:50.6 Lat 23.529S Long 69.551E Depth 10.0G mb 5.1 Ms ML Source SZGRF
Mid-Indian Ridge

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GRA1 | e P | Z 20:44:48.6 | 89.6 | 128.7 | 1.3 | 17 | 5.1 | | |

Date 2009/09/01 Origin Time 20:56:17.7 Lat 48.500N Long 154.600E Depth 65.0G mb 5.0 Ms ML Source NEIC
Kuril Islands, Russia

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| GRA1 | e P | Z 21:08:05.7 | 76.9 | 23.9 | 0.6 | 7 | 5.0 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|---------|-------|-----|-----|----|--------|
| 2009/09/01 | 23:47:52.7 | 1.195S | 98.039E | 33.0G | 5.1 | 4.1 | | SZGRF |

Southern Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|-----|----|
| GEC2 | e P | Z | 00:00:35.6 | 87.2 | 95.1 | 1.3 | 15 | 5.0 | | |
| BRG | e P | Z | 00:00:35.6 | 87.2 | 95.3 | 1.0 | 8 | 4.8 | | |
| RUE | e P | Z | 00:00:36.8 | 87.5 | 95.3 | 1.1 | 36 | 5.4 | | |
| FBE | e P | Z | 00:00:37.7 | 87.6 | 94.9 | 1.1 | 16 | 5.3 | | |
| WET | e P | Z | 00:00:38.2 | 87.7 | 94.4 | 1.1 | 11 | 5.1 | | |
| CLL | e P | Z | 00:00:38.3 | 87.8 | 94.6 | 1.0 | 8 | 5.0 | | |
| TANN | e P | Z | 00:00:39.7 | 88.1 | 94.2 | 1.4 | 13 | 5.0 | | |
| ROTZ | e P | Z | 00:00:40.6 | 88.2 | 94.0 | 1.0 | 6 | 4.9 | | |
| MANZ | e P | Z | 00:00:41.2 | 88.3 | 93.9 | 1.0 | 14 | 5.2 | | |
| PLN | e P | Z | 00:00:40.9 | 88.3 | 93.9 | | | | | |
| NEUB | e P | Z | 00:00:42.2 | 88.6 | 93.7 | 0.9 | 19 | 5.3 | | |
| MOX | e P | Z | 00:00:42.8 | 88.7 | 93.5 | 1.4 | 11 | 4.9 | | |
| | e L | Z | 00:50:27.8 | | | 18.1 | 82 | | 4.2 | |
| GRA1 | e P | Z | 00:00:43.8 | 88.9 | 93.2 | 1.0 | 14 | 5.2 | | |
| | e L | Z | 00:48:25.5 | | | 21.9 | 51 | | 3.9 | |
| CLZ | e P | Z | 00:00:46.5 | 89.5 | 92.6 | 1.1 | 12 | 5.1 | | |
| NRDL | e P | Z | 00:00:47.8 | 89.7 | 92.4 | 1.3 | 18 | 5.2 | | |
| TNS | e P | Z | 00:00:52.0 | 90.7 | 91.1 | 0.9 | 10 | 5.1 | | |
| BFO | e P | Z | 00:00:52.0 | 90.7 | 91.0 | 1.3 | 10 | 5.0 | | |
| BUG | e P | Z | 00:00:55.4 | 91.4 | 90.1 | 1.8 | 46 | 5.5 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|---------|-------|-----|----|----|--------|
| 2009/09/01 | 23:50:54.7 | 0.584S | 96.737E | 33.0G | 4.8 | | | SZGRF |

Southwest of Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| GEC2 | e P | Z | 00:03:31.2 | 85.9 | 95.6 | 1.4 | 8 | 4.7 | | |
| BRG | e P | Z | 00:03:31.2 | 85.9 | 96.0 | 1.1 | 5 | 4.5 | | |
| RUE | e P | Z | 00:03:32.7 | 86.2 | 96.0 | | | | | |
| RJOB | e P | Z | 00:03:32.8 | 86.4 | 94.9 | 0.9 | 5 | 4.6 | | |
| WET | e P | Z | 00:03:33.9 | 86.4 | 95.0 | 1.4 | 8 | 4.7 | | |
| TANN | e P | Z | 00:03:35.8 | 86.8 | 94.8 | | | | | |
| WERD | e P | Z | 00:03:36.2 | 86.9 | 94.7 | 0.9 | 3 | 4.4 | | |
| ROTZ | e P | Z | 00:03:36.1 | 86.9 | 94.6 | 2.5 | 25 | 4.9 | | |
| MANZ | e P | Z | 00:03:36.9 | 87.0 | 94.5 | 1.1 | 8 | 4.7 | | |
| PLN | e P | Z | 00:03:36.4 | 87.0 | 94.6 | | | | | |
| NEUB | e P | Z | 00:03:38.0 | 87.3 | 94.3 | 0.9 | 11 | 5.0 | | |
| FUR | e P | Z | 00:03:39.0 | 87.4 | 93.8 | | | | | |
| GRA1 | e P | Z | 00:03:39.7 | 87.5 | 93.8 | 1.2 | 9 | 5.0 | | |

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| | | | | | | | | |
|------|-----|---|------------|------|------|-----|----|-----|
| CLZ | e P | Z | 00:03:42.2 | 88.2 | 93.2 | 0.8 | 3 | 4.7 |
| BSEG | e P | Z | 00:03:43.1 | 88.4 | 93.2 | 1.3 | 18 | 5.2 |
| NRDL | e P | Z | 00:03:43.5 | 88.4 | 93.0 | 1.4 | 10 | 5.0 |
| STU | e P | Z | 00:03:45.1 | 88.8 | 92.2 | 0.8 | 6 | 4.8 |
| TNS | e P | Z | 00:03:47.8 | 89.4 | 91.7 | 0.9 | 5 | 4.8 |
| BUG | e P | Z | 00:03:51.6 | 90.1 | 90.8 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|---------|-------|-----|----|----|--------|
| 2009/09/02 | 02:08:19.6 | 1.400S | 99.500E | 50.0G | 5.0 | | | NEIC |

Southern Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z | 02:21:06.2 | 88.3 | 94.3 | 1.0 | 3 | 4.6 | | |
| GEC2 | e P | Z | 02:21:06.4 | 88.3 | 94.1 | 1.8 | 22 | 5.2 | | |
| RUE | e P | Z | 02:21:07.6 | 88.5 | 94.2 | 1.1 | 27 | 5.5 | | |
| FBE | e P | Z | 02:21:08.4 | 88.7 | 93.9 | 1.0 | 14 | 5.1 | | |
| WET | e P | Z | 02:21:08.7 | 88.9 | 93.5 | 0.8 | 4 | 4.7 | | |
| CLL | e P | Z | 02:21:09.1 | 88.9 | 93.6 | 1.1 | 6 | 4.7 | | |
| WERD | e P | Z | 02:21:11.3 | 89.3 | 93.1 | 2.1 | 23 | 5.0 | | |
| ROTZ | e P | Z | 02:21:11.8 | 89.3 | 93.0 | 1.2 | 7 | 4.8 | | |
| MANZ | e P | Z | 02:21:12.3 | 89.4 | 92.9 | 0.9 | 7 | 4.9 | | |
| NEUB | e P | Z | 02:21:13.0 | 89.7 | 92.7 | 1.0 | 12 | 5.1 | | |
| MOX | e P | Z | 02:21:13.4 | 89.7 | 92.5 | 1.3 | 5 | 4.6 | | |
| GRA1 | e P | Z | 02:21:14.6 | 90.0 | 92.2 | 0.9 | 7 | 4.9 | | |
| CLZ | e P | Z | 02:21:17.0 | 90.6 | 91.6 | 1.1 | 9 | 5.0 | | |
| BSEG | e P | Z | 02:21:17.5 | 90.7 | 91.5 | 1.7 | 22 | 5.2 | | |
| NRDL | e P | Z | 02:21:18.4 | 90.7 | 91.3 | 1.5 | 14 | 5.1 | | |
| TNS | e P | Z | 02:21:22.9 | 91.7 | 90.1 | 1.2 | 9 | 5.0 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|-----|----|--------|
| 2009/09/02 | 07:55: 2.5 | 7.800S | 107.300E | 50.0G | | 6.9 | | NEIC |

Jawa, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|------|------|------|-------|----|----|----|
| BRG | e Pdiff | Z | 08:08:32.6 | 98.2 | 92.4 | 2.1 | 722 | | | |
| GEC2 | e Pdiff | Z | 08:08:33.1 | 98.2 | 92.5 | 2.2 | 1074 | | | |
| RUE | e Pdiff | Z | 08:08:33.2 | 98.3 | 92.0 | 2.1 | 1199 | | | |
| FBE | e Pdiff | Z | 08:08:34.5 | 98.5 | 91.9 | 2.2 | 1000 | | | |
| CLL | e Pdiff | Z | 08:08:34.8 | 98.8 | 91.6 | 2.2 | 509 | | | |
| WET | e Pdiff | Z | 08:08:35.7 | 98.8 | 91.8 | 2.3 | 899 | | | |
| RJOB | e Pdiff | Z | 08:08:35.1 | 98.8 | 92.0 | 2.3 | 602 | | | |
| TANN | e Pdiff | Z | 08:08:37.0 | 99.1 | 91.3 | 2.3 | 514 | | | |
| WERD | e Pdiff | Z | 08:08:37.3 | 99.2 | 91.2 | 2.2 | 488 | | | |
| ROTZ | e Pdiff | Z | 08:08:38.0 | 99.2 | 91.2 | 2.2 | 637 | | | |
| MANZ | e Pdiff | Z | 08:08:38.3 | 99.3 | 91.1 | 2.2 | 829 | | | |

| | | | | | | | | | |
|------|----------|---|------------|-------|------|------|-------|--|-----|
| NEUB | e Pdiff | Z | 08:08:38.6 | 99.5 | 90.6 | 2.2 | 894 | | |
| MOX | e Pdiff | Z | 08:08:39.3 | 99.6 | 90.6 | 2.5 | 686 | | |
| | e PP | Z | 08:12:41.6 | | | | | | |
| | e | | 08:19:12.5 | | | | | | |
| | e Sdiff | T | 08:20:05.7 | | | | | | |
| | e SP | Z | 08:21:30.3 | | | | | | |
| | e SS | T | 08:27:02.9 | | | | | | |
| | e PKPPKP | Z | 08:33:17.1 | | | | | | |
| | e L | Z | 08:55:50.4 | | | 21.8 | 32180 | | 6.8 |
| FUR | e Pdiff | Z | 08:08:40.6 | 99.8 | 90.8 | 2.1 | 583 | | |
| GRA1 | e Pdiff | Z | 08:08:40.9 | 99.9 | 90.5 | 2.2 | 840 | | |
| | e PP | Z | 08:12:45.0 | | | | | | |
| | e | | 08:19:13.9 | | | | | | |
| | e Sdiff | T | 08:20:09.1 | | | | | | |
| | e SP | Z | 08:21:34.6 | | | | | | |
| | e SS | T | 08:26:58.8 | | | | | | |
| | e PKPPKP | Z | 08:33:15.8 | | | | | | |
| | e L | Z | 09:00:53.6 | | | 21.6 | 44836 | | 6.9 |
| CLZ | e Pdiff | Z | 08:08:42.9 | 100.4 | 89.4 | 2.2 | 561 | | |
| BSEG | e Pdiff | Z | 08:08:42.9 | 100.4 | 89.0 | 1.8 | 328 | | |
| NRDL | e Pdiff | Z | 08:08:43.5 | 100.6 | 89.1 | 2.3 | 817 | | |
| STU | e Pdiff | Z | 08:08:46.5 | 101.2 | 89.1 | 2.4 | 874 | | |
| TNS | e Pdiff | Z | 08:08:48.5 | 101.6 | 88.2 | 2.2 | 542 | | |
| BFO | e Pdiff | Z | 08:08:48.7 | 101.8 | 88.5 | 2.4 | 426 | | |
| IBBN | e Pdiff | Z | 08:08:50.0 | 102.0 | 87.2 | 2.2 | 702 | | |
| BUG | e Pdiff | Z | 08:08:51.3 | 102.3 | 87.0 | 2.2 | 463 | | |
| WLF | e Pdiff | Z | 08:08:56.0 | 103.1 | 86.6 | 2.4 | 562 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/02 12:24:41.9 44.631N 148.201E 33.0N 5.1 SZGRF
 Kuril Islands, Russia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BSEG | e P | Z | 12:36:21.3 | 75.1 | 29.6 | 1.2 | 38 | 5.3 | | |
| RUE | e P | Z | 12:36:22.5 | 75.3 | 31.7 | 0.6 | 32 | 5.7 | | |
| NRDL | e P | Z | 12:36:28.2 | 76.4 | 29.3 | 0.8 | 9 | 5.0 | | |
| CLL | e P | Z | 12:36:28.5 | 76.5 | 31.0 | 0.6 | 25 | 5.5 | | |
| BRG | e P | Z | 12:36:29.0 | 76.6 | 31.6 | 0.9 | 8 | 4.8 | | |
| FBE | e P | Z | 12:36:30.3 | 76.8 | 31.2 | 0.7 | 17 | 5.3 | | |
| CLZ | e P | Z | 12:36:31.4 | 76.9 | 29.4 | 0.8 | 25 | 5.4 | | |
| NEUB | e P | Z | 12:36:31.4 | 77.0 | 30.2 | 0.9 | 21 | 5.3 | | |
| TANN | e P | Z | 12:36:34.0 | 77.5 | 30.6 | 0.8 | 6 | 4.8 | | |
| | e | | 12:36:56.8 | | | | | | | |
| WERD | e P | Z | 12:36:34.1 | 77.5 | 30.5 | 0.8 | 8 | 4.9 | | |
| MOX | e P | Z | 12:36:34.5 | 77.6 | 30.1 | 1.2 | 17 | 5.0 | | |
| | e | | 12:36:56.7 | | | | | | | |
| GUNZ | e P | Z | 12:36:34.6 | 77.6 | 30.5 | 0.7 | 10 | 5.1 | | |

| | | | | | | | | |
|------|-----|---|------------|------|------|-----|----|-----|
| MANZ | e P | Z | 12:36:37.1 | 78.0 | 30.3 | 0.9 | 8 | 4.9 |
| ROTZ | e P | Z | 12:36:38.0 | 78.1 | 30.3 | 1.0 | 11 | 4.9 |
| BUG | e P | Z | 12:36:38.2 | 78.2 | 27.3 | 1.3 | 42 | 5.3 |
| GEC2 | e P | Z | 12:36:39.1 | 78.4 | 31.2 | 0.7 | 6 | 4.7 |
| | e | | 12:37:01.7 | | | | | |
| WET | e P | Z | 12:36:39.6 | 78.4 | 30.7 | 0.9 | 14 | 5.0 |
| GRA1 | e P | Z | 12:36:40.2 | 78.5 | 29.7 | 0.8 | 24 | 5.3 |
| | e | | 12:37:01.9 | | | | | |
| RJOB | e P | Z | 12:36:46.8 | 79.7 | 30.5 | 1.0 | 13 | 4.8 |
| FUR | e P | Z | 12:36:47.3 | 79.8 | 29.6 | 0.7 | 30 | 5.3 |
| STU | e P | Z | 12:36:47.6 | 80.0 | 28.3 | 0.9 | 22 | 5.1 |
| BFO | e P | Z | 12:36:51.0 | 80.6 | 27.7 | 0.8 | 9 | 4.9 |
| | e | | 12:37:13.5 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-------------------------|-------------|---------|----------|--------|----|----|----|--------|
| 2009/09/02 | 18:00:10.1 | 29.200S | 178.800E | 261.0G | | | | NEIC |
| Kermadec Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|----------|---|------------|-------|------|------|-------|----|----|----|
| RGN | e PKPbc | Z | 18:19:35.4 | 152.6 | 28.4 | | | | | |
| | e PKPab | Z | 18:19:49.9 | | | | | | | |
| BSEG | e PKPpdf | Z | 18:19:30.3 | 153.9 | 23.3 | | | | | |
| | e PKPbc | Z | 18:19:39.2 | | | | | | | |
| | e PKPab | Z | 18:19:55.0 | | | | | | | |
| | e PP | Z | 18:23:28.7 | | | | | | | |
| | e SS | T | 18:42:46.9 | | | | | | | |
| | e SSS | T | 18:48:51.3 | | | | | | | |
| RUE | e PKPpdf | Z | 18:19:31.1 | 154.2 | 31.3 | | | | | |
| | e PKPbc | Z | 18:19:40.2 | | | | | | | |
| | e PKPab | Z | 18:19:57.5 | | | | | | | |
| NRDL | e PKPpdf | Z | 18:19:31.5 | 155.3 | 24.1 | | | | | |
| | e PKPbc | Z | 18:19:43.0 | | | | | | | |
| | e PKPab | Z | 18:20:00.6 | | | | | | | |
| CLL | e PKPpdf | Z | 18:19:32.6 | 155.5 | 31.1 | | | | | |
| | e PKPbc | Z | 18:19:43.6 | | | | | | | |
| | e PKPab | Z | 18:20:02.7 | | | | | | | |
| | e PP | Z | 18:23:34.5 | | | | | | | |
| | e SS | T | 18:42:56.9 | | | | | | | |
| | e SSS | T | 18:49:06.6 | | | | | | | |
| BRG | e PKPpdf | Z | 18:19:32.8 | 155.5 | 33.4 | | | | | |
| | e PKPbc | Z | 18:19:43.7 | | | | | | | |
| | e PKPab | Z | 18:20:03.5 | | | | | | | |
| FBE | e PKPpdf | Z | 18:19:33.4 | 155.7 | 32.2 | | | | | |
| | e PKPab | Z | 18:20:04.4 | | | | | | | |
| CLZ | e PKPpdf | Z | 18:19:32.5 | 155.8 | 25.3 | | | | | |
| | e PKPbc | Z | 18:19:44.3 | | | | | | | |
| | e PKPab | Z | 18:20:03.7 | | | | | | | |

| | | | | | |
|------|----------|---|------------|-------|------|
| NEUB | e PKPab | Z | 18:20:04.6 | 155.9 | 28.7 |
| IBBN | e PKPdf | Z | 18:19:34.3 | 156.0 | 19.5 |
| | e PKPab | Z | 18:20:03.7 | | |
| TANN | e PKPdf | Z | 18:19:33.5 | 156.4 | 31.0 |
| | e PKPab | Z | 18:20:07.3 | | |
| WERD | e PKPdf | Z | 18:19:33.9 | 156.4 | 30.7 |
| | e PKPab | Z | 18:20:07.3 | | |
| PLN | e PKPdf | Z | 18:19:33.6 | 156.5 | 30.3 |
| | e PKPab | Z | 18:20:07.3 | | |
| MOX | e PKPdf | Z | 18:19:33.8 | 156.5 | 29.0 |
| | e PKPbc | Z | 18:19:47.1 | | |
| | e PKPab | Z | 18:20:07.1 | | |
| | e pPKPab | Z | 18:21:11.3 | | |
| | e PP | Z | 18:23:42.7 | | |
| | e SS | T | 18:43:14.7 | | |
| | e SSS | T | 18:49:22.7 | | |
| GUNZ | e PKPdf | Z | 18:19:33.6 | 156.5 | 30.8 |
| | e PKPab | Z | 18:20:07.8 | | |
| BUG | e PKPab | Z | 18:20:07.1 | 156.9 | 19.1 |
| MANZ | e PKPdf | Z | 18:19:33.6 | 156.9 | 30.8 |
| | e PKPbc | Z | 18:19:46.5 | | |
| | e PKPab | Z | 18:20:09.3 | | |
| ROTZ | e PKPdf | Z | 18:19:34.2 | 157.1 | 31.3 |
| | e PKPab | Z | 18:20:10.6 | | |
| GEC2 | e PKPdf | Z | 18:19:34.4 | 157.3 | 35.6 |
| | e PKPbc | Z | 18:19:47.6 | | |
| | e PKPab | Z | 18:20:11.5 | | |
| WET | e PKPdf | Z | 18:19:34.7 | 157.4 | 33.5 |
| | e PKPbc | Z | 18:19:48.3 | | |
| | e PKPab | Z | 18:20:11.9 | | |
| GRA1 | e PKPdf | Z | 18:19:35.3 | 157.4 | 29.3 |
| | e PKPbc | Z | 18:19:48.2 | | |
| | e PKPab | Z | 18:20:11.9 | | |
| | e pPKPab | Z | 18:21:16.5 | | |
| | e PP | Z | 18:23:47.6 | | |
| | e SS | T | 18:43:26.1 | | |
| TNS | e SSS | T | 18:49:35.9 | | |
| | e PKPdf | Z | 18:19:35.5 | 157.8 | 22.7 |
| RJOB | e PKPab | Z | 18:20:11.7 | | |
| | e PKPdf | Z | 18:19:37.5 | 158.5 | 35.2 |
| FUR | e PKPab | Z | 18:20:17.6 | | |
| | e PKPdf | Z | 18:19:37.5 | 158.7 | 31.3 |
| WLF | e PKPab | Z | 18:20:17.9 | | |
| | e PKPdf | Z | 18:19:37.4 | 158.8 | 18.0 |
| STU | e PKPab | Z | 18:20:16.2 | | |
| | e PKPdf | Z | 18:19:36.8 | 158.9 | 25.9 |
| BFO | e PKPab | Z | 18:20:17.1 | | |
| | e PKPdf | Z | 18:19:37.3 | 159.5 | 24.4 |
| | e PKPab | Z | 18:20:19.7 | | |

e PP Z 18:23:57.1
 e SS T 18:43:45.8
 e SSS T 18:50:03.9

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/02 | 23:22:14.2 | 21.424S | 177.835W | 33.0G | | | | SZGRF |

Fiji Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPbc | Z 23:41:53.6 | 146.9 | 14.0 | | | | | |
| CLZ | e PKPbc | Z 23:41:59.4 | 148.9 | 14.9 | | | | | |
| CLL | e PKPbc | Z 23:41:58.6 | 148.9 | 19.8 | | | | | |
| | e PKPab | Z 23:42:04.0 | | | | | | | |
| BRG | e PKPbc | Z 23:41:59.6 | 149.1 | 21.7 | | | | | |
| | e PKPab | Z 23:42:04.6 | | | | | | | |
| FBE | e PKPbc | Z 23:41:59.8 | 149.2 | 20.7 | | | | | |
| | e PKPab | Z 23:42:05.0 | | | | | | | |
| NEUB | e PKPbc | Z 23:42:00.0 | 149.3 | 17.7 | | | | | |
| BUG | e PKPab | Z 23:42:06.0 | 149.7 | 9.5 | | | | | |
| MOX | e PKPbc | Z 23:42:00.9 | 149.9 | 17.7 | | | | | |
| | e PKPab | Z 23:42:06.9 | | | | | | | |
| PLN | e PKPbc | Z 23:42:01.4 | 149.9 | 18.8 | | | | | |
| TANN | e PKPbc | Z 23:42:01.3 | 149.9 | 19.4 | | | | | |
| | e PKPab | Z 23:42:07.9 | | | | | | | |
| WERD | e PKPbc | Z 23:42:01.3 | 149.9 | 19.1 | | | | | |
| | e PKPab | Z 23:42:08.1 | | | | | | | |
| GUNZ | e PKPbc | Z 23:42:01.7 | 150.0 | 19.2 | | | | | |
| | e PKPab | Z 23:42:08.9 | | | | | | | |
| MANZ | e PKPbc | Z 23:42:02.8 | 150.4 | 19.0 | | | | | |
| ROTZ | e PKPbc | Z 23:42:03.2 | 150.6 | 19.3 | | | | | |
| TNS | e PKPbc | Z 23:42:03.9 | 150.8 | 12.0 | | | | | |
| GRA1 | e PKPab | Z 23:42:11.9 | 150.8 | 17.5 | | | | | |
| WET | e PKPbc | Z 23:42:04.0 | 151.0 | 20.9 | | | | | |
| | e PKPab | Z 23:42:12.4 | | | | | | | |
| GEC2 | e PKPbc | Z 23:42:04.2 | 151.1 | 22.6 | | | | | |
| STU | e PKPbc | Z 23:42:06.6 | 152.1 | 14.1 | | | | | |
| FUR | e PKPab | Z 23:42:16.7 | 152.3 | 18.5 | | | | | |
| RJOB | e PKPab | Z 23:42:16.8 | 152.3 | 21.7 | | | | | |
| BFO | e PKPbc | Z 23:42:08.0 | 152.6 | 12.6 | | | | | |
| | e PKPab | Z 23:42:18.3 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/02 | 23:27:18.6 | 21.900S | 174.600W | 78.0G | | | | NEIC |

Tonga Islands

./2009/bul0909.txt

Thu Apr 23 08:38:25 2020

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| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| MOX | e PKPdf | Z | 23:47:01.4 | 150.8 | 11.9 | | | | | |
| | e PKPbc | Z | 23:47:12.4 | | | | | | | |
| | e PKPab | Z | 23:47:20.5 | | | | | | | |
| GRA1 | e PKPdf | Z | 23:47:03.0 | 151.8 | 11.5 | | | | | |
| | e PKPbc | Z | 23:47:14.7 | | | | | | | |
| | e PKPab | Z | 23:47:24.6 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|--------|-------|----|----|-----|--------|
| 2009/09/03 | 04:38:10.5 | 44.700N | 9.800E | 10.0G | | | 3.0 | EMSC |

Northern Italy

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|----|----|-----|
| DAVA | e Pn | Z | 04:38:53.0 | 2.6 | 181.3 | | | | | 3.2 |
| | e Pg | Z | 04:39:00.7 | | | | | | | |
| OBER | e Pn | Z | 04:38:54.8 | 2.7 | 187.4 | | | | | 3.1 |
| WTTA | e Pn | Z | 04:38:56.4 | 2.9 | 207.1 | | | | | 3.0 |
| KBA | e Pn | Z | 04:39:03.3 | 3.4 | 227.3 | | | | | 2.6 |
| RJOB | e Pn | Z | 04:39:07.1 | 3.7 | 215.4 | | | | | |
| BFO | e Pn | Z | 04:39:07.9 | 3.8 | 163.9 | | | | | |
| | e Pg | Z | 04:39:20.8 | | | | | | | |
| | e Sn | N | 04:39:48.2 | | | | | | | |
| OBKA | e Pg | Z | 04:39:21.9 | 3.8 | 243.1 | | | | | 3.1 |
| MOA | e Pn | Z | 04:39:16.5 | 4.4 | 226.1 | | | | | |
| GEC2 | e Pn | Z | 04:39:22.2 | 4.9 | 214.2 | | | | | |
| | e Sn | N | 04:40:16.4 | | | | | | | |
| GRA1 | e Sn | N | 04:40:20.4 | 5.1 | 191.5 | | | | | |
| TNS | e Pn | Z | 04:39:32.3 | 5.6 | 170.1 | | | | | |
| | e Sn | N | 04:40:33.0 | | | | | | | |
| MOX | e Sn | N | 04:40:43.5 | 6.1 | 192.3 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|--------|-----|----|----|--------|
| 2009/09/03 | 13:26:18.3 | 31.100N | 130.100E | 162.0G | 6.8 | | | NEIC |

Kyushu, Japan

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| RGN | e P | Z | 13:38:03.2 | 78.6 | 51.2 | 1.0 | 689 | 6.6 | | |
| RUE | e P | Z | 13:38:09.4 | 79.7 | 51.3 | 1.1 | 1062 | 6.7 | | |
| BSEG | e P | Z | 13:38:12.5 | 80.4 | 48.9 | 1.0 | 503 | 6.5 | | |
| | e S | T | 13:48:02.8 | | | | | | | |
| | e sS | T | 13:49:14.2 | | | | | | | |
| BRG | e P | Z | 13:38:14.1 | 80.6 | 51.2 | 1.7 | 605 | 6.4 | | |
| CLL | e P | Z | 13:38:14.8 | 80.8 | 50.5 | 0.9 | 849 | 6.8 | | |
| | e S | T | 13:48:08.8 | | | | | | | |
| | e sS | T | 13:49:19.0 | | | | | | | |

| | | | | | | | | |
|------|-------|---|------------|------|------|-----|------|-----|
| | e sSS | T | 13:54:38.0 | | | | | |
| FBE | e P | Z | 13:38:15.8 | 80.9 | 50.7 | 1.2 | 853 | 6.7 |
| NRDL | e P | Z | 13:38:18.1 | 81.4 | 48.6 | 1.1 | 320 | 6.4 |
| NEUB | e P | Z | 13:38:18.6 | 81.5 | 49.7 | 0.9 | 1175 | 7.0 |
| TANN | e P | Z | 13:38:19.7 | 81.7 | 50.1 | 1.6 | 648 | 6.5 |
| WERD | e P | Z | 13:38:19.9 | 81.7 | 49.9 | 1.6 | 833 | 6.6 |
| GUNZ | e P | Z | 13:38:20.3 | 81.8 | 50.0 | 1.8 | 1414 | 6.8 |
| PLN | e P | Z | 13:38:20.3 | 81.8 | 49.8 | | | |
| MOX | e P | Z | 13:38:21.0 | 81.9 | 49.5 | 1.5 | 715 | 6.6 |
| | e pP | Z | 13:38:59.8 | | | | | |
| | e sP | Z | 13:39:17.2 | | | | | |
| | e PP | Z | 13:41:29.9 | | | | | |
| | e pPP | Z | 13:42:09.3 | | | | | |
| | e sPP | Z | 13:42:27.1 | | | | | |
| | e | | 13:45:42.3 | | | | | |
| | e S | T | 13:48:20.3 | | | | | |
| | e sS | T | 13:49:30.4 | | | | | |
| | e sSS | T | 13:54:52.0 | | | | | |
| GEC2 | e P | Z | 13:38:21.5 | 82.0 | 50.8 | 1.4 | 431 | 6.4 |
| | e S | T | 13:48:22.3 | | | | | |
| | e sS | T | 13:49:31.6 | | | | | |
| | e sSS | T | 13:54:52.0 | | | | | |
| MANZ | e P | Z | 13:38:22.1 | 82.1 | 49.8 | 1.6 | 898 | 6.6 |
| ROTZ | e P | Z | 13:38:22.9 | 82.2 | 49.8 | 1.4 | 1227 | 6.8 |
| WET | e P | Z | 13:38:23.0 | 82.3 | 50.2 | 1.3 | 382 | 6.5 |
| | e S | T | 13:48:25.0 | | | | | |
| | e sS | T | 13:49:35.1 | | | | | |
| IBBN | e P | Z | 13:38:24.0 | 82.6 | 46.8 | 1.1 | 1059 | 7.0 |
| GRA1 | e P | Z | 13:38:25.6 | 82.7 | 49.1 | 1.1 | 1762 | 7.2 |
| | e pP | Z | 13:39:04.1 | | | | | |
| | e sP | Z | 13:39:21.5 | | | | | |
| | e PP | Z | 13:41:38.3 | | | | | |
| | e pPP | Z | 13:42:17.4 | | | | | |
| | e sPP | Z | 13:42:34.9 | | | | | |
| | e | | 13:45:48.9 | | | | | |
| | e S | T | 13:48:30.3 | | | | | |
| | e sS | T | 13:49:39.9 | | | | | |
| | e SS | T | 13:53:54.1 | | | | | |
| | e sSS | T | 13:55:04.1 | | | | | |
| RJOB | e P | Z | 13:38:27.9 | 83.2 | 50.0 | 1.1 | 782 | 6.8 |
| BUG | e P | Z | 13:38:28.1 | 83.4 | 46.4 | 1.1 | 980 | 6.9 |
| | e S | T | 13:48:35.4 | | | | | |
| | e sS | T | 13:49:46.0 | | | | | |
| | e sSS | T | 13:55:18.2 | | | | | |
| TNS | e P | Z | 13:38:30.1 | 83.7 | 47.2 | 1.1 | 780 | 6.9 |
| FUR | e P | Z | 13:38:30.4 | 83.7 | 49.0 | 1.0 | 1587 | 7.2 |
| STU | e P | Z | 13:38:33.0 | 84.3 | 47.6 | 1.0 | 800 | 6.9 |
| WLF | e P | Z | 13:38:37.5 | 85.2 | 45.5 | 1.2 | 1300 | 7.0 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/03 | 19:51: 6.6 | 23.901N | 94.861E | 101.9 | 5.7 | | | SZGRF |
| Myanmar-India border region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| RUE | e P | Z | 20:01:41.2 | 65.9 | 81.5 | 1.5 | 141 | 6.0 | | |
| | e pP | Z | 20:02:07.1 | | | 1.6 | 342 | | | |
| BRG | e P | Z | 20:01:42.5 | 66.1 | 81.0 | 1.6 | 75 | 5.7 | | |
| | e pP | Z | 20:02:08.2 | | | 1.3 | 115 | | | |
| FBE | e P | Z | 20:01:45.2 | 66.4 | 80.5 | 1.0 | 58 | 5.7 | | |
| GEC2 | e P | Z | 20:01:45.5 | 66.6 | 79.9 | 0.9 | 39 | 5.6 | | |
| | e pP | Z | 20:02:11.1 | | | 1.2 | 170 | | | |
| | e S | T | 20:10:26.5 | | | | | | | |
| | e SSS | T | 20:17:59.6 | | | | | | | |
| CLL | e P | Z | 20:01:45.4 | 66.6 | 80.5 | 1.1 | 27 | 5.4 | | |
| | e pP | Z | 20:02:10.9 | | | 1.4 | 87 | | | |
| WET | e P | Z | 20:01:48.8 | 67.1 | 79.5 | 1.3 | 52 | 5.6 | | |
| TANN | e P | Z | 20:01:48.9 | 67.1 | 79.7 | 1.4 | 42 | 5.5 | | |
| | e pP | Z | 20:02:14.6 | | | 1.1 | 80 | | | |
| GUNZ | e P | Z | 20:01:49.8 | 67.2 | 79.6 | 1.1 | 53 | 5.7 | | |
| | e pP | Z | 20:02:15.3 | | | 1.0 | 118 | | | |
| WERD | e P | Z | 20:01:49.5 | 67.2 | 79.6 | 1.1 | 37 | 5.5 | | |
| | e pP | Z | 20:02:15.2 | | | 1.0 | 74 | | | |
| ROTZ | e P | Z | 20:01:51.4 | 67.4 | 79.2 | 1.0 | 74 | 5.9 | | |
| NEUB | e P | Z | 20:01:50.7 | 67.4 | 79.5 | 1.4 | 91 | 5.8 | | |
| | e pP | Z | 20:02:16.4 | | | 1.1 | 133 | | | |
| RJOB | e P | Z | 20:01:50.9 | 67.4 | 78.8 | 0.9 | 48 | 5.7 | | |
| | e pP | Z | 20:02:16.5 | | | 1.0 | 101 | | | |
| MANZ | e P | Z | 20:01:51.6 | 67.4 | 79.3 | 1.4 | 51 | 5.6 | | |
| MOX | e P | Z | 20:01:52.0 | 67.6 | 79.2 | 1.2 | 39 | 5.5 | | |
| | e pP | Z | 20:02:17.5 | | | 1.1 | 67 | | | |
| | e pPP | Z | 20:04:43.1 | | | | | | | |
| | e S | T | 20:10:38.5 | | | | | | | |
| | e SSS | T | 20:18:20.6 | | | | | | | |
| BSEG | e P | Z | 20:01:53.2 | 67.7 | 79.5 | 1.8 | 205 | 6.1 | | |
| | e S | T | 20:10:41.4 | | | | | | | |
| | e SSS | T | 20:18:29.5 | | | | | | | |
| GRA1 | e P | Z | 20:01:55.1 | 68.0 | 78.5 | 1.4 | 91 | 5.8 | | |
| | e pP | Z | 20:02:20.4 | | | 2.0 | 404 | | | |
| | e pPP | Z | 20:04:45.8 | | | | | | | |
| | e S | T | 20:10:44.5 | | | | | | | |
| | e SSS | T | 20:18:25.9 | | | | | | | |
| CLZ | e P | Z | 20:01:55.6 | 68.1 | 78.7 | 0.9 | 47 | 5.7 | | |
| NRDL | e P | Z | 20:01:56.1 | 68.1 | 78.8 | 1.3 | 87 | 5.8 | | |
| FUR | e P | Z | 20:01:57.1 | 68.3 | 77.9 | 1.2 | 76 | 5.8 | | |
| | e pP | Z | 20:02:22.4 | | | 1.0 | 111 | | | |
| STU | e P | Z | 20:02:04.2 | 69.5 | 76.7 | 0.8 | 47 | 5.7 | | |

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Thu Apr 23 08:38:25 2020

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| | | | | | | | | |
|------|-------|---|------------|------|------|-----|-----|-----|
| IBBN | e P | Z | 20:02:04.7 | 69.6 | 77.0 | 1.0 | 38 | 5.5 |
| | e pP | Z | 20:02:30.2 | | | 1.2 | 97 | |
| TNS | e P | Z | 20:02:05.1 | 69.6 | 76.7 | 1.1 | 32 | 5.4 |
| | e pP | Z | 20:02:30.6 | | | 0.8 | 61 | |
| BUG | e P | Z | 20:02:07.6 | 70.1 | 76.3 | 1.3 | 58 | 5.5 |
| | e pP | Z | 20:02:33.5 | | | 1.0 | 73 | |
| BFO | e P | Z | 20:02:07.9 | 70.2 | 76.0 | 1.5 | 30 | 5.2 |
| | e pP | Z | 20:02:33.3 | | | 1.2 | 29 | |
| | e S | T | 20:11:07.6 | | | | | |
| WLF | e SSS | T | 20:19:09.1 | | | | | |
| | e P | Z | 20:02:15.5 | 71.2 | 74.9 | 1.6 | 225 | 6.0 |
| | e pP | Z | 20:02:40.7 | | | 1.0 | 218 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|-----|------|-------|----|----|----|--------|
| 2009/09/03 | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|------|-----|------|-------|----|----|----|
| GRA1 | e PKPab | Z 20:30:11.1 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------------|-------------|---------|----------|--------|----|----|----|--------|
| 2009/09/03 | 20:19: 9.2 | 19.700S | 177.600W | 513.0G | | | | NEIC |
| Fiji Islands region | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| CLZ | e PKPbc | Z 20:37:53.8 | 147.3 | 14.0 | | | | | |
| CLL | e PKPbc | Z 20:37:53.5 | 147.3 | 18.7 | | | | | |
| BRG | e PKPbc | Z 20:37:54.2 | 147.5 | 20.5 | | | | | |
| FBE | e PKPbc | Z 20:37:54.8 | 147.6 | 19.5 | | | | | |
| NEUB | e PKPbc | Z 20:37:54.6 | 147.6 | 16.6 | | | | | |
| BUG | e PKPbc | Z 20:37:55.2 | 148.0 | 8.7 | | | | | |
| MOX | e PKPbc | Z 20:37:55.8 | 148.2 | 16.6 | | | | | |
| PLN | e PKPbc | Z 20:37:56.2 | 148.3 | 17.7 | | | | | |
| WERD | e PKPbc | Z 20:37:56.3 | 148.3 | 17.9 | | | | | |
| TANN | e PKPbc | Z 20:37:56.3 | 148.3 | 18.2 | | | | | |
| GUNZ | e PKPbc | Z 20:37:56.6 | 148.3 | 18.0 | | | | | |
| MANZ | e PKPbc | Z 20:37:57.5 | 148.7 | 17.8 | | | | | |
| ROTZ | e PKPbc | Z 20:37:58.2 | 148.9 | 18.1 | | | | | |
| TNS | e PKPbc | Z 20:37:58.3 | 149.1 | 11.1 | | | | | |
| GRA1 | e PKPbc | Z 20:37:58.6 | 149.2 | 16.4 | | | | | |
| WET | e PKPbc | Z 20:37:59.1 | 149.4 | 19.6 | | | | | |
| GEC2 | e PKPbc | Z 20:37:59.2 | 149.5 | 21.3 | | | | | |
| STU | e PKPbc | Z 20:38:01.4 | 150.4 | 13.0 | | | | | |
| FUR | e PKPbc | Z 20:38:01.9 | 150.6 | 17.2 | | | | | |
| RJOB | e PKPbc | Z 20:38:01.6 | 150.7 | 20.3 | | | | | |
| BFO | e PKPbc | Z 20:38:02.3 | 151.0 | 11.6 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/04 | 00:42:52.2 | 18.301N | 46.474W | 33.0G | 4.9 | | | SZGRF |
| Northern Mid-Atlantic Ridge | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GRA1 | e P | Z 00:52:23.6 | 55.4 | 257.1 | 1.8 | 22 | 4.9 | | |
| GEC2 | e P | Z 00:52:33.7 | 56.8 | 259.8 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|----|----|--------|
| 2009/09/04 | 00:52: 7.1 | 2.772S | 108.935E | 58.0 | | | | NEIC |
| Java Sea | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|----|----|----|
| GRA1 | e PP | Z 01:09:31.6 | 97.1 | 85.9 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|--|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/04 | 02:30:29.8 | 35.978N | 140.505E | 33.0N | 5.3 | | | SZGRF |
| Near east coast of eastern Honshu, Japan | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| GRA1 | e P | Z 02:42:53.7 | 83.3 | 39.1 | 1.3 | 28 | 5.3 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|-----|------|-------|----|----|----|--------|
| 2009/09/04 | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-----|------|-------|----|----|----|
| GRA1 | e PKP | Z 15:55:09.8 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------|-------------|---------|---------|-------|----|-----|----|--------|
| 2009/09/04 | 22:16:47.5 | 47.953S | 31.500E | 10.0 | | 4.8 | | NEIC |
| South of Africa | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|-------|-------|------|-------|----|-----|----|
| GRA1 | e PP | Z 22:34:32.6 | 99.2 | 166.4 | | | | | |
| | e L | Z 23:17:14.0 | | | 18.8 | 324 | | 4.8 | |
| MOX | e L | Z 23:18:01.2 | 100.1 | 166.6 | 20.4 | 303 | | 4.8 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/05 | 03:59:4.6 | 11.990S | 66.100W | 215.0 | 5.6 | | | SZGRF |

Northern Bolivia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| WLF | e pP | Z | 04:12:22.4 | 88.0 | 248.8 | | | | | |
| BFO | e pP | Z | 04:12:25.9 | 88.9 | 250.5 | | | | | |
| BUG | e pP | Z | 04:12:28.0 | 89.3 | 249.6 | | | | | |
| STU | e pP | Z | 04:12:29.6 | 89.6 | 251.1 | | | | | |
| TNS | e pP | Z | 04:12:29.8 | 89.6 | 250.5 | | | | | |
| IBBN | e pP | Z | 04:12:31.0 | 89.9 | 250.0 | | | | | |
| FUR | e pP | Z | 04:12:35.0 | 90.7 | 252.7 | | | | | |
| UBBA | e pP | Z | 04:12:34.6 | 90.7 | 251.7 | | | | | |
| GRA1 | e P | Z | 04:11:44.3 | 91.1 | 252.7 | 1.6 | 52 | 5.6 | | |
| | e pP | Z | 04:12:37.0 | | | 1.6 | 52 | | | |
| CLZ | e pP | Z | 04:12:37.8 | 91.3 | 252.0 | | | | | |
| NRDL | e pP | Z | 04:12:37.9 | 91.3 | 251.8 | | | | | |
| RJOB | e pP | Z | 04:12:39.0 | 91.5 | 253.8 | | | | | |
| MOX | e pP | Z | 04:12:39.5 | 91.6 | 253.0 | | | | | |
| ROTZ | e pP | Z | 04:12:40.3 | 91.8 | 253.4 | | | | | |
| WET | e pP | Z | 04:12:40.9 | 92.0 | 253.9 | | | | | |
| TANN | e pP | Z | 04:12:41.7 | 92.1 | 253.6 | | | | | |
| GEC2 | e pP | Z | 04:12:42.7 | 92.4 | 254.5 | | | | | |
| CLL | e pP | Z | 04:12:44.0 | 92.7 | 254.1 | | | | | |
| BRG | e pP | Z | 04:12:46.1 | 93.1 | 254.8 | 1.4 | 23 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/06 | 01:14:45.3 | 13.836N | 93.920E | 35.0 | 4.7 | | | NEIC |

Andaman Islands, India, region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| GRA1 | e P | Z | 01:26:23.6 | 74.8 | 86.4 | 1.2 | 10 | 4.7 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/06 | 21:13:21.3 | 22.877S | 172.707E | 33.0G | | | | SZGRF |

Southeast of Loyalty Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPbc | Z | 21:33:02.7 | 146.2 | 30.1 | 1.0 | 41 | | | |
| BRG | e PKPbc | Z | 21:33:06.2 | 147.5 | 38.4 | 0.9 | 20 | | | |
| CLL | e PKPbc | Z | 21:33:06.1 | 147.5 | 36.5 | 0.9 | 23 | | | |
| NRDL | e PKPbc | Z | 21:33:06.3 | 147.5 | 30.9 | 1.1 | 14 | | | |
| CLZ | e PKPbc | Z | 21:33:08.1 | 148.0 | 31.8 | 1.3 | 34 | | | |
| IBBN | e PKPbc | Z | 21:33:08.9 | 148.4 | 27.2 | 1.3 | 49 | | | |

| | | | | | | | | |
|------|---|-------|---|------------|-------|------|-----|----|
| TANN | e | PKPbc | Z | 21:33:09.1 | 148.4 | 36.5 | 0.9 | 14 |
| MOX | e | PKPbc | Z | 21:33:09.2 | 148.6 | 34.9 | 1.1 | 12 |
| UBBA | e | PKPbc | Z | 21:33:10.1 | 149.0 | 32.1 | 1.8 | 31 |
| ROTZ | e | PKPbc | Z | 21:33:10.8 | 149.1 | 36.7 | 1.5 | 23 |
| GEC2 | e | PKPbc | Z | 21:33:10.8 | 149.2 | 40.1 | 1.0 | 16 |
| WET | e | PKPbc | Z | 21:33:11.2 | 149.3 | 38.5 | 1.3 | 16 |
| GRA1 | e | PKPbc | Z | 21:33:11.8 | 149.5 | 35.2 | 1.2 | 25 |
| TNS | e | PKPbc | Z | 21:33:13.1 | 150.0 | 30.0 | 0.8 | 7 |
| RJOB | e | PKPbc | Z | 21:33:13.4 | 150.4 | 39.9 | 0.9 | 13 |
| FUR | e | PKPbc | Z | 21:33:14.6 | 150.7 | 36.9 | 1.1 | 21 |
| STU | e | PKPbc | Z | 21:33:15.5 | 151.0 | 32.6 | 0.9 | 25 |
| WLF | e | PKPbc | Z | 21:33:16.5 | 151.2 | 26.4 | 0.9 | 15 |
| BFO | e | PKPbc | Z | 21:33:16.7 | 151.7 | 31.5 | 1.0 | 10 |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/06 21:49:43.4 41.259N 20.464E 10.0G 5.8 SZGRF
 Albania

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|----|----|-----|
| OBKA | e Pn | Z | 21:51:20.7 | 6.8 | 138.8 | | | | | 5.9 |
| ARSA | e Pn | Z | 21:51:23.4 | 7.0 | 147.7 | | | | | 5.4 |
| | e Sn | N | 21:52:43.1 | | | | | | | |
| KBA | e Pn | Z | 21:51:34.3 | 7.7 | 136.2 | | | | | 6.0 |
| MOA | e Pn | Z | 21:51:38.0 | 7.9 | 144.0 | | | | | 5.7 |
| | e Sn | N | 21:53:07.6 | | | | | | | |
| RJOB | e Pn | Z | 21:51:45.1 | 8.5 | 137.1 | | | | | 5.9 |
| KWP | e Pn | Z | 21:51:46.0 | 8.5 | 191.5 | | | | | |
| WTTA | e Pn | Z | 21:51:47.7 | 8.7 | 130.4 | | | | | |
| OKC | e Pn | Z | 21:51:49.6 | 8.7 | 168.4 | | | | | |
| | e Sn | E | 21:53:20.5 | | | | | | | |
| MORC | e Pn | Z | 21:51:49.0 | 8.8 | 165.4 | | | | | |
| | e Sn | E | 21:53:24.7 | | | | | | | |
| GEC2 | e Pn | Z | 21:51:51.4 | 9.0 | 145.4 | | | | | |
| OJC | e Pn | Z | 21:51:52.5 | 9.0 | 176.8 | | | | | |
| | e Sn | N | 21:53:31.0 | | | | | | | |
| KHC | e Pn | Z | 21:51:55.6 | 9.2 | 145.8 | | | | | |
| FUR | e Pn | Z | 21:51:58.3 | 9.5 | 133.3 | | | | | |
| WET | e Pn | Z | 21:51:57.9 | 9.5 | 143.1 | | | | | |
| DPC | e Pn | Z | 21:52:01.7 | 9.5 | 160.9 | | | | | |
| PRU | e Pn | Z | 21:52:02.5 | 9.7 | 152.5 | | | | | |
| DAVA | e Pn | Z | 21:52:00.6 | 9.7 | 124.7 | | | | | |
| KSP | e Pn | Z | 21:52:09.2 | 10.0 | 161.7 | | | | | |
| ROTZ | e Pn | Z | 21:52:08.4 | 10.3 | 142.8 | | | | | |
| MANZ | e Pn | Z | 21:52:11.4 | 10.5 | 143.1 | | | | | |
| BRG | e Pn | Z | 21:52:15.0 | 10.6 | 152.4 | | | | | |
| GRA1 | e Pn | Z | 21:52:12.1 | 10.6 | 139.1 | | | | | |
| TANN | e Pn | Z | 21:52:16.2 | 10.7 | 145.7 | | | | | |

./2009/bul0909.txt

Thu Apr 23 08:38:25 2020

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| | | | | | |
|------|------|---|------------|------|-------|
| STU | e Pn | Z | 21:52:17.4 | 10.9 | 129.2 |
| BFO | e Pn | Z | 21:52:19.2 | 11.1 | 125.0 |
| | e Sn | E | 21:54:18.4 | | |
| MOX | e Pn | Z | 21:52:21.1 | 11.2 | 143.5 |
| CLL | e Pn | Z | 21:52:23.3 | 11.3 | 150.1 |
| UBBA | e Pn | Z | 21:52:32.3 | 12.0 | 138.9 |
| TNS | e Pn | Z | 21:52:35.8 | 12.2 | 132.4 |
| | e Sn | N | 21:54:45.1 | | |
| SUW | e Pn | Z | 21:52:45.9 | 12.9 | 189.2 |
| WLF | e Pn | Z | 21:52:48.8 | 13.1 | 124.6 |
| NRDL | e Pn | Z | 21:52:52.0 | 13.3 | 143.9 |
| BSEG | e Pn | Z | 21:53:05.7 | 14.4 | 147.8 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/06 | 22:50:22.9 | 18.391S | 174.282W | 33.0G | | | | SZGRF |
| Tonga Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPbc | Z | 23:09:53.1 | 144.3 | 7.5 | | | | | |
| NRDL | e PKPbc | Z | 23:09:57.9 | 145.7 | 7.4 | | | | | |
| IBBN | e PKPbc | Z | 23:09:59.3 | 146.0 | 3.5 | | | | | |
| CLZ | e PKPbc | Z | 23:10:00.1 | 146.3 | 8.0 | | | | | |
| CLL | e PKPbc | Z | 23:10:00.3 | 146.6 | 12.6 | | | | | |
| BRG | e PKPbc | Z | 23:10:01.3 | 146.9 | 14.4 | | | | | |
| BUG | e PKPbc | Z | 23:10:01.3 | 146.9 | 2.7 | | | | | |
| UBBA | e PKPbc | Z | 23:10:02.2 | 147.4 | 7.6 | | | | | |
| MOX | e PKPbc | Z | 23:10:02.8 | 147.4 | 10.4 | | | | | |
| TANN | e PKPbc | Z | 23:10:03.2 | 147.5 | 12.0 | | | | | |
| TNS | e PKPbc | Z | 23:10:04.9 | 148.1 | 4.9 | | | | | |
| ROTZ | e PKPbc | Z | 23:10:05.2 | 148.2 | 11.7 | | | | | |
| GRA1 | e PKPbc | Z | 23:10:05.6 | 148.4 | 10.0 | | | | | |
| WET | e PKPbc | Z | 23:10:06.2 | 148.7 | 13.2 | | | | | |
| WLF | e PKPbc | Z | 23:10:06.9 | 148.7 | 0.8 | | | | | |
| GEC2 | e PKPbc | Z | 23:10:06.5 | 148.9 | 14.8 | | | | | |
| STU | e PKPbc | Z | 23:10:08.2 | 149.5 | 6.5 | | | | | |
| FUR | e PKPbc | Z | 23:10:09.1 | 149.9 | 10.6 | | | | | |
| BFO | e PKPbc | Z | 23:10:09.3 | 150.0 | 5.0 | | | | | |
| RJOB | e PKPbc | Z | 23:10:09.4 | 150.1 | 13.6 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|--------------------------|-------------|---------|----------|-------|----|-----|----|--------|
| 2009/09/07 | 16:12:23.5 | 10.200S | 110.600E | 29.0G | | 5.7 | | NEIC |
| South of Jawa, Indonesia | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|-----|---------|---|------------|-------|------|------|-------|----|----|----|
| BRG | e Pdiff | Z | 16:26:14.8 | 102.1 | 91.4 | | | | | |

| | | | | | | | | | | | |
|------|---------|---|------------|-------|------|------|------|--|--|-----|--|
| | e PP | Z | 16:30:29.4 | | | | | | | | |
| GEC2 | e Pdiff | Z | 16:26:15.3 | 102.2 | 91.6 | | | | | | |
| CLL | e Pdiff | Z | 16:26:17.2 | 102.7 | 90.5 | | | | | | |
| WET | e Pdiff | Z | 16:26:17.8 | 102.7 | 90.9 | | | | | | |
| TANN | e Pdiff | Z | 16:26:19.0 | 103.0 | 90.3 | | | | | | |
| ROTZ | e Pdiff | Z | 16:26:20.3 | 103.2 | 90.3 | | | | | | |
| MOX | e Pdiff | Z | 16:26:21.4 | 103.6 | 89.6 | | | | | | |
| | e L | Z | 17:20:51.0 | | | 22.0 | 2947 | | | 5.8 | |
| GRA1 | e Pdiff | Z | 16:26:22.8 | 103.8 | 89.5 | | | | | | |
| | e L | Z | 17:19:17.8 | | | 21.4 | 2137 | | | 5.6 | |
| BSEG | e Pdiff | Z | 16:26:24.8 | 104.3 | 87.8 | | | | | | |
| CLZ | e Pdiff | Z | 16:26:24.6 | 104.3 | 88.3 | | | | | | |
| NRDL | e Pdiff | Z | 16:26:25.5 | 104.5 | 88.0 | | | | | | |
| BFO | e Pdiff | Z | 16:26:30.5 | 105.7 | 87.7 | | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/07 21:26:31.0 38.600N 14.000E 10.0G 4.1
 Sicily, Italy EMSC

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|----|-----|----|
| GRA1 | e Pn | Z | 21:29:09.9 | 11.3 | 168.8 | | | | | |
| | e L | Z | 21:33:56.0 | | | 20.2 | 1724 | | 4.0 | |
| MOX | e L | Z | 21:34:34.1 | 12.2 | 171.1 | 18.5 | 2307 | | 4.2 | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/07 22:41:36.7 42.370N 43.120E 33.0G 5.6 5.1
 Western Caucasus SZGRF

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|-----|----|
| GEC2 | e P | Z | 22:46:27.6 | 21.4 | 96.5 | 1.6 | 689 | 5.7 | | |
| BRG | e P | Z | 22:46:28.5 | 21.6 | 101.8 | 1.2 | 242 | 5.5 | | |
| WET | e P | Z | 22:46:32.7 | 22.0 | 96.4 | 2.0 | 354 | 5.4 | | |
| CLL | e P | Z | 22:46:35.6 | 22.3 | 101.8 | 1.5 | 618 | 5.8 | | |
| TANN | e P | Z | 22:46:37.4 | 22.4 | 99.1 | 1.3 | 218 | 5.5 | | |
| ROTZ | e P | Z | 22:46:37.9 | 22.5 | 97.3 | 1.6 | 223 | 5.4 | | |
| FUR | e P | Z | 22:46:44.0 | 23.0 | 92.7 | 1.7 | 1087 | 6.1 | | |
| MOX | e P | Z | 22:46:43.1 | 23.0 | 98.8 | 1.6 | 220 | 5.4 | | |
| | e L | Z | 22:57:41.6 | | | 21.1 | 6721 | | 5.1 | |
| GRA1 | e P | Z | 22:46:44.7 | 23.1 | 96.2 | 1.9 | 329 | 5.5 | | |
| | e L | Z | 22:56:35.0 | | | 21.3 | 7739 | | 5.1 | |
| CLZ | e P | Z | 22:46:53.4 | 24.0 | 100.2 | 1.9 | 788 | 5.9 | | |
| UBBA | e P | Z | 22:46:53.5 | 24.0 | 97.6 | 1.7 | 280 | 5.5 | | |
| NRDL | e P | Z | 22:46:55.9 | 24.2 | 101.4 | 1.2 | 192 | 5.5 | | |
| STU | e P | Z | 22:46:56.5 | 24.4 | 92.3 | 0.9 | 347 | 5.9 | | |
| BSEG | e P | Z | 22:46:57.4 | 24.4 | 104.7 | 1.3 | 249 | 5.8 | | |

| | | | | | | | | |
|------|-----|---|------------|------|------|-----|-----|-----|
| BFO | e P | Z | 22:47:01.1 | 24.9 | 90.7 | 1.3 | 98 | 5.4 |
| TNS | e P | Z | 22:47:02.0 | 24.9 | 94.9 | 1.6 | 147 | 5.5 |
| IBBN | e P | Z | 22:47:08.7 | 25.6 | 98.6 | 1.6 | 782 | 6.1 |
| BUG | e P | Z | 22:47:10.5 | 25.8 | 96.4 | 1.7 | 283 | 5.6 |
| WLF | e P | Z | 22:47:15.9 | 26.4 | 91.8 | 1.4 | 159 | 5.5 |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/08 03:39:51.0 5.340N 94.540E 44.3 4.9 4.0
 Northern Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|-----|----|
| BRG | e P | Z | 03:51:55.4 | 79.9 | 93.9 | 0.9 | 8 | 4.7 | | |
| | e pP | Z | 03:52:08.2 | | | | | | | |
| GEC2 | e P | Z | 03:51:55.6 | 80.0 | 93.4 | 0.9 | 12 | 4.8 | | |
| | e pP | Z | 03:52:08.6 | | | | | | | |
| RJOB | e pP | Z | 03:52:10.9 | 80.5 | 92.5 | | | | | |
| WET | e P | Z | 03:51:58.6 | 80.5 | 92.8 | 1.2 | 10 | 4.7 | | |
| | e pP | Z | 03:52:11.5 | | | | | | | |
| CLL | e P | Z | 03:51:58.4 | 80.5 | 93.3 | 1.0 | 6 | 4.6 | | |
| | e pP | Z | 03:52:11.1 | | | | | | | |
| TANN | e pP | Z | 03:52:13.0 | 80.8 | 92.7 | | | | | |
| ROTZ | e P | Z | 03:52:01.5 | 81.0 | 92.4 | 0.8 | 7 | 4.8 | | |
| | e pP | Z | 03:52:14.4 | | | | | | | |
| MOX | e P | Z | 03:52:03.2 | 81.4 | 92.1 | 0.7 | 5 | 4.6 | | |
| | e pP | Z | 03:52:15.9 | | | | | | | |
| | e L | Z | 04:37:03.2 | | | 18.7 | 75 | | 4.1 | |
| GRA1 | e P | Z | 03:52:04.8 | 81.6 | 91.6 | 0.9 | 11 | 5.0 | | |
| | e pP | Z | 03:52:17.5 | | | | | | | |
| | e L | Z | 04:33:26.3 | | | 21.0 | 58 | | 3.9 | |
| CLZ | e P | Z | 03:52:07.4 | 82.2 | 91.3 | 0.9 | 10 | 4.9 | | |
| | e pP | Z | 03:52:20.2 | | | | | | | |
| BSEG | e P | Z | 03:52:07.9 | 82.3 | 91.5 | 0.8 | 20 | 5.3 | | |
| | e pP | Z | 03:52:20.8 | | | | | | | |
| NRDL | e P | Z | 03:52:08.5 | 82.4 | 91.2 | 1.5 | 24 | 5.1 | | |
| | e pP | Z | 03:52:21.5 | | | | | | | |
| UBBA | e pP | Z | 03:52:21.1 | 82.4 | 90.8 | | | | | |
| STU | e pP | Z | 03:52:24.2 | 82.9 | 90.0 | | | | | |
| TNS | e P | Z | 03:52:13.9 | 83.4 | 89.6 | 0.7 | 8 | 5.1 | | |
| | e pP | Z | 03:52:26.4 | | | | | | | |
| BFO | e P | Z | 03:52:13.7 | 83.5 | 89.3 | 0.8 | 6 | 4.9 | | |
| BUG | e P | Z | 03:52:17.5 | 84.1 | 88.8 | 1.0 | 12 | 5.1 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/08 05:14:30.2 17.220N 96.050W 104.3 5.1
 Oaxaca, Mexico

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| WLF | e P | Z | 05:26:52.6 | 84.5 | 290.3 | 1.0 | 18 | 5.2 | | |
| | e pP | Z | 05:27:19.5 | | | | | | | |
| IBBN | e P | Z | 05:26:52.4 | 84.6 | 291.3 | 0.5 | 22 | 5.7 | | |
| | e pP | Z | 05:27:19.4 | | | | | | | |
| BSEG | e P | Z | 05:26:56.7 | 85.4 | 293.1 | 0.9 | 19 | 5.2 | | |
| | e pP | Z | 05:27:23.7 | | | | | | | |
| TNS | e P | Z | 05:26:58.2 | 85.7 | 292.0 | 1.2 | 20 | 5.1 | | |
| | e pP | Z | 05:27:25.5 | | | | | | | |
| NRDL | e P | Z | 05:26:58.4 | 85.8 | 293.1 | 1.6 | 32 | 5.2 | | |
| | e pP | Z | 05:27:26.0 | | | | | | | |
| CLZ | e P | Z | 05:27:00.8 | 86.2 | 293.3 | 1.4 | 21 | 5.1 | | |
| | e pP | Z | 05:27:28.1 | | | | | | | |
| BFO | e P | Z | 05:27:00.6 | 86.4 | 292.0 | 2.0 | 36 | 5.1 | | |
| UBBA | e pP | Z | 05:27:29.6 | 86.4 | 293.1 | | | | | |
| STU | e pP | Z | 05:27:30.2 | 86.7 | 292.6 | | | | | |
| MOX | e pP | Z | 05:27:33.7 | 87.4 | 294.3 | | | | | |
| GRA1 | e P | Z | 05:27:09.1 | 87.6 | 294.1 | 0.7 | 21 | 5.6 | | |
| | e pP | Z | 05:27:36.1 | | | 1.7 | 28 | 5.1 | | |
| BRG | e P | Z | 05:27:11.8 | 88.6 | 296.1 | 0.9 | 5 | 4.8 | | |
| WET | e P | Z | 05:27:12.9 | 88.8 | 295.3 | 0.9 | 5 | 4.8 | | |
| | e pP | Z | 05:27:41.2 | | | | | | | |
| GEC2 | e P | Z | 05:27:15.5 | 89.4 | 296.0 | 0.9 | 4 | 4.6 | | |

Date 2009/09/08
 Origin Time 08:26: 6.3
 Colombia

| Lat | Long | Depth | mb | Ms | ML | Source |
|--------|---------|-------|-----|----|----|--------|
| 5.832N | 74.727W | 33.0N | 5.1 | | | SZGRF |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| WLF | e P | Z | 08:38:11.3 | 79.7 | 266.8 | 0.7 | 32 | 5.4 | | |
| BUG | e P | Z | 08:38:15.1 | 80.5 | 267.4 | 0.7 | 17 | 5.1 | | |
| BFO | e P | Z | 08:38:17.7 | 81.0 | 268.7 | 0.8 | 8 | 4.8 | | |
| TNS | e P | Z | 08:38:18.9 | 81.2 | 268.5 | 1.0 | 16 | 5.0 | | |
| STU | e P | Z | 08:38:21.3 | 81.6 | 269.3 | 0.9 | 19 | 5.2 | | |
| NRDL | e P | Z | 08:38:24.3 | 82.2 | 269.5 | 1.1 | 11 | 4.9 | | |
| BSEG | e P | Z | 08:38:24.9 | 82.4 | 269.4 | 0.7 | 11 | 5.1 | | |
| CLZ | e P | Z | 08:38:25.4 | 82.4 | 269.8 | 0.7 | 9 | 5.0 | | |
| GRA1 | e P | Z | 08:38:28.3 | 82.9 | 270.7 | 0.7 | 10 | 5.2 | | |
| MOX | e P | Z | 08:38:28.9 | 83.2 | 270.9 | 2.3 | 49 | 5.3 | | |
| ROTZ | e P | Z | 08:38:31.5 | 83.6 | 271.4 | 1.1 | 9 | 4.9 | | |
| TANN | e P | Z | 08:38:32.2 | 83.7 | 271.6 | 0.9 | 13 | 5.1 | | |
| RJOB | e P | Z | 08:38:33.6 | 84.0 | 272.1 | 0.7 | 12 | 5.3 | | |
| WET | e P | Z | 08:38:33.8 | 84.0 | 272.0 | 0.9 | 17 | 5.3 | | |
| CLL | e P | Z | 08:38:33.5 | 84.0 | 271.9 | 1.1 | 16 | 5.2 | | |
| GEC2 | e P | Z | 08:38:36.2 | 84.6 | 272.7 | 0.9 | 14 | 5.2 | | |
| BRG | e P | Z | 08:38:36.7 | 84.6 | 272.7 | 1.0 | 14 | 5.1 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/08 | 09:17:44.8 | 21.940S | 176.870W | 168.5 | | | | SZGRF |

Fiji Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|----------|---|------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPbc | Z | 09:37:08.6 | 147.5 | 12.5 | | | | | |
| | e pPKPbc | Z | 09:37:52.4 | | | | | | | |
| NRDL | e PKPbc | Z | 09:37:12.3 | 149.0 | 12.6 | | | | | |
| CLZ | e PKPbc | Z | 09:37:14.1 | 149.6 | 13.4 | | | | | |
| CLL | e PKPbc | Z | 09:37:14.1 | 149.6 | 18.3 | | | | | |
| | e pPKPbc | Z | 09:37:58.0 | | | | | | | |
| BRG | e PKPbc | Z | 09:37:14.9 | 149.9 | 20.3 | | | | | |
| | e pPKPbc | Z | 09:37:58.7 | | | | | | | |
| BUG | e PKPbc | Z | 09:37:15.4 | 150.3 | 7.8 | | | | | |
| | e PKPab | Z | 09:37:22.2 | | | | | | | |
| MOX | e PKPbc | Z | 09:37:16.3 | 150.5 | 16.2 | | | | | |
| TANN | e PKPbc | Z | 09:37:16.7 | 150.6 | 17.8 | | | | | |
| | e pPKPbc | Z | 09:38:00.7 | | | | | | | |
| UBBA | e PKPbc | Z | 09:37:16.0 | 150.6 | 13.1 | | | | | |
| ROTZ | e PKPbc | Z | 09:37:18.3 | 151.3 | 17.7 | | | | | |
| | e PKPab | Z | 09:37:27.0 | | | | | | | |
| TNS | e PKPbc | Z | 09:37:18.4 | 151.4 | 10.3 | | | | | |
| | e PKPab | Z | 09:37:27.4 | | | | | | | |
| GRA1 | e PKPbc | Z | 09:37:18.7 | 151.5 | 15.9 | | | | | |
| | e PKPab | Z | 09:37:26.9 | | | | | | | |
| WET | e PKPbc | Z | 09:37:18.9 | 151.7 | 19.4 | | | | | |
| GEC2 | e PKPbc | Z | 09:37:19.4 | 151.8 | 21.1 | | | | | |
| WLF | e PKPbc | Z | 09:37:20.5 | 152.2 | 6.0 | | | | | |
| | e PKPab | Z | 09:37:30.8 | | | | | | | |
| | e pPKPbc | Z | 09:38:04.4 | | | | | | | |
| FUR | e PKPab | Z | 09:37:34.2 | 153.0 | 16.8 | | | | | |
| BFO | e PKPab | Z | 09:37:35.0 | 153.3 | 10.8 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/08 | 17:50:48.1 | 42.600N | 43.500E | 10.0G | 4.1 | | | GSRC |

Georgia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| GRA1 | e P | Z | 17:55:58.6 | 23.3 | 95.3 | 1.3 | 8 | 4.1 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|-----|----|--------|
| 2009/09/08 | 18:51:22.8 | 1.100N | 120.900E | 23.0 | | 5.4 | | NEIC |

Minahassa Peninsula, Sulawesi, Indonesia

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|-------|------|------|-------|----|-----|----|
| MOX | e L | Z 19:59:11.9 | 101.1 | 74.1 | 19.2 | 1019 | | 5.4 | |
| GRA1 | e PP | Z 19:09:28.5 | 101.6 | 74.0 | | | | | |
| | e L | Z 19:54:19.4 | | | 21.9 | 965 | | 5.3 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|----|----|-----|--------|
| 2009/09/08 | 19:39:43.0 | 43.342N | 18.093E | 10.0G | | | 4.2 | SZGRF |

Northwestern Balkan Peninsula

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|----|----|-----|
| OBKA | e Pn | Z 19:40:45.0 | 4.0 | 140.3 | | | | | 4.4 |
| | e Pg | Z 19:40:56.1 | | | | | | | |
| ARSA | e Pn | Z 19:40:46.9 | 4.3 | 154.3 | | | | | 4.0 |
| | e Sn | E 19:41:34.9 | | | | | | | |
| KBA | e Pn | Z 19:40:58.4 | 5.0 | 136.5 | | | | | 4.1 |
| | e Sn | E 19:41:55.1 | | | | | | | |
| MOA | e Pn | Z 19:41:01.2 | 5.2 | 147.9 | | | | | 4.4 |
| | e Sn | E 19:41:59.7 | | | | | | | |
| RJOB | e Pn | Z 19:41:08.6 | 5.7 | 137.9 | | | | | 4.1 |
| GEC2 | e Pn | Z 19:41:14.9 | 6.3 | 149.4 | | | | | 4.1 |
| | e Sn | E 19:42:23.4 | | | | | | | |
| MORC | e Pn | Z 19:41:17.6 | 6.4 | 176.4 | | | | | |
| | e Sn | N 19:42:28.8 | | | | | | | |
| OKC | e Pn | Z 19:41:21.2 | 6.5 | 180.3 | | | | | |
| | e Sn | E 19:42:30.3 | | | | | | | |
| KHC | e Pn | Z 19:41:19.7 | 6.6 | 150.0 | | | | | |
| | e Sn | N 19:42:31.0 | | | | | | | |
| WET | e Pn | Z 19:41:22.6 | 6.8 | 146.2 | | | | | |
| OJC | e Sn | N 19:42:40.6 | 7.0 | 190.3 | | | | | |
| DAVA | e Pn | Z 19:41:25.6 | 7.0 | 121.4 | | | | | |
| MANZ | e Pn | Z 19:41:36.7 | 7.8 | 146.1 | | | | | |
| | e Sn | E 19:43:00.0 | | | | | | | |
| GRA1 | e Pn | Z 19:41:37.0 | 7.9 | 140.8 | | | | | |
| | e Sn | E 19:43:01.7 | | | | | | | |
| BFO | e Pn | Z 19:41:43.0 | 8.4 | 122.7 | | | | | |
| | e Sn | E 19:43:15.3 | | | | | | | |
| MOX | e Pn | Z 19:41:46.0 | 8.5 | 146.4 | | | | | |
| TNS | e Pn | Z 19:41:58.8 | 9.5 | 132.6 | | | | | |
| | e Sn | E 19:43:44.0 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|----|----|--------|
| 2009/09/09 | 08:06:32.7 | 2.500N | 126.100E | 111.0 | | | | NEIC |

Northern Molucca Sea

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| BRG | e Pdiff | Z | 08:20:13.4 | 101.8 | 70.9 | | | | | |
| WET | e Pdiff | Z | 08:20:19.5 | 103.0 | 70.4 | | | | | |
| GRA1 | e Pdiff | Z | 08:20:25.1 | 103.8 | 69.0 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/09 | 10:33:4.4 | 32.300S | 180.000E | 326.0 | | | | NEIC |

South of Kermadec Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPab | Z | 10:52:52.2 | 157.1 | 22.9 | | | | | |
| NRDL | e PKPab | Z | 10:52:57.6 | 158.5 | 23.9 | | | | | |
| CLL | e PKPab | Z | 10:52:59.1 | 158.7 | 31.6 | | | | | |
| BRG | e PKPab | Z | 10:52:59.5 | 158.8 | 34.2 | | | | | |
| CLZ | e PKPab | Z | 10:53:00.6 | 159.0 | 25.2 | | | | | |
| IBBN | e PKPab | Z | 10:53:01.0 | 159.2 | 18.8 | | | | | |
| TANN | e PKPab | Z | 10:53:03.5 | 159.7 | 31.7 | | | | | |
| MOX | e PKPab | Z | 10:53:03.7 | 159.8 | 29.5 | | | | | |
| ROTZ | e PKPab | Z | 10:53:06.9 | 160.3 | 32.0 | | | | | |
| GEC2 | e PKPab | Z | 10:53:06.9 | 160.5 | 36.9 | | | | | |
| WET | e PKPab | Z | 10:53:07.7 | 160.6 | 34.5 | | | | | |
| GRA1 | e PKPab | Z | 10:53:08.6 | 160.7 | 29.9 | | | | | |
| RJOB | e PKPab | Z | 10:53:12.7 | 161.8 | 36.8 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|-----|----|--------|
| 2009/09/10 | 00:20:17.9 | 37.546N | 95.594E | 33.0G | 4.9 | 4.0 | | SZGRF |

Qinghai, China

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|-----|----|
| BRG | e P | Z | 00:30:00.0 | 56.9 | 69.4 | 1.2 | 15 | 4.9 | | |
| FBE | e P | Z | 00:30:02.4 | 57.3 | 69.0 | 1.1 | 11 | 4.8 | | |
| CLL | e P | Z | 00:30:02.3 | 57.3 | 69.0 | 1.1 | 16 | 5.0 | | |
| GEC2 | e P | Z | 00:30:06.3 | 57.8 | 68.0 | 1.0 | 6 | 4.5 | | |
| BSEG | e P | Z | 00:30:07.1 | 57.9 | 68.8 | 1.1 | 18 | 5.0 | | |
| TANN | e P | Z | 00:30:07.2 | 58.0 | 68.2 | 1.2 | 11 | 4.7 | | |
| WERD | e P | Z | 00:30:07.9 | 58.1 | 68.1 | 1.0 | 5 | 4.5 | | |
| GUNZ | e P | Z | 00:30:08.0 | 58.1 | 68.1 | 1.1 | 13 | 4.9 | | |
| NEUB | e P | Z | 00:30:07.9 | 58.1 | 68.2 | 1.2 | 26 | 5.1 | | |
| WET | e P | Z | 00:30:09.1 | 58.2 | 67.7 | 1.2 | 12 | 4.8 | | |
| MANZ | e P | Z | 00:30:09.9 | 58.4 | 67.7 | 1.4 | 14 | 4.8 | | |
| ROTZ | e P | Z | 00:30:10.7 | 58.4 | 67.6 | 1.2 | 21 | 5.0 | | |
| MOX | e P | Z | 00:30:10.0 | 58.4 | 67.8 | 1.4 | 16 | 4.9 | | |
| | e L | Z | 00:57:02.9 | | | 18.0 | 79 | | 3.9 | |
| NRDL | e P | Z | 00:30:11.9 | 58.6 | 67.9 | 1.2 | 33 | 5.2 | | |

./2009/bul0909.txt

Thu Apr 23 08:38:25 2020

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| | | | | | | | | | | |
|------|-----|---|------------|------|------|------|-----|-----|-----|--|
| CLZ | e P | Z | 00:30:12.2 | 58.7 | 67.7 | 1.0 | 16 | 5.0 | | |
| RJOB | e P | Z | 00:30:13.4 | 58.8 | 66.9 | 1.1 | 5 | 4.5 | | |
| GRA1 | e P | Z | 00:30:14.7 | 59.0 | 67.0 | 1.0 | 21 | 5.1 | | |
| | e L | Z | 00:56:44.8 | | | 18.7 | 114 | | 4.0 | |
| FUR | e P | Z | 00:30:19.2 | 59.6 | 66.2 | 1.1 | 25 | 5.2 | | |
| TNS | e P | Z | 00:30:24.1 | 60.4 | 65.6 | 1.6 | 32 | 4.9 | | |
| BUG | e P | Z | 00:30:25.3 | 60.6 | 65.5 | 1.4 | 24 | 4.8 | | |
| BFO | e P | Z | 00:30:29.8 | 61.3 | 64.6 | 1.3 | 16 | 5.1 | | |
| WLF | e P | Z | 00:30:35.2 | 62.0 | 63.9 | 1.2 | 37 | 5.5 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/10 23:31:24.2 29.900S 112.000W 10.0 4.9 NEIC
 Easter Island region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|-----|----|
| GRA1 | e PKPdf | Z | 23:50:41.0 | 133.4 | 273.1 | | | | | |
| | e L | Z | 00:45:01.9 | | | 20.2 | 191 | | 4.8 | |
| MOX | e L | Z | 00:45:42.4 | 133.6 | 274.4 | 18.8 | 232 | | 4.9 | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/10 02:46:57.3 49.278N 153.997E 33.0G 6.1 5.9 SZGRF
 Kuril Islands, Russia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|-----|----|
| BSEG | e P | Z | 02:58:20.6 | 72.4 | 23.9 | 1.4 | 155 | 5.9 | | |
| NRDL | e P | Z | 02:58:28.0 | 73.7 | 23.6 | 1.3 | 112 | 5.7 | | |
| CLL | e P | Z | 02:58:29.8 | 74.1 | 25.3 | 0.8 | 178 | 6.1 | | |
| BRG | e P | Z | 02:58:30.6 | 74.2 | 25.8 | 0.9 | 70 | 5.7 | | |
| CLZ | e P | Z | 02:58:31.7 | 74.3 | 23.7 | 1.6 | 434 | 6.2 | | |
| IBBN | e P | Z | 02:58:32.5 | 74.4 | 22.1 | 0.9 | 130 | 5.9 | | |
| TANN | e P | Z | 02:58:35.6 | 75.0 | 24.8 | 1.8 | 268 | 6.0 | | |
| MOX | e P | Z | 02:58:35.7 | 75.0 | 24.3 | 2.2 | 514 | 6.2 | | |
| | e L | Z | 03:35:22.4 | | | 20.9 | 6245 | | 5.9 | |
| UBBA | e P | Z | 02:58:36.8 | 75.3 | 23.4 | 1.6 | 218 | 6.0 | | |
| BUG | e P | Z | 02:58:37.3 | 75.4 | 21.7 | 1.6 | 324 | 6.2 | | |
| ROTZ | e P | Z | 02:58:39.6 | 75.7 | 24.6 | 1.9 | 500 | 6.3 | | |
| GRA1 | e P | Z | 02:58:41.6 | 76.0 | 24.0 | 0.9 | 226 | 6.3 | | |
| | e L | Z | 03:36:22.8 | | | 20.9 | 6519 | | 5.9 | |
| WET | e P | Z | 02:58:41.9 | 76.1 | 25.0 | 0.8 | 116 | 6.1 | | |
| GEC2 | e P | Z | 02:58:41.7 | 76.1 | 25.4 | 0.7 | 67 | 5.9 | | |
| TNS | e P | Z | 02:58:42.6 | 76.2 | 22.3 | 1.1 | 143 | 6.0 | | |
| WLF | e P | Z | 02:58:48.7 | 77.3 | 20.9 | 1.4 | 142 | 5.9 | | |
| RJOB | e P | Z | 02:58:49.2 | 77.4 | 24.8 | 0.9 | 117 | 6.0 | | |
| STU | e P | Z | 02:58:48.8 | 77.4 | 22.7 | 1.5 | 254 | 6.1 | | |
| FUR | e P | Z | 02:58:49.2 | 77.4 | 23.9 | 1.1 | 229 | 6.2 | | |

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BFO e P Z 02:58:52.3 78.0 22.1 1.3 224 6.1

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/10 04:46:12.0 28.600N 66.500E 16.0 5.1 4.1 NEIC
Pakistan

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
MOX e L Z 05:10:23.4 46.3 96.9 21.7 324 4.2
GRA1 e P Z 04:54:41.2 46.5 95.7 1.1 17 5.1
e L Z 05:10:08.5 21.4 255 4.1

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/10 09:29:24.1 43.832N 146.006E 75.3N 4.9 SZGRF
Kuril Islands, Russia

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
BSEG e P Z 09:40:58.5 75.2 31.4 0.8 20 5.3
CLL e P Z 09:41:05.3 76.5 32.9 1.3 27 5.2
BRG e P Z 09:41:05.7 76.6 33.4 1.0 7 4.7
CLZ e P Z 09:41:08.4 76.9 31.2 1.5 42 5.3
IBBN e P Z 09:41:10.4 77.4 29.5 1.1 31 5.4
MOX e P Z 09:41:11.5 77.6 31.9 1.4 13 4.9
UBBA e P Z 09:41:13.2 77.9 30.8 0.8 4 4.6
ROTZ e P Z 09:41:14.9 78.1 32.1 1.3 9 4.7
GEC2 e P Z 09:41:15.9 78.4 33.0 1.6 13 4.7
WET e P Z 09:41:16.4 78.4 32.5 0.9 8 4.7
GRA1 e P Z 09:41:17.0 78.5 31.5 1.0 22 5.1
TNS e P Z 09:41:19.0 79.0 29.7 0.9 6 4.6
RJOB e P Z 09:41:23.0 79.6 32.3 1.4 12 4.6
BFO e P Z 09:41:28.0 80.6 29.5 0.9 7 4.7

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/10 18:29:54.8 37.900N 32.500E 10.0N 4.5 EMSC
Turkey

Sta Phase Time Dist BAz T[s] A[nm] mb MS ML
GRA1 e P Z 18:34:20.9 19.2 119.7 0.9 9 4.0
MOX e P Z 18:34:23.8 19.5 122.7 2.2 69 4.5
STU e P Z 18:34:28.7 20.0 114.2 1.8 120 4.8
BFO e P Z 18:34:32.6 20.4 111.8 1.5 44 4.5
UBBA e P Z 18:34:33.7 20.5 120.4 1.8 44 4.5

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|-----|----|--------|
| 2009/09/10 | 19:46:4.5 | 29.900S | 111.800W | 10.0 | | 4.9 | | NEIC |

Easter Island region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|-----|----|
| STU | e PKPdf | Z 20:05:18.0 | 132.0 | 270.6 | | | | | |
| BSEG | e PKPdf | Z 20:05:18.3 | 132.4 | 276.1 | | | | | |
| CLZ | e PKPdf | Z 20:05:19.5 | 132.6 | 274.3 | | | | | |
| GRA1 | e PKPdf | Z 20:05:20.9 | 133.3 | 273.0 | | | | | |
| | e L | Z 20:55:14.3 | | | 21.9 | 229 | | 4.8 | |
| MOX | e PKPdf | Z 20:05:20.8 | 133.5 | 274.2 | | | | | |
| | e L | Z 21:00:21.2 | | | 18.7 | 344 | | 5.1 | |
| ROTZ | e PKPdf | Z 20:05:21.5 | 133.9 | 273.8 | | | | | |
| TANN | e PKPdf | Z 20:05:21.8 | 134.0 | 274.7 | | | | | |
| CLL | e PKPdf | Z 20:05:22.3 | 134.3 | 276.0 | | | | | |
| WET | e PKPdf | Z 20:05:22.3 | 134.4 | 273.8 | | | | | |
| RJOB | e PKPdf | Z 20:05:22.3 | 134.4 | 272.3 | | | | | |
| BRG | e PKPdf | Z 20:05:23.2 | 134.9 | 276.3 | | | | | |
| GEC2 | e PKPdf | Z 20:05:23.4 | 135.0 | 274.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|----|----|--------|
| 2009/09/10 | 21:37:23.4 | 4.600S | 153.200E | 75.0 | | | | NEIC |

New Ireland, Papua New Guinea, region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| BRG | e PKPdf | Z 21:56:11.2 | 122.6 | 50.6 | | | | | |
| CLL | e PKPdf | Z 21:56:11.3 | 122.8 | 49.4 | | | | | |
| TANN | e PKPdf | Z 21:56:13.2 | 123.6 | 49.2 | | | | | |
| CLZ | e PKPdf | Z 21:56:13.6 | 123.6 | 46.3 | | | | | |
| GEC2 | e PKPdf | Z 21:56:13.9 | 124.0 | 51.3 | | | | | |
| GRA1 | e PKP | Z 21:56:15.1 | 124.7 | 48.3 | | | | | |
| TNS | e PKPdf | Z 21:56:17.1 | 125.6 | 45.0 | | | | | |
| STU | e PKPdf | Z 21:56:18.5 | 126.3 | 46.6 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/11 | 01:58:33.4 | 37.900N | 32.500E | 24.0 | 4.3 | | | NEIC |

Turkey

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GEC2 | e P | Z 02:02:38.9 | 17.4 | 121.9 | 1.2 | 13 | 3.9 | | |
| ROTZ | e P | Z 02:02:52.2 | 18.7 | 121.6 | 1.5 | 27 | 4.3 | | |
| MANZ | e P | Z 02:02:54.1 | 18.9 | 122.0 | 1.6 | 30 | 4.3 | | |
| TANN | e P | Z 02:02:54.7 | 19.0 | 123.6 | 1.2 | 12 | 4.0 | | |
| GRA1 | e P | Z 02:02:57.1 | 19.2 | 119.7 | 1.1 | 31 | 4.4 | | |

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| | | | | | | | | |
|-----|-----|---|------------|------|-------|-----|----|-----|
| MOX | e P | Z | 02:03:01.1 | 19.5 | 122.7 | 1.5 | 24 | 4.2 |
| STU | e P | Z | 02:03:05.1 | 20.0 | 114.2 | 1.2 | 70 | 4.8 |
| BFO | e P | Z | 02:03:09.3 | 20.4 | 111.8 | 1.4 | 60 | 4.6 |
| CLZ | e P | Z | 02:03:13.8 | 20.8 | 123.3 | 1.5 | 25 | 4.3 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/11 | 04:25:58.0 | 20.360S | 169.576E | 179.3 | | | | SZGRF |
| Vanuatu Islands | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|----------|--------------|-------|------|------|-------|----|----|----|
| BRG | e PKPbc | Z 04:45:09.1 | 144.0 | 41.1 | 0.6 | 16 | | | |
| CLL | e PKPbc | Z 04:45:09.1 | 144.0 | 39.4 | 0.7 | 17 | | | |
| FBE | e PKPbc | Z 04:45:10.2 | 144.2 | 40.2 | 0.8 | 20 | | | |
| CLZ | e PKPbc | Z 04:45:11.3 | 144.6 | 35.1 | 1.0 | 22 | | | |
| TANN | e pPKPbc | Z 04:45:59.0 | 144.9 | 39.4 | | | | | |
| WERD | e PKPbc | Z 04:45:12.6 | 145.0 | 39.1 | 0.8 | 18 | | | |
| PLN | e PKPbc | Z 04:45:12.5 | 145.0 | 38.9 | | | | | |
| | e pPKPbc | Z 04:45:59.2 | | | | | | | |
| GUNZ | e PKPbc | Z 04:45:13.3 | 145.0 | 39.2 | 0.9 | 26 | | | |
| MOX | e PKPbc | Z 04:45:13.3 | 145.1 | 37.9 | 0.9 | 10 | | | |
| | e pPKPbc | Z 04:45:59.5 | | | | | | | |
| ROHR | e PKPbc | Z 04:45:13.8 | 145.1 | 39.3 | | | | | |
| MANZ | e PKPbc | Z 04:45:14.0 | 145.4 | 39.3 | 1.0 | 9 | | | |
| ROTZ | e PKPbc | Z 04:45:14.5 | 145.5 | 39.6 | | | | | |
| GEC2 | e PKPbc | Z 04:45:14.3 | 145.6 | 42.7 | 0.7 | 10 | | | |
| | e pPKPbc | Z 04:46:00.7 | | | | | | | |
| GRA1 | e PKPbc | Z 04:45:15.9 | 146.0 | 38.2 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-------------|-------------|---------|--------|-------|----|----|-----|--------|
| 2009/09/11 | 06:34:41.3 | 46.599N | 9.662E | 10.0G | | | 3.6 | SZGRF |
| Switzerland | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|-------|-------|--------------|------|-------|------|-------|----|----|-----|
| PLONS | e Pg | Z 06:34:49.4 | 0.5 | 156.8 | | | | | |
| | e Sg | E 06:34:56.8 | | | | | | | |
| OBER | e Pg | Z 06:34:57.0 | 0.9 | 208.3 | | | | | 3.4 |
| | e Sg | E 06:35:11.8 | | | | | | | |
| WILA | e Sg | E 06:35:13.2 | 1.0 | 147.5 | | | | | 4.0 |
| SLE | e Pn | Z 06:35:06.3 | 1.4 | 145.3 | | | | | 3.5 |
| BALST | e Pn | Z 06:35:08.5 | 1.5 | 118.0 | | | | | 3.4 |
| FUR | e Pn | Z 06:35:13.3 | 1.9 | 215.5 | | | | | 4.0 |
| | e Pg | Z 06:35:15.8 | | | | | | | |
| | e Sg | N 06:35:42.7 | | | | | | | |
| BFO | e Pn | Z 06:35:13.6 | 2.0 | 152.0 | | | | | 3.4 |
| STU | e Pg | Z 06:35:22.0 | 2.2 | 171.6 | | | | | 3.8 |

| | | | | | | | | | | | |
|------|------|---|------------|-----|-------|--|--|--|--|--|-----|
| RJOB | e Pn | Z | 06:35:20.8 | 2.4 | 243.0 | | | | | | 3.5 |
| GRA1 | e Pn | Z | 06:35:29.8 | 3.3 | 199.2 | | | | | | 3.9 |
| | e Pg | Z | 06:35:41.3 | | | | | | | | |
| WET | e Pn | Z | 06:35:31.9 | 3.3 | 221.5 | | | | | | 3.5 |
| GEC2 | e Pn | Z | 06:35:34.9 | 3.5 | 231.9 | | | | | | |
| TNS | e Pn | Z | 06:35:37.9 | 3.7 | 167.0 | | | | | | |
| MOX | e Pn | Z | 06:35:42.6 | 4.2 | 198.4 | | | | | | |
| CLZ | e Pg | Z | 06:36:18.6 | 5.3 | 185.3 | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/11 | 08:49:15.4 | 48.300N | 154.300E | 65.0 | 5.7 | | | NEIC |
| Kuril Islands, Russia | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BSEG | e P | Z | 09:00:42.3 | 73.3 | 24.1 | 1.2 | 68 | 5.7 | | |
| RUE | e P | Z | 09:00:44.9 | 73.8 | 26.1 | 0.9 | 78 | 5.8 | | |
| NRDL | e P | Z | 09:00:49.4 | 74.7 | 23.8 | 1.2 | 53 | 5.5 | | |
| CLL | e P | Z | 09:00:51.3 | 75.0 | 25.5 | 0.9 | 81 | 5.7 | | |
| BRG | e P | Z | 09:00:52.2 | 75.2 | 26.0 | 1.3 | 59 | 5.5 | | |
| CLZ | e P | Z | 09:00:53.1 | 75.2 | 23.9 | 1.4 | 147 | 5.8 | | |
| FBE | e P | Z | 09:00:53.5 | 75.3 | 25.7 | 1.0 | 75 | 5.7 | | |
| IBBN | e P | Z | 09:00:54.5 | 75.4 | 22.3 | 0.9 | 67 | 5.7 | | |
| NEUB | e P | Z | 09:00:54.3 | 75.5 | 24.7 | 1.3 | 90 | 5.6 | | |
| TANN | e P | Z | 09:00:56.7 | 76.0 | 25.1 | 1.7 | 100 | 5.6 | | |
| WERD | e P | Z | 09:00:57.0 | 76.0 | 25.0 | 1.3 | 72 | 5.5 | | |
| MOX | e P | Z | 09:00:57.2 | 76.0 | 24.6 | 1.3 | 81 | 5.6 | | |
| GUNZ | e P | Z | 09:00:57.6 | 76.1 | 25.0 | 1.0 | 58 | 5.5 | | |
| UBBA | e P | Z | 09:00:58.3 | 76.3 | 23.6 | 1.6 | 134 | 5.7 | | |
| BUG | e P | Z | 09:00:59.0 | 76.4 | 21.9 | 1.2 | 106 | 5.8 | | |
| MANZ | e P | Z | 09:00:59.8 | 76.5 | 24.8 | 1.2 | 55 | 5.6 | | |
| ROTZ | e P | Z | 09:01:01.1 | 76.6 | 24.8 | 1.3 | 89 | 5.7 | | |
| GRA1 | e P | Z | 09:01:03.2 | 77.0 | 24.2 | 1.0 | 123 | 6.0 | | |
| WET | e P | Z | 09:01:03.4 | 77.0 | 25.2 | 1.2 | 102 | 5.8 | | |
| GEC2 | e P | Z | 09:01:03.1 | 77.1 | 25.7 | 1.0 | 44 | 5.5 | | |
| TNS | e P | Z | 09:01:04.0 | 77.2 | 22.5 | 1.1 | 59 | 5.6 | | |
| RJOB | e P | Z | 09:01:10.7 | 78.3 | 25.0 | 1.9 | 112 | 5.7 | | |
| STU | e P | Z | 09:01:11.3 | 78.4 | 22.9 | 1.3 | 112 | 5.8 | | |
| FUR | e P | Z | 09:01:10.7 | 78.4 | 24.1 | 1.1 | 133 | 6.0 | | |
| BFO | e P | Z | 09:01:13.3 | 79.0 | 22.3 | 1.2 | 91 | 5.8 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/12 | 02:47:24.7 | 34.000N | 25.300E | 10.0 | 4.3 | | | GSRC |
| Crete, Greece | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|-----|-------|--|------|------|-----|------|-------|----|----|----|
|-----|-------|--|------|------|-----|------|-------|----|----|----|

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| | | | | | | | | |
|------|-----|---|------------|------|-------|-----|----|-----|
| GEC2 | e P | Z | 02:51:29.0 | 17.2 | 145.6 | 1.0 | 10 | 3.9 |
| WET | e P | Z | 02:51:35.2 | 17.7 | 144.1 | 1.5 | 21 | 4.1 |
| TANN | e P | Z | 02:51:48.0 | 18.9 | 145.4 | 1.0 | 9 | 4.0 |
| TNS | e P | Z | 02:52:06.9 | 20.4 | 136.4 | 0.7 | 15 | 4.3 |
| WLF | e P | Z | 02:52:15.9 | 21.1 | 130.8 | 1.0 | 18 | 4.4 |
| BUG | e P | Z | 02:52:23.3 | 21.8 | 136.2 | 0.7 | 11 | 4.4 |
| BSEG | e P | Z | 02:52:25.3 | 22.6 | 146.0 | 1.3 | 19 | 4.5 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------------------------------|-------------|--------|----------|-------|----|----|----|--------|
| 2009/09/12 | 02:44:44.7 | 4.700S | 153.000E | 98.0 | | | | NEIC |
| New Ireland, Papua New Guinea, region | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| BRG | e PKPdf | Z 03:03:29.4 | 122.6 | 50.8 | | | | | |
| CLL | e PKPdf | Z 03:03:29.4 | 122.8 | 49.6 | | | | | |
| FBE | e PKPdf | Z 03:03:30.1 | 122.8 | 50.2 | | | | | |
| NEUB | e PKPdf | Z 03:03:30.9 | 123.4 | 48.4 | | | | | |
| TANN | e PKPdf | Z 03:03:31.4 | 123.6 | 49.5 | | | | | |
| WERD | e PKPdf | Z 03:03:31.5 | 123.7 | 49.3 | | | | | |
| ROHR | e PKPdf | Z 03:03:31.9 | 123.8 | 49.5 | | | | | |
| GEC2 | e PKPdf | Z 03:03:32.2 | 124.0 | 51.6 | | | | | |
| WET | e PKPdf | Z 03:03:32.7 | 124.2 | 50.6 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/12 | 09:41:22.5 | 42.700N | 43.600E | 10.0 | 4.1 | | | NEIC |
| Western Caucasus | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| GRA1 | e P | Z 09:46:29.3 | 23.3 | 95.0 | 1.4 | 8 | 4.1 | | |
| | e pP | Z 09:46:35.8 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/12 | 12:12:53.0 | 34.100N | 25.500E | 27.0 | 4.1 | | | NEIC |
| Crete, Greece | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GEC2 | e P | Z 12:16:52.7 | 17.1 | 144.9 | 1.7 | 25 | 4.1 | | |
| WET | e P | Z 12:16:58.8 | 17.7 | 143.5 | 1.2 | 20 | 4.1 | | |
| ROTZ | e P | Z 12:17:06.6 | 18.5 | 143.0 | | | | | |
| TANN | e P | Z 12:17:11.5 | 18.9 | 144.8 | 1.4 | 14 | 4.0 | | |
| GUNZ | e P | Z 12:17:11.7 | 18.9 | 144.4 | | | | | |
| WERD | e P | Z 12:17:12.5 | 19.0 | 144.5 | | | | | |
| BFO | e P | Z 12:17:15.1 | 19.1 | 131.8 | 1.0 | 5 | 3.7 | | |

| | | | | | | | | |
|------|-----|---|------------|------|-------|-----|----|-----|
| CLL | e P | Z | 12:17:17.9 | 19.4 | 147.4 | 0.8 | 5 | 3.8 |
| UBBA | e P | Z | 12:17:25.8 | 20.2 | 140.1 | 1.7 | 26 | 4.2 |
| TNS | e P | Z | 12:17:28.1 | 20.4 | 135.8 | 1.9 | 30 | 4.2 |
| CLZ | e P | Z | 12:17:31.4 | 20.8 | 142.6 | 1.6 | 15 | 4.1 |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/12 20:06:32.8 10.650N 66.600W 33.0G 5.9 6.4
 Near coast of Venezuela

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|-----|----|
| WLF | e P | Z | 20:17:46.4 | 70.8 | 263.8 | 2.4 | 780 | 6.4 | | |
| BUG | e P | Z | 20:17:51.7 | 71.7 | 264.1 | 2.1 | 743 | 6.5 | | |
| | e S | R | 20:27:10.3 | | | | | | | |
| IBBN | e P | Z | 20:17:54.1 | 72.0 | 264.2 | 2.6 | 1629 | 6.7 | | |
| BFO | e P | Z | 20:17:54.2 | 72.1 | 265.9 | 2.3 | 222 | 5.9 | | |
| | e S | R | 20:27:14.9 | | | | | | | |
| TNS | e P | Z | 20:17:56.0 | 72.3 | 265.4 | 1.3 | 142 | 5.9 | | |
| STU | e P | Z | 20:17:57.8 | 72.7 | 266.4 | 1.4 | 129 | 5.9 | | |
| | e S | R | 20:27:21.8 | | | | | | | |
| UBBA | e P | Z | 20:18:01.6 | 73.3 | 266.4 | 1.9 | 219 | 6.0 | | |
| | e S | R | 20:27:29.1 | | | | | | | |
| NRDL | e P | Z | 20:18:02.9 | 73.5 | 266.0 | 2.3 | 806 | 6.3 | | |
| CLZ | e P | Z | 20:18:03.6 | 73.6 | 266.4 | 2.3 | 593 | 6.2 | | |
| | e S | R | 20:27:32.5 | | | | | | | |
| BSEG | e P | Z | 20:18:03.9 | 73.7 | 265.8 | 1.3 | 193 | 6.0 | | |
| | e S | R | 20:27:33.7 | | | | | | | |
| FUR | e S | R | 20:27:37.0 | 74.0 | 268.2 | | | | | |
| GRA1 | e P | Z | 20:18:06.3 | 74.0 | 267.7 | 1.5 | 142 | 5.8 | | |
| | e S | R | 20:27:37.3 | | | | | | | |
| | e L | Z | 20:45:39.8 | | | 22.0 | 18366 | | 6.3 | |
| MOX | e P | Z | 20:18:07.4 | 74.3 | 267.7 | 1.3 | 53 | 5.4 | | |
| | e S | R | 20:27:40.5 | | | | | | | |
| | e L | Z | 20:45:33.1 | | | 21.8 | 30530 | | 6.6 | |
| NEUB | e P | Z | 20:18:08.3 | 74.4 | 267.7 | 1.2 | 139 | 5.9 | | |
| MANZ | e P | Z | 20:18:09.9 | 74.6 | 268.3 | 1.4 | 132 | 5.8 | | |
| ROTZ | e P | Z | 20:18:10.2 | 74.7 | 268.4 | 1.3 | 66 | 5.5 | | |
| WERD | e P | Z | 20:18:10.4 | 74.8 | 268.3 | 1.5 | 80 | 5.5 | | |
| GUNZ | e P | Z | 20:18:10.4 | 74.8 | 268.4 | 1.3 | 71 | 5.5 | | |
| TANN | e P | Z | 20:18:11.0 | 74.9 | 268.5 | 1.4 | 121 | 5.7 | | |
| RJOB | e P | Z | 20:18:11.4 | 75.0 | 269.4 | 1.9 | 151 | 5.7 | | |
| WET | e P | Z | 20:18:11.6 | 75.1 | 269.1 | 1.2 | 68 | 5.5 | | |
| | e S | R | 20:27:49.1 | | | | | | | |
| CLL | e P | Z | 20:18:12.8 | 75.2 | 268.6 | 1.1 | 103 | 5.7 | | |
| | e S | R | 20:27:50.5 | | | | | | | |
| FBE | e P | Z | 20:18:14.1 | 75.4 | 269.0 | 1.2 | 122 | 5.9 | | |
| GEC2 | e P | Z | 20:18:15.5 | 75.6 | 269.8 | 1.0 | 80 | 5.8 | | |
| | e S | R | 20:27:55.1 | | | | | | | |

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| | | | | | | | | |
|-----|-----|---|------------|------|-------|-----|-----|-----|
| RUE | e P | Z | 20:18:16.1 | 75.7 | 269.0 | 1.0 | 113 | 6.0 |
| BRG | e P | Z | 20:18:16.3 | 75.8 | 269.5 | 1.2 | 108 | 5.8 |
| | e S | R | 20:27:56.5 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-------------------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/13 | 00:13:21.8 | 46.920N | 141.760E | 10.0G | 4.8 | 4.4 | | SZGRF |
| Sakhalin Island, Russia | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|-----|----|
| CLL | e P | Z 00:24:49.8 | 72.4 | 34.0 | 0.9 | 9 | 4.9 | | |
| IBBN | e P | Z 00:24:55.2 | 73.3 | 30.9 | 1.3 | 20 | 5.0 | | |
| TANN | e P | Z 00:24:55.3 | 73.3 | 33.5 | 3.2 | 52 | 5.0 | | |
| MOX | e P | Z 00:24:55.9 | 73.4 | 33.0 | 1.3 | 10 | 4.7 | | |
| | e L | Z 00:49:45.9 | | | 18.5 | 221 | | 4.5 | |
| ROTZ | e P | Z 00:24:59.4 | 73.9 | 33.2 | 1.1 | 7 | 4.6 | | |
| GEC2 | e P | Z 00:25:00.4 | 74.2 | 34.0 | 1.1 | 5 | 4.5 | | |
| WET | e P | Z 00:25:00.7 | 74.2 | 33.5 | 1.3 | 16 | 4.9 | | |
| GRA1 | e P | Z 00:25:01.4 | 74.3 | 32.6 | 1.0 | 16 | 5.0 | | |
| | e PcP | Z 00:25:14.0 | | | | | | | |
| | e L | Z 00:50:48.7 | | | 18.9 | 158 | | 4.3 | |
| STU | e PcP | Z 00:25:22.5 | 75.8 | 31.3 | | | | | |
| WLF | e P | Z 00:25:11.9 | 76.1 | 29.5 | 1.4 | 13 | 4.9 | | |
| BFO | e P | Z 00:25:13.7 | 76.5 | 30.7 | 1.2 | 10 | 4.8 | | |
| | e PcP | Z 00:25:26.2 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/13 | 05:14:45.4 | 14.600S | 167.300E | 234.0 | | | | NEIC |
| Vanuatu Islands | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| FBE | e PKPdf | Z 05:33:43.2 | 138.0 | 39.5 | | | | | |
| TANN | e PKPdf | Z 05:33:44.4 | 138.8 | 38.7 | | | | | |
| WERD | e PKPdf | Z 05:33:44.7 | 138.8 | 38.4 | | | | | |
| PLN | e PKPdf | Z 05:33:44.5 | 138.9 | 38.2 | | | | | |
| GUNZ | e PKPdf | Z 05:33:44.8 | 138.9 | 38.5 | | | | | |
| WET | e PKPdf | Z 05:33:45.3 | 139.6 | 40.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/13 | 07:43:47.5 | 34.000N | 25.500E | 10.0 | 4.4 | | | NEIC |
| Crete, Greece | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GEC2 | e P | Z 07:47:49.1 | 17.2 | 145.1 | 0.8 | 13 | 4.1 | | |

| | | | | | | | | |
|------|-----|---|------------|------|-------|-----|----|-----|
| FUR | e P | Z | 07:47:55.3 | 17.7 | 137.9 | 1.2 | 65 | 4.6 |
| WET | e P | Z | 07:47:55.2 | 17.8 | 143.6 | 1.3 | 30 | 4.3 |
| GRA1 | e P | Z | 07:48:09.7 | 18.9 | 140.8 | 1.3 | 34 | 4.4 |
| TANN | e P | Z | 07:48:08.6 | 19.0 | 144.9 | 0.9 | 21 | 4.4 |
| TNS | e P | Z | 07:48:27.4 | 20.5 | 136.0 | 1.4 | 27 | 4.3 |
| CLZ | e P | Z | 07:48:29.0 | 20.9 | 142.7 | 0.9 | 12 | 4.2 |
| WLF | e P | Z | 07:48:36.0 | 21.2 | 130.5 | 1.1 | 29 | 4.5 |
| BUG | e P | Z | 07:48:42.3 | 21.9 | 135.9 | 1.1 | 31 | 4.7 |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/13 21:42:58.9 23.987S 179.491E 547.0
 South of Fiji Islands SZGRF

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|----------|---|------------|-------|------|------|-------|----|----|----|
| BSEG | e PKPbc | Z | 22:01:45.7 | 149.0 | 19.4 | 0.9 | 53 | | | |
| RUE | e PKPbc | Z | 22:01:47.0 | 149.5 | 26.4 | 1.3 | 78 | | | |
| NRDL | e PKPbc | Z | 22:01:49.0 | 150.4 | 19.9 | | | | | |
| CLL | e PKPbc | Z | 22:01:50.0 | 150.8 | 25.9 | | | | | |
| BRG | e PKPbc | Z | 22:01:50.4 | 150.9 | 27.9 | | | | | |
| CLZ | e PKPbc | Z | 22:01:50.6 | 150.9 | 20.8 | | | | | |
| FBE | e PKPbc | Z | 22:01:51.1 | 151.0 | 26.9 | | | | | |
| NEUB | e PKPbc | Z | 22:01:51.0 | 151.2 | 23.8 | | | | | |
| TANN | e PKPbc | Z | 22:01:52.4 | 151.7 | 25.6 | | | | | |
| WERD | e PKPbc | Z | 22:01:52.3 | 151.7 | 25.3 | | | | | |
| MOX | e PKPbc | Z | 22:01:52.2 | 151.7 | 23.9 | | | | | |
| PLN | e PKPbc | Z | 22:01:52.3 | 151.7 | 25.0 | | | | | |
| | e PKPab | Z | 22:02:02.7 | | | | | | | |
| | e pPKPab | Z | 22:04:04.3 | | | | | | | |
| GUNZ | e PKPbc | Z | 22:01:52.6 | 151.8 | 25.4 | | | | | |
| | e PKPab | Z | 22:02:02.9 | | | | | | | |
| ROHR | e PKPbc | Z | 22:01:52.3 | 151.9 | 25.5 | | | | | |
| | e PKPab | Z | 22:02:03.7 | | | | | | | |
| MANZ | e PKPbc | Z | 22:01:53.4 | 152.2 | 25.3 | | | | | |
| ROTZ | e PKPbc | Z | 22:01:53.8 | 152.4 | 25.7 | | | | | |
| GRA1 | e PKPbc | Z | 22:01:54.4 | 152.7 | 23.9 | | | | | |
| GEC2 | e PKPbc | Z | 22:01:54.5 | 152.7 | 29.3 | | | | | |
| TNS | e PKPbc | Z | 22:01:54.8 | 152.9 | 18.2 | | | | | |
| STU | e PKPbc | Z | 22:01:57.2 | 154.1 | 20.6 | | | | | |
| | e PKPab | Z | 22:02:12.5 | | | | | | | |
| FUR | e PKPbc | Z | 22:01:57.2 | 154.1 | 25.3 | | | | | |
| | e PKPab | Z | 22:02:13.3 | | | | | | | |
| BFO | e PKPab | Z | 22:02:14.7 | 154.7 | 19.2 | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/14 20:04:40.5 44.593N 11.372E 10.0G
 4.6 SZGRF

Northern Italy

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|----|----|-----|
| WTTA | e Pn | Z | 20:05:24.3 | 2.7 | 184.0 | | | | | |
| KBA | e Pn | Z | 20:05:25.1 | 2.8 | 209.7 | | | | | |
| DAVA | e Pn | Z | 20:05:27.1 | 2.9 | 158.4 | | | | | |
| | e Sg | N | 20:06:10.5 | | | | | | | |
| OBKA | e Pn | Z | 20:05:24.1 | 2.9 | 230.4 | | | | | |
| RJOB | e Pn | Z | 20:05:32.7 | 3.3 | 197.9 | | | | | 4.3 |
| FUR | e Pn | Z | 20:05:35.7 | 3.6 | 178.9 | | | | | 4.6 |
| MOA | e Pn | Z | 20:05:38.5 | 3.8 | 212.6 | | | | | |
| BFO | e Pn | Z | 20:05:43.9 | 4.3 | 149.6 | | | | | 4.5 |
| STU | e Pn | Z | 20:05:46.6 | 4.4 | 159.5 | | | | | 4.7 |
| GEC2 | e Pn | Z | 20:05:47.9 | 4.5 | 201.4 | | | | | 4.4 |
| WET | e Pn | Z | 20:05:49.2 | 4.7 | 193.3 | | | | | 4.4 |
| GRA1 | e Pn | Z | 20:05:54.6 | 5.1 | 178.8 | | | | | 4.9 |
| ROTZ | e Pn | Z | 20:05:56.7 | 5.2 | 186.6 | | | | | 4.4 |
| | e Sn | N | 20:06:54.7 | | | | | | | |
| TANN | e Pn | Z | 20:06:05.6 | 5.9 | 187.6 | | | | | 4.6 |
| TNS | e Pn | Z | 20:06:07.3 | 6.0 | 159.5 | | | | | 4.6 |
| MOX | e Pn | Z | 20:06:09.3 | 6.1 | 181.6 | | | | | 4.6 |
| WLF | e Pn | Z | 20:06:11.4 | 6.2 | 143.1 | | | | | |
| CLL | e Pn | Z | 20:06:18.6 | 6.8 | 189.9 | | | | | 4.8 |
| | e Sg | N | 20:08:14.7 | | | | | | | |
| CLZ | e Pn | Z | 20:06:25.0 | 7.3 | 174.4 | | | | | 4.8 |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/15 00:57: 4.0 20.600S 176.900W 300.0 GSRC
 Fiji Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| CLL | e PKPbc | Z | 01:16:14.5 | 148.3 | 17.9 | | | | | |
| BRG | e PKPbc | Z | 01:16:15.2 | 148.5 | 19.7 | | | | | |
| FBE | e PKPbc | Z | 01:16:15.7 | 148.6 | 18.7 | | | | | |
| PLN | e PKPbc | Z | 01:16:17.1 | 149.3 | 16.8 | | | | | |
| WERD | e PKPbc | Z | 01:16:17.0 | 149.3 | 17.0 | | | | | |
| TANN | e PKPbc | Z | 01:16:17.1 | 149.3 | 17.3 | | | | | |
| GUNZ | e PKPbc | Z | 01:16:17.4 | 149.4 | 17.1 | | | | | |
| ROTZ | e PKPbc | Z | 01:16:18.7 | 149.9 | 17.2 | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/15 01:13:32.6 33.900N 25.200E 10.0 4.3 GSRC
 Eastern Mediterranean Sea

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|-----|-------|--|------|------|-----|------|-------|----|----|----|
|-----|-------|--|------|------|-----|------|-------|----|----|----|

| | | | | | | | | |
|------|-----|---|------------|------|-------|-----|----|-----|
| RJOB | e P | Z | 01:17:34.4 | 16.7 | 141.6 | 0.9 | 11 | 4.0 |
| GEC2 | e P | Z | 01:17:37.2 | 17.2 | 146.0 | 0.9 | 12 | 4.0 |
| FUR | e P | Z | 01:17:42.9 | 17.7 | 138.8 | 1.0 | 56 | 4.7 |
| WET | e P | Z | 01:17:44.3 | 17.8 | 144.5 | 1.4 | 43 | 4.4 |
| ROTZ | e P | Z | 01:17:52.9 | 18.5 | 144.0 | | | |
| MANZ | e P | Z | 01:17:54.2 | 18.7 | 144.2 | 1.0 | 10 | 4.0 |
| GRA1 | e P | Z | 01:17:57.9 | 18.9 | 141.6 | | | |
| TANN | e P | Z | 01:17:57.2 | 19.0 | 145.7 | 0.9 | 16 | 4.3 |
| GUNZ | e P | Z | 01:17:57.9 | 19.0 | 145.3 | | | |
| WERD | e P | Z | 01:17:57.6 | 19.0 | 145.4 | 1.0 | 13 | 4.1 |
| BFO | e P | Z | 01:18:00.9 | 19.1 | 132.7 | | | |
| UBBA | e P | Z | 01:18:12.7 | 20.2 | 141.0 | 1.6 | 26 | 4.2 |
| TNS | e P | Z | 01:18:15.5 | 20.4 | 136.7 | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/15 08:37:36.8 40.926N 19.996E 10.0G 4.2 SZGRF
 Albania

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|----|----|-----|
| OBKA | e Pn | Z | 08:39:16.0 | 6.8 | 142.9 | | | | | |
| ARSA | e Pn | Z | 08:39:19.4 | 7.1 | 151.5 | | | | | |
| KBA | e Pn | Z | 08:39:28.4 | 7.8 | 139.8 | | | | | 4.2 |
| | e Sn | N | 08:40:49.2 | | | | | | | |
| MOA | e Pn | Z | 08:39:33.1 | 8.0 | 147.4 | | | | | 4.2 |
| | e Sn | N | 08:40:56.5 | | | | | | | |
| RJOB | e Pn | Z | 08:39:39.0 | 8.5 | 140.3 | | | | | 4.3 |
| | e Sn | N | 08:41:09.4 | | | | | | | |
| WTTA | e Pn | Z | 08:39:42.0 | 8.7 | 133.6 | | | | | |
| GEC2 | e Sn | N | 08:41:23.4 | 9.1 | 148.3 | | | | | |
| DAVA | e Pn | Z | 08:39:54.8 | 9.6 | 127.6 | | | | | |
| | e Sn | N | 08:41:36.5 | | | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/16 14:09:39.9 34.500N 33.000E 10.0G 4.7 GSRC
 Cyprus region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| GEC2 | e P | Z | 14:14:18.7 | 20.2 | 128.0 | 1.7 | 54 | 4.5 | | |
| WET | e P | Z | 14:14:21.8 | 20.8 | 127.1 | 0.9 | 25 | 4.5 | | |
| BRG | e P | Z | 14:14:29.3 | 21.4 | 132.5 | 0.9 | 15 | 4.3 | | |
| ROTZ | e P | Z | 14:14:29.0 | 21.6 | 127.2 | 1.2 | 28 | 4.6 | | |
| MOX | e P | Z | 14:14:40.3 | 22.4 | 127.9 | 1.0 | 30 | 4.7 | | |
| UBBA | e P | Z | 14:14:50.3 | 23.3 | 125.6 | 2.3 | 68 | 4.8 | | |
| CLZ | e P | Z | 14:14:54.1 | 23.7 | 128.1 | 1.8 | 43 | 4.7 | | |
| NRDL | e P | Z | 14:15:02.8 | 24.3 | 128.8 | | | | | |

| | | | | | | | | | | |
|------|-----|---|------------|------|-------|-----|--|-----|-----|--|
| BUG | e P | Z | 14:15:06.6 | 25.1 | 122.4 | | | | | |
| BSEG | e P | Z | 14:15:06.9 | 25.1 | 131.5 | 2.4 | | 115 | 5.2 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/16 | 20:50:15.6 | 52.300N | 169.400W | 33.0 | 5.4 | 4.2 | | GSRC |

Fox Islands, Aleutian Islands, United States

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|-----|----|
| BSEG | e P | Z | 21:01:50.1 | 73.8 | 359.8 | 1.1 | 42 | 5.4 | | |
| RUE | e P | Z | 21:01:58.3 | 75.2 | 2.0 | 1.5 | 98 | 5.7 | | |
| NRDL | e P | Z | 21:01:58.2 | 75.2 | 359.7 | 1.3 | 33 | 5.3 | | |
| IBBN | e P | Z | 21:01:59.3 | 75.4 | 358.2 | 1.2 | 64 | 5.6 | | |
| CLZ | e P | Z | 21:02:02.5 | 75.9 | 359.9 | 1.3 | 58 | 5.6 | | |
| CLL | e P | Z | 21:02:04.6 | 76.4 | 1.5 | 0.9 | 19 | 5.2 | | |
| NEUB | e P | Z | 21:02:05.8 | 76.5 | 0.7 | 1.2 | 62 | 5.6 | | |
| FBE | e P | Z | 21:02:07.4 | 76.8 | 1.7 | 1.0 | 38 | 5.5 | | |
| BRG | e P | Z | 21:02:07.3 | 76.8 | 2.1 | 1.6 | 57 | 5.4 | | |
| MOX | e P | Z | 21:02:09.0 | 77.1 | 0.6 | 1.2 | 34 | 5.4 | | |
| | e L | Z | 21:38:24.8 | | | 18.5 | 162 | | 4.4 | |
| WERD | e P | Z | 21:02:10.1 | 77.2 | 1.1 | 2.3 | 85 | 5.5 | | |
| TANN | e P | Z | 21:02:10.3 | 77.3 | 1.2 | 1.2 | 17 | 5.1 | | |
| GUNZ | e P | Z | 21:02:10.8 | 77.3 | 1.1 | 1.9 | 56 | 5.4 | | |
| TNS | e P | Z | 21:02:11.1 | 77.5 | 358.7 | 1.5 | 40 | 5.3 | | |
| ROTZ | e P | Z | 21:02:14.2 | 77.9 | 1.0 | 1.5 | 44 | 5.4 | | |
| WLF | e P | Z | 21:02:14.3 | 78.0 | 357.2 | 1.7 | 88 | 5.6 | | |
| GRA1 | e P | Z | 21:02:14.8 | 78.0 | 0.4 | 1.6 | 118 | 5.8 | | |
| | e L | Z | 21:36:34.8 | | | 21.2 | 103 | | 4.1 | |
| WET | e P | Z | 21:02:17.5 | 78.5 | 1.4 | 1.3 | 29 | 5.1 | | |
| GEC2 | e P | Z | 21:02:18.8 | 78.8 | 1.9 | 1.6 | 51 | 5.3 | | |
| BFO | e P | Z | 21:02:21.6 | 79.4 | 358.6 | 1.5 | 51 | 5.2 | | |
| FUR | e P | Z | 21:02:23.0 | 79.5 | 0.4 | 1.2 | 65 | 5.4 | | |
| RJOB | e P | Z | 21:02:25.2 | 79.9 | 1.4 | 1.7 | 50 | 5.2 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|-----|----|----|--------|
| 2009/09/16 | 23:46:54.7 | 3.671S | 106.307E | 72.0 | 5.4 | | | SZGRF |

Southern Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z | 00:00:06.2 | 94.3 | 90.5 | 0.9 | 12 | 5.2 | | |
| GEC2 | e P | Z | 00:00:06.5 | 94.5 | 90.5 | 1.3 | 18 | 5.2 | | |
| WET | e P | Z | 00:00:08.8 | 95.0 | 89.8 | 1.2 | 14 | 5.3 | | |
| RJOB | e P | Z | 00:00:11.7 | 95.1 | 89.9 | 0.6 | 24 | 5.8 | | |
| ROTZ | e P | Z | 00:00:11.5 | 95.4 | 89.2 | 1.0 | 9 | 5.1 | | |
| MOX | e L | Z | 00:48:01.7 | 95.8 | 88.7 | 19.4 | 102 | | | |
| GRA1 | e L | Z | 00:39:08.0 | 96.1 | 88.5 | 20.4 | 99 | | | |

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| | | | | | | | | |
|------|-----|---|------------|------|------|-----|----|-----|
| FUR | e P | Z | 00:00:13.8 | 96.1 | 88.7 | 1.1 | 19 | 5.5 |
| BSEG | e P | Z | 00:00:16.8 | 96.5 | 87.3 | 1.1 | 13 | 5.4 |
| CLZ | e P | Z | 00:00:16.6 | 96.6 | 87.6 | 1.3 | 10 | 5.3 |
| TNS | e P | Z | 00:00:22.3 | 97.8 | 86.3 | 1.0 | 11 | 5.6 |
| BUG | e P | Z | 00:00:25.1 | 98.5 | 85.2 | 0.6 | 11 | 5.8 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|-----|----|--------|
| 2009/09/17 | 23:21:40.0 | 29.100S | 112.300W | 10.0 | | 6.1 | | NEIC |

Easter Island region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|-----|----|
| BSEG | e PKPdf | Z 23:41:00.3 | 132.1 | 277.3 | | | | | |
| UBBA | e PKPdf | Z 23:41:00.7 | 132.2 | 274.2 | | | | | |
| CLZ | e PKPdf | Z 23:41:01.1 | 132.4 | 275.5 | | | | | |
| MOX | e PKPdf | Z 23:41:01.6 | 133.3 | 275.4 | | | | | |
| ROTZ | e PKPdf | Z 23:41:03.3 | 133.7 | 275.1 | | | | | |
| TANN | e PKPdf | Z 23:41:03.4 | 133.8 | 275.9 | | | | | |
| CLL | e PKPdf | Z 23:41:04.0 | 134.0 | 277.2 | | | | | |
| WET | e PKPdf | Z 23:41:04.0 | 134.2 | 275.0 | | | | | |
| BRG | e PKPdf | Z 23:41:04.1 | 134.7 | 277.6 | | | | | |
| GEC2 | e PKPdf | Z 23:41:04.9 | 134.8 | 275.4 | | | | | |
| GRA1 | e L | Z 00:43:14.2 | 133.1 | 274.2 | 19.7 | 3536 | | 6.1 | |
| MOX | e L | Z 00:37:42.6 | 133.3 | 275.4 | 19.8 | 4778 | | 6.2 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/17 | 23:14:53.6 | 41.600N | 96.800E | 15.0 | 4.7 | | | NEIC |

Gansu, China

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z 23:24:25.5 | 55.0 | 64.9 | 1.2 | 12 | 4.8 | | |
| CLL | e P | Z 23:24:27.7 | 55.3 | 64.7 | 1.1 | 11 | 4.8 | | |
| BSEG | e P | Z 23:24:31.0 | 55.7 | 64.6 | 1.5 | 20 | 4.9 | | |
| GEC2 | e P | Z 23:24:33.1 | 56.0 | 63.6 | 0.9 | 4 | 4.4 | | |
| TANN | e P | Z 23:24:33.2 | 56.0 | 63.8 | 1.2 | 6 | 4.5 | | |
| WET | e P | Z 23:24:35.5 | 56.4 | 63.3 | 1.0 | 7 | 4.6 | | |
| MOX | e P | Z 23:24:35.7 | 56.4 | 63.4 | 1.0 | 5 | 4.5 | | |
| NRDL | e P | Z 23:24:36.4 | 56.4 | 63.6 | 1.5 | 24 | 5.0 | | |
| ROTZ | e P | Z 23:24:36.7 | 56.5 | 63.3 | 1.2 | 9 | 4.6 | | |
| GRB3 | e P | Z 23:24:39.9 | 56.9 | 62.8 | 1.1 | 12 | 4.9 | | |
| GRB4 | e P | Z 23:24:40.3 | 57.0 | 62.7 | 1.1 | 16 | 4.9 | | |
| GRA3 | e P | Z 23:24:40.4 | 57.0 | 62.8 | 1.2 | 17 | 4.9 | | |
| GRA2 | e P | Z 23:24:40.6 | 57.0 | 62.7 | 0.8 | 8 | 4.8 | | |
| GRB5 | e P | Z 23:24:41.0 | 57.1 | 62.6 | 0.8 | 7 | 4.8 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|---------|-------|-----|----|----|--------|
| 2009/09/18 | 01:05: 3.3 | 1.500S | 99.300E | 35.0 | 5.0 | | | NEIC |

Southern Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| GEC2 | e P | Z | 01:17:51.3 | 88.2 | 94.3 | 1.0 | 8 | 5.0 | | |
| FBE | e P | Z | 01:17:53.3 | 88.6 | 94.1 | | | | | |
| WET | e P | Z | 01:17:53.9 | 88.8 | 93.7 | 0.9 | 6 | 4.9 | | |
| CLL | e P | Z | 01:17:53.9 | 88.9 | 93.8 | 1.3 | 9 | 4.8 | | |
| ROTZ | e P | Z | 01:17:56.6 | 89.3 | 93.2 | 1.0 | 6 | 4.8 | | |
| NEUB | e P | Z | 01:17:57.7 | 89.6 | 92.9 | 1.0 | 16 | 5.2 | | |
| GRA1 | e P | Z | 01:17:59.3 | 89.9 | 92.4 | 1.4 | 22 | 5.2 | | |
| CLZ | e P | Z | 01:18:02.1 | 90.5 | 91.8 | 0.8 | 5 | 4.9 | | |
| TNS | e P | Z | 01:18:07.7 | 91.7 | 90.3 | 1.0 | 8 | 5.0 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/18 | 06:23:58.9 | 13.116N | 120.119E | 24.3 | 5.9 | 5.7 | | SZGRF |

Mindoro, Philippine Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| RGN | e P | Z | 06:36:51.3 | 88.8 | 68.8 | 1.2 | 116 | 6.0 | | |
| | e pP | Z | 06:36:58.5 | | | | | | | |
| RUE | e P | Z | 06:36:52.8 | 89.2 | 69.2 | 1.2 | 120 | 6.0 | | |
| | e pP | Z | 06:37:00.1 | | | | | | | |
| BRG | e P | Z | 06:36:55.0 | 89.7 | 69.3 | 1.9 | 178 | 6.0 | | |
| | e pP | Z | 06:37:02.2 | | | | | | | |
| FBE | e P | Z | 06:36:56.8 | 90.1 | 68.8 | 1.9 | 249 | 6.1 | | |
| | e pP | Z | 06:37:04.0 | | | | | | | |
| CLL | e P | Z | 06:36:56.5 | 90.1 | 68.6 | 2.1 | 175 | 5.9 | | |
| | e pP | Z | 06:37:03.7 | | | | | | | |
| GEC2 | e P | Z | 06:36:59.2 | 90.6 | 69.1 | 1.4 | 80 | 5.8 | | |
| | e pP | Z | 06:37:06.2 | | | | | | | |
| BSEG | e P | Z | 06:36:58.9 | 90.6 | 66.4 | 1.3 | 50 | 5.7 | | |
| | e pP | Z | 06:37:06.1 | | | | | | | |
| TANN | e P | Z | 06:36:59.9 | 90.8 | 68.1 | 2.1 | 158 | 6.0 | | |
| | e pP | Z | 06:37:07.0 | | | | | | | |
| WERD | e P | Z | 06:37:00.2 | 90.8 | 68.0 | 1.9 | 135 | 5.9 | | |
| | e pP | Z | 06:37:07.3 | | | | | | | |
| GUNZ | e P | Z | 06:37:00.3 | 90.9 | 68.0 | 2.0 | 197 | 6.1 | | |
| | e pP | Z | 06:37:07.6 | | | | | | | |
| NEUB | e P | Z | 06:37:00.2 | 90.9 | 67.6 | 2.2 | 291 | 6.2 | | |
| | e pP | Z | 06:37:07.4 | | | | | | | |
| WET | e P | Z | 06:37:01.2 | 91.0 | 68.5 | 1.8 | 128 | 6.0 | | |
| | e pP | Z | 06:37:08.3 | | | | | | | |
| MANZ | e P | Z | 06:37:02.0 | 91.1 | 67.9 | 2.0 | 183 | 6.1 | | |
| | e pP | Z | 06:37:09.0 | | | | | | | |

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Thu Apr 23 08:38:25 2020

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| | | | | | | | | |
|------|------|---|------------|------|------|------|------|-----|
| ROTZ | e P | Z | 06:37:02.2 | 91.2 | 68.0 | 1.8 | 170 | 6.1 |
| | e pP | Z | 06:37:09.3 | | | | | |
| MOX | e P | Z | 06:37:01.8 | 91.2 | 67.5 | 2.1 | 187 | 6.1 |
| | e pP | Z | 06:37:08.9 | | | | | |
| NRDL | e P | Z | 06:37:02.7 | 91.3 | 66.3 | 1.5 | 64 | 5.7 |
| CLZ | e P | Z | 06:37:03.3 | 91.4 | 66.5 | 1.5 | 77 | 5.8 |
| | e pP | Z | 06:37:10.4 | | | | | |
| RJOB | e P | Z | 06:37:03.2 | 91.6 | 68.4 | 1.2 | 54 | 5.8 |
| | e pP | Z | 06:37:10.4 | | | | | |
| GRA1 | e P | Z | 06:37:04.9 | 91.8 | 67.2 | 1.9 | 175 | 6.1 |
| | e pP | Z | 06:37:12.0 | | | | | |
| | e L | Z | 07:25:38.4 | | | 20.7 | 3112 | 5.7 |
| FUR | e P | Z | 06:37:07.3 | 92.3 | 67.3 | 1.6 | 196 | 6.2 |
| | e pP | Z | 06:37:14.4 | | | | | |
| IBBN | e P | Z | 06:37:08.8 | 92.7 | 64.4 | 1.1 | 50 | 5.8 |
| TNS | e P | Z | 06:37:11.3 | 93.2 | 65.0 | 1.6 | 52 | 5.7 |
| | e pP | Z | 06:37:18.4 | | | | | |
| BUG | e P | Z | 06:37:11.6 | 93.3 | 64.0 | 1.3 | 55 | 5.8 |
| STU | e P | Z | 06:37:11.9 | 93.4 | 65.7 | 1.3 | 69 | 5.8 |
| | e pP | Z | 06:37:19.0 | | | | | |
| BFO | e P | Z | 06:37:14.8 | 94.1 | 65.0 | 1.8 | 37 | 5.4 |
| | e pP | Z | 06:37:21.8 | | | | | |
| WLF | e P | Z | 06:37:18.8 | 94.8 | 63.3 | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/18 18:34:22.2 1.800N 127.200E 93.0
 Halmahera, Indonesia NEIC

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|-------|------|------|-------|----|----|----|
| FBE | e PP | Z | 18:52:32.0 | 103.3 | 70.0 | | | | | |
| CLL | e PP | Z | 18:52:31.8 | 103.4 | 69.6 | | | | | |
| GEC2 | e PP | Z | 18:52:35.9 | 103.8 | 70.7 | | | | | |
| BSEG | e PP | Z | 18:52:36.7 | 103.9 | 66.7 | | | | | |
| PLN | e PP | Z | 18:52:37.5 | 104.2 | 69.1 | | | | | |
| WET | e PP | Z | 18:52:37.8 | 104.2 | 70.0 | | | | | |
| MOX | e PP | Z | 18:52:40.1 | 104.4 | 68.6 | | | | | |
| NRDL | e PP | Z | 18:52:41.1 | 104.6 | 66.9 | | | | | |
| CLZ | e PP | Z | 18:52:41.5 | 104.7 | 67.2 | | | | | |
| RJOB | e PP | Z | 18:52:42.8 | 104.7 | 70.3 | | | | | |
| UBBA | e PP | Z | 18:52:45.6 | 105.3 | 67.2 | | | | | |
| FUR | e PP | Z | 18:52:49.3 | 105.5 | 68.9 | | | | | |
| BFO | e PP | Z | 18:53:03.9 | 107.3 | 66.5 | | | | | |
| WLF | e PP | Z | 18:53:05.1 | 108.0 | 64.2 | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source

2009/09/18 23:06:52.6 8.880S 116.120E 33.0G
Sumbawa, Indonesia, region

NEIC

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|----------|---|------------|-------|------|------|-------|----|----|----|
| BRG | e Pdiff | Z | 23:20:54.5 | 104.6 | 86.2 | | | | | |
| | e PKKPbc | Z | 23:36:42.3 | | | | | | | |
| GEC2 | e Pdiff | Z | 23:20:55.7 | 104.8 | 86.5 | | | | | |
| | e PKKPbc | Z | 23:36:41.2 | | | | | | | |
| FBE | e Pdiff | Z | 23:20:56.4 | 104.9 | 85.7 | | | | | |
| | e PKKPbc | Z | 23:36:41.2 | | | | | | | |
| CLL | e PKKPbc | Z | 23:36:40.2 | 105.1 | 85.3 | | | | | |
| | e Pdiff | Z | 23:20:58.1 | 105.4 | 85.8 | | | | | |
| TANN | e PKKPbc | Z | 23:36:39.7 | | | | | | | |
| | e Pdiff | Z | 23:20:58.9 | 105.5 | 85.2 | | | | | |
| GUNZ | e PKKPbc | Z | 23:36:39.4 | | | | | | | |
| | e Pdiff | Z | 23:20:59.3 | 105.6 | 85.1 | | | | | |
| WERD | e PKKPbc | Z | 23:36:39.1 | | | | | | | |
| | e Pdiff | Z | 23:20:59.2 | 105.6 | 85.0 | | | | | |
| PLN | e PKKPbc | Z | 23:36:39.0 | | | | | | | |
| | e Pdiff | Z | 23:20:59.6 | 105.7 | 84.9 | | | | | |
| ROTZ | e PKKPbc | Z | 23:36:38.7 | | | | | | | |
| | e Pdiff | Z | 23:21:00.2 | 105.7 | 85.1 | | | | | |
| MANZ | e Pdiff | Z | 23:21:00.4 | 105.8 | 85.0 | | | | | |
| | e PKKPbc | Z | 23:36:38.5 | | | | | | | |
| NEUB | e Pdiff | Z | 23:21:00.3 | 105.9 | 84.4 | | | | | |
| | e PKiKP | Z | 23:25:13.9 | | | | | | | |
| MOX | e PKKPbc | Z | 23:36:38.1 | | | | | | | |
| | e Pdiff | Z | 23:21:01.1 | 106.0 | 84.4 | | | | | |
| GRA1 | e PKKPbc | Z | 23:36:37.7 | | | | | | | |
| | e Pdiff | Z | 23:21:03.3 | 106.4 | 84.4 | | | | | |
| BSEG | e Pdiff | Z | 23:21:03.3 | 106.5 | 82.4 | | | | | |
| | e PKiKP | Z | 23:25:14.6 | | | | | | | |
| FUR | e PKKPbc | Z | 23:36:36.5 | | | | | | | |
| | e PKiKP | Z | 23:25:14.1 | 106.5 | 84.9 | | | | | |
| CLZ | e PKKPbc | Z | 23:36:36.6 | | | | | | | |
| | e Pdiff | Z | 23:21:04.2 | 106.7 | 83.1 | | | | | |
| NRDL | e PKiKP | Z | 23:25:14.9 | | | | | | | |
| | e PKKPbc | Z | 23:36:36.1 | | | | | | | |
| STU | e Pdiff | Z | 23:21:04.7 | 106.8 | 82.7 | | | | | |
| | e PKKPbc | Z | 23:36:35.5 | | | | | | | |
| TNS | e PKKPbc | Z | 23:36:32.4 | 107.8 | 83.1 | | | | | |
| | e Pdiff | Z | 23:21:10.6 | 108.1 | 82.0 | | | | | |
| IBBN | e PKiKP | Z | 23:25:17.3 | | | | | | | |
| | e PKiKP | Z | 23:25:17.5 | 108.2 | 80.8 | | | | | |
| BFO | e PKKPbc | Z | 23:36:30.1 | 108.4 | 82.6 | | | | | |
| BUG | e PKiKP | Z | 23:25:18.1 | 108.6 | 80.7 | | | | | |
| WLF | e PKKPbc | Z | 23:36:26.6 | 109.6 | 80.4 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/19 | 04:17:31.9 | 35.880N | 71.940E | 33.0N | 5.0 | | | SZGRF |

Pakistan

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z | 04:25:33.2 | 43.5 | 86.9 | 0.7 | 19 | 4.9 | | |
| RUE | e P | Z | 04:25:32.9 | 43.5 | 88.5 | 0.7 | 19 | 4.9 | | |
| RGN | e P | Z | 04:25:35.9 | 43.8 | 90.3 | 1.2 | 139 | 5.6 | | |
| GEC2 | e P | Z | 04:25:35.3 | 43.8 | 84.6 | 1.0 | 6 | 4.3 | | |
| FBE | e P | Z | 04:25:36.4 | 43.8 | 86.6 | 0.8 | 18 | 4.9 | | |
| CLL | e P | Z | 04:25:37.2 | 44.0 | 86.7 | 0.8 | 12 | 4.7 | | |
| WET | e P | Z | 04:25:39.5 | 44.3 | 84.4 | 1.4 | 8 | 4.2 | | |
| TANN | e P | Z | 04:25:41.0 | 44.4 | 85.4 | 0.9 | 10 | 4.7 | | |
| GUNZ | e P | Z | 04:25:41.7 | 44.5 | 85.2 | 0.9 | 13 | 4.9 | | |
| WERD | e P | Z | 04:25:41.6 | 44.5 | 85.3 | 0.8 | 9 | 4.7 | | |
| ROTZ | e P | Z | 04:25:43.3 | 44.7 | 84.5 | 1.3 | 20 | 4.9 | | |
| MANZ | e P | Z | 04:25:43.4 | 44.7 | 84.7 | 0.9 | 10 | 4.7 | | |
| NEUB | e P | Z | 04:25:43.7 | 44.8 | 85.7 | 0.8 | 25 | 5.2 | | |
| MOX | e P | Z | 04:25:45.0 | 45.0 | 85.0 | 0.8 | 11 | 4.8 | | |
| GRA1 | e P | Z | 04:25:48.4 | 45.3 | 83.8 | 0.8 | 13 | 4.9 | | |
| FUR | e P | Z | 04:25:48.9 | 45.5 | 82.3 | 0.9 | 17 | 5.0 | | |
| BSEG | e P | Z | 04:25:49.9 | 45.5 | 87.3 | 0.8 | 26 | 5.3 | | |
| CLZ | e P | Z | 04:25:50.4 | 45.6 | 85.3 | 0.9 | 14 | 5.0 | | |
| NRDL | e P | Z | 04:25:51.4 | 45.7 | 85.7 | 0.8 | 18 | 5.1 | | |
| UBBA | e P | Z | 04:25:52.6 | 46.0 | 84.0 | 0.6 | 8 | 5.0 | | |
| STU | e P | Z | 04:25:58.9 | 46.7 | 81.5 | 0.8 | 14 | 5.2 | | |
| TNS | e P | Z | 04:26:01.2 | 47.0 | 82.4 | 0.9 | 6 | 4.7 | | |
| IBBN | e P | Z | 04:26:02.6 | 47.2 | 83.8 | 1.2 | 44 | 5.5 | | |
| BUG | e P | Z | 04:26:05.6 | 47.6 | 82.7 | 0.9 | 17 | 5.2 | | |
| WLF | e P | Z | 04:26:13.5 | 48.6 | 80.3 | 0.9 | 23 | 5.2 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/19 | 08:54:22.7 | 32.931N | 105.329E | 33.0G | 5.7 | 4.7 | | SZGRF |

Sichuan, China

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| RUE | e P | Z | 09:05:01.6 | 65.3 | 67.4 | 1.0 | 84 | 5.9 | | |
| BRG | e P | Z | 09:05:04.8 | 65.9 | 66.8 | 1.0 | 39 | 5.6 | | |
| FBE | e P | Z | 09:05:07.2 | 66.2 | 66.5 | 1.1 | 44 | 5.6 | | |
| CLL | e P | Z | 09:05:07.0 | 66.2 | 66.4 | 1.1 | 48 | 5.6 | | |
| BSEG | e P | Z | 09:05:10.5 | 66.7 | 65.6 | 1.0 | 106 | 6.0 | | |
| GEC2 | e P | Z | 09:05:11.3 | 66.8 | 65.9 | 1.1 | 47 | 5.6 | | |
| TANN | e P | Z | 09:05:11.6 | 66.9 | 65.7 | 1.1 | 34 | 5.5 | | |
| NEUB | e P | Z | 09:05:12.0 | 67.0 | 65.5 | 1.1 | 92 | 5.9 | | |
| WERD | e P | Z | 09:05:12.1 | 67.0 | 65.6 | 1.1 | 33 | 5.5 | | |
| GUNZ | e P | Z | 09:05:12.3 | 67.0 | 65.6 | 1.1 | 53 | 5.7 | | |

| Station | Type | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|---------|------|--------------|------|------|------|-------|-----|----|-----|
| WET | e P | Z 09:05:13.8 | 67.2 | 65.5 | 1.2 | 41 | 5.5 | | |
| MANZ | e P | Z 09:05:14.3 | 67.3 | 65.3 | 1.2 | 30 | 5.4 | | |
| MOX | e P | Z 09:05:14.2 | 67.3 | 65.2 | 1.2 | 35 | 5.5 | | |
| ROTZ | e P | Z 09:05:14.9 | 67.3 | 65.3 | 1.1 | 64 | 5.8 | | |
| NRDL | e P | Z 09:05:15.0 | 67.4 | 64.9 | 1.1 | 94 | 5.9 | | |
| CLZ | e P | Z 09:05:15.8 | 67.5 | 64.8 | 1.0 | 88 | 5.9 | | |
| RJOB | e P | Z 09:05:17.9 | 67.8 | 64.9 | 0.9 | 22 | 5.4 | | |
| GRA1 | e P | Z 09:05:18.6 | 67.9 | 64.6 | 1.0 | 81 | 5.9 | | |
| | e L | Z 09:36:54.3 | | | 18.7 | 420 | | | 4.7 |
| UBBA | e P | Z 09:05:19.1 | 68.2 | 64.2 | 1.3 | 28 | 5.3 | | |
| FUR | e P | Z 09:05:22.8 | 68.6 | 64.1 | 1.1 | 140 | 6.1 | | |
| IBBN | e P | Z 09:05:23.3 | 68.7 | 63.2 | 1.0 | 64 | 5.8 | | |
| TNS | e P | Z 09:05:26.7 | 69.3 | 63.0 | 1.1 | 26 | 5.3 | | |
| BUG | e P | Z 09:05:27.5 | 69.4 | 62.6 | 1.0 | 75 | 5.8 | | |
| STU | e P | Z 09:05:28.0 | 69.5 | 63.0 | 1.2 | 54 | 5.6 | | |
| BFO | e P | Z 09:05:32.1 | 70.2 | 62.3 | 1.2 | 40 | 5.4 | | |
| WLF | e P | Z 09:05:36.8 | 70.9 | 61.3 | 1.1 | 147 | 6.0 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/19 10:50:44.5 0.569N 98.903E 33.0G 5.0 4.5
 Northern Sumatera, Indonesia

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|-----|
| BRG | e P | Z 11:03:27.4 | 86.4 | 93.6 | 1.4 | 13 | 4.9 | | |
| GEC2 | e P | Z 11:03:27.7 | 86.4 | 93.2 | 1.5 | 15 | 4.9 | | |
| RUE | e P | Z 11:03:28.5 | 86.6 | 93.5 | 1.3 | 38 | 5.4 | | |
| WET | e P | Z 11:03:30.4 | 87.0 | 92.6 | 1.0 | 7 | 4.7 | | |
| CLL | e P | Z 11:03:30.0 | 87.0 | 92.8 | 1.4 | 8 | 4.6 | | |
| WERD | e P | Z 11:03:32.3 | 87.4 | 92.3 | 2.1 | 20 | 4.9 | | |
| ROTZ | e P | Z 11:03:33.1 | 87.4 | 92.2 | 0.9 | 6 | 4.7 | | |
| MANZ | e P | Z 11:03:33.4 | 87.5 | 92.1 | 1.1 | 12 | 4.9 | | |
| MOX | e P | Z 11:03:34.5 | 87.8 | 91.7 | 1.0 | 7 | 4.9 | | |
| GRA1 | e P | Z 11:03:36.0 | 88.1 | 91.4 | 1.3 | 18 | 5.3 | | |
| | e L | Z 11:48:06.2 | | | 19.3 | 168 | | | 4.5 |
| CLZ | e P | Z 11:03:38.5 | 88.6 | 90.8 | 0.9 | 11 | 5.1 | | |
| BSEG | e P | Z 11:03:38.7 | 88.7 | 90.8 | 1.1 | 13 | 5.1 | | |
| NRDL | e P | Z 11:03:39.3 | 88.8 | 90.6 | 1.4 | 23 | 5.2 | | |
| UBBA | e P | Z 11:03:39.3 | 88.9 | 90.5 | 1.6 | 13 | 4.9 | | |
| TNS | e P | Z 11:03:44.4 | 89.9 | 89.3 | 1.3 | 20 | 5.2 | | |
| BFO | e P | Z 11:03:44.2 | 90.0 | 89.2 | 1.5 | 10 | 4.8 | | |
| WLF | e P | Z 11:03:51.3 | 91.3 | 87.5 | 1.7 | 20 | 5.2 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/19 18:24:19.8 16.069S 171.490W 33.0G
 Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| NRDL | e PKPbc | Z | 18:43:39.8 | 143.6 | 2.6 | | | | | |
| CLZ | e PKPbc | Z | 18:43:42.1 | 144.2 | 3.1 | | | | | |
| CLL | e PKPbc | Z | 18:43:42.7 | 144.6 | 7.5 | | | | | |
| NEUB | e PKPbc | Z | 18:43:43.7 | 144.8 | 5.4 | | | | | |
| BRG | e PKPbc | Z | 18:43:44.0 | 144.9 | 9.1 | | | | | |
| FBE | e PKPbc | Z | 18:43:44.4 | 144.9 | 8.1 | | | | | |
| MOX | e PKPbc | Z | 18:43:45.3 | 145.3 | 5.3 | | | | | |
| PLN | e PKPbc | Z | 18:43:45.9 | 145.5 | 6.2 | | | | | |
| WERD | e PKPbc | Z | 18:43:45.9 | 145.5 | 6.4 | | | | | |
| TANN | e PKPbc | Z | 18:43:46.0 | 145.5 | 6.7 | | | | | |
| GUNZ | e PKPbc | Z | 18:43:46.4 | 145.6 | 6.5 | | | | | |
| MANZ | e PKPbc | Z | 18:43:47.3 | 146.0 | 6.2 | | | | | |
| ROTZ | e PKPbc | Z | 18:43:48.2 | 146.2 | 6.4 | | | | | |
| GRA1 | e PKPbc | Z | 18:43:48.3 | 146.3 | 4.7 | | | | | |
| WLF | e PKPbc | Z | 18:43:49.2 | 146.3 | 355.9 | | | | | |
| BFO | e PKPbc | Z | 18:43:52.1 | 147.7 | 359.7 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|--------|-------|-----|----|----|--------|
| 2009/09/19 | 20:21:57.1 | 76.300N | 6.500E | 10.0 | 4.8 | | | NEIC |

Svalbard, Norway, region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| BSEG | e P | Z | 20:26:56.6 | 22.4 | 357.6 | 1.4 | 73 | 5.0 | | |
| NRDL | e P | Z | 20:27:10.7 | 23.8 | 357.9 | 2.1 | 167 | 5.2 | | |
| CLZ | e P | Z | 20:27:18.4 | 24.5 | 357.8 | 1.1 | 21 | 4.8 | | |
| BUG | e P | Z | 20:27:21.7 | 24.9 | 359.6 | 1.3 | 57 | 5.1 | | |
| CLL | e P | Z | 20:27:22.5 | 25.1 | 356.4 | 1.3 | 12 | 4.5 | | |
| NEUB | e P | Z | 20:27:23.4 | 25.2 | 357.1 | 1.0 | 37 | 5.1 | | |
| UBBA | e P | Z | 20:27:27.3 | 25.5 | 358.1 | 1.7 | 34 | 4.7 | | |
| FBE | e P | Z | 20:27:26.6 | 25.5 | 356.2 | 1.5 | 48 | 4.9 | | |
| BRG | e P | Z | 20:27:27.0 | 25.6 | 355.9 | 1.4 | 22 | 4.6 | | |
| MOX | e P | Z | 20:27:28.8 | 25.7 | 357.2 | 1.3 | 28 | 4.7 | | |
| WERD | e P | Z | 20:27:30.7 | 26.0 | 356.9 | 1.9 | 34 | 4.7 | | |
| TANN | e P | Z | 20:27:31.2 | 26.0 | 356.8 | 1.5 | 23 | 4.6 | | |
| GUNZ | e P | Z | 20:27:31.5 | 26.0 | 356.9 | 1.3 | 25 | 4.7 | | |
| TNS | e P | Z | 20:27:32.7 | 26.1 | 359.0 | 1.2 | 13 | 4.4 | | |
| ROTZ | e P | Z | 20:27:37.2 | 26.6 | 357.0 | 1.6 | 23 | 4.7 | | |
| GRA1 | e P | Z | 20:27:37.4 | 26.7 | 357.5 | 2.2 | 75 | 5.0 | | |
| WET | e P | Z | 20:27:43.3 | 27.3 | 356.7 | 1.6 | 22 | 4.6 | | |
| GEC2 | e P | Z | 20:27:46.5 | 27.6 | 356.3 | 1.5 | 27 | 4.9 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/20 | 17:40: 9.5 | 48.080N | 150.946E | 33.0G | 5.0 | 3.7 | | SZGRF |

Northwest of Kuril Islands, Russia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|-----|----|
| NRDL | e P | Z | 17:51:47.1 | 74.0 | 26.0 | 1.0 | 10 | 4.8 | | |
| CLL | e P | Z | 17:51:48.2 | 74.3 | 27.7 | 0.9 | 18 | 5.1 | | |
| BRG | e P | Z | 17:51:48.9 | 74.4 | 28.2 | 0.9 | 4 | 4.5 | | |
| FBE | e P | Z | 17:51:50.0 | 74.5 | 27.9 | 0.9 | 10 | 4.9 | | |
| CLZ | e P | Z | 17:51:50.5 | 74.6 | 26.1 | 0.9 | 16 | 5.0 | | |
| NEUB | e P | Z | 17:51:51.0 | 74.7 | 26.9 | 1.1 | 20 | 5.1 | | |
| TANN | e P | Z | 17:51:53.9 | 75.2 | 27.3 | 1.0 | 4 | 4.5 | | |
| WERD | e P | Z | 17:51:54.1 | 75.3 | 27.2 | 0.9 | 6 | 4.7 | | |
| MOX | e P | Z | 17:51:54.2 | 75.3 | 26.8 | 1.0 | 10 | 4.9 | | |
| GUNZ | e P | Z | 17:51:54.6 | 75.3 | 27.2 | 0.9 | 8 | 4.9 | | |
| MANZ | e P | Z | 17:51:56.7 | 75.7 | 27.0 | 0.9 | 7 | 4.8 | | |
| BUG | e P | Z | 17:51:56.7 | 75.7 | 24.1 | 1.0 | 20 | 5.2 | | |
| ROTZ | e P | Z | 17:51:58.0 | 75.9 | 27.0 | 1.0 | 8 | 4.8 | | |
| GRA1 | e P | Z | 17:52:00.0 | 76.2 | 26.4 | 0.9 | 17 | 5.2 | | |
| | e L | Z | 18:24:48.8 | | | 20.3 | 41 | | 3.7 | |
| WET | e P | Z | 17:52:00.0 | 76.3 | 27.4 | 1.0 | 13 | 5.0 | | |
| GEC2 | e P | Z | 17:51:59.5 | 76.3 | 27.8 | 0.9 | 6 | 4.7 | | |
| TNS | e P | Z | 17:52:01.4 | 76.5 | 24.7 | 1.0 | 11 | 4.9 | | |
| RJOB | e P | Z | 17:52:07.0 | 77.5 | 27.2 | 1.0 | 7 | 4.8 | | |
| BFO | e P | Z | 17:52:10.8 | 78.3 | 24.5 | 1.0 | 9 | 4.8 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/20 | 23:41:46.7 | 47.420N | 150.720E | 33.0G | 4.9 | | | SZGRF |

Kuril Islands, Russia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BSEG | e P | Z | 23:53:19.6 | 73.2 | 26.8 | 0.8 | 8 | 4.8 | | |
| CLL | e P | Z | 23:53:28.2 | 74.8 | 28.1 | 0.9 | 18 | 5.1 | | |
| BRG | e P | Z | 23:53:28.9 | 74.9 | 28.7 | 0.9 | 5 | 4.5 | | |
| FBE | e P | Z | 23:53:30.0 | 75.1 | 28.3 | 0.9 | 13 | 5.0 | | |
| CLZ | e P | Z | 23:53:30.5 | 75.1 | 26.5 | 0.9 | 14 | 5.0 | | |
| NEUB | e P | Z | 23:53:31.0 | 75.3 | 27.4 | 0.9 | 15 | 5.1 | | |
| WERD | e P | Z | 23:53:34.0 | 75.8 | 27.6 | 0.9 | 6 | 4.8 | | |
| MOX | e P | Z | 23:53:34.1 | 75.8 | 27.2 | 1.1 | 10 | 4.9 | | |
| GUNZ | e P | Z | 23:53:34.5 | 75.9 | 27.6 | 0.8 | 10 | 5.0 | | |
| MANZ | e P | Z | 23:53:36.7 | 76.3 | 27.4 | 0.9 | 5 | 4.6 | | |
| ROTZ | e P | Z | 23:53:38.0 | 76.4 | 27.5 | 0.9 | 7 | 4.8 | | |
| WET | e P | Z | 23:53:40.0 | 76.8 | 27.8 | 1.0 | 14 | 5.0 | | |
| GRA1 | e P | Z | 23:53:40.0 | 76.8 | 26.8 | 0.8 | 16 | 5.2 | | |
| GEC2 | e P | Z | 23:53:39.6 | 76.8 | 28.3 | 0.9 | 7 | 4.8 | | |
| TNS | e P | Z | 23:53:41.5 | 77.1 | 25.1 | 0.9 | 10 | 5.0 | | |
| FUR | e P | Z | 23:53:47.3 | 78.1 | 26.7 | 0.9 | 12 | 5.0 | | |
| BFO | e P | Z | 23:53:50.7 | 78.8 | 24.9 | 1.1 | 10 | 4.7 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|--------|-------|-----|-----|----|--------|
| 2009/09/21 | 08:30:24.5 | 70.410N | 5.950W | 29.3 | 5.1 | 4.5 | | SZGRF |

Jan Mayen Island region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|-----|----|
| BSEG | e P | Z | 08:34:34.8 | 18.0 | 342.3 | 1.5 | 150 | 4.9 | | |
| IBBN | e P | Z | 08:34:46.7 | 19.2 | 346.0 | 1.1 | 63 | 4.8 | | |
| NRDL | e P | Z | 08:34:49.5 | 19.3 | 343.7 | 1.5 | 71 | 4.7 | | |
| BUG | e P | Z | 08:34:55.5 | 19.9 | 347.0 | 1.4 | 122 | 4.9 | | |
| CLZ | e P | Z | 08:34:56.7 | 20.0 | 344.0 | 1.3 | 65 | 4.7 | | |
| RUE | e P | Z | 08:34:57.1 | 20.0 | 340.7 | 2.0 | 380 | 5.3 | | |
| | e pP | Z | 08:35:05.6 | | | | | | | |
| NEUB | e P | Z | 08:35:05.7 | 20.9 | 343.3 | 1.0 | 154 | 5.3 | | |
| UBBA | e P | Z | 08:35:06.2 | 20.9 | 345.1 | 1.5 | 102 | 4.9 | | |
| CLL | e P | Z | 08:35:06.8 | 21.0 | 342.3 | 1.3 | 80 | 4.9 | | |
| TNS | e P | Z | 08:35:10.2 | 21.3 | 346.7 | 0.8 | 52 | 4.9 | | |
| MOX | e P | Z | 08:35:11.2 | 21.4 | 343.9 | 1.1 | 76 | 4.9 | | |
| FBE | e P | Z | 08:35:11.5 | 21.4 | 342.3 | 1.2 | 110 | 5.2 | | |
| | e pP | Z | 08:35:19.7 | | | | | | | |
| BRG | e P | Z | 08:35:12.6 | 21.6 | 341.9 | 1.8 | 110 | 5.0 | | |
| WERD | e P | Z | 08:35:14.6 | 21.7 | 343.5 | 0.9 | 113 | 5.3 | | |
| | e pP | Z | 08:35:21.0 | | | | | | | |
| TANN | e P | Z | 08:35:15.4 | 21.8 | 343.4 | 1.0 | 116 | 5.3 | | |
| | e pP | Z | 08:35:21.7 | | | | | | | |
| GUNZ | e P | Z | 08:35:15.5 | 21.8 | 343.5 | 0.9 | 80 | 5.2 | | |
| | e pP | Z | 08:35:21.9 | | | | | | | |
| MANZ | e P | Z | 08:35:18.5 | 22.1 | 344.0 | 1.1 | 58 | 4.9 | | |
| | e pP | Z | 08:35:24.5 | | | | | | | |
| GRA1 | e P | Z | 08:35:20.2 | 22.2 | 344.8 | 1.2 | 157 | 5.3 | | |
| | e pP | Z | 08:35:26.5 | | | | | | | |
| | e L | Z | 08:43:41.1 | | | 21.8 | 2058 | | 4.5 | |
| ROTZ | e P | Z | 08:35:21.2 | 22.3 | 344.0 | 1.0 | 150 | 5.4 | | |
| STU | e P | Z | 08:35:25.9 | 22.8 | 346.9 | 2.0 | 343 | 5.5 | | |
| WET | e P | Z | 08:35:29.0 | 23.0 | 344.0 | 1.7 | 156 | 5.3 | | |
| BFO | e P | Z | 08:35:29.0 | 23.1 | 347.8 | 2.1 | 229 | 5.3 | | |
| GEC2 | e P | Z | 08:35:33.6 | 23.5 | 343.6 | 1.2 | 119 | 5.3 | | |
| FUR | e P | Z | 08:35:35.5 | 23.7 | 345.7 | 1.2 | 200 | 5.5 | | |
| RJOB | e P | Z | 08:35:41.7 | 24.4 | 344.9 | 1.4 | 97 | 5.2 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|-----|----|--------|
| 2009/09/21 | 08:53: 4.6 | 27.010N | 92.180E | 33.0G | 6.1 | 6.2 | | SZGRF |

Eastern Xizang-India border region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|-----|-------|---|------------|------|------|------|-------|-----|----|----|
| RUE | e P | Z | 09:03:22.0 | 62.0 | 81.2 | 1.1 | 210 | 6.3 | | |

| | | | | | | | | | |
|------|-----|---|------------|------|------|------|-------|-----|-----|
| BRG | e P | Z | 09:03:23.3 | 62.2 | 80.5 | 1.3 | 152 | 6.1 | |
| FBE | e P | Z | 09:03:25.9 | 62.5 | 80.1 | 1.1 | 159 | 6.0 | |
| GEC2 | e P | Z | 09:03:26.7 | 62.7 | 79.3 | 0.9 | 90 | 5.9 | |
| CLL | e P | Z | 09:03:26.2 | 62.7 | 80.1 | 1.2 | 95 | 5.8 | |
| WET | e P | Z | 09:03:29.8 | 63.1 | 78.9 | 1.3 | 112 | 5.8 | |
| TANN | e P | Z | 09:03:29.9 | 63.2 | 79.2 | 1.3 | 107 | 5.8 | |
| WERD | e P | Z | 09:03:30.5 | 63.3 | 79.1 | 1.3 | 104 | 5.8 | |
| GUNZ | e P | Z | 09:03:30.7 | 63.3 | 79.1 | 1.2 | 140 | 6.0 | |
| NEUB | e P | Z | 09:03:31.5 | 63.4 | 79.1 | 1.1 | 188 | 6.2 | |
| ROTZ | e P | Z | 09:03:32.5 | 63.5 | 78.7 | 1.1 | 163 | 6.2 | |
| MANZ | e P | Z | 09:03:32.1 | 63.5 | 78.8 | 1.5 | 170 | 6.1 | |
| RJOB | e P | Z | 09:03:31.4 | 63.5 | 78.1 | 0.9 | 58 | 5.8 | |
| MOX | e P | Z | 09:03:32.9 | 63.7 | 78.7 | 1.4 | 138 | 6.0 | |
| BSEG | e P | Z | 09:03:34.7 | 63.8 | 79.4 | 1.2 | 215 | 6.3 | |
| GRA1 | e P | Z | 09:03:36.7 | 64.1 | 78.0 | 1.4 | 223 | 6.2 | |
| | e L | Z | 09:34:32.8 | | | 18.1 | 15637 | | 6.2 |
| CLZ | e P | Z | 09:03:36.8 | 64.2 | 78.4 | 1.0 | 183 | 6.3 | |
| NRDL | e P | Z | 09:03:36.9 | 64.2 | 78.5 | 1.3 | 374 | 6.5 | |
| FUR | e P | Z | 09:03:38.0 | 64.4 | 77.3 | 1.0 | 134 | 6.1 | |
| UBBA | e P | Z | 09:03:39.3 | 64.6 | 77.7 | 1.7 | 166 | 6.0 | |
| STU | e P | Z | 09:03:46.0 | 65.6 | 76.2 | 1.0 | 134 | 6.1 | |
| IBBN | e P | Z | 09:03:46.1 | 65.6 | 76.7 | 1.5 | 275 | 6.2 | |
| TNS | e P | Z | 09:03:46.8 | 65.7 | 76.3 | 1.0 | 96 | 6.0 | |
| BUG | e P | Z | 09:03:49.1 | 66.1 | 76.0 | 1.1 | 138 | 6.1 | |
| BFO | e P | Z | 09:03:49.2 | 66.3 | 75.4 | 1.3 | 65 | 5.7 | |
| WLF | e P | Z | 09:03:57.5 | 67.3 | 74.5 | 1.2 | 256 | 6.3 | |

Date 2009/09/21
 Origin Time 19:38:29.8
 Lat 19.833N
 Long 95.112E
 Depth 83.2
 mb 5.6
 Ms
 ML
 Source SZGRF
 Myanmar

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| RUE | e P | Z | 19:49:37.7 | 69.2 | 84.2 | 0.9 | 112 | 6.1 | | |
| | e pP | Z | 19:49:59.1 | | | | | | | |
| BRG | e P | Z | 19:49:38.2 | 69.2 | 83.7 | 0.7 | 35 | 5.7 | | |
| | e pP | Z | 19:49:59.8 | | | | | | | |
| FBE | e P | Z | 19:49:40.7 | 69.6 | 83.3 | 1.0 | 75 | 5.8 | | |
| | e pP | Z | 19:50:02.3 | | | | | | | |
| GEC2 | e P | Z | 19:49:40.8 | 69.6 | 82.8 | 0.9 | 32 | 5.5 | | |
| | e pP | Z | 19:50:02.6 | | | | | | | |
| CLL | e P | Z | 19:49:41.0 | 69.8 | 83.2 | 1.3 | 39 | 5.4 | | |
| | e pP | Z | 19:50:02.6 | | | | | | | |
| WET | e P | Z | 19:49:43.8 | 70.1 | 82.3 | 1.1 | 28 | 5.3 | | |
| | e pP | Z | 19:50:05.5 | | | | | | | |
| TANN | e P | Z | 19:49:44.2 | 70.2 | 82.5 | 1.0 | 27 | 5.3 | | |
| | e pP | Z | 19:50:05.8 | | | | | | | |
| GUNZ | e P | Z | 19:49:45.0 | 70.3 | 82.3 | 1.0 | 45 | 5.5 | | |

| | | | | | | | | | | |
|------|------|---|------------|------|------|-----|-----|-----|--|--|
| | e pP | Z | 19:50:06.5 | | | | | | | |
| WERD | e P | Z | 19:49:44.8 | 70.3 | 82.4 | 0.9 | 33 | 5.5 | | |
| | e pP | Z | 19:50:06.4 | | | | | | | |
| RJOB | e P | Z | 19:49:44.9 | 70.4 | 81.8 | 1.2 | 21 | 5.1 | | |
| | e pP | Z | 19:50:06.4 | | | | | | | |
| ROTZ | e P | Z | 19:49:46.5 | 70.5 | 82.0 | 0.9 | 50 | 5.6 | | |
| | e pP | Z | 19:50:08.0 | | | | | | | |
| MANZ | e P | Z | 19:49:46.3 | 70.5 | 82.0 | 1.5 | 68 | 5.6 | | |
| | e pP | Z | 19:50:07.9 | | | | | | | |
| NEUB | e P | Z | 19:49:46.1 | 70.6 | 82.2 | 1.0 | 54 | 5.6 | | |
| | e pP | Z | 19:50:07.6 | | | | | | | |
| MOX | e P | Z | 19:49:47.3 | 70.7 | 81.9 | 1.2 | 42 | 5.4 | | |
| | e pP | Z | 19:50:08.9 | | | | | | | |
| BSEG | e P | Z | 19:49:49.4 | 71.1 | 82.1 | 0.9 | 94 | 5.9 | | |
| | e pP | Z | 19:50:11.2 | | | | | | | |
| GRA1 | e P | Z | 19:49:50.1 | 71.1 | 81.3 | 1.1 | 52 | 5.6 | | |
| | e pP | Z | 19:50:11.8 | | | | | | | |
| FUR | e P | Z | 19:49:50.9 | 71.3 | 80.8 | 0.9 | 25 | 5.3 | | |
| | e pP | Z | 19:50:12.5 | | | | | | | |
| CLZ | e P | Z | 19:49:51.1 | 71.3 | 81.4 | 1.2 | 80 | 5.7 | | |
| | e pP | Z | 19:50:12.6 | | | | | | | |
| NRDL | e P | Z | 19:49:51.4 | 71.4 | 81.4 | 1.3 | 100 | 5.8 | | |
| | e pP | Z | 19:50:13.2 | | | | | | | |
| UBBA | e P | Z | 19:49:53.0 | 71.7 | 80.8 | 1.4 | 37 | 5.3 | | |
| | e pP | Z | 19:50:14.7 | | | | | | | |
| STU | e P | Z | 19:49:58.6 | 72.6 | 79.5 | 0.9 | 40 | 5.6 | | |
| | e pP | Z | 19:50:20.3 | | | | | | | |
| TNS | e P | Z | 19:49:59.9 | 72.8 | 79.4 | 1.0 | 40 | 5.5 | | |
| | e pP | Z | 19:50:21.4 | | | | | | | |
| IBBN | e P | Z | 19:50:00.1 | 72.8 | 79.6 | 0.9 | 66 | 5.7 | | |
| | e pP | Z | 19:50:21.6 | | | | | | | |
| BFO | e P | Z | 19:50:01.9 | 73.2 | 78.8 | 0.7 | 9 | 5.0 | | |
| BUG | e P | Z | 19:50:02.8 | 73.3 | 78.9 | 1.1 | 61 | 5.7 | | |
| | e pP | Z | 19:50:24.2 | | | | | | | |
| WLF | e P | Z | 19:50:09.7 | 74.4 | 77.6 | 1.2 | 98 | 5.7 | | |
| | e pP | Z | 19:50:31.3 | | | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/22 05:42:32.9 44.500N 149.500E 50.0G 4.9
 Kuril Islands, Russia gsrc

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| CLL | e P | Z 05:54:23.4 | 77.1 | 30.2 | 0.5 | 18 | 5.5 | | |
| BRG | e P | Z 05:54:23.9 | 77.2 | 30.8 | 0.7 | 4 | 4.7 | | |
| FBE | e P | Z 05:54:25.1 | 77.3 | 30.4 | 0.9 | 9 | 4.9 | | |
| CLZ | e P | Z 05:54:26.0 | 77.4 | 28.6 | 1.4 | 16 | 5.0 | | |
| WERD | e P | Z 05:54:29.2 | 78.0 | 29.7 | 0.7 | 4 | 4.7 | | |

| | | | | | | | | |
|------|-----|---|------------|------|------|-----|----|-----|
| MANZ | e P | Z | 05:54:31.8 | 78.5 | 29.5 | 1.1 | 8 | 4.6 |
| ROTZ | e P | Z | 05:54:33.0 | 78.7 | 29.6 | 1.0 | 6 | 4.6 |
| GEC2 | e P | Z | 05:54:34.5 | 79.0 | 30.4 | 0.9 | 6 | 4.6 |
| WET | e P | Z | 05:54:34.9 | 79.0 | 29.9 | 1.0 | 16 | 5.0 |
| GRA1 | e P | Z | 05:54:35.4 | 79.0 | 28.9 | 0.9 | 13 | 5.0 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/22 | 10:45:27.3 | 52.046N | 179.626W | 33.0N | 5.2 | | | SZGRF |

Andreanof Islands, Aleutian Islands, United States

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-----|------|-------|-----|----|----|
| BSEG | e P | Z | 10:56:58.8 | 73.7 | 6.4 | 1.7 | 45 | 5.2 | | |
| NRDL | e P | Z | 10:57:06.3 | 75.1 | 6.2 | 1.5 | 30 | 5.2 | | |
| IBBN | e P | Z | 10:57:08.4 | 75.5 | 4.7 | 1.4 | 63 | 5.6 | | |
| CLZ | e P | Z | 10:57:10.4 | 75.8 | 6.3 | 1.5 | 42 | 5.3 | | |
| CLL | e P | Z | 10:57:11.5 | 76.1 | 8.0 | 1.7 | 34 | 5.2 | | |
| NEUB | e P | Z | 10:57:13.1 | 76.3 | 7.2 | 1.5 | 56 | 5.5 | | |
| BUG | e P | Z | 10:57:13.1 | 76.3 | 4.4 | 1.4 | 41 | 5.4 | | |
| BRG | e P | Z | 10:57:13.6 | 76.4 | 8.5 | 1.2 | 18 | 5.1 | | |
| FBE | e P | Z | 10:57:14.2 | 76.4 | 8.2 | 1.4 | 42 | 5.4 | | |
| WERD | e P | Z | 10:57:17.2 | 77.0 | 7.5 | 1.5 | 21 | 5.0 | | |
| TANN | e P | Z | 10:57:17.3 | 77.0 | 7.6 | 1.2 | 12 | 4.9 | | |
| GUNZ | e P | Z | 10:57:17.8 | 77.1 | 7.5 | 1.4 | 24 | 5.1 | | |
| MANZ | e P | Z | 10:57:19.7 | 77.5 | 7.4 | 1.0 | 8 | 4.8 | | |
| TNS | e P | Z | 10:57:19.7 | 77.5 | 5.1 | 1.3 | 22 | 5.1 | | |
| ROTZ | e P | Z | 10:57:21.0 | 77.7 | 7.4 | 1.4 | 23 | 5.1 | | |
| GRA1 | e P | Z | 10:57:22.0 | 77.8 | 6.8 | 1.3 | 33 | 5.3 | | |
| WLF | e P | Z | 10:57:23.5 | 78.2 | 3.6 | 1.5 | 36 | 5.2 | | |
| WET | e P | Z | 10:57:24.1 | 78.3 | 7.8 | 1.1 | 10 | 4.8 | | |
| GEC2 | e P | Z | 10:57:25.1 | 78.5 | 8.3 | 1.3 | 15 | 4.9 | | |
| FUR | e P | Z | 10:57:30.0 | 79.4 | 6.8 | 1.1 | 33 | 5.2 | | |
| BFO | e P | Z | 10:57:30.0 | 79.4 | 5.0 | 1.4 | 20 | 4.9 | | |
| RJOB | e P | Z | 10:57:31.6 | 79.7 | 7.7 | 1.4 | 15 | 4.7 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/22 | 19:25:16.3 | 12.400N | 120.400E | 49.0 | 5.3 | | | NEIC |

Mindoro, Philippine Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z | 19:38:14.4 | 90.5 | 69.5 | 1.5 | 20 | 5.2 | | |
| FBE | e P | Z | 19:38:16.0 | 90.8 | 69.0 | 1.8 | 50 | 5.5 | | |
| CLL | e P | Z | 19:38:16.0 | 90.9 | 68.8 | 1.2 | 10 | 5.0 | | |
| GEC2 | e P | Z | 19:38:18.4 | 91.3 | 69.3 | 2.1 | 35 | 5.3 | | |
| TANN | e P | Z | 19:38:19.1 | 91.5 | 68.4 | 1.7 | 19 | 5.1 | | |
| WERD | e P | Z | 19:38:19.4 | 91.6 | 68.2 | 1.3 | 13 | 5.1 | | |

| | | | | | | | | |
|------|-----|---|------------|------|------|-----|----|-----|
| GUNZ | e P | Z | 19:38:19.8 | 91.6 | 68.3 | 1.6 | 31 | 5.4 |
| NEUB | e P | Z | 19:38:19.6 | 91.6 | 67.8 | 1.3 | 23 | 5.3 |
| WET | e P | Z | 19:38:20.3 | 91.7 | 68.7 | 1.8 | 31 | 5.3 |
| MANZ | e P | Z | 19:38:21.3 | 91.9 | 68.1 | 1.9 | 33 | 5.3 |
| ROTZ | e P | Z | 19:38:21.5 | 91.9 | 68.2 | 1.6 | 29 | 5.3 |
| MOX | e P | Z | 19:38:20.9 | 91.9 | 67.7 | 1.5 | 25 | 5.3 |
| NRDL | e P | Z | 19:38:22.0 | 92.1 | 66.4 | 1.5 | 19 | 5.2 |
| CLZ | e P | Z | 19:38:22.5 | 92.2 | 66.7 | 1.3 | 17 | 5.2 |
| GRA1 | e P | Z | 19:38:24.3 | 92.5 | 67.4 | 1.4 | 18 | 5.3 |
| UBBA | e P | Z | 19:38:24.9 | 92.8 | 66.4 | 1.4 | 14 | 5.2 |
| TNS | e P | Z | 19:38:30.6 | 93.9 | 65.2 | 1.2 | 13 | 5.1 |
| BUG | e P | Z | 19:38:31.1 | 94.1 | 64.2 | 1.0 | 16 | 5.3 |
| WLF | e P | Z | 19:38:38.2 | 95.5 | 63.5 | 1.2 | 26 | 5.6 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-----------------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/22 | 19:38:10.1 | 46.200N | 151.600E | 51.0 | 5.1 | | | NEIC |
| Kuril Islands, Russia | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| NRDL | e P | Z | 19:49:53.9 | 75.9 | 26.4 | 1.1 | 13 | 4.9 | | |
| CLL | e P | Z | 19:49:54.8 | 76.2 | 28.1 | 1.3 | 29 | 5.2 | | |
| BRG | e P | Z | 19:49:55.8 | 76.3 | 28.7 | 1.1 | 10 | 4.8 | | |
| FBE | e P | Z | 19:49:56.7 | 76.4 | 28.3 | 0.9 | 12 | 5.0 | | |
| CLZ | e P | Z | 19:49:57.3 | 76.5 | 26.5 | 1.2 | 29 | 5.3 | | |
| NEUB | e P | Z | 19:49:57.7 | 76.6 | 27.3 | 1.1 | 25 | 5.2 | | |
| TANN | e P | Z | 19:50:00.8 | 77.1 | 27.7 | 1.1 | 7 | 4.7 | | |
| WERD | e P | Z | 19:50:00.8 | 77.2 | 27.6 | 1.2 | 12 | 4.9 | | |
| MOX | e P | Z | 19:50:00.8 | 77.2 | 27.2 | 1.3 | 19 | 5.0 | | |
| GUNZ | e P | Z | 19:50:01.2 | 77.2 | 27.6 | 0.8 | 10 | 5.0 | | |
| UBBA | e P | Z | 19:50:02.5 | 77.5 | 26.1 | 1.5 | 15 | 4.9 | | |
| MANZ | e P | Z | 19:50:03.5 | 77.6 | 27.4 | 1.0 | 10 | 4.9 | | |
| BUG | e P | Z | 19:50:03.5 | 77.6 | 24.4 | 1.1 | 24 | 5.2 | | |
| ROTZ | e P | Z | 19:50:04.8 | 77.8 | 27.4 | 1.0 | 12 | 5.0 | | |
| WET | e P | Z | 19:50:06.6 | 78.1 | 27.8 | 1.1 | 20 | 5.2 | | |
| GRA1 | e P | Z | 19:50:06.7 | 78.1 | 26.8 | 1.3 | 41 | 5.4 | | |
| GEC2 | e P | Z | 19:50:06.2 | 78.1 | 28.3 | 0.9 | 8 | 4.9 | | |
| TNS | e P | Z | 19:50:08.2 | 78.4 | 25.1 | 0.9 | 18 | 5.1 | | |
| RJOB | e P | Z | 19:50:13.7 | 79.4 | 27.6 | 1.3 | 16 | 4.8 | | |
| FUR | e P | Z | 19:50:14.0 | 79.5 | 26.7 | 1.0 | 30 | 5.2 | | |
| STU | e P | Z | 19:50:14.1 | 79.6 | 25.4 | 1.1 | 17 | 4.9 | | |
| BFO | e P | Z | 19:50:17.6 | 80.2 | 24.8 | 1.2 | 22 | 5.1 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------------------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/22 | 22:58:56.7 | 28.940N | 140.620E | 33.0G | 5.4 | | | SZGRF |
| Bonin Islands, Japan, region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BSEG | e P | Z | 23:11:38.1 | 86.7 | 42.0 | 1.7 | 60 | 5.4 | | |
| BRG | e P | Z | 23:11:41.3 | 87.4 | 44.6 | 1.2 | 12 | 5.1 | | |
| CLL | e P | Z | 23:11:41.8 | 87.5 | 43.9 | 1.3 | 20 | 5.3 | | |
| FBE | e P | Z | 23:11:42.7 | 87.6 | 44.2 | 1.6 | 58 | 5.6 | | |
| NEUB | e P | Z | 23:11:44.6 | 88.1 | 43.0 | 1.5 | 35 | 5.5 | | |
| CLZ | e P | Z | 23:11:45.6 | 88.2 | 41.9 | 1.9 | 55 | 5.6 | | |
| TANN | e P | Z | 23:11:46.1 | 88.4 | 43.5 | 2.1 | 38 | 5.3 | | |
| WERD | e P | Z | 23:11:46.3 | 88.4 | 43.4 | 1.3 | 16 | 5.1 | | |
| GUNZ | e P | Z | 23:11:46.7 | 88.5 | 43.4 | 1.1 | 16 | 5.1 | | |
| MOX | e P | Z | 23:11:46.9 | 88.6 | 42.9 | 1.7 | 34 | 5.3 | | |
| MANZ | e P | Z | 23:11:48.4 | 88.8 | 43.2 | 0.7 | 8 | 5.0 | | |
| IBBN | e P | Z | 23:11:48.5 | 88.9 | 39.9 | 1.0 | 31 | 5.5 | | |
| GEC2 | e P | Z | 23:11:48.5 | 88.9 | 44.4 | 1.0 | 15 | 5.1 | | |
| ROTZ | e P | Z | 23:11:49.2 | 89.0 | 43.3 | 1.9 | 72 | 5.6 | | |
| WET | e P | Z | 23:11:49.6 | 89.1 | 43.8 | 1.9 | 40 | 5.3 | | |
| UBBA | e P | Z | 23:11:49.6 | 89.1 | 41.6 | 1.7 | 28 | 5.2 | | |
| GRA1 | e P | Z | 23:11:51.5 | 89.4 | 42.6 | 1.5 | 43 | 5.5 | | |
| BUG | e P | Z | 23:11:52.2 | 89.8 | 39.5 | 0.8 | 16 | 5.3 | | |
| RJOB | e P | Z | 23:11:54.2 | 90.2 | 43.7 | 0.9 | 16 | 5.2 | | |
| TNS | e P | Z | 23:11:54.8 | 90.2 | 40.4 | 1.2 | 11 | 5.0 | | |
| FUR | e P | Z | 23:11:56.4 | 90.5 | 42.6 | 0.8 | 33 | 5.7 | | |
| STU | e P | Z | 23:11:58.5 | 91.0 | 41.0 | 1.2 | 25 | 5.4 | | |
| WLF | e P | Z | 23:12:01.6 | 91.6 | 38.7 | 1.6 | 61 | 5.7 | | |
| BFO | e P | Z | 23:12:01.5 | 91.7 | 40.4 | 1.8 | 42 | 5.5 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/24 07:16:33.3 20.337N 105.346W 33.0N 5.5
 Near coast of Jalisco, Mexico

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| GRA1 | e P | Z | 07:29:31.5 | 90.4 | 303.0 | 2.2 | 51 | 5.5 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/24 16:14:56.6 42.187N 13.681E 10.0G
 Central Italy

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|----|----|----|
| RJOB | e Pn | Z | 16:16:18.5 | 5.6 | 173.2 | | | | | |
| | e Sn | E | 16:17:18.7 | | | | | | | |
| OBER | e Pn | Z | 16:16:21.3 | 5.7 | 154.1 | | | | | |
| | e Sn | N | 16:17:22.5 | | | | | | | |
| GEC2 | e Pn | Z | 16:16:31.6 | 6.7 | 180.1 | | | | | |
| | e Sn | N | 16:17:42.7 | | | | | | | |

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| | | | | | | | | | | | |
|------|------|---|------------|-----|-------|--|--|--|--|--|-----|
| WET | e Pn | Z | 16:16:36.3 | 7.0 | 175.1 | | | | | | |
| | e Sn | E | 16:17:47.9 | | | | | | | | |
| BFO | e Pn | Z | 16:16:38.1 | 7.2 | 146.5 | | | | | | |
| | e Sn | N | 16:17:54.0 | | | | | | | | |
| GRA1 | e Sn | E | 16:18:05.9 | 7.7 | 166.3 | | | | | | 4.5 |
| TANN | e Pn | Z | 16:16:55.3 | 8.3 | 173.7 | | | | | | |
| | e Sn | E | 16:18:19.7 | | | | | | | | |
| MOX | e Pn | Z | 16:16:57.2 | 8.6 | 169.7 | | | | | | |
| | e Sn | N | 16:18:24.2 | | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-------------------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/25 | 09:45:33.8 | 66.737N | 170.416E | 14.0G | 4.9 | | | NEIC |
| Eastern Siberia, Russia | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| CLZ | e pP | Z | 09:55:52.2 | 60.5 | 8.9 | 0.8 | 14 | 4.9 | | |
| CLL | e pP | Z | 09:55:54.7 | 60.7 | 10.0 | 1.0 | 8 | 4.5 | | |
| BRG | e pP | Z | 09:55:57.6 | 61.0 | 10.4 | 0.9 | 10 | 4.6 | | |
| UBBA | e pP | Z | 09:56:00.1 | 61.5 | 8.7 | 1.9 | 48 | 5.4 | | |
| TANN | e pP | Z | 09:56:01.6 | 61.7 | 9.7 | 1.3 | 19 | 5.2 | | |
| TNS | e pP | Z | 09:56:02.6 | 62.2 | 7.9 | 0.8 | 8 | 4.9 | | |
| GRA1 | e P | Z | 09:56:03.1 | 62.5 | 9.1 | | | | | |
| | e pP | Z | 09:56:06.9 | | | | | | | |
| GEC2 | e pP | Z | 09:56:11.6 | 63.1 | 10.1 | 0.9 | 14 | 5.1 | | |
| RJOB | e pP | Z | 09:56:18.9 | 64.3 | 9.6 | 0.9 | 6 | 4.8 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|-------------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/25 | 09:46:58.8 | 54.897S | 143.865W | 10.0G | | | | NEIC |
| Pacific-Antarctic Ridge | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| WLF | e PKPdf | Z | 10:06:56.8 | 161.1 | 242.5 | | | | | |
| | e PKPab | Z | 10:07:41.0 | | | | | | | |
| BFO | e PKPdf | Z | 10:06:57.1 | 161.7 | 238.6 | | | | | |
| STU | e PKPdf | Z | 10:06:57.8 | 162.4 | 239.5 | | | | | |
| BUG | e PKPdf | Z | 10:06:57.7 | 162.5 | 247.3 | | | | | |
| | e PKPab | Z | 10:07:46.7 | | | | | | | |
| TNS | e PKPdf | Z | 10:06:58.2 | 162.7 | 243.7 | | | | | |
| | e PKPab | Z | 10:07:47.8 | | | | | | | |
| UBBA | e PKPdf | Z | 10:06:58.6 | 163.8 | 245.3 | | | | | |
| | e PKPab | Z | 10:07:52.7 | | | | | | | |
| RJOB | e PKPdf | Z | 10:06:58.4 | 163.9 | 235.0 | | | | | |
| | e PKPab | Z | 10:07:52.0 | | | | | | | |
| GRA1 | e PKPdf | Z | 10:06:59.3 | 164.0 | 241.5 | | | | | |
| | e PKPab | Z | 10:07:53.7 | | | | | | | |

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| | | | | | | |
|------|---|-------|---|------------|-------|-------|
| CLZ | e | PKPdf | Z | 10:06:59.3 | 164.4 | 248.5 |
| | e | PKPab | Z | 10:07:55.5 | | |
| NRDL | e | PKPdf | Z | 10:06:59.0 | 164.5 | 250.7 |
| | e | PKPab | Z | 10:07:56.3 | | |
| ROTZ | e | PKPdf | Z | 10:06:58.9 | 164.6 | 241.4 |
| | e | PKPab | Z | 10:07:56.2 | | |
| | e | PP | Z | 10:11:42.8 | | |
| MOX | e | PKPdf | Z | 10:06:59.2 | 164.7 | 244.4 |
| | e | PKPab | Z | 10:07:56.4 | | |
| WET | e | PKPdf | Z | 10:06:59.3 | 164.7 | 239.2 |
| | e | PKPab | Z | 10:07:56.1 | | |
| GEC2 | e | PKPdf | Z | 10:06:59.5 | 165.0 | 237.8 |
| | e | PKPab | Z | 10:07:57.2 | | |
| BSEG | e | PKPdf | Z | 10:06:59.0 | 165.0 | 255.8 |
| TANN | e | PKPdf | Z | 10:06:59.6 | 165.0 | 243.4 |
| | e | PKPab | Z | 10:07:58.6 | | |
| | e | PP | Z | 10:11:45.3 | | |
| CLL | e | PKPdf | Z | 10:06:59.9 | 165.7 | 246.4 |
| | e | PKPab | Z | 10:08:01.4 | | |
| BRG | e | PKPdf | Z | 10:07:00.3 | 166.1 | 244.6 |
| | e | PKPab | Z | 10:08:02.7 | | |

| | | | | | | | | |
|------------------------------|-------------|---------|----------|-------|----|----|----|--------|
| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
| 2009/09/25 | 14:23: 9.2 | 22.880S | 172.130E | 33.0G | | | | SZGRF |
| Southeast of Loyalty Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|------|------|-------|----|----|----|
| BSEG | e | PKPbc | Z 14:42:44.9 | 146.1 | 31.0 | | | | | |
| BRG | e | PKPbc | Z 14:42:48.8 | 147.3 | 39.3 | | | | | |
| CLL | e | PKPbc | Z 14:42:48.8 | 147.3 | 37.4 | | | | | |
| NRDL | e | PKPbc | Z 14:42:49.1 | 147.4 | 31.8 | | | | | |
| CLZ | e | PKPbc | Z 14:42:50.8 | 147.8 | 32.8 | | | | | |
| TANN | e | PKPbc | Z 14:42:52.1 | 148.2 | 37.4 | | | | | |
| IBBN | e | PKPbc | Z 14:42:51.5 | 148.2 | 28.1 | | | | | |
| MOX | e | PKPbc | Z 14:42:52.0 | 148.4 | 35.9 | | | | | |
| UBBA | e | PKPbc | Z 14:42:53.0 | 148.8 | 33.1 | | | | | |
| ROTZ | e | PKPbc | Z 14:42:53.6 | 148.8 | 37.7 | | | | | |
| GEC2 | e | PKPbc | Z 14:42:53.6 | 148.9 | 41.0 | | | | | |
| WET | e | PKPbc | Z 14:42:54.1 | 149.1 | 39.4 | | | | | |
| BUG | e | PKPbc | Z 14:42:53.9 | 149.1 | 28.0 | | | | | |
| GRA1 | e | PKPbc | Z 14:42:54.6 | 149.3 | 36.2 | | | | | |
| TNS | e | PKPbc | Z 14:42:55.9 | 149.8 | 31.0 | | | | | |
| RJOB | e | PKPbc | Z 14:42:56.3 | 150.2 | 40.8 | | | | | |
| FUR | e | PKPbc | Z 14:42:57.2 | 150.5 | 37.8 | | | | | |
| STU | e | PKPbc | Z 14:42:58.0 | 150.8 | 33.6 | | | | | |
| WLF | e | PKPbc | Z 14:42:59.5 | 151.0 | 27.5 | | | | | |
| BFO | e | PKPbc | Z 14:42:59.5 | 151.5 | 32.6 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/26 | 01:03: 6.6 | 15.400N | 93.800W | 95.0 | 5.1 | | | NEIC |

Near coast of Chiapas, Mexico

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GRA1 | e P | Z 01:15:47.3 | 87.7 | 291.3 | 2.1 | 20 | 5.1 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/26 | 02:52:11.7 | 34.100N | 25.500E | 35.0 | 4.4 | | | NEIC |

Crete, Greece

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| RJOB | e P | Z 02:56:04.2 | 16.6 | 140.5 | 1.6 | 24 | 4.1 | | |
| GEC2 | e P | Z 02:56:09.5 | 17.1 | 144.9 | 1.1 | 13 | 4.0 | | |
| FUR | e P | Z 02:56:16.0 | 17.6 | 137.8 | 1.0 | 37 | 4.5 | | |
| WET | e P | Z 02:56:14.3 | 17.7 | 143.5 | 1.9 | 76 | 4.5 | | |
| ROTZ | e P | Z 02:56:25.4 | 18.5 | 143.0 | 0.9 | 7 | 3.8 | | |
| BRG | e P | Z 02:56:28.0 | 18.8 | 149.0 | 1.5 | 13 | 3.9 | | |
| GRA1 | e P | Z 02:56:28.6 | 18.8 | 140.7 | 1.6 | 92 | 4.8 | | |
| TANN | e P | Z 02:56:29.4 | 18.9 | 144.8 | 1.0 | 19 | 4.3 | | |
| STU | e P | Z 02:56:32.9 | 19.0 | 134.5 | 0.9 | 22 | 4.4 | | |
| BFO | e P | Z 02:56:33.4 | 19.1 | 131.8 | 0.8 | 11 | 4.1 | | |
| MOX | e P | Z 02:56:33.8 | 19.4 | 143.2 | 1.0 | 10 | 4.0 | | |
| CLL | e P | Z 02:56:35.7 | 19.4 | 147.4 | 1.0 | 11 | 4.1 | | |
| UBBA | e P | Z 02:56:43.6 | 20.2 | 140.1 | 1.8 | 42 | 4.4 | | |
| TNS | e P | Z 02:56:46.6 | 20.4 | 135.8 | 1.3 | 37 | 4.5 | | |
| CLZ | e P | Z 02:56:49.4 | 20.8 | 142.6 | 1.0 | 16 | 4.3 | | |
| NRDL | e P | Z 02:56:55.7 | 21.4 | 143.0 | 1.4 | 30 | 4.4 | | |
| BUG | e P | Z 02:57:02.2 | 21.8 | 135.7 | 1.3 | 42 | 4.7 | | |
| IBBN | e P | Z 02:57:05.5 | 22.2 | 138.1 | 1.2 | 32 | 4.6 | | |
| BSEG | e P | Z 02:57:07.9 | 22.5 | 145.5 | 1.6 | 74 | 5.0 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|--------|-------|-----|-----|----|--------|
| 2009/09/26 | 03:15:43.5 | 71.800N | 1.400W | 10.0 | 4.5 | 3.7 | | NEIC |

Jan Mayen Island region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|-----|----|
| CLZ | e P | Z 03:20:24.0 | 20.6 | 349.6 | 1.8 | 67 | 4.7 | | |
| UBBA | e P | Z 03:20:34.6 | 21.6 | 350.3 | 1.5 | 28 | 4.5 | | |
| MOX | e P | Z 03:20:38.0 | 21.9 | 349.2 | 1.6 | 22 | 4.3 | | |
| | e L | Z 03:28:34.1 | | | 20.5 | 286 | | 3.7 | |
| BRG | e P | Z 03:20:38.3 | 22.0 | 347.3 | 1.9 | 34 | 4.4 | | |

| | | | | | | | | | |
|------|-----|---|------------|------|-------|------|-----|-----|--|
| TNS | e P | Z | 03:20:43.8 | 22.0 | 351.8 | 2.2 | 64 | 4.7 | |
| TANN | e P | Z | 03:20:41.2 | 22.3 | 348.6 | 1.6 | 13 | 4.1 | |
| GRA1 | e L | Z | 03:29:12.3 | 22.8 | 349.9 | 20.8 | 216 | 3.6 | |
| BFO | e P | Z | 03:20:57.7 | 23.9 | 352.5 | 1.4 | 11 | 4.2 | |
| GEC2 | e P | Z | 03:20:58.9 | 24.0 | 348.4 | 2.3 | 38 | 4.5 | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/26 04:03:58.2 15.500N 94.000W 40.4 5.0
 Near coast of Oaxaca, Mexico

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| BUG | e P | Z | 04:16:22.4 | 84.7 | 288.4 | 1.1 | 10 | 5.0 | | |
| | e pP | Z | 04:16:34.1 | | | | | | | |
| BSEG | e pP | Z | 04:16:39.2 | 85.7 | 290.5 | | | | | |
| TNS | e P | Z | 04:16:28.3 | 85.8 | 289.4 | 0.8 | 12 | 5.1 | | |
| NRDL | e pP | Z | 04:16:41.1 | 86.0 | 290.5 | | | | | |
| BFO | e P | Z | 04:16:30.0 | 86.4 | 289.4 | 1.3 | 9 | 4.7 | | |
| | e pP | Z | 04:16:42.2 | | | | | | | |
| UBBA | e P | Z | 04:16:31.7 | 86.6 | 290.5 | 1.9 | 20 | 4.9 | | |
| GRA1 | e P | Z | 04:16:37.8 | 87.7 | 291.5 | 0.9 | 7 | 5.0 | | |
| | e pP | Z | 04:16:49.4 | | | | | | | |
| WET | e pP | Z | 04:16:54.8 | 88.9 | 292.7 | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/26 04:22:27.8 29.600S 60.900E 10.0 5.3
 Southwest Indian Ridge

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| RJOB | e P | Z | 04:35:17.9 | 88.6 | 139.7 | 2.1 | 49 | 5.5 | | |
| GEC2 | e P | Z | 04:35:20.0 | 89.0 | 140.4 | 1.6 | 16 | 5.0 | | |
| FUR | e P | Z | 04:35:23.8 | 89.6 | 138.5 | 1.7 | 200 | 6.1 | | |
| WET | e P | Z | 04:35:22.5 | 89.6 | 139.7 | 1.7 | 17 | 5.0 | | |
| ROTZ | e P | Z | 04:35:26.9 | 90.4 | 139.2 | 1.3 | 13 | 5.0 | | |
| BRG | e P | Z | 04:35:28.0 | 90.5 | 140.5 | 1.7 | 44 | 5.4 | | |
| GRA1 | e P | Z | 04:35:28.8 | 90.7 | 138.5 | 1.5 | 45 | 5.5 | | |
| TANN | e P | Z | 04:35:29.3 | 90.8 | 139.4 | 1.8 | 41 | 5.4 | | |
| STU | e P | Z | 04:35:29.9 | 90.9 | 137.0 | | | | | |
| BFO | e P | Z | 04:35:30.2 | 91.0 | 136.3 | 2.0 | 34 | 5.3 | | |
| CLL | e P | Z | 04:35:31.5 | 91.2 | 139.8 | 1.7 | 29 | 5.3 | | |
| MOX | e P | Z | 04:35:31.5 | 91.3 | 138.8 | 1.6 | 26 | 5.3 | | |
| UBBA | e P | Z | 04:35:35.0 | 92.1 | 137.5 | 2.1 | 22 | 5.1 | | |

Date Origin Time Lat Long Depth mb Ms ML Source

2009/09/26 04:57: 9.9 34.100N 25.500E 35.0 4.4 NEIC
Crete, Greece

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GEC2 | e P | Z 05:01:08.5 | 17.1 | 144.9 | 1.1 | 19 | 4.1 | | |
| WET | e P | Z 05:01:14.4 | 17.7 | 143.5 | 1.4 | 42 | 4.4 | | |
| ROTZ | e P | Z 05:01:21.9 | 18.5 | 143.0 | 1.8 | 18 | 3.9 | | |
| BRG | e P | Z 05:01:26.8 | 18.8 | 149.0 | 2.1 | 23 | 4.0 | | |
| GRA1 | e P | Z 05:01:27.9 | 18.8 | 140.7 | 1.9 | 117 | 4.8 | | |
| TANN | e P | Z 05:01:27.4 | 18.9 | 144.8 | 2.8 | 211 | 4.9 | | |
| MOX | e P | Z 05:01:32.8 | 19.4 | 143.2 | 1.2 | 16 | 4.1 | | |
| CLL | e P | Z 05:01:33.4 | 19.4 | 147.4 | 0.7 | 7 | 4.0 | | |
| UBBA | e P | Z 05:01:40.2 | 20.2 | 140.1 | 1.0 | 10 | 4.0 | | |
| TNS | e P | Z 05:01:44.9 | 20.4 | 135.8 | 0.8 | 24 | 4.5 | | |
| CLZ | e P | Z 05:01:48.1 | 20.8 | 142.6 | 0.9 | 13 | 4.3 | | |
| NRDL | e P | Z 05:01:54.7 | 21.4 | 143.0 | 1.4 | 15 | 4.1 | | |
| BUG | e P | Z 05:02:00.7 | 21.8 | 135.7 | 1.2 | 27 | 4.5 | | |
| IBBN | e P | Z 05:02:04.4 | 22.2 | 138.1 | 1.2 | 24 | 4.5 | | |
| BSEG | e P | Z 05:02:05.5 | 22.5 | 145.5 | 0.9 | 18 | 4.6 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/26 13:26:38.4 7.730S 31.860E 38.4 5.2 4.6 ML SZGRF
Lake Tanganyika region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|-----|----|
| RJOB | e P | Z 13:36:24.9 | 58.0 | 157.6 | 1.2 | 20 | 5.0 | | |
| | e pP | Z 13:36:35.5 | | | 1.0 | 18 | | | |
| FUR | e P | Z 13:36:30.7 | 58.8 | 156.0 | 0.9 | 48 | 5.5 | | |
| | e pP | Z 13:36:41.3 | | | | | | | |
| GEC2 | e P | Z 13:36:31.4 | 58.8 | 158.8 | 1.2 | 50 | 5.4 | | |
| | e pP | Z 13:36:42.1 | | | | | | | |
| WET | e P | Z 13:36:34.3 | 59.3 | 158.0 | 1.2 | 29 | 5.2 | | |
| | e pP | Z 13:36:45.0 | | | | | | | |
| BFO | e P | Z 13:36:37.8 | 59.8 | 152.7 | 1.9 | 36 | 5.1 | | |
| | e pP | Z 13:36:48.4 | | | | | | | |
| | e S | R 13:44:45.8 | | | | | | | |
| STU | e P | Z 13:36:39.1 | 59.9 | 153.8 | 1.2 | 31 | 5.2 | | |
| | e pP | Z 13:36:49.7 | | | | | | | |
| ROTZ | e P | Z 13:36:39.7 | 60.0 | 157.4 | 1.4 | 38 | 5.2 | | |
| | e pP | Z 13:36:50.4 | | | | | | | |
| GRA1 | e P | Z 13:36:40.9 | 60.2 | 156.3 | 1.2 | 76 | 5.6 | | |
| | e pP | Z 13:36:51.6 | | | | | | | |
| | e L | Z 14:05:35.7 | | | 18.0 | 523 | | 4.7 | |
| TANN | e P | Z 13:36:43.8 | 60.5 | 157.8 | 1.1 | 24 | 5.1 | | |
| | e pP | Z 13:36:54.4 | | | | | | | |
| BRG | e P | Z 13:36:43.6 | 60.6 | 159.5 | 1.3 | 14 | 4.9 | | |
| | e pP | Z 13:36:54.2 | | | | | | | |

| | | | | | | | | | |
|------|------|---|------------|------|-------|------|-----|-----|-----|
| MOX | e P | Z | 13:36:46.4 | 61.0 | 156.9 | 1.2 | 25 | 5.1 | |
| | e pP | Z | 13:36:57.0 | | | | | | |
| | e L | Z | 14:06:11.9 | | | 19.3 | 384 | | 4.5 |
| CLL | e P | Z | 13:36:48.0 | 61.2 | 158.6 | 1.1 | 14 | 4.9 | |
| | e pP | Z | 13:36:58.7 | | | | | | |
| TNS | e P | Z | 13:36:49.5 | 61.4 | 153.4 | 1.1 | 39 | 5.3 | |
| | e pP | Z | 13:37:00.2 | | | | | | |
| UBBA | e P | Z | 13:36:50.4 | 61.5 | 155.2 | 1.5 | 32 | 5.1 | |
| | e pP | Z | 13:37:01.0 | | | | | | |
| | e S | R | 13:45:17.5 | | | | | | |
| WLF | e P | Z | 13:36:50.6 | 61.6 | 150.8 | 1.9 | 66 | 5.3 | |
| | e pP | Z | 13:37:01.2 | | | | | | |
| CLZ | e P | Z | 13:36:56.3 | 62.4 | 155.8 | 1.4 | 21 | 5.0 | |
| | e pP | Z | 13:37:06.9 | | | | | | |
| BUG | e P | Z | 13:36:59.3 | 62.8 | 152.4 | 1.0 | 33 | 5.3 | |
| | e pP | Z | 13:37:10.0 | | | | | | |
| NRDL | e P | Z | 13:37:01.1 | 63.0 | 155.7 | 1.0 | 66 | 5.6 | |
| | e pP | Z | 13:37:11.8 | | | | | | |
| IBBN | e P | Z | 13:37:04.0 | 63.5 | 153.1 | 2.1 | 83 | 5.2 | |
| | e pP | Z | 13:37:14.6 | | | | | | |
| BSEG | e P | Z | 13:37:08.9 | 64.3 | 156.2 | 1.2 | 47 | 5.6 | |
| | e pP | Z | 13:37:19.6 | | | | | | |

Date 2009/09/26 Origin Time 18:51:38.0 Lat 23.500N Long 123.500E Depth 35.0 mb 4.9 Ms ML Source NEIC
Southwestern Ryukyu Islands, Japan

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| CLL | e P | Z 19:04:17.0 | 83.7 | 59.8 | 1.1 | 8 | 4.8 | | |
| GEC2 | e P | Z 19:04:21.7 | 84.5 | 60.1 | 0.8 | 9 | 5.0 | | |
| CLZ | e P | Z 19:04:23.6 | 84.8 | 57.9 | 1.1 | 15 | 5.1 | | |
| ROTZ | e P | Z 19:04:23.9 | 84.9 | 59.1 | 1.0 | 6 | 4.8 | | |
| IBBN | e P | Z 19:04:28.4 | 85.9 | 55.9 | 0.8 | 10 | 5.0 | | |

Date 2009/09/26 Origin Time 19:44:59.0 Lat 29.900N Long 51.600E Depth 33.0 mb 4.2 Ms ML Source GSRC
Southern Iran

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GRA1 | e P | Z 19:51:58.8 | 36.2 | 107.9 | 0.9 | 3 | 4.2 | | |

Date 2009/09/27 Origin Time 01:03:36.3 Lat 48.326N Long 152.706E Depth 33.0N mb 4.3 Ms ML Source SZGRF

Kuril Islands, Russia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| NRDL | e P | Z | 01:15:10.4 | 74.3 | 24.8 | 0.9 | 2 | 4.1 | | |
| CLL | e P | Z | 01:15:11.5 | 74.6 | 26.5 | 0.8 | 4 | 4.5 | | |
| BRG | e P | Z | 01:15:12.8 | 74.7 | 27.0 | 0.8 | 1 | 4.0 | | |
| CLZ | e P | Z | 01:15:13.7 | 74.8 | 24.9 | 0.7 | 3 | 4.4 | | |
| IBBN | e P | Z | 01:15:14.9 | 75.0 | 23.3 | 0.7 | 2 | 4.3 | | |
| MOX | e P | Z | 01:15:17.6 | 75.6 | 25.5 | 0.7 | 2 | 4.3 | | |
| UBBA | e P | Z | 01:15:19.0 | 75.8 | 24.6 | 0.7 | 1 | 4.2 | | |
| ROTZ | e P | Z | 01:15:22.0 | 76.2 | 25.8 | 0.8 | 2 | 4.2 | | |
| GRA1 | e P | Z | 01:15:23.6 | 76.5 | 25.2 | 0.8 | 4 | 4.6 | | |
| WET | e P | Z | 01:15:23.6 | 76.5 | 26.2 | 0.9 | 2 | 4.1 | | |
| TNS | e P | Z | 01:15:24.8 | 76.8 | 23.5 | 0.7 | 2 | 4.4 | | |
| FUR | e P | Z | 01:15:30.8 | 77.9 | 25.1 | 0.8 | 4 | 4.6 | | |
| BFO | e P | Z | 01:15:34.3 | 78.5 | 23.3 | 0.9 | 2 | 4.2 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|-----|------|-------|----|----|----|--------|
| 2009/09/27 | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|------|-----|------|-------|----|----|----|
| BRG | e PKPbc | Z | 02:10:00.2 | | | | | | | |
| CLL | e PKPbc | Z | 02:09:59.7 | | | | | | | |
| FBE | e PKPbc | Z | 02:10:00.7 | | | | | | | |
| LEIN | e PKPbc | Z | 02:10:01.0 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/27 | 12:03:10.2 | 58.310N | 151.150W | 33.0N | 4.8 | | | SZGRF |

Kodiak Island, Alaska, United States, region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| IBBN | e P | Z | 12:14:09.4 | 68.1 | 348.2 | 1.6 | 27 | 5.2 | | |
| CLZ | e P | Z | 12:14:14.3 | 68.8 | 349.7 | 0.9 | 8 | 4.9 | | |
| BUG | e P | Z | 12:14:14.1 | 68.8 | 348.0 | 0.6 | 9 | 5.2 | | |
| MOX | e P | Z | 12:14:22.0 | 70.1 | 350.5 | 0.9 | 5 | 4.7 | | |
| TNS | e P | Z | 12:14:22.7 | 70.2 | 348.8 | 0.6 | 6 | 4.8 | | |
| GRA1 | e P | Z | 12:14:28.0 | 71.0 | 350.3 | 1.0 | 7 | 4.7 | | |
| ROTZ | e P | Z | 12:14:27.9 | 71.1 | 350.8 | 0.9 | 5 | 4.7 | | |
| BFO | e P | Z | 12:14:33.6 | 72.0 | 348.8 | 0.9 | 4 | 4.6 | | |
| GEC2 | e P | Z | 12:14:33.9 | 72.1 | 351.7 | 1.2 | 4 | 4.5 | | |
| FUR | e P | Z | 12:14:37.1 | 72.5 | 350.4 | 0.7 | 10 | 5.0 | | |
| RJOB | e P | Z | 12:14:40.4 | 73.1 | 351.3 | 0.9 | 7 | 4.8 | | |

./2009/bul0909.txt

Thu Apr 23 08:38:25 2020

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| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/27 | 13:25:39.7 | 21.454S | 178.472W | 33.0N | | | | SZGRF |

Fiji Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| CLL | e PKPbc | Z 13:45:23.9 | 148.8 | 21.0 | | | | | |
| BRG | e PKPbc | Z 13:45:24.6 | 149.0 | 22.9 | | | | | |
| MOX | e PKPbc | Z 13:45:26.5 | 149.8 | 18.9 | | | | | |
| TANN | e PKPbc | Z 13:45:26.8 | 149.8 | 20.5 | | | | | |
| ROTZ | e PKPbc | Z 13:45:28.7 | 150.5 | 20.5 | | | | | |
| TNS | e PKPbc | Z 13:45:29.0 | 150.7 | 13.3 | | | | | |
| GEC2 | e PKPbc | Z 13:45:29.9 | 150.9 | 23.8 | | | | | |
| WLF | e PKPbc | Z 13:45:31.6 | 151.6 | 9.1 | | | | | |
| FUR | e PKPbc | Z 13:45:32.1 | 152.2 | 19.7 | | | | | |
| RJOB | e PKPbc | Z 13:45:32.7 | 152.2 | 22.9 | | | | | |
| BFO | e PKPbc | Z 13:45:33.5 | 152.6 | 13.8 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|----|----|--------|
| 2009/09/27 | 15:16:52.5 | 2.700N | 125.700E | 107.0 | | | | NEIC |

Talau Islands, Indonesia

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| BRG | e Pdiff | Z 15:30:32.1 | 101.4 | 71.1 | | | | | |
| CLL | e Pdiff | Z 15:30:33.7 | 101.8 | 70.3 | | | | | |
| GEC2 | e Pdiff | Z 15:30:35.7 | 102.2 | 71.3 | | | | | |
| BSEG | e Pdiff | Z 15:30:36.7 | 102.4 | 67.5 | | | | | |
| TANN | e Pdiff | Z 15:30:36.9 | 102.4 | 70.0 | | | | | |
| WET | e Pdiff | Z 15:30:37.9 | 102.6 | 70.6 | | | | | |
| ROTZ | e Pdiff | Z 15:30:39.0 | 102.8 | 69.9 | | | | | |
| MOX | e Pdiff | Z 15:30:38.7 | 102.8 | 69.3 | | | | | |
| NRDL | e Pdiff | Z 15:30:40.1 | 103.0 | 67.6 | | | | | |
| CLZ | e Pdiff | Z 15:30:40.5 | 103.1 | 68.0 | | | | | |
| UBBA | e Pdiff | Z 15:30:42.8 | 103.7 | 67.9 | | | | | |
| IBBN | e Pdiff | Z 15:30:46.1 | 104.4 | 65.7 | | | | | |
| BUG | e Pdiff | Z 15:30:48.8 | 105.0 | 65.5 | | | | | |
| WLF | e Pdiff | Z 15:30:55.4 | 106.4 | 65.0 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|----|----|--------|
| 2009/09/28 | 02:43:23.1 | 35.700N | 95.800E | 10.0 | 3.9 | | | NEIC |

Qinghai, China

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| GRA1 | e P | Z 02:53:34.3 | 60.4 | 68.5 | 0.8 | 2 | 3.9 | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|---------|-------|-----|-----|----|--------|
| 2009/09/28 | 12:13:17.8 | 25.600S | 13.800W | 10.0 | 5.0 | 4.6 | | NEIC |

Southern Mid-Atlantic Ridge

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|-----|----|
| GRA1 | e P | Z 12:25:16.7 | 78.5 | 202.9 | 1.4 | 17 | 5.0 | | |
| | e L | Z 12:57:15.0 | | | 21.5 | 339 | | 4.6 | |
| MOX | e L | Z 12:56:32.6 | 79.5 | 203.2 | 21.4 | 392 | | 4.7 | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|-----|----|--------|
| 2009/09/28 | 19:22:58.1 | 27.630N | 128.420E | 33.0G | 5.3 | 6.4 | | SZGRF |

Ryukyu Islands, Japan

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|-----|----|
| BSEG | e P | Z 19:35:19.1 | 82.6 | 52.0 | 1.4 | 41 | 5.5 | | |
| BRG | e P | Z 19:35:20.3 | 82.6 | 54.4 | 1.4 | 16 | 5.0 | | |
| | e PP | Z 19:38:30.2 | | | | | | | |
| | e S | R 19:45:36.8 | | | | | | | |
| CLL | e P | Z 19:35:21.8 | 82.9 | 53.8 | 1.2 | 26 | 5.3 | | |
| | e PP | Z 19:38:31.5 | | | | | | | |
| NRDL | e P | Z 19:35:23.9 | 83.6 | 51.7 | 1.5 | 24 | 5.2 | | |
| TANN | e P | Z 19:35:24.7 | 83.7 | 53.3 | 1.6 | 28 | 5.3 | | |
| | e PP | Z 19:38:36.9 | | | | | | | |
| CLZ | e P | Z 19:35:25.5 | 83.8 | 51.9 | 1.4 | 76 | 5.7 | | |
| | e S | R 19:45:48.4 | | | | | | | |
| GEC2 | e P | Z 19:35:27.3 | 84.0 | 54.0 | 1.2 | 17 | 5.1 | | |
| | e PP | Z 19:38:39.2 | | | | | | | |
| | e S | R 19:45:50.1 | | | | | | | |
| MOX | e P | Z 19:35:26.5 | 84.0 | 52.7 | 1.3 | 17 | 5.1 | | |
| | e S | R 19:45:49.8 | | | | | | | |
| | e L | Z 20:17:09.9 | | | 18.3 | 14011 | | 6.4 | |
| ROTZ | e P | Z 19:35:27.9 | 84.2 | 53.0 | 1.5 | 44 | 5.5 | | |
| | e PP | Z 19:38:44.2 | | | | | | | |
| WET | e P | Z 19:35:28.4 | 84.2 | 53.5 | 1.4 | 16 | 5.1 | | |
| | e PP | Z 19:38:43.0 | | | | | | | |
| | e S | R 19:45:54.0 | | | | | | | |
| UBBA | e P | Z 19:35:29.7 | 84.7 | 51.5 | 1.3 | 17 | 5.1 | | |
| | e S | R 19:45:57.1 | | | | | | | |
| GRA1 | e P | Z 19:35:30.8 | 84.7 | 52.3 | 1.6 | 96 | 5.8 | | |
| | e PP | Z 19:38:48.9 | | | | | | | |
| | e S | R 19:45:58.8 | | | | | | | |
| | e L | Z 20:16:56.0 | | | 18.4 | 19034 | | 6.5 | |
| IBBN | e P | Z 19:35:30.8 | 84.8 | 49.9 | 1.0 | 47 | 5.7 | | |
| RJOB | e P | Z 19:35:31.8 | 85.1 | 53.3 | 1.0 | 19 | 5.3 | | |
| BUG | e P | Z 19:35:33.8 | 85.6 | 49.5 | 1.3 | 22 | 5.1 | | |
| | e S | R 19:46:05.1 | | | | | | | |

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|-----|------|---|------------|------|------|-----|----|-----|
| FUR | e P | Z | 19:35:35.4 | 85.6 | 52.2 | 0.9 | 35 | 5.5 |
| | e S | R | 19:46:07.2 | | | | | |
| TNS | e P | Z | 19:35:35.9 | 85.8 | 50.3 | 2.3 | 76 | 5.4 |
| | e PP | Z | 19:38:58.6 | | | | | |
| STU | e S | R | 19:46:10.4 | 86.3 | 50.8 | | | |
| BFO | e P | Z | 19:35:41.7 | 87.1 | 50.1 | 1.4 | 23 | 5.1 |
| | e PP | Z | 19:39:06.9 | | | | | |
| | e S | R | 19:46:18.1 | | | | | |
| WLF | e P | Z | 19:35:42.3 | 87.3 | 48.6 | 1.1 | 14 | 5.2 |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/29 17:21:44.6 41.600N 142.000E 66.0 4.8
 Hokkaido, Japan, region NEIC

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| CLL | e P | Z 17:33:31.8 | 77.1 | 36.6 | 0.8 | 7 | 4.9 | | |
| CLZ | e P | Z 17:33:35.5 | 77.6 | 34.9 | 0.9 | 7 | 4.8 | | |
| TANN | e P | Z 17:33:37.6 | 78.0 | 36.1 | 1.5 | 11 | 4.8 | | |
| IBBN | e P | Z 17:33:37.8 | 78.1 | 33.2 | 0.8 | 14 | 5.1 | | |
| ROTZ | e P | Z 17:33:41.4 | 78.6 | 35.9 | 1.1 | 6 | 4.6 | | |
| WET | e P | Z 17:33:42.7 | 78.8 | 36.3 | 1.1 | 8 | 4.6 | | |
| GRA1 | e P | Z 17:33:43.8 | 79.0 | 35.2 | 0.9 | 11 | 4.9 | | |
| RJOB | e P | Z 17:33:49.4 | 80.0 | 36.0 | 0.8 | 8 | 4.7 | | |
| BFO | e P | Z 17:33:55.1 | 81.2 | 33.2 | 1.6 | 14 | 4.9 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/29 17:48:12.9 15.773S 171.681W 33.0N 8.2
 Samoa Islands region SZGRF

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|--------|----|-----|----|
| BSEG | e PKP | Z 18:07:35.8 | 141.8 | 3.1 | | | | | |
| RUE | e PKP | Z 18:07:39.8 | 143.0 | 8.8 | | | | | |
| NRDL | e PKP | Z 18:07:41.1 | 143.3 | 2.9 | | | | | |
| IBBN | e PKP | Z 18:07:42.3 | 143.5 | 359.1 | | | | | |
| CLL | e PKP | Z 18:07:43.1 | 144.3 | 7.7 | | | | | |
| BUG | e PKP | Z 18:07:43.9 | 144.3 | 358.3 | | | | | |
| NEUB | e PKP | Z 18:07:44.3 | 144.5 | 5.7 | | | | | |
| BRG | e PKP | Z 18:07:44.3 | 144.6 | 9.4 | | | | | |
| FBE | e PKP | Z 18:07:44.9 | 144.6 | 8.4 | | | | | |
| UBBA | e PKPbc | Z 18:07:44.6 | 144.9 | 2.8 | | | | | |
| MOX | e PKPbc | Z 18:07:44.9 | 145.0 | 5.5 | | | | | |
| | e L | Z 19:14:37.6 | | | 20.8 | 443390 | | 8.2 | |
| WERD | e PKPbc | Z 18:07:45.5 | 145.2 | 6.7 | | | | | |
| TANN | e PKPbc | Z 18:07:45.5 | 145.2 | 7.0 | | | | | |
| GUNZ | e PKPbc | Z 18:07:45.9 | 145.3 | 6.8 | | | | | |

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| | | | | | | | | | | | | |
|------|---|-------|---|------------|-------|-------|------|--------|--|-----|--|--|
| TNS | e | PKPbc | Z | 18:07:47.0 | 145.6 | 0.2 | | | | | | |
| MANZ | e | PKPbc | Z | 18:07:47.5 | 145.6 | 6.5 | | | | | | |
| ROTZ | e | PKPbc | Z | 18:07:48.4 | 145.9 | 6.7 | | | | | | |
| GRA1 | e | PKPbc | Z | 18:07:48.8 | 146.0 | 5.0 | | | | | | |
| | e | L | Z | 19:19:59.5 | | | 19.9 | 406246 | | 8.2 | | |
| WLF | e | PKPbc | Z | 18:07:49.2 | 146.1 | 356.3 | | | | | | |
| WET | e | PKPbc | Z | 18:07:50.1 | 146.4 | 8.0 | | | | | | |
| GEC2 | e | PKPbc | Z | 18:07:50.7 | 146.6 | 9.4 | | | | | | |
| STU | e | PKPbc | Z | 18:07:52.0 | 147.0 | 1.5 | | | | | | |
| BFO | e | PKPbc | Z | 18:07:53.0 | 147.4 | 0.0 | | | | | | |
| FUR | e | PKPbc | Z | 18:07:54.3 | 147.5 | 5.3 | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 18:21:48.0 | 15.810S | 172.261W | 33.0N | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| IBBN | e | PKPbc | Z 18:41:15.5 | 143.5 | 0.0 | | | | | |
| CLZ | e | PKPbc | Z 18:41:17.2 | 143.9 | 4.3 | | | | | |
| BUG | e | PKPbc | Z 18:41:17.7 | 144.4 | 359.2 | | | | | |
| BRG | e | PKPbc | Z 18:41:18.3 | 144.6 | 10.3 | | | | | |
| UBBA | e | PKPbc | Z 18:41:19.7 | 144.9 | 3.8 | | | | | |
| MOX | e | PKPbc | Z 18:41:20.1 | 145.0 | 6.5 | | | | | |
| TANN | e | PKPbc | Z 18:41:20.7 | 145.2 | 8.0 | | | | | |
| TNS | e | PKPbc | Z 18:41:22.3 | 145.6 | 1.2 | | | | | |
| ROTZ | e | PKPbc | Z 18:41:23.3 | 145.8 | 7.7 | | | | | |
| GRA1 | e | PKPbc | Z 18:41:23.9 | 146.0 | 6.0 | | | | | |
| WLF | e | PKPbc | Z 18:41:24.4 | 146.1 | 357.3 | | | | | |
| WET | e | PKPbc | Z 18:41:25.0 | 146.4 | 9.0 | | | | | |
| GEC2 | e | PKPbc | Z 18:41:25.2 | 146.6 | 10.5 | | | | | |
| STU | e | PKPbc | Z 18:41:26.5 | 147.0 | 2.6 | | | | | |
| BFO | e | PKPbc | Z 18:41:27.7 | 147.5 | 1.1 | | | | | |
| FUR | e | PKPbc | Z 18:41:27.7 | 147.5 | 6.3 | | | | | |
| RJOB | e | PKPbc | Z 18:41:28.5 | 147.8 | 9.2 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 18:40: 9.0 | 15.861S | 172.957W | 33.0G | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-----|------|-------|----|----|----|
| UBBA | e | PKPbc | Z 18:59:44.9 | 145.0 | 5.0 | | | | | |
| MOX | e | PKPbc | Z 18:59:46.0 | 145.0 | 7.7 | | | | | |
| TANN | e | PKPbc | Z 18:59:46.8 | 145.2 | 9.2 | | | | | |
| TNS | e | PKPbc | Z 18:59:48.1 | 145.6 | 2.4 | | | | | |
| ROTZ | e | PKPbc | Z 18:59:49.2 | 145.8 | 8.9 | | | | | |

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|------|---|-------|---|------------|-------|-------|
| GRA1 | e | PKPbc | Z | 18:59:49.6 | 146.0 | 7.2 |
| WLF | e | PKPbc | Z | 18:59:50.6 | 146.2 | 358.5 |
| WET | e | PKPbc | Z | 18:59:50.9 | 146.4 | 10.2 |
| GEC2 | e | PKPbc | Z | 18:59:51.2 | 146.6 | 11.7 |
| STU | e | PKPbc | Z | 18:59:53.4 | 147.0 | 3.8 |
| FUR | e | PKPbc | Z | 18:59:54.7 | 147.5 | 7.6 |
| BFO | e | PKPbc | Z | 18:59:54.7 | 147.5 | 2.3 |
| RJOB | e | PKPbc | Z | 18:59:54.8 | 147.8 | 10.4 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 20:54:14.2 | 16.687S | 173.113W | 33.0N | | | | SZGRF |
| Tonga Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| TNS | e | PKPbc | Z 21:13:50.9 | 146.4 | 2.7 | | | | | |
| ROTZ | e | PKPbc | Z 21:13:52.0 | 146.6 | 9.3 | | | | | |
| GRA1 | e | PKPbc | Z 21:13:52.5 | 146.8 | 7.6 | | | | | |
| WLF | e | PKPbc | Z 21:13:53.6 | 147.0 | 358.7 | | | | | |
| WET | e | PKPbc | Z 21:13:53.6 | 147.2 | 10.6 | | | | | |
| GEC2 | e | PKPbc | Z 21:13:54.1 | 147.4 | 12.2 | | | | | |
| FUR | e | PKPbc | Z 21:13:57.0 | 148.3 | 8.0 | | | | | |
| BFO | e | PKPbc | Z 21:13:57.0 | 148.3 | 2.6 | | | | | |
| RJOB | e | PKPbc | Z 21:13:57.3 | 148.6 | 10.9 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 21:27:50.3 | 17.000S | 174.750W | 33.0G | | | | SZGRF |
| Tonga Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|------|------|-------|----|----|----|
| CLZ | e | PKPbc | Z 21:47:22.2 | 144.9 | 8.5 | | | | | |
| CLL | e | PKPbc | Z 21:47:22.7 | 145.1 | 13.0 | | | | | |
| MOX | e | PKPbc | Z 21:47:25.9 | 146.0 | 10.9 | | | | | |
| TANN | e | PKPbc | Z 21:47:26.6 | 146.1 | 12.4 | | | | | |
| TNS | e | PKPbc | Z 21:47:28.8 | 146.7 | 5.6 | | | | | |
| ROTZ | e | PKPbc | Z 21:47:28.9 | 146.8 | 12.2 | | | | | |
| GRA1 | e | PKPbc | Z 21:47:31.2 | 147.0 | 10.5 | | | | | |
| GEC2 | e | PKPbc | Z 21:47:30.7 | 147.4 | 15.1 | | | | | |
| FUR | e | PKPbc | Z 21:47:33.9 | 148.4 | 11.1 | | | | | |
| BFO | e | PKPbc | Z 21:47:33.3 | 148.6 | 5.7 | | | | | |
| RJOB | e | PKPbc | Z 21:47:34.3 | 148.6 | 14.0 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 21:51: 6.4 | 16.006S | 174.461W | 33.0G | | | | SZGRF |

Tonga Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| MOX | e PKPbc | Z | 22:10:38.0 | 145.0 | 10.2 | | | | | |
| TANN | e PKPbc | Z | 22:10:38.6 | 145.1 | 11.7 | | | | | |
| TNS | e PKPbc | Z | 22:10:41.3 | 145.7 | 5.0 | | | | | |
| ROTZ | e PKPbc | Z | 22:10:41.1 | 145.8 | 11.5 | | | | | |
| GRA1 | e PKPbc | Z | 22:10:42.3 | 146.0 | 9.8 | | | | | |
| WLF | e PKPbc | Z | 22:10:42.7 | 146.3 | 1.1 | | | | | |
| GEC2 | e PKPbc | Z | 22:10:42.9 | 146.5 | 14.3 | | | | | |
| STU | e PKPbc | Z | 22:10:45.5 | 147.1 | 6.5 | | | | | |
| FUR | e PKPbc | Z | 22:10:46.0 | 147.5 | 10.3 | | | | | |
| BFO | e PKPbc | Z | 22:10:45.6 | 147.6 | 5.0 | | | | | |
| RJOB | e PKPbc | Z | 22:10:46.6 | 147.7 | 13.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 22:08:33.3 | 15.848S | 172.783W | 33.0G | | | | SZGRF |

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| MOX | e PKPbc | Z | 22:28:05.1 | 145.0 | 7.4 | | | | | |
| TANN | e PKPbc | Z | 22:28:06.3 | 145.2 | 8.9 | | | | | |
| TNS | e PKPbc | Z | 22:28:07.7 | 145.6 | 2.1 | | | | | |
| ROTZ | e PKPbc | Z | 22:28:08.8 | 145.8 | 8.6 | | | | | |
| GRA1 | e PKPbc | Z | 22:28:09.2 | 146.0 | 6.9 | | | | | |
| WLF | e PKPbc | Z | 22:28:09.9 | 146.2 | 358.2 | | | | | |
| WET | e PKPbc | Z | 22:28:10.3 | 146.4 | 9.9 | | | | | |
| GEC2 | e PKPbc | Z | 22:28:10.8 | 146.6 | 11.4 | | | | | |
| STU | e PKPbc | Z | 22:28:12.6 | 147.0 | 3.5 | | | | | |
| BFO | e PKPbc | Z | 22:28:13.4 | 147.5 | 2.0 | | | | | |
| FUR | e PKPbc | Z | 22:28:13.6 | 147.5 | 7.3 | | | | | |
| RJOB | e PKPbc | Z | 22:28:14.2 | 147.8 | 10.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 23:11:54.8 | 15.818S | 172.377W | 33.0G | | | | SZGRF |

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| UBBA | e PKPbc | Z | 23:31:28.3 | 144.9 | 4.0 | | | | | |
| MOX | e PKPbc | Z | 23:31:28.8 | 145.0 | 6.7 | | | | | |
| TANN | e PKPbc | Z | 23:31:28.9 | 145.2 | 8.2 | | | | | |
| TNS | e PKPbc | Z | 23:31:29.2 | 145.6 | 1.4 | | | | | |
| ROTZ | e PKPbc | Z | 23:31:29.7 | 145.8 | 7.9 | | | | | |
| GRA1 | e PKPbc | Z | 23:31:30.6 | 146.0 | 6.2 | | | | | |
| WLF | e PKPbc | Z | 23:31:31.5 | 146.1 | 357.5 | | | | | |

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|------|---|-------|---|------------|-------|------|
| WET | e | PKPbc | Z | 23:31:32.3 | 146.4 | 9.2 |
| GEC2 | e | PKPbc | Z | 23:31:32.3 | 146.6 | 10.7 |
| STU | e | PKPbc | Z | 23:31:34.3 | 147.0 | 2.8 |
| BFO | e | PKPbc | Z | 23:31:36.0 | 147.5 | 1.3 |
| FUR | e | PKPbc | Z | 23:31:36.6 | 147.5 | 6.6 |
| RJOB | e | PKPbc | Z | 23:31:36.9 | 147.8 | 9.4 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 23:33: 0.1 | 15.798S | 172.087W | 33.0G | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|------|------------|-------|-------|----|----|----|
| BUG | e | PKPbc | Z | 23:52:30.4 | 144.4 | 358.9 | | | |
| BRG | e | PKPbc | Z | 23:52:31.4 | 144.6 | 10.0 | | | |
| UBBA | e | PKPbc | Z | 23:52:31.9 | 144.9 | 3.5 | | | |
| MOX | e | PKPbc | Z | 23:52:32.4 | 145.0 | 6.2 | | | |
| TANN | e | PKPbc | Z | 23:52:33.5 | 145.2 | 7.7 | | | |
| TNS | e | PKPbc | Z | 23:52:33.9 | 145.6 | 0.9 | | | |
| ROTZ | e | PKPbc | Z | 23:52:35.0 | 145.9 | 7.4 | | | |
| GRA1 | e | PKPbc | Z | 23:52:35.9 | 146.0 | 5.7 | | | |
| WLF | e | PKPbc | Z | 23:52:36.9 | 146.1 | 357.0 | | | |
| WET | e | PKPbc | Z | 23:52:37.2 | 146.4 | 8.7 | | | |
| GEC2 | e | PKPbc | Z | 23:52:37.3 | 146.6 | 10.2 | | | |
| STU | e | PKPbc | Z | 23:52:38.8 | 147.0 | 2.3 | | | |
| BFO | e | PKPbc | Z | 23:52:40.3 | 147.5 | 0.7 | | | |
| FUR | e | PKPbc | Z | 23:52:40.4 | 147.5 | 6.0 | | | |
| RJOB | e | PKPbc | Z | 23:52:41.2 | 147.8 | 8.8 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 23:45: 7.5 | 15.802S | 172.145W | 33.0G | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|------|------------|-------|-------|----|----|----|
| CLZ | e | PKPbc | Z | 00:04:35.9 | 143.9 | 4.1 | | | |
| CLL | e | PKPbc | Z | 00:04:36.4 | 144.3 | 8.5 | | | |
| BUG | e | PKPbc | Z | 00:04:37.1 | 144.4 | 359.0 | | | |
| BRG | e | PKPbc | Z | 00:04:38.1 | 144.6 | 10.1 | | | |
| UBBA | e | PKPbc | Z | 00:04:39.1 | 144.9 | 3.6 | | | |
| MOX | e | PKPbc | Z | 00:04:39.5 | 145.0 | 6.3 | | | |
| TANN | e | PKPbc | Z | 00:04:40.2 | 145.2 | 7.8 | | | |
| TNS | e | PKPbc | Z | 00:04:41.7 | 145.6 | 1.0 | | | |
| ROTZ | e | PKPbc | Z | 00:04:42.8 | 145.9 | 7.5 | | | |
| GRA1 | e | PKPbc | Z | 00:04:43.4 | 146.0 | 5.8 | | | |
| WLF | e | PKPbc | Z | 00:04:43.9 | 146.1 | 357.1 | | | |
| WET | e | PKPbc | Z | 00:04:44.7 | 146.4 | 8.8 | | | |

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| | | | | | | |
|------|---|-------|---|------------|-------|------|
| GEC2 | e | PKPbc | Z | 00:04:45.1 | 146.6 | 10.3 |
| STU | e | PKPbc | Z | 00:04:46.3 | 147.0 | 2.4 |
| BFO | e | PKPbc | Z | 00:04:47.3 | 147.5 | 0.8 |
| FUR | e | PKPbc | Z | 00:04:47.3 | 147.5 | 6.1 |
| RJOB | e | PKPbc | Z | 00:04:48.0 | 147.8 | 8.9 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/29 | 23:51:45.3 | 15.942S | 172.600W | 33.0G | | | | SZGRF |

Samoa Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|------|------------|-------|-------|----|----|----|
| MOX | e | PKPbc | Z | 00:11:17.5 | 145.1 | 7.1 | | | |
| TANN | e | PKPbc | Z | 00:11:18.3 | 145.3 | 8.6 | | | |
| TNS | e | PKPbc | Z | 00:11:19.7 | 145.7 | 1.8 | | | |
| ROTZ | e | PKPbc | Z | 00:11:20.9 | 146.0 | 8.3 | | | |
| GRA1 | e | PKPbc | Z | 00:11:21.4 | 146.1 | 6.6 | | | |
| WLF | e | PKPbc | Z | 00:11:22.1 | 146.3 | 357.8 | | | |
| WET | e | PKPbc | Z | 00:11:22.6 | 146.5 | 9.6 | | | |
| GEC2 | e | PKPbc | Z | 00:11:22.7 | 146.7 | 11.1 | | | |
| BFO | e | PKPbc | Z | 00:11:25.4 | 147.6 | 1.7 | | | |
| FUR | e | PKPbc | Z | 00:11:25.6 | 147.6 | 7.0 | | | |
| RJOB | e | PKPbc | Z | 00:11:26.3 | 147.9 | 9.8 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 00:22:39.1 | 16.580S | 173.140W | 33.0G | | | | SZGRF |

Tonga Islands

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|------|------------|-------|-------|----|----|----|
| ROTZ | e | PKPbc | Z | 00:42:16.7 | 146.5 | 9.3 | | | |
| GRA1 | e | PKPbc | Z | 00:42:17.3 | 146.7 | 7.6 | | | |
| WLF | e | PKPbc | Z | 00:42:18.0 | 146.9 | 358.8 | | | |
| WET | e | PKPbc | Z | 00:42:18.6 | 147.1 | 10.7 | | | |
| GEC2 | e | PKPbc | Z | 00:42:18.8 | 147.3 | 12.2 | | | |
| FUR | e | PKPbc | Z | 00:42:21.6 | 148.2 | 8.1 | | | |
| BFO | e | PKPbc | Z | 00:42:21.5 | 148.2 | 2.7 | | | |
| RJOB | e | PKPbc | Z | 00:42:22.3 | 148.5 | 10.9 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 00:40:55.2 | 15.780S | 172.260W | 33.0N | | | | SZGRF |

Samoa Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|------|------------|-------|-------|----|----|----|
| UBBA | e | PKPbc | Z | 01:00:27.2 | 144.9 | 3.8 | | | |

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| | | | | | | |
|------|---|-------|---|------------|-------|-------|
| MOX | e | PKPbc | Z | 01:00:27.7 | 145.0 | 6.5 |
| TANN | e | PKPbc | Z | 01:00:28.3 | 145.2 | 8.0 |
| TNS | e | PKPbc | Z | 01:00:29.9 | 145.6 | 1.2 |
| ROTZ | e | PKPbc | Z | 01:00:30.9 | 145.8 | 7.7 |
| GRA1 | e | PKPbc | Z | 01:00:31.6 | 146.0 | 6.0 |
| WLF | e | PKPbc | Z | 01:00:32.0 | 146.1 | 357.3 |
| WET | e | PKPbc | Z | 01:00:32.6 | 146.4 | 9.0 |
| GEC2 | e | PKPbc | Z | 01:00:33.1 | 146.6 | 10.5 |
| BFO | e | PKPbc | Z | 01:00:35.7 | 147.4 | 1.1 |
| FUR | e | PKPbc | Z | 01:00:35.8 | 147.5 | 6.3 |
| RJOB | e | PKPbc | Z | 01:00:36.8 | 147.8 | 9.1 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 01:05:35.9 | 15.640S | 173.250W | 33.0G | | | | SZGRF |
| Tonga Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| TANN | e | PKPbc | Z 01:25:08.4 | 144.9 | 9.6 | | | | | |
| TNS | e | PKPbc | Z 01:25:09.8 | 145.4 | 2.9 | | | | | |
| ROTZ | e | PKPbc | Z 01:25:11.1 | 145.6 | 9.3 | | | | | |
| GRA1 | e | PKPbc | Z 01:25:11.5 | 145.8 | 7.7 | | | | | |
| WLF | e | PKPbc | Z 01:25:12.3 | 146.0 | 359.0 | | | | | |
| WET | e | PKPbc | Z 01:25:12.5 | 146.1 | 10.6 | | | | | |
| GEC2 | e | PKPbc | Z 01:25:12.9 | 146.3 | 12.1 | | | | | |
| STU | e | PKPbc | Z 01:25:14.5 | 146.8 | 4.3 | | | | | |
| FUR | e | PKPbc | Z 01:25:15.8 | 147.3 | 8.1 | | | | | |
| BFO | e | PKPbc | Z 01:25:15.8 | 147.3 | 2.8 | | | | | |
| RJOB | e | PKPbc | Z 01:25:16.4 | 147.5 | 10.9 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 01:09:30.9 | 15.822S | 172.435W | 33.0N | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| TANN | e | PKPbc | Z 01:29:04.4 | 145.2 | 8.3 | | | | | |
| ROTZ | e | PKPbc | Z 01:29:05.7 | 145.8 | 8.0 | | | | | |
| GRA1 | e | PKPbc | Z 01:29:06.7 | 146.0 | 6.3 | | | | | |
| WLF | e | PKPbc | Z 01:29:07.3 | 146.1 | 357.6 | | | | | |
| WET | e | PKPbc | Z 01:29:07.6 | 146.4 | 9.3 | | | | | |
| GEC2 | e | PKPbc | Z 01:29:08.1 | 146.6 | 10.8 | | | | | |
| BFO | e | PKPbc | Z 01:29:11.1 | 147.5 | 1.4 | | | | | |
| FUR | e | PKPbc | Z 01:29:11.5 | 147.5 | 6.7 | | | | | |
| RJOB | e | PKPbc | Z 01:29:12.3 | 147.8 | 9.5 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 01:16:19.7 | 15.773S | 171.681W | 33.0N | | | | SZGRF |

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| MOX | e PKPbc | Z | 01:35:51.4 | 145.0 | 5.5 | | | | | |
| TANN | e PKPbc | Z | 01:35:52.4 | 145.2 | 7.0 | | | | | |
| TNS | e PKPbc | Z | 01:35:53.9 | 145.6 | 0.2 | | | | | |
| ROTZ | e PKPbc | Z | 01:35:55.0 | 145.9 | 6.7 | | | | | |
| GRA1 | e PKPbc | Z | 01:35:55.6 | 146.0 | 5.0 | | | | | |
| WLF | e PKPbc | Z | 01:35:56.0 | 146.1 | 356.3 | | | | | |
| WET | e PKPbc | Z | 01:35:57.0 | 146.4 | 8.0 | | | | | |
| GEC2 | e PKPbc | Z | 01:35:57.5 | 146.6 | 9.4 | | | | | |
| STU | e PKPbc | Z | 01:35:58.7 | 147.0 | 1.5 | | | | | |
| BFO | e PKPbc | Z | 01:35:59.7 | 147.4 | 0.0 | | | | | |
| FUR | e PKPbc | Z | 01:36:00.7 | 147.5 | 5.3 | | | | | |
| RJOB | e PKPbc | Z | 01:36:00.9 | 147.8 | 8.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 01:30:43.1 | 15.780S | 172.110W | 33.0N | | | | SZGRF |

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| UBBA | e PKPbc | Z | 01:50:15.1 | 144.9 | 3.5 | | | | | |
| MOX | e PKPbc | Z | 01:50:15.4 | 145.0 | 6.3 | | | | | |
| TANN | e PKPbc | Z | 01:50:16.3 | 145.2 | 7.7 | | | | | |
| TNS | e PKPbc | Z | 01:50:17.8 | 145.6 | 0.9 | | | | | |
| ROTZ | e PKPbc | Z | 01:50:18.8 | 145.8 | 7.4 | | | | | |
| GRA1 | e PKPbc | Z | 01:50:19.4 | 146.0 | 5.7 | | | | | |
| WLF | e PKPbc | Z | 01:50:19.8 | 146.1 | 357.0 | | | | | |
| WET | e PKPbc | Z | 01:50:20.8 | 146.4 | 8.7 | | | | | |
| GEC2 | e PKPbc | Z | 01:50:21.1 | 146.6 | 10.2 | | | | | |
| BFO | e PKPbc | Z | 01:50:23.4 | 147.4 | 0.8 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|----|----|----|--------|
| 2009/09/30 | 01:39:42.9 | 4.848N | 126.719E | 72.0G | | | | NEIC |

Talau Islands, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|------|------|-------|----|----|----|
| BRG | e Pdiff | Z | 01:53:21.1 | 100.2 | 69.0 | | | | | |
| CLL | e Pdiff | Z | 01:53:22.5 | 100.6 | 68.2 | | | | | |
| BSEG | e Pdiff | Z | 01:53:24.9 | 101.1 | 65.4 | | | | | |
| GEC2 | e Pdiff | Z | 01:53:25.0 | 101.1 | 69.2 | | | | | |
| TANN | e Pdiff | Z | 01:53:25.7 | 101.3 | 67.9 | | | | | |

| | | | | | | |
|------|---|-------|---|------------|-------|------|
| WET | e | Pdiff | Z | 01:53:27.0 | 101.5 | 68.5 |
| ROTZ | e | Pdiff | Z | 01:53:28.1 | 101.7 | 67.8 |
| MOX | e | Pdiff | Z | 01:53:27.6 | 101.7 | 67.1 |
| NRDL | e | Pdiff | Z | 01:53:28.6 | 101.8 | 65.5 |
| CLZ | e | Pdiff | Z | 01:53:29.2 | 101.9 | 65.9 |
| RJOB | e | Pdiff | Z | 01:53:29.2 | 102.1 | 68.7 |
| GRA1 | e | Pdiff | Z | 01:53:30.9 | 102.3 | 67.0 |
| IBBN | e | Pdiff | Z | 01:53:34.4 | 103.2 | 63.6 |
| TNS | e | Pdiff | Z | 01:53:37.2 | 103.7 | 64.6 |
| BUG | e | Pdiff | Z | 01:53:37.4 | 103.8 | 63.3 |
| WLF | e | Pdiff | Z | 01:53:44.4 | 105.3 | 62.8 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 01:39:53.9 | 15.891S | 172.779W | 33.0G | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| MOX | e | PKPbc | Z 01:59:26.0 | 145.1 | 7.4 | | | | | |
| TANN | e | PKPbc | Z 01:59:26.6 | 145.2 | 8.9 | | | | | |
| TNS | e | PKPbc | Z 01:59:28.3 | 145.7 | 2.1 | | | | | |
| ROTZ | e | PKPbc | Z 01:59:29.2 | 145.9 | 8.6 | | | | | |
| GRA1 | e | PKPbc | Z 01:59:29.9 | 146.0 | 6.9 | | | | | |
| WLF | e | PKPbc | Z 01:59:30.5 | 146.2 | 358.2 | | | | | |
| WET | e | PKPbc | Z 01:59:30.9 | 146.4 | 9.9 | | | | | |
| GEC2 | e | PKPbc | Z 01:59:31.2 | 146.6 | 11.4 | | | | | |
| BFO | e | PKPbc | Z 01:59:33.9 | 147.5 | 2.0 | | | | | |
| FUR | e | PKPbc | Z 01:59:33.7 | 147.6 | 7.3 | | | | | |
| RJOB | e | PKPbc | Z 01:59:34.7 | 147.8 | 10.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 02:11:31.2 | 16.220S | 172.173W | 10.0N | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| MOX | e | PKPbc | Z 02:31:07.9 | 145.4 | 6.4 | | | | | |
| TANN | e | PKPbc | Z 02:31:08.7 | 145.6 | 7.9 | | | | | |
| TNS | e | PKPbc | Z 02:31:10.1 | 146.0 | 1.1 | | | | | |
| ROTZ | e | PKPbc | Z 02:31:11.1 | 146.3 | 7.6 | | | | | |
| GRA1 | e | PKPbc | Z 02:31:11.8 | 146.4 | 5.9 | | | | | |
| WLF | e | PKPbc | Z 02:31:12.3 | 146.5 | 357.1 | | | | | |
| WET | e | PKPbc | Z 02:31:12.9 | 146.8 | 8.9 | | | | | |
| GEC2 | e | PKPbc | Z 02:31:13.2 | 147.0 | 10.4 | | | | | |
| BFO | e | PKPbc | Z 02:31:15.7 | 147.9 | 0.9 | | | | | |
| FUR | e | PKPbc | Z 02:31:15.9 | 147.9 | 6.2 | | | | | |
| RJOB | e | PKPbc | Z 02:31:16.4 | 148.2 | 9.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 02:29:38.8 | 15.950S | 172.716W | 33.0G | | | | SZGRF |

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| MOX | e PKPbc | Z | 02:49:11.6 | 145.1 | 7.3 | | | | | |
| TANN | e PKPbc | Z | 02:49:12.6 | 145.3 | 8.8 | | | | | |
| TNS | e PKPbc | Z | 02:49:14.2 | 145.7 | 2.0 | | | | | |
| ROTZ | e PKPbc | Z | 02:49:15.0 | 145.9 | 8.5 | | | | | |
| GRA1 | e PKPbc | Z | 02:49:15.0 | 146.1 | 6.8 | | | | | |
| WLF | e PKPbc | Z | 02:49:16.4 | 146.3 | 358.0 | | | | | |
| WET | e PKPbc | Z | 02:49:16.5 | 146.5 | 9.8 | | | | | |
| GEC2 | e PKPbc | Z | 02:49:17.2 | 146.7 | 11.3 | | | | | |
| BFO | e PKPbc | Z | 02:49:19.3 | 147.6 | 1.9 | | | | | |
| FUR | e PKPbc | Z | 02:49:19.7 | 147.6 | 7.2 | | | | | |
| RJOB | e PKPbc | Z | 02:49:20.3 | 147.9 | 10.0 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 05:25:51.7 | 15.871S | 173.072W | 33.0G | | | | SZGRF |

Tonga Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| BUG | e PKPbc | Z | 05:45:21.8 | 144.4 | 0.6 | | | | | |
| UBBA | e PKPbc | Z | 05:45:23.0 | 145.0 | 5.2 | | | | | |
| MOX | e PKPbc | Z | 05:45:23.5 | 145.0 | 7.9 | | | | | |
| TANN | e PKPbc | Z | 05:45:24.1 | 145.2 | 9.3 | | | | | |
| TNS | e PKPbc | Z | 05:45:25.7 | 145.6 | 2.6 | | | | | |
| ROTZ | e PKPbc | Z | 05:45:26.8 | 145.8 | 9.1 | | | | | |
| GRA1 | e PKPbc | Z | 05:45:27.5 | 146.0 | 7.4 | | | | | |
| WLF | e PKPbc | Z | 05:45:28.3 | 146.2 | 358.7 | | | | | |
| WET | e PKPbc | Z | 05:45:28.5 | 146.4 | 10.4 | | | | | |
| GEC2 | e PKPbc | Z | 05:45:28.8 | 146.6 | 11.9 | | | | | |
| STU | e PKPbc | Z | 05:45:30.8 | 147.0 | 4.0 | | | | | |
| FUR | e PKPbc | Z | 05:45:31.7 | 147.5 | 7.8 | | | | | |
| BFO | e PKPbc | Z | 05:45:31.7 | 147.5 | 2.5 | | | | | |
| RJOB | e PKPbc | Z | 05:45:32.1 | 147.8 | 10.6 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|-----|----|----|--------|
| 2009/09/30 | 05:54: 5.4 | 23.580N | 123.450E | 41.8 | 5.1 | | | SZGRF |

Southwestern Ryukyu Islands, Japan

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|-----|-------|--|------|------|-----|------|-------|----|----|----|
|-----|-------|--|------|------|-----|------|-------|----|----|----|

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| | | | | | | | | |
|------|------|---|------------|------|------|-----|----|-----|
| CLL | e P | Z | 06:06:29.9 | 83.6 | 59.8 | 1.2 | 10 | 4.9 |
| BSEG | e P | Z | 06:06:30.7 | 83.6 | 58.0 | 1.4 | 25 | 5.2 |
| TANN | e P | Z | 06:06:33.9 | 84.3 | 59.3 | 1.6 | 14 | 4.9 |
| GEC2 | e pP | Z | 06:06:46.9 | 84.4 | 60.1 | | | |
| NRDL | e P | Z | 06:06:34.9 | 84.5 | 57.7 | 1.8 | 27 | 5.2 |
| MOX | e P | Z | 06:06:35.6 | 84.7 | 58.7 | 1.4 | 10 | 4.9 |
| CLZ | e P | Z | 06:06:36.3 | 84.7 | 57.9 | 1.3 | 27 | 5.3 |
| | e pP | Z | 06:06:48.7 | | | | | |
| ROTZ | e P | Z | 06:06:36.9 | 84.8 | 59.1 | 1.4 | 11 | 4.9 |
| | e pP | Z | 06:06:49.0 | | | | | |
| GRA1 | e P | Z | 06:06:39.5 | 85.4 | 58.3 | 1.5 | 11 | 4.8 |
| | e pP | Z | 06:06:51.4 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 06:49:31.8 | 16.174S | 173.103W | 33.0N | | | | SZGRF |

Tonga Islands

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| MOX | e PKPbc | Z | 07:09:04.8 | 145.3 | 8.0 | | | | | |
| TANN | e PKPbc | Z | 07:09:05.6 | 145.5 | 9.5 | | | | | |
| TNS | e PKPbc | Z | 07:09:07.3 | 145.9 | 2.7 | | | | | |
| ROTZ | e PKPbc | Z | 07:09:08.1 | 146.1 | 9.2 | | | | | |
| GRA1 | e PKPbc | Z | 07:09:08.6 | 146.3 | 7.5 | | | | | |
| WLF | e PKPbc | Z | 07:09:09.5 | 146.5 | 358.7 | | | | | |
| WET | e PKPbc | Z | 07:09:09.9 | 146.7 | 10.5 | | | | | |
| GEC2 | e PKPbc | Z | 07:09:10.0 | 146.9 | 12.0 | | | | | |
| BFO | e PKPbc | Z | 07:09:12.9 | 147.8 | 2.6 | | | | | |
| RJOB | e PKPbc | Z | 07:09:13.4 | 148.1 | 10.8 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 07:32:17.3 | 15.580S | 172.300W | 33.0N | | | | SZGRF |

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| TNS | e PKPbc | Z | 07:51:51.0 | 145.4 | 1.3 | | | | | |
| ROTZ | e PKPbc | Z | 07:51:51.9 | 145.6 | 7.7 | | | | | |
| GRA1 | e PKPbc | Z | 07:51:52.8 | 145.8 | 6.0 | | | | | |
| WLF | e PKPbc | Z | 07:51:53.4 | 145.9 | 357.3 | | | | | |
| WET | e PKPbc | Z | 07:51:53.9 | 146.2 | 9.0 | | | | | |
| GEC2 | e PKPbc | Z | 07:51:54.3 | 146.4 | 10.5 | | | | | |
| BFO | e PKPbc | Z | 07:51:56.7 | 147.2 | 1.1 | | | | | |
| RJOB | e PKPbc | Z | 07:51:58.2 | 147.6 | 9.2 | | | | | |

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| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|-----|----|--------|
| 2009/09/30 | 08:25:0.7 | 17.240S | 172.650W | 33.0N | | 5.0 | | SZGRF |

Tonga Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|-----|----|
| IBBN | e PKPbc | Z 08:44:32.5 | 144.9 | 0.7 | | | | | |
| CLZ | e PKPbc | Z 08:44:34.4 | 145.3 | 5.1 | | | | | |
| CLL | e PKPbc | Z 08:44:34.7 | 145.6 | 9.6 | | | | | |
| BRG | e PKPbc | Z 08:44:36.0 | 146.0 | 11.3 | | | | | |
| UBBA | e PKPbc | Z 08:44:37.1 | 146.4 | 4.6 | | | | | |
| MOX | e PKPbc | Z 08:44:37.4 | 146.4 | 7.4 | | | | | |
| | e L | Z 09:52:57.6 | | | 19.4 | 256 | | 5.0 | |
| TANN | e PKPbc | Z 08:44:38.2 | 146.6 | 8.9 | | | | | |
| TNS | e PKPbc | Z 08:44:39.8 | 147.0 | 1.9 | | | | | |
| ROTZ | e PKPbc | Z 08:44:40.8 | 147.2 | 8.6 | | | | | |
| GRA1 | e PKPbc | Z 08:44:41.4 | 147.4 | 6.9 | | | | | |
| | e L | Z 09:50:24.2 | | | 20.6 | 284 | | 5.0 | |
| WLF | e PKPbc | Z 08:44:42.3 | 147.6 | 357.9 | | | | | |
| WET | e PKPbc | Z 08:44:42.5 | 147.8 | 9.9 | | | | | |
| GEC2 | e PKPbc | Z 08:44:43.0 | 148.0 | 11.5 | | | | | |
| STU | e PKPbc | Z 08:44:44.6 | 148.4 | 3.4 | | | | | |
| BFO | e PKPbc | Z 08:44:45.0 | 148.9 | 1.8 | | | | | |
| FUR | e PKPbc | Z 08:44:45.9 | 148.9 | 7.3 | | | | | |
| RJOB | e PKPbc | Z 08:44:46.7 | 149.2 | 10.2 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 09:05:14.4 | 16.830S | 172.150W | 33.0N | | | | SZGRF |

Samoa Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|----|----|
| CLZ | e PKPbc | Z 09:24:46.6 | 144.9 | 4.2 | | | | | |
| BUG | e PKPbc | Z 09:24:47.9 | 145.4 | 359.0 | | | | | |
| UBBA | e PKPbc | Z 09:24:49.8 | 146.0 | 3.7 | | | | | |
| MOX | e PKPbc | Z 09:24:50.2 | 146.1 | 6.5 | | | | | |
| TANN | e PKPbc | Z 09:24:50.9 | 146.2 | 8.0 | | | | | |
| TNS | e PKPbc | Z 09:24:52.5 | 146.6 | 1.0 | | | | | |
| ROTZ | e PKPbc | Z 09:24:53.7 | 146.9 | 7.6 | | | | | |
| GRA1 | e PKPbc | Z 09:24:54.1 | 147.0 | 5.9 | | | | | |
| WLF | e PKPbc | Z 09:24:54.6 | 147.1 | 357.0 | | | | | |
| GEC2 | e PKPbc | Z 09:24:55.4 | 147.6 | 10.5 | | | | | |
| BFO | e PKPbc | Z 09:24:57.9 | 148.5 | 0.9 | | | | | |
| FUR | e PKPbc | Z 09:24:58.0 | 148.5 | 6.3 | | | | | |
| RJOB | e PKPbc | Z 09:24:58.8 | 148.8 | 9.2 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------|-------------|-----|------|-------|----|----|----|--------|
|------|-------------|-----|------|-------|----|----|----|--------|

2009/09/30 09:53:41.3

16.066S

171.548W

33.0N

SZGRF

Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|----|----|
| MOX | e PKPbc | Z | 10:13:14.2 | 145.3 | 5.3 | | | | | |
| TANN | e PKPbc | Z | 10:13:14.8 | 145.5 | 6.8 | | | | | |
| TNS | e PKPbc | Z | 10:13:16.5 | 145.8 | 360.0 | | | | | |
| ROTZ | e PKPbc | Z | 10:13:17.4 | 146.2 | 6.5 | | | | | |
| GRA1 | e PKPbc | Z | 10:13:18.0 | 146.3 | 4.8 | | | | | |
| WLF | e PKPbc | Z | 10:13:18.2 | 146.3 | 356.0 | | | | | |
| GEC2 | e PKPbc | Z | 10:13:19.9 | 146.9 | 9.3 | | | | | |
| BFO | e PKPbc | Z | 10:13:21.7 | 147.7 | 359.8 | | | | | |
| RJOB | e PKPbc | Z | 10:13:22.9 | 148.1 | 7.9 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|--------|----------|-------|-----|----|----|--------|
| 2009/09/30 | 10:16:10.6 | 0.570S | 100.020E | 87.8 | 7.4 | | | SZGRF |

Southern Sumatera, Indonesia

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|------|------|-------|-----|----|----|
| BRG | e P | Z | 10:28:50.8 | 88.0 | 93.4 | 1.6 | 5446 | 7.6 | | |
| | e S | T | 10:39:27.0 | | | | | | | |
| RUE | e S | T | 10:39:26.5 | 88.2 | 93.3 | | | | | |
| FBE | e pP | Z | 10:29:15.8 | 88.3 | 92.9 | | | | | |
| | e sP | Z | 10:29:24.3 | | | | | | | |
| RGN | e S | T | 10:39:31.5 | 88.6 | 93.0 | | | | | |
| RJOB | e P | Z | 10:28:52.7 | 88.6 | 92.4 | 1.5 | 2067 | 7.1 | | |
| | e S | T | 10:39:30.3 | | | | | | | |
| WET | e P | Z | 10:28:53.5 | 88.6 | 92.5 | 1.5 | 3826 | 7.4 | | |
| | e S | T | 10:39:33.4 | | | | | | | |
| CLL | e P | Z | 10:28:53.3 | 88.6 | 92.7 | 1.5 | 3364 | 7.3 | | |
| | e S | T | 10:39:31.5 | | | | | | | |
| TANN | e P | Z | 10:28:55.1 | 88.9 | 92.2 | 1.6 | 2641 | 7.2 | | |
| | e pP | Z | 10:29:18.5 | | | | | | | |
| | e S | T | 10:39:36.7 | | | | | | | |
| GUNZ | e sP | Z | 10:29:27.2 | 89.0 | 92.1 | | | | | |
| ROTZ | e P | Z | 10:28:56.2 | 89.0 | 92.0 | 1.5 | 3157 | 7.3 | | |
| | e pP | Z | 10:29:19.6 | | | | | | | |
| | e S | T | 10:39:38.8 | | | | | | | |
| MANZ | e sP | Z | 10:29:28.1 | 89.1 | 92.0 | | | | | |
| | e S | T | 10:39:39.3 | | | | | | | |
| NEUB | e S | T | 10:39:38.7 | 89.3 | 91.7 | | | | | |
| MOX | e P | Z | 10:28:57.6 | 89.4 | 91.6 | 1.6 | 4358 | 7.4 | | |
| | e S | T | 10:39:41.0 | | | | | | | |
| FUR | e P | Z | 10:28:57.7 | 89.6 | 91.3 | 1.6 | 3629 | 7.4 | | |
| | e pP | Z | 10:29:21.3 | | | | | | | |
| | e S | T | 10:39:40.9 | | | | | | | |
| GRA1 | e P | Z | 10:28:59.0 | 89.7 | 91.3 | 1.5 | 3995 | 7.4 | | |

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| | | | | | | | | | | |
|------|------|---|------------|------|------|-----|------|-----|--|--|
| | e S | T | 10:39:44.1 | | | | | | | |
| CLZ | e P | Z | 10:29:01.5 | 90.2 | 90.6 | 1.8 | 5745 | 7.5 | | |
| | e S | T | 10:39:46.7 | | | | | | | |
| BSEG | e P | Z | 10:29:01.8 | 90.3 | 90.6 | 1.8 | 4624 | 7.4 | | |
| | e S | T | 10:39:48.2 | | | | | | | |
| STU | e P | Z | 10:29:04.5 | 91.0 | 89.8 | 1.6 | 3881 | 7.5 | | |
| | e S | T | 10:39:55.0 | | | | | | | |
| TNS | e P | Z | 10:29:07.1 | 91.4 | 89.2 | 1.5 | 2912 | 7.4 | | |
| | e S | T | 10:39:59.8 | | | | | | | |
| BFO | e P | Z | 10:29:06.9 | 91.5 | 89.1 | 1.4 | 1161 | 7.0 | | |
| | e S | T | 10:39:59.9 | | | | | | | |
| HLG | e pP | Z | 10:29:32.4 | 91.7 | 88.6 | | | | | |
| | e S | T | 10:40:00.9 | | | | | | | |
| IBBN | e P | Z | 10:29:08.9 | 91.8 | 88.6 | 1.6 | 3476 | 7.4 | | |
| | e S | T | 10:40:01.7 | | | | | | | |
| BUG | e P | Z | 10:29:10.3 | 92.2 | 88.2 | 2.1 | 5038 | 7.5 | | |
| | e S | T | 10:40:05.6 | | | | | | | |
| WLF | e P | Z | 10:29:14.1 | 92.9 | 87.4 | 1.6 | 1982 | 7.3 | | |
| | e S | T | 10:40:13.0 | | | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 13:06:40.1 | 15.848S | 172.783W | 33.0N | | | | SZGRF |

Samoa Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|----|----|
| MOX | e PKPbc | Z 13:26:12.5 | 145.0 | 7.4 | | | | | |
| TANN | e PKPbc | Z 13:26:12.7 | 145.2 | 8.9 | | | | | |
| ROTZ | e PKPbc | Z 13:26:15.6 | 145.8 | 8.6 | | | | | |
| GRA1 | e PKPbc | Z 13:26:16.0 | 146.0 | 6.9 | | | | | |
| WLF | e PKPbc | Z 13:26:16.8 | 146.2 | 358.2 | | | | | |
| WET | e PKPbc | Z 13:26:17.3 | 146.4 | 9.9 | | | | | |
| GEC2 | e PKPbc | Z 13:26:17.6 | 146.6 | 11.4 | | | | | |
| BFO | e PKPbc | Z 13:26:20.6 | 147.5 | 2.0 | | | | | |
| RJOB | e PKPbc | Z 13:26:21.3 | 147.8 | 10.1 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 13:57:13.2 | 17.470S | 171.900W | 33.0N | | | | SZGRF |

Tonga Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|----|----|
| NRDL | e PKPbc | Z 14:16:45.5 | 144.9 | 3.3 | | | | | |
| IBBN | e PKPbc | Z 14:16:46.2 | 145.2 | 359.4 | | | | | |
| CLZ | e PKPbc | Z 14:16:47.6 | 145.6 | 3.8 | | | | | |
| CLL | e PKPbc | Z 14:16:48.1 | 145.9 | 8.4 | | | | | |
| BUG | e PKPbc | Z 14:16:48.8 | 146.0 | 358.6 | | | | | |

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| | | | | | | |
|------|---|-------|---|------------|-------|-------|
| BRG | e | PKPbc | Z | 14:16:49.6 | 146.3 | 10.1 |
| UBBA | e | PKPbc | Z | 14:16:50.9 | 146.6 | 3.3 |
| MOX | e | PKPbc | Z | 14:16:51.3 | 146.7 | 6.1 |
| TANN | e | PKPbc | Z | 14:16:52.0 | 146.9 | 7.6 |
| TNS | e | PKPbc | Z | 14:16:53.5 | 147.2 | 0.6 |
| ROTZ | e | PKPbc | Z | 14:16:54.4 | 147.5 | 7.3 |
| GRA1 | e | PKPbc | Z | 14:16:54.5 | 147.7 | 5.6 |
| WLF | e | PKPbc | Z | 14:16:55.3 | 147.8 | 356.5 |
| WET | e | PKPbc | Z | 14:16:56.0 | 148.1 | 8.6 |
| GEC2 | e | PKPbc | Z | 14:16:56.2 | 148.3 | 10.2 |
| STU | e | PKPbc | Z | 14:16:57.3 | 148.7 | 2.0 |
| BFO | e | PKPbc | Z | 14:16:58.5 | 149.1 | 0.4 |
| FUR | e | PKPbc | Z | 14:16:58.7 | 149.2 | 5.9 |
| RJOB | e | PKPbc | Z | 14:16:59.4 | 149.5 | 8.8 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|---------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 15:20:16.0 | 16.260S | 173.150W | 33.0N | | | | SZGRF |
| Tonga Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| BRG | e | PKPbc | Z 15:39:48.0 | 144.9 | 11.9 | | | | | |
| MOX | e | PKPbc | Z 15:39:49.8 | 145.4 | 8.1 | | | | | |
| TANN | e | PKPbc | Z 15:39:50.5 | 145.5 | 9.6 | | | | | |
| TNS | e | PKPbc | Z 15:39:51.9 | 146.0 | 2.7 | | | | | |
| ROTZ | e | PKPbc | Z 15:39:53.0 | 146.2 | 9.3 | | | | | |
| GRA1 | e | PKPbc | Z 15:39:53.7 | 146.4 | 7.6 | | | | | |
| WLF | e | PKPbc | Z 15:39:54.4 | 146.6 | 358.8 | | | | | |
| WET | e | PKPbc | Z 15:39:54.6 | 146.8 | 10.6 | | | | | |
| GEC2 | e | PKPbc | Z 15:39:55.1 | 146.9 | 12.1 | | | | | |
| STU | e | PKPbc | Z 15:39:56.6 | 147.4 | 4.2 | | | | | |
| FUR | e | PKPbc | Z 15:39:58.0 | 147.9 | 8.0 | | | | | |
| BFO | e | PKPbc | Z 15:39:58.1 | 147.9 | 2.7 | | | | | |
| RJOB | e | PKPbc | Z 15:39:58.4 | 148.1 | 10.9 | | | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 15:31:35.9 | 16.303S | 171.189W | 33.0N | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|--------------|-------|-------|------|-------|----|----|----|
| TNS | e | PKPbc | Z 15:51:12.0 | 146.1 | 359.4 | | | | | |
| ROTZ | e | PKPbc | Z 15:51:12.9 | 146.4 | 5.9 | | | | | |
| GRA1 | e | PKPbc | Z 15:51:13.4 | 146.6 | 4.2 | | | | | |
| WLF | e | PKPbc | Z 15:51:13.7 | 146.6 | 355.4 | | | | | |
| WET | e | PKPbc | Z 15:51:14.7 | 147.0 | 7.2 | | | | | |
| GEC2 | e | PKPbc | Z 15:51:15.0 | 147.2 | 8.7 | | | | | |

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| | | | | | | |
|------|---|-------|---|------------|-------|-------|
| BFO | e | PKPbc | Z | 15:51:17.5 | 148.0 | 359.1 |
| RJOB | e | PKPbc | Z | 15:51:19.0 | 148.4 | 7.3 |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|----------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 15:57: 9.9 | 15.590S | 170.390W | 33.0G | | | | SZGRF |
| Samoa Islands region | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|-------|------|------------|-------|-------|----|----|----|
| MOX | e | PKPbc | Z | 16:16:42.3 | 144.9 | 3.4 | | | |
| TANN | e | PKPbc | Z | 16:16:43.1 | 145.1 | 4.8 | | | |
| TNS | e | PKPbc | Z | 16:16:44.2 | 145.4 | 358.0 | | | |
| ROTZ | e | PKPbc | Z | 16:16:45.4 | 145.8 | 4.4 | | | |
| WLF | e | PKPbc | Z | 16:16:45.2 | 145.8 | 354.1 | | | |
| GRA1 | e | PKPbc | Z | 16:16:45.9 | 145.9 | 2.8 | | | |
| WET | e | PKPbc | Z | 16:16:47.3 | 146.3 | 5.7 | | | |
| GEC2 | e | PKPbc | Z | 16:16:47.4 | 146.6 | 7.2 | | | |
| STU | e | PKPbc | Z | 16:16:47.8 | 146.8 | 359.3 | | | |
| BFO | e | PKPbc | Z | 16:16:50.3 | 147.2 | 357.7 | | | |
| FUR | e | PKPbc | Z | 16:16:50.8 | 147.4 | 3.0 | | | |
| RJOB | e | PKPbc | Z | 16:16:51.2 | 147.7 | 5.8 | | | |

| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
|------------------------------|-------------|---------|----------|-------|----|----|----|--------|
| 2009/09/30 | 17:20:38.9 | 23.420S | 169.730E | 31.2 | | | | SZGRF |
| Southeast of Loyalty Islands | | | | | | | | |

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------|------|------------|-------|-------|----|----|----|
| BSEG | e | PKPbc | Z | 17:40:14.5 | 145.8 | 35.0 | | | |
| | e | pPKPbc | Z | 17:40:24.1 | | | | | |
| BRG | e | PKPbc | Z | 17:40:17.7 | 146.8 | 43.4 | | | |
| CLL | e | PKPbc | Z | 17:40:17.7 | 146.8 | 41.5 | | | |
| NRDL | e | PKPbc | Z | 17:40:18.4 | 147.0 | 36.0 | | | |
| | e | pPKPbc | Z | 17:40:27.5 | | | | | |
| CLZ | e | PKPbc | Z | 17:40:19.8 | 147.5 | 37.0 | | | |
| TANN | e | PKPbc | Z | 17:40:20.5 | 147.7 | 41.6 | | | |
| MOX | e | PKPbc | Z | 17:40:20.6 | 147.9 | 40.1 | | | |
| IBBN | e | PKPbc | Z | 17:40:20.9 | 148.0 | 32.4 | | | |
| | e | pPKPbc | Z | 17:40:30.6 | | | | | |
| GEC2 | e | PKPdf | Z | 17:40:18.5 | 148.3 | 45.2 | | | |
| | e | PKPbc | Z | 17:40:22.0 | | | | | |
| ROTZ | e | PKPbc | Z | 17:40:22.2 | 148.3 | 41.9 | | | |
| UBBA | e | PKPbc | Z | 17:40:22.2 | 148.4 | 37.4 | | | |
| WET | e | PKPdf | Z | 17:40:19.0 | 148.5 | 43.6 | | | |
| | e | PKPbc | Z | 17:40:22.6 | | | | | |
| GRA1 | e | PKPbc | Z | 17:40:23.5 | 148.8 | 40.5 | | | |
| | e | PKPab | Z | 17:40:27.2 | | | | | |

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| | | | | | | |
|------|---|--------|---|------------|-------|------|
| BUG | e | PKPbc | Z | 17:40:23.3 | 148.9 | 32.4 |
| | e | pPKPbc | Z | 17:40:32.5 | | |
| TNS | e | PKPbc | Z | 17:40:25.1 | 149.5 | 35.4 |
| RJOB | e | PKPbc | Z | 17:40:24.5 | 149.5 | 45.2 |
| FUR | e | PKPbc | Z | 17:40:26.1 | 149.9 | 42.3 |
| | e | PKPab | Z | 17:40:31.6 | | |
| STU | e | PKPbc | Z | 17:40:27.2 | 150.4 | 38.2 |
| | e | PKPab | Z | 17:40:33.4 | | |
| WLF | e | PKPbc | Z | 17:40:28.6 | 150.8 | 32.1 |
| BFO | e | PKPbc | Z | 17:40:28.3 | 151.1 | 37.2 |
| | e | PKPab | Z | 17:40:36.0 | | |

| | | | | | | | | |
|------------------------------|-------------|---------|----------|-------|----|----|----|--------|
| Date | Origin Time | Lat | Long | Depth | mb | Ms | ML | Source |
| 2009/09/30 | 17:30:29.0 | 23.710S | 170.650E | 32.9 | | | | SZGRF |
| Southeast of Loyalty Islands | | | | | | | | |

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------|--------------|-------|------|------|-------|----|----|----|
| BSEG | e | PKPbc | Z 17:50:05.8 | 146.4 | 33.8 | | | | | |
| | e | pPKPbc | Z 17:50:15.8 | | | | | | | |
| BRG | e | PKPbc | Z 17:50:09.0 | 147.4 | 42.2 | | | | | |
| | e | pPKPbc | Z 17:50:19.0 | | | | | | | |
| CLL | e | PKPbc | Z 17:50:09.0 | 147.5 | 40.4 | | | | | |
| NRDL | e | PKPbc | Z 17:50:09.6 | 147.6 | 34.7 | | | | | |
| | e | pPKPbc | Z 17:50:19.3 | | | | | | | |
| CLZ | e | PKPbc | Z 17:50:11.1 | 148.1 | 35.7 | | | | | |
| | e | pPKPbc | Z 17:50:20.9 | | | | | | | |
| TANN | e | PKPbc | Z 17:50:11.9 | 148.4 | 40.5 | | | | | |
| | e | pPKPbc | Z 17:50:21.4 | | | | | | | |
| MOX | e | PKPbc | Z 17:50:12.2 | 148.5 | 38.9 | | | | | |
| IBBN | e | PKPbc | Z 17:50:12.2 | 148.6 | 31.1 | | | | | |
| | e | pPKPbc | Z 17:50:22.1 | | | | | | | |
| ROTZ | e | PKPbc | Z 17:50:13.7 | 149.0 | 40.8 | | | | | |
| | e | pPKPbc | Z 17:50:23.5 | | | | | | | |
| GEC2 | e | PKPbc | Z 17:50:13.5 | 149.0 | 44.1 | | | | | |
| | e | pPKPbc | Z 17:50:23.7 | | | | | | | |
| UBBA | e | PKPbc | Z 17:50:13.5 | 149.0 | 36.1 | | | | | |
| WET | e | PKPbc | Z 17:50:14.1 | 149.2 | 42.5 | | | | | |
| GRA1 | e | PKPbc | Z 17:50:14.8 | 149.4 | 39.3 | | | | | |
| | e | pPKPbc | Z 17:50:24.5 | | | | | | | |
| BUG | e | PKPbc | Z 17:50:14.4 | 149.5 | 31.0 | | | | | |
| | e | pPKPbc | Z 17:50:24.6 | | | | | | | |
| TNS | e | PKPbc | Z 17:50:16.4 | 150.1 | 34.1 | | | | | |
| | e | pPKPbc | Z 17:50:26.2 | | | | | | | |
| RJOB | e | PKPbc | Z 17:50:16.1 | 150.2 | 44.0 | | | | | |
| FUR | e | PKPbc | Z 17:50:17.6 | 150.6 | 41.1 | | | | | |
| STU | e | PKPbc | Z 17:50:18.4 | 151.0 | 36.9 | | | | | |
| WLF | e | PKPbc | Z 17:50:19.9 | 151.4 | 30.7 | | | | | |

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BFO e PKPbc Z 17:50:19.7 151.7 35.9

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/30 17:47:20.2 15.862S 172.957W 33.0N
Samoa Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|-------|------|-------|----|----|----|
| BRG | e PKPbc | Z 18:06:51.1 | 144.6 | 11.5 | | | | | |
| UBBA | e PKPbc | Z 18:06:52.1 | 145.0 | 5.0 | | | | | |
| MOX | e PKPbc | Z 18:06:52.4 | 145.0 | 7.7 | | | | | |
| TANN | e PKPbc | Z 18:06:52.9 | 145.2 | 9.2 | | | | | |
| TNS | e PKPbc | Z 18:06:54.7 | 145.6 | 2.4 | | | | | |
| ROTZ | e PKPbc | Z 18:06:55.5 | 145.8 | 8.9 | | | | | |
| GRA1 | e PKPbc | Z 18:06:56.1 | 146.0 | 7.2 | | | | | |
| WLF | e PKPbc | Z 18:06:56.9 | 146.2 | 358.5 | | | | | |
| WET | e PKPbc | Z 18:06:57.1 | 146.4 | 10.2 | | | | | |
| GEC2 | e PKPbc | Z 18:06:57.5 | 146.6 | 11.7 | | | | | |
| FUR | e PKPbc | Z 18:07:00.5 | 147.5 | 7.6 | | | | | |
| BFO | e PKPbc | Z 18:07:00.4 | 147.5 | 2.3 | | | | | |
| RJOB | e PKPbc | Z 18:07:01.1 | 147.8 | 10.4 | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/30 18:04:46.1 16.090S 176.490W 33.0N
Fiji Islands region

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|--------------|-------|------|------|-------|----|----|----|
| CLZ | e PKPdf | Z 18:24:18.9 | 143.8 | 11.2 | | | | | |
| CLL | e PKPdf | Z 18:24:18.3 | 144.0 | 15.6 | | | | | |
| TANN | e PKPbc | Z 18:24:18.6 | 144.9 | 15.1 | | | | | |
| ROTZ | e PKPbc | Z 18:24:21.0 | 145.6 | 14.9 | | | | | |
| TNS | e PKPbc | Z 18:24:20.7 | 145.6 | 8.4 | | | | | |
| GRA1 | e PKPbc | Z 18:24:21.6 | 145.8 | 13.3 | | | | | |
| WET | e PKPbc | Z 18:24:22.5 | 146.1 | 16.3 | | | | | |
| GEC2 | e PKPbc | Z 18:24:22.6 | 146.2 | 17.8 | | | | | |
| WLF | e PKPbc | Z 18:24:23.9 | 146.4 | 4.6 | | | | | |
| STU | e PKPbc | Z 18:24:25.2 | 147.0 | 10.1 | | | | | |
| FUR | e PKPbc | Z 18:24:26.4 | 147.3 | 13.9 | | | | | |
| RJOB | e PKPbc | Z 18:24:26.7 | 147.4 | 16.7 | | | | | |
| BFO | e PKPbc | Z 18:24:26.8 | 147.5 | 8.6 | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
2009/09/30 19:03:22.5 14.920S 68.920W 269.4 5.8
Peru-Bolivia border region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|---|------------|------|-------|------|-------|-----|----|----|
| WLF | e P | Z | 19:16:00.2 | 92.0 | 249.1 | 1.3 | 101 | 6.0 | | |
| BFO | e P | Z | 19:16:03.6 | 92.9 | 250.7 | 1.1 | 19 | 5.4 | | |
| | e pP | Z | 19:17:09.8 | | | | | | | |
| BUG | e P | Z | 19:16:05.8 | 93.3 | 250.0 | 1.1 | 66 | 6.0 | | |
| STU | e P | Z | 19:16:06.9 | 93.6 | 251.3 | 0.9 | 54 | 6.0 | | |
| TNS | e P | Z | 19:16:07.3 | 93.6 | 250.9 | 1.0 | 50 | 5.9 | | |
| | e pP | Z | 19:17:12.8 | | | | | | | |
| IBBN | e P | Z | 19:16:08.5 | 93.9 | 250.5 | 1.0 | 70 | 6.0 | | |
| FUR | e P | Z | 19:16:12.5 | 94.7 | 252.8 | 1.1 | 73 | 6.0 | | |
| | e PP | Z | 19:20:05.1 | | | | | | | |
| UBBA | e P | Z | 19:16:12.6 | 94.7 | 252.1 | 1.6 | 43 | 5.6 | | |
| GRA1 | e P | Z | 19:16:14.4 | 95.1 | 252.9 | 1.0 | 44 | 5.8 | | |
| CLZ | e P | Z | 19:16:15.1 | 95.3 | 252.5 | 1.0 | 49 | 5.9 | | |
| NRDL | e P | Z | 19:16:15.4 | 95.3 | 252.3 | 1.1 | 39 | 5.7 | | |
| RJOB | e P | Z | 19:16:16.3 | 95.6 | 253.9 | 1.2 | 23 | 5.5 | | |
| | e PP | Z | 19:20:11.0 | | | | | | | |
| MOX | e P | Z | 19:16:16.8 | 95.6 | 253.3 | 1.2 | 17 | 5.5 | | |
| | e PP | Z | 19:20:12.3 | | | | | | | |
| ROTZ | e P | Z | 19:16:17.6 | 95.8 | 253.7 | 1.0 | 33 | 5.8 | | |
| | e PP | Z | 19:20:12.8 | | | | | | | |
| BSEG | e P | Z | 19:16:17.4 | 95.8 | 252.6 | 0.7 | 51 | 6.1 | | |
| WET | e P | Z | 19:16:18.4 | 96.0 | 254.1 | 1.1 | 29 | 5.7 | | |
| | e pP | Z | 19:17:22.0 | | | | | | | |
| TANN | e P | Z | 19:16:19.2 | 96.1 | 253.9 | 1.3 | 46 | 5.8 | | |
| | e PP | Z | 19:20:15.8 | | | | | | | |
| GEC2 | e P | Z | 19:16:20.2 | 96.4 | 254.7 | 1.1 | 21 | 5.6 | | |
| CLL | e P | Z | 19:16:21.4 | 96.7 | 254.4 | 1.0 | 27 | 5.8 | | |
| | e PP | Z | 19:20:19.5 | | | | | | | |
| BRG | e P | Z | 19:16:23.6 | 97.1 | 255.1 | 1.4 | 34 | 5.8 | | |
| | e pP | Z | 19:17:27.3 | | | | | | | |
| | e PP | Z | 19:20:22.8 | | | | | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/30 19:43:54.0 16.510S 172.230W 33.0N 4.9
 Samoa Islands region

| Sta | Phase | | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|---------|---|------------|-------|-------|------|-------|----|-----|----|
| BUG | e PKPbc | Z | 20:03:26.2 | 145.1 | 359.2 | | | | | |
| UBBA | e PKPbc | Z | 20:03:28.3 | 145.6 | 3.8 | | | | | |
| MOX | e PKPbc | Z | 20:03:28.6 | 145.7 | 6.6 | | | | | |
| | e L | Z | 21:01:08.5 | | | 22.0 | 215 | | 4.9 | |
| TANN | e PKPbc | Z | 20:03:29.2 | 145.9 | 8.0 | | | | | |
| TNS | e PKPbc | Z | 20:03:30.9 | 146.3 | 1.2 | | | | | |
| ROTZ | e PKPbc | Z | 20:03:31.9 | 146.5 | 7.7 | | | | | |
| GRA1 | e PKPbc | Z | 20:03:32.4 | 146.7 | 6.0 | | | | | |

| | | | | | | | | |
|------|---------|---|------------|-------|-------|------|-----|-----|
| | e L | Z | 21:07:52.4 | | | 21.5 | 184 | 4.8 |
| WLF | e PKPbc | Z | 20:03:33.3 | 146.8 | 357.2 | | | |
| WET | e PKPbc | Z | 20:03:33.7 | 147.1 | 9.0 | | | |
| GEC2 | e PKPbc | Z | 20:03:34.0 | 147.3 | 10.6 | | | |
| STU | e PKPbc | Z | 20:03:35.6 | 147.7 | 2.6 | | | |
| BFO | e PKPbc | Z | 20:03:36.7 | 148.2 | 1.0 | | | |
| FUR | e PKPbc | Z | 20:03:36.9 | 148.2 | 6.4 | | | |
| RJOB | e PKPbc | Z | 20:03:37.4 | 148.5 | 9.3 | | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/30 21:34:37.3 56.810N 161.040E 33.0N 4.8
 Near east coast of Kamchatka Peninsula, Russia SZGRF

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|------|------|-------|-----|----|----|
| CLL | e P | Z 21:45:40.0 | 68.7 | 18.1 | 1.1 | 15 | 5.1 | | |
| BRG | e P | Z 21:45:41.5 | 69.0 | 18.6 | 0.9 | 9 | 5.0 | | |
| BUG | e P | Z 21:45:46.0 | 69.6 | 15.0 | 0.6 | 7 | 4.9 | | |
| MOX | e P | Z 21:45:45.9 | 69.6 | 17.3 | 1.0 | 7 | 4.7 | | |
| TANN | e P | Z 21:45:46.4 | 69.7 | 17.7 | 0.8 | 3 | 4.5 | | |
| UBBA | e P | Z 21:45:47.1 | 69.8 | 16.4 | 1.1 | 5 | 4.5 | | |
| ROTZ | e P | Z 21:45:50.7 | 70.3 | 17.5 | 1.4 | 14 | 4.9 | | |
| TNS | e P | Z 21:45:52.4 | 70.6 | 15.5 | 1.1 | 6 | 4.6 | | |
| GRA1 | e P | Z 21:45:52.2 | 70.6 | 17.0 | 0.8 | 16 | 5.2 | | |
| WET | e P | Z 21:45:53.7 | 70.8 | 17.8 | 1.2 | 11 | 4.9 | | |
| GEC2 | e P | Z 21:45:53.9 | 70.9 | 18.2 | 1.0 | 7 | 4.8 | | |
| WLF | e P | Z 21:45:57.4 | 71.5 | 14.2 | 1.3 | 14 | 4.9 | | |
| FUR | e P | Z 21:46:00.2 | 72.1 | 16.8 | 1.2 | 13 | 4.9 | | |
| RJOB | e P | Z 21:46:01.5 | 72.2 | 17.6 | 0.8 | 6 | 4.8 | | |
| BFO | e P | Z 21:46:02.7 | 72.4 | 15.3 | 1.0 | 4 | 4.5 | | |

Date Origin Time Lat Long Depth mb Ms ML Source
 2009/09/30 22:35:22.5 14.110N 45.471W 33.0N 4.5
 Northern Mid-Atlantic Ridge SZGRF

| Sta | Phase | Time | Dist | BAz | T[s] | A[nm] | mb | MS | ML |
|------|-------|--------------|------|-------|------|-------|-----|----|----|
| GRA1 | e P | Z 22:45:12.1 | 58.0 | 253.0 | 1.4 | 8 | 4.5 | | |

Format description

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(T. Plenefisch, Email: plene@szgrf.bgr.de)

In general all regional and teleseismic events clearly recorded with stations of the Gräfenberg-Array (GRF) and stronger events recorded with stations of the German Regional Seismological Network (GRSN) are included in this bulletin. Each event is reported by an EPICENTER LINE, a REGION LINE and a block of PHASE LINES.

EPICENTER LINE:

| | |
|-------------|---|
| Date | Date of the event |
| Origin Time | Origin time of the event |
| Lat | Geographic latitude (N/S) of epicenter in degree |
| Long | Geographic longitude (E/W) of epicenter in degree |
| Depth | Depth of the hypocenter beneath the surface in kilometer |
| | Appended flag indicates the method by which the depth was determined: |
| | BLANK - free |
| | N - preset depth of 33 kilometer |
| | G - geophysicist preset depth |
| mb, Ms, ML | Magnitudes of the event and magnitude type |
| Source | Abbreviations for the authority (e.g. SZGRF, NEIC, SED, MAD) |

REGION LINE:

The region name of the epicenter location.

PHASE LINE:

| | |
|-------|--|
| Sta | Station code of the reported phase |
| Phase | Preceded flag for the sharpness of the onset of the phase |
| | e - emergent |
| | i - impulsive |
| | w - weak |
| | ISC phase code |
| | Component where the phase was picked |
| Time | Arrival time of the reported phase |
| Dist | Distance from the epicenter location to the station in degree |
| BAZ | Backazimuth from the epicenter location to the station in degree |
| T[s] | Phase Period |
| A[nm] | Phase Amplitude |
| mb | Body wave magnitude |
| MS | Surface wave magnitude |
| ML | Local Richter magnitude |