

MONTHLY TELESEISMIC BULLETIN of SZGRF-ERLANGEN - June 1997

H. Aichele, K. Klinge, R. Hohl, U. Mundl

date	station	time	distance	phase	backazimut	comp	per[s]	ampl[nm]	magn
	SZGRF or NEIC-QED		LOCATION						

1997-06-01 D 1.8 199km

GRC1	01:09:33.3	e Pn		Z					
GRA1	01:09:41.5	e Pn		Z				M13.2	
GRA1	01:10:12.9	e (Sn)		N					

1997-06-01

GRA1	02:06:23.5	e PKPab		Z					
GRA1	02:06:33.8	e pPKPab		Z					
GRA1	02:06:42.1	e sPKPab		Z					

1997-06-01

GRA1	08:15:13.3	i PKPdf	d	Z					
NEIC:	OT 07:55:36.2	15.2S	173.0W	dep 33km	mb4.7				
SAMOA ISLANDS REGION									

1997-06-01 D 23.2 AZ105

GRA1	10:38:53.2	e P		Z				mb4.2	
SZGRF: OT 10:33:49.3									
TURKEY									

1997-06-01 D153.9

GRA1	11:20:31.6	e PKP		Z					
GRA1	12:37:58.6	e L		Z	T18.0	A212		MS5.0	

1997-06-01 D 22.1 AZ138

GRA1	14:26:54.3	e P		Z				mb3.9	
SZGRF: OT 14:22:01.7									
UNITED ARAB REPUBLIC									

1997-06-01 D 85.8 AZ 52

GRA1 15:15:18.2 e P Z mb5.5  
GRA1 15:15:31.6 e pP Z  
GRA1 16:00:53.9 e L Z T18.5 A2048 MS5.6

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1997-06-01

GRA1 18:36:14.8 e (P) Z

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1997-06-01 D 71.1 AZ206

GRA1 20:13:20.8 e P Z mb4.6

GRA1 20:40:59.0 e L Z T21.6 A90 MS4.0

SZGRF: OT 20:02:03.7

SOUTH ATLANTIC RIDGE

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1997-06-02 D 89.3 AZ 41

GRA1 00:34:02.3 i P d Z mb4.8

SZGRF: OT 00:21:10.2 30.0N 141.8E dep 33km

SOUTH OF HONSHU, JAPAN

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1997-06-02 D 79.7 AZ 28

GRA1 03:54:33.9 i P c Z mb5.0

SZGRF: OT 03:42:30.8 44.4N 150.3E dep 33km

KURIL ISLANDS REGION

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1997-06-02 D 39.9 AZ106

GRA1 04:01:03.3 e P Z mb4.4

GRA1 04:01:10.1 e (pP) Z

GRA1 04:15:43.2 e L Z T18.6 A91 MS3.6

SZGRF: OT 03:53:33.0 28.1N 55.4E dep 33km

SOUTHERN IRAN

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1997-06-02

GRA1 08:14:48.3 e PKPab Z

GRA1 08:14:54.1 e pPKPab Z

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1997-06-02

GRA1 08:28:55.2 e PKPab Z

GRA1 08:32:20.0 e PP Z

GRA1 09:19:55.3 e L Z T18.8 A146

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1997-06-02 D 44.3 AZ 83

GRA1 09:07:12.3 i P c Z mb4.5

GRA1 09:07:45.4 e (pP) Z

NEIC: OT 08:59:10.7 36.0N 70.8E dep130km mb4.9

HINDU KUSH REGION, AFGHANISTAN

1997-06-02

GRA1 12:31:28.3 e PKPdf Z

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1997-06-02 D 23.4 AZ333

GRA1 18:21:51.4 e P Z mb4.2

GRA1 18:22:01.7 e (pP) Z

GRA1 18:22:10.2 e (sP) Z

SZGRF: OT 18:16:47.6 68.2N 17.5W dep 46km

ICELAND REGION

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1997-06-02 D 23.5 AZ332

GRA1 18:23:23.9 e P d Z mb4.6

GRA1 18:23:34.6 e pP Z

GRA1 18:33:12.6 e L Z T18.4 A240 MS3.7

SZGRF: OT 18:18:18.6 68.0N 18.5W dep 44km

ICELAND REGION

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1997-06-02 D 23.3 AZ336

GRA1 19:00:21.9 i P d Z mb4.6

GRA1 19:10:10.5 e L Z T18.9 A300 MS3.8

SZGRF: OT 18:55:17.4 69.0N 15.5W dep 33km

ICELAND REGION

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1997-06-02 D 85.8 AZ 50

GRA1 19:32:01.4 i P c Z mb5.2

GRA1 19:32:25.0 e pP Z

GRA1 20:36:21.9 e L Z T20.2 A1002 MS5.2

SZGRF: OT 19:19:33.0 28.0N 130.7E dep 89km

RYUKYU ISLANDS

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1997-06-02 D 79.5 AZ 27

GRA1 19:44:54.3 e P Z mb4.3

NEIC: OT 19:32:49.5 44.4N 149.2E dep 33km

KURIL ISLANDS

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1997-06-02

GRA1 21:28:39.4 e PKPdf Z

NEIC: OT 21:08:51.2 53.5S 139.9E dep 10km mb4.9

WEST OF MACQUARIE ISLAND

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1997-06-02 D110.8

GRA1 21:39:18.9 e P Z mb5.9

GRA1 21:43:08.1 e PKPdf Z

GRA1 21:43:47.7 e PP Z

GRA1 22:24:30.6 e L Z T22.0 A3035 MS5.8

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1997-06-02

D149.2

GRA1 21:54:06.0 e PKPdf Z  
 GRA1 21:54:13.7 e PKPab Z

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 1997-06-02

GRA1 21:58:04.1 e (PKPab) Z

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 1997-06-02

GRA1 22:21:14.2 e PKPdf d Z  
 GRA1 22:21:21.3 e pPKPdf Z

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 1997-06-03 D 91.5 AZ 47

GRA1 00:08:24.5 e P Z  
 GRA1 00:08:43.1 e pP Z

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 1997-06-03

GRA1 01:03:51.7 e PKPab Z  
 NEIC: OT 00:43:06.5 30.5S 177.3W dep 33km  
 KERMADEC ISLANDS, NEW ZEALAND

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 1997-06-03 D 11.4

GRA1 01:16:26.3 e Pn Z

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 1997-06-03 D 83.5 AZ 33

GRA1 12:22:19.9 e P Z mb5.2  
 GRA1 12:22:28.9 e pP Z  
 GRA1 12:59:53.8 e L Z T21.2 A205 MS4.5  
 SZGRF: OT 12:09:56.3 39.1N 147.5E dep 31km  
 OFF EAST COAST OF HONSHU, JAPAN

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 1997-06-03 D 76.6 AZ\*\*\*

GRA1 20:13:14.2 i P d Z mb5.0  
 GRA1 20:13:41.9 e (pP) Z  
 SZGRF: OT 20:01:37.8 54.1N 169.4W dep109km  
 FOX ISLANDS, ALEUTIAN ISLANDS

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 1997-06-03 D 3.2 357km

GRA1 21:02:53.5 e Pn Z M13.1

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 1997-06-03 D 79.7 AZ 11

GRA1 21:29:46.2 i P c Z mb4.7  
 GRA1 21:30:03.3 e (pP) Z  
 SZGRF: OT 21:17:47.2 50.0N 174.7E dep 62km  
 ALEUTIAN ISLANDS REGION

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 1997-06-04 D 55.5 AZ 67  
 GRA1 12:25:22.9 e P Z mb4.5  
 GRA1 12:43:49.7 e L Z T18.0 A72 MS3.8  
 NEIC: OT 12:16:28.4 43.1N 84.0E dep 33km  
 NORTHERN XINJIANG, CHINA  
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1997-06-04 D 46.7 AZ 84  
 GRA1 16:04:46.3 e P Z mb4.8  
 GRA1 16:05:08.4 e pP Z  
 SZGRF: OT 15:56:27.8 35.0N 73.1E dep 92km  
 NORTHWESTERN KASHMIR  
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1997-06-04 D 76.8 AZ 34  
 GRA1 23:27:47.3 i P c Z mb4.8  
 GRA1 23:27:50.9 i pP d Z  
 SZGRF: OT 23:15:57.5 44.6N 142.1E dep 13km  
 HOKKAIDO, JAPAN REGION  
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1997-06-05 D 1.8 200km  
 GRC4 20:23:30.5 i Pn c Z  
 GRA1 20:23:37.5 i Pn c Z  
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1997-06-05 D 78.6 AZ 30  
 GRA1 06:04:57.1 e P Z T0.6 A23 mb5.4  
 GRA1 06:06:01.2 e pP Z  
 SZGRF: OT 05:53:27.3 44.6N 147.3E dep274km  
 KURIL ISLANDS  
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1997-06-05 D 76.1 AZ 17  
 GRA1 09:44:22.9 e P Z mb5.0  
 GRA1 09:45:15.3 e (pP) Z  
 SZGRF: OT 09:33:01.7 51.8N 163.2E dep221km  
 OFF EAST COAST OF KAMCHATKA  
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1997-06-05 D 80.4 AZ 18  
 GRA1 11:07:43.6 e P Z  
 GRA1 11:07:52.5 e pP Z  
 GRA1 11:45:52.6 e L Z T22.0 A38 MS3.7  
 NEIC: OT 10:55:54.5 49.4N 155.6E dep 33km mb4.6  
 KURIL ISLANDS  
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1997-06-05  
 GRA1 13:04:46.1 e PKPdf Z  
 GRA1 14:20:59.0 e L Z T22.0 A778  
 NEIC: OT 12:44:47.1 56.8S 147.9E dep 10km mb5.3  
 WEST OF MACQUARIE ISLAND  
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1997-06-05 D 66.1 AZ 56  
 GRA1 14:10:07.0 e P Z mb4.8  
 GRA1 14:10:18.2 e pP Z  
 GRA1 14:10:24.6 e sP Z

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 1997-06-05 D149.5  
 GRA1 15:46:25.5 e PKPdf Z  
 GRA1 15:46:28.8 e PKPbc Z  
 GRA1 15:46:33.7 e PKPab Z  
 GRA1 15:47:07.7 e pPKPbc Z  
 NEIC: OT 15:27:11.9 19.3S 175.6W dep300km mb4.7  
 TONGA ISLANDS

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 1997-06-06 D 3.7 408km  
 GRA1 00:15:53.5 e Pn Z M13.4  
 SZGRF: OT 00:14:55.2 51.5N 16.3E dep 1km  
 POLAND

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 1997-06-06 D 54.6 AZ 74  
 GRA1 00:31:37.7 e P Z mb4.5  
 GRA1 00:52:55.3 e L Z T22.0 A75 MS3.7  
 SZGRF: OT 00:22:13.2  
 SOUTHERN SINKIANG PROV., CHINA

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 1997-06-06 D 84.6 AZ 92  
 GRA1 02:03:21.2 e P Z mb4.7  
 GRA1 02:03:28.9 e (pP) Z  
 GRA1 02:47:59.6 e L Z T21.1 A97 MS4.2  
 SZGRF: OT 01:50:49.8  
 NORTHERN SUMATERA

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 1997-06-06 D 3.6 403km  
 GRA1 03:25:27.2 e Pn N  
 SZGRF: OT 03:24:29.6 51.5N 16.2E dep 1km  
 POLAND

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 1997-06-06 D 95.2 AZ 94  
 GRA1 04:00:02.0 e P Z mb4.8  
 GRA1 04:44:39.0 e L Z T20.2 A126 MS4.4  
 SZGRF: OT 03:46:41.5  
 SOUTHWEST OF SUMATERA

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 1997-06-06 AZ126  
 GRA1 09:01:24.7 e (PKPab) Z  
 GRA1 10:22:44.2 e L Z T20.8 A192

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 1997-06-06

GRA1 12:20:11.0 e PKPdf Z  
GRA1 13:19:50.2 e L Z T20.5 A66  
NEIC: OT 12:01:04.8 7.4S 156.0E dep 33km mb4.8  
SOLOMON ISLANDS

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1997-06-07

GRA1 02:12:59.5 e PKPab Z

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1997-06-07 D 58.5 AZ120

GRA1 11:30:43.9 i P c Z mb5.1  
GRA1 11:51:24.7 e L Z T21.9 A386 MS4.5  
NEIC: OT 11:22:03.5 14.1N 51.7E dep 33km mb5.0  
EASTERN GULF OF ADEN

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1997-06-07 D147.2

GRA1 14:49:44.7 e PKPdf Z  
GRA1 14:49:47.4 e PKPab Z  
NEIC: OT 14:30:57.2 17.7S 178.8W dep500km mb5.1  
FIJI ISLANDS REGION

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1997-06-07 D 87.7 AZ 91

GRA1 18:59:35.2 e P Z mb4.8  
GRA1 18:59:47.7 e (pP) Z  
SZGRF: OT 18:46:50.7 .9N 98.8E dep 43km  
NORTHERN SUMATERA

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1997-06-07 D 81.3 AZ326

GRA1 19:52:27.6 e P Z mb4.8  
GRA1 20:28:56.3 e L Z T21.8 A225 MS4.5  
NEIC: OT 19:40:00.8 40.4N 126.2W dep 10km mb4.8  
OFF COAST OF NORTHERN CALIFORNIA

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1997-06-08

GRA1 01:41:25.0 i Pn d Z  
GRA1 01:41:30.0 i P2 c Z  
GRA1 01:44:45.5 e Sn Z  
GRA1 01:49:05.0 e L Z T20.3 A885 MS4.0  
NEIC: OT 01:37:38.1 35.7N 22.5E dep 33km mb4.3  
CENTRAL MEDITERRANEAN SEA

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1997-06-08

GRA1 08:39:26.4 e PKPdf Z  
GRA1 08:39:33.0 e pPKPdf Z  
NEIC: OT 08:22:00.8 18.7N 66.7W dep 25km  
PUERTO RICO REGION

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1997-06-08 D151.7

GRA1 11:07:59.2 e PKPdf Z

GRA1 11:08:13.6 e PKPab Z

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 1997-06-08 D 55.9 AZ 70  
 GRA1 20:35:20.7 e P c Z mb4.4  
 SZGRF: OT 20:25:47.3 38.0N 90.5E dep 33km  
 SOUTHERN SINKIANG PROV., CHINA

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 1997-06-08 D 85.3 AZ 50  
 GRA1 20:58:53.5 i P c Z mb5.1  
 GRA1 20:59:06.9 e pP Z  
 GRA1 22:00:23.0 e L Z T21.4 A133 MS4.3  
 SZGRF: OT 20:46:22.6 28.6N 130.6E dep 46km  
 RYUKYU ISLANDS

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 1997-06-09  
 GRA1 01:41:06.7 e PKPab Z  
 GRA1 01:41:20.2 e pPKPab Z  
 GRA1 01:41:27.9 e sPKPab Z  
 GRA1 02:44:43.8 e L Z T21.1 A90  
 NEIC: OT 01:21:32.5 19.6S 169.6E dep 33km mb4.9  
 VANUATU ISLANDS

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 1997-06-09 D149.4  
 GRA1 01:43:03.5 e PKPdf Z  
 GRA1 01:43:11.7 e PKPab Z  
 GRA1 02:58:14.1 e L Z T20.7 A162 MS4.8  
 NEIC: OT 01:24:12.2 20.1S 178.8W dep500km mb4.5  
 FIJI ISLANDS REGION

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 1997-06-09  
 GRA1 02:02:50.5 e PKPdf Z

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 1997-06-09 D 70.2 AZ153  
 GRA1 02:48:47.0 e P Z mb4.4  
 GRA1 02:48:57.2 e (pP) Z  
 NEIC: OT 02:38:31.0 6.4S 39.3E dep 10km mb4.4  
 TANZANIA

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 1997-06-09 D 2.1 230km  
 GRA1 04:12:40.6 e (Pn) Z M12.7  
 NEIC: OT 04:11:56.9 47.2N 10.3E dep 7km  
 AUSTRIA

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 1997-06-09 D147.4  
 GRA1 07:43:57.5 e PKPdf Z  
 GRA1 08:49:16.1 e L Z T21.8 A2307 MS5.9



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1997-06-09 D147.8  
GRA1 08:04:09.6 e PKPdf Z  
GRA1 08:04:13.9 e PKPab Z  
NEIC: OT 07:45:26.9 17.9S 178.0W dep550km mb4.2  
FIJI ISLANDS REGION

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1997-06-09 D148.9  
GRA1 09:02:50.8 e PKPdf Z  
GRA1 09:02:57.3 e PKPab Z  
NEIC: OT 08:44:06.2 19.6S 177.9W dep581km mb4.7  
FIJI ISLANDS REGION

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1997-06-09 D 75.2 AZ 36  
GRA1 11:49:58.7 i P c Z mb5.2  
GRA1 11:50:27.6 e (pP) Z  
SZGRF: OT 11:38:30.5 44.9N 138.5E dep115km  
EASTERN SEA OF JAPAN

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1997-06-09 D 15.0 AZ161  
GRA1 14:13:49.5 e (P) Z

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1997-06-09  
GRA1 19:35:02.1 e PKPdf Z  
NEIC: OT 19:16:17.2 18.0S 178.5W dep527km mb4.1  
FIJI ISLANDS REGION

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1997-06-09  
GRA1 21:15:19.0 e PKPdf Z  
NEIC: OT 20:56:27.7 21.2S 178.9W dep550km  
FIJI ISLANDS REGION

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1997-06-10  
GRA1 01:54:31.5 e PKPab Z

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1997-06-10  
GRA1 02:38:43.6 e PKPab Z

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1997-06-10 D 4.3 476km  
GRA1 02:50:56.4 e Pn Z M13.6

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1997-06-10 D 82.3 AZ 4  
GRA1 03:19:57.6 e P Z mb4.7  
NEIC: OT 03:08:07.2 47.1N 152.4E dep 79km mb4.3  
KURIL ISLANDS

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 1997-06-10 D134.3  
 GRA1 22:13:15.6 e PKPdf Z  
 GRA1 23:04:54.0 e L Z T20.9 A4573 MS6.2  
 NEIC: OT 21:53:55.4 35.8S 108.1W dep 10km mb5.8  
 SOUTHERN EAST PACIFIC RISE  
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1997-06-11 D 3.6 404km  
 GRA1 00:34:50.8 e Pn Z M14.1  
 SZGRF: OT 00:33:53.9 51.5N 16.2E dep 1km  
 POLAND  
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1997-06-11 D 84.6 AZ 40  
 GRA1 04:54:23.0 e P Z mb5.0  
 GRA1 05:46:33.8 e L Z T20.9 A255 MS4.6  
 SZGRF: OT 04:41:54.0 34.9N 140.6E dep 33km  
 NEAR EAST COAST OF HONSHU, JAPAN  
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1997-06-11 D 80.7 AZ234  
 GRA1 09:10:52.2 e (P) Z mb4.5  
 SZGRF: OT 08:58:41.1  
 BRAZIL  
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1997-06-11 D153.3  
 GRA1 09:48:55.3 e PKPdf d Z  
 GRA1 09:49:03.3 i PKPbc d Z  
 GRA1 09:49:16.2 e PKPab Z  
 GRA1 09:52:47.7 e PP Z  
 GRA1 11:03:15.3 e L Z T21.1 A149 MS4.8  
 NEIC: OT 09:29:23.7 23.9S 177.5W dep165km mb5.3  
 SOUTH OF FIJI ISLANDS  
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1997-06-11  
 GRA1 12:12:09.4 e PKPdf Z  
 GRA1 12:12:13.8 i PKPbc c Z  
 GRA1 12:12:17.2 e PKPab Z  
 GRA1 12:14:23.4 e pPKPbc Z  
 NEIC: OT 11:53:35.1 17.8S 178.9W dep600km mb5.0  
 FIJI ISLANDS REGION  
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1997-06-11 D 81.3  
 GRA1 19:23:00.8 e P Z mb4.3  
 GRA1 19:55:15.3 e L Z T20.3 A83 MS4.1  
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1997-06-11 D 85.3 AZ 92  
 GRA1 19:25:02.6 e P Z mb5.0  
 GRA1 20:10:55.4 e L Z T20.8 A275 MS4.6  
 NEIC: OT 19:12:25.7 2.9N 97.3E dep 33km mb5.1  
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## NORTHERN SUMATERA, INDONESIA

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 1997-06-11 D 34.3 AZ353  
 GRA1 19:47:40.5 e P d Z mb4.6  
 GRA1 19:47:48.1 e pP Z  
 NEIC: OT 19:40:57.2 82.9N 6.7W dep 10km mb4.6  
 NORTH OF SVALBARD

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 1997-06-11 D 15.0 AZ149  
 GRA1 20:10:14.0 e P Z  
 NEIC: OT 20:06:31.0 37.9N 24.4E dep 10km  
 SOUTHERN GREECE

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 1997-06-11 D 40.0 AZ 85  
 GRA1 20:30:18.7 e P c Z mb4.0  
 NEIC: OT 20:22:27.4 36.5N 71.2E dep241km mb4.1  
 AFGHANISTAN-TAJIKISTAN BORD REG.

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 1997-06-12 D 23.8 AZ282  
 GRA1 09:44:10.9 e P Z mb3.9

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 1997-06-12  
 GRA1 02:33:51.0 e PKPab Z

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 1997-06-12 D149.3  
 GRA1 11:10:25.3 e PKPdf Z  
 GRA1 11:10:33.1 e PKPab Z

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 1997-06-12 D 56.4  
 GRA1 12:26:27.4 e PKPdf Z  
 GRA1 12:26:53.3 e pPKPdf Z  
 GRA1 12:28:08.1 e PP Z  
 GRA1 13:22:07.7 e L Z T22.0 A4132 MS5.5  
 NEIC: OT 12:07:38.4 6.0S 147.0E dep 75km mb5.6  
 EASTERN NEW GUINEA REG., P.N.G.

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 1997-06-13 D 78.9 AZ 10  
 GRA1 00:02:42.3 e P Z mb4.5  
 GRA1 00:02:51.9 e pP Z  
 SZGRF: OT 23:50:44.0 50.8N 174.9E dep 33km  
 ALEUTIAN ISLANDS REGION

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 1997-06-13 D 3.7 408km  
 GRA1 13:23:05.5 e Pn Z M13.9  
 SZGRF: OT 13:22:07.3 51.5N 16.2E dep 1km  
 POLAND

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1997-06-13 D 83.7 AZ 39  
GRA1 18:06:56.0 e P Z mb4.9  
NEIC: OT 17:54:14.4 33.3N 142.4E dep 42km mb4.8  
OFF EAST COAST OF HONSHU, JAPAN

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1997-06-13 D 46.0 AZ 94  
GRA1 23:29:16.9 i P c Z mb4.7  
GRA1 23:29:19.6 e (pP) Z  
GRA1 23:51:23.2 e L Z T19.8 A114 MS3.8  
SZGRF: OT 23:20:53.8 29.8N 66.9E dep 10km  
PAKISTAN

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1997-06-14 D 46.3 AZ 76  
GRA1 00:28:37.4 e P Z mb4.1  
NEIC: OT 00:20:39.4 41.1N 72.8E dep 33km mb3.8  
KYRGYZSTAN

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1997-06-14 D 87.8 AZ 93  
GRA1 01:11:47.7 e P Z mb4.7  
GRA1 01:12:05.9 e pP Z  
NEIC: OT 00:59:02.5 .7N 99.1E dep 67km mb4.9  
NORTHERN SUMATERA, INDONESIA

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1997-06-14 D 54.3 AZ 80  
GRA1 04:13:21.4 i P d Z mb4.8  
GRA1 04:13:29.5 e pP Z  
GRA1 04:34:07.6 e L Z T21.0 A39 MS3.5  
SZGRF: OT 04:03:58.3 32.4N 82.4E dep 29km  
TIBET

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1997-06-14  
GRA1 07:06:18.2 e (PKPdf) Z

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1997-06-14 D 55.4 AZ227  
GRA1 08:59:55.5 e P Z mb4.3  
GRA1 09:24:58.2 e L Z T21.2 A51 MS3.6  
SZGRF: OT 08:50:23.0  
NORTH ATLANTIC OCEAN

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1997-06-14 D 50.8 AZ154  
GRA1 10:53:44.1 e (P) Z mb4.0

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1997-06-14  
GRA1 21:18:01.5 e PKPdf Z  
NEIC: OT 20:59:14.7 19.0S 177.6W dep550km mb4.1  
FIJI ISLANDS REGION

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1997-06-15 D151.9  
GRA1 01:04:19.0 e PKPdf Z  
GRA1 01:04:25.1 e PKPbc Z  
GRA1 01:06:24.7 e pPKPbc Z  
NEIC: OT 00:45:31.2 20.3S 177.9W dep502km mb4.8  
FIJI ISLANDS REGION

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1997-06-15 D 78.1 AZ 33  
GRA1 05:06:09.9 i P c Z mb5.9  
GRA1 05:06:35.8 e pP Z  
GRA1 05:45:12.5 e L Z T19.3 A110 MS4.2  
SZGRF: OT 04:54:23.8 43.9N 144.0E dep101km  
HOKKAIDO, JAPAN REGION

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1997-06-15  
GRA1 13:59:51.7 e PKPdf Z  
GRA1 14:53:12.5 e L Z T21.0 A84  
NEIC: OT 13:40:36.3 6.3S 154.9E dep 56km mb5.0  
SOLOMON ISLANDS

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1997-06-15  
GRA1 17:25:24.3 e PKPdf Z  
GRA1 17:25:34.6 e pPKPdf Z  
GRA1 18:22:10.3 e L Z T21.1 A281  
NEIC: OT 17:06:18.9 7.1S 155.6E dep 33km mb5.0  
SOLOMON ISLANDS

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1997-06-15  
GRA1 18:10:18.4 e PKP Z  
NEIC: OT 17:51:12.7 7.2S 155.7E dep 33km mb4.7  
SOLOMON ISLANDS

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1997-06-15 D 78.1 AZ125  
GRA1 19:19:29.5 i P d Z mb5.0  
GRA1 19:19:38.4 e pP Z  
SZGRF: OT 19:07:32.0 12.2S 66.0E dep 31km  
MID-INDIAN RISE

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1997-06-15  
GRA1 23:37:15.0 i PKPdf d Z  
NEIC: OT 23:18:35.8 17.8S 178.9W dep600km mb4.6  
FIJI ISLANDS REGION

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1997-06-16  
GRA1 01:02:24.5 e PKPdf Z  
GRA1 01:02:28.2 e pPKPdf Z

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1997-06-16 AZ 96  
 GRA1 03:07:37.8 i P c Z mb4.6  
 GRA1 03:07:40.6 i pP d Z  
 GRA1 03:09:45.0 e PcP Z  
 GRA1 03:29:57.8 e L Z T19.7 A199 MS3.9  
 SZGRF: OT 03:00:13.1 33.4N 59.4E dep 10km  
 IRAN

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 1997-06-16 D 84.3 AZ 37  
 GRA1 16:01:06.8 e P Z mb5.1  
 GRA1 16:01:12.9 e pP Z  
 GRA1 17:20:06.2 e L Z T18.4 A243 MS4.6  
 SZGRF: OT 15:48:37.9 36.5N 143.1E dep 21km  
 OFF EAST COAST OF HONSHU, JAPAN

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 1997-06-16 D 85.8 AZ 33  
 GRA1 17:11:34.5 e P Z mb4.6  
 SZGRF: OT 16:58:59.6 36.7N 147.9E dep 33km  
 OFF EAST COAST OF HONSHU, JAPAN

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 1997-06-16 D 86.0 AZ335  
 GRA1 22:56:29.8 e P d Z mb5.1  
 GRA1 23:33:11.3 e L Z T21.6 A120 MS4.3  
 SZGRF: OT 22:43:53.9 39.9N 135.4W dep 33km  
 NORTH PACIFIC OCEAN

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 1997-06-16 D 51.1 AZ155  
 GRA1 23:25:52.0 e P d Z mb4.5  
 NEIC: OT 23:16:54.0 2.3N 31.4E dep 10km mb4.5  
 UGANDA

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 1997-06-17  
 GRA1 05:20:12.8 i PKPab d Z  
 GRA1 05:20:22.1 e (pPKPab)Z  
 GRA1 06:32:55.5 e L Z T20.7 A176  
 NEIC: OT 04:59:28.2 33.0S 178.5W dep 33km mb4.9  
 SOUTH OF KERMADEC ISLANDS

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 1997-06-17  
 GRA1 06:54:03.3 i PKPdf d Z  
 GRA1 06:54:14.1 e pPKPdf Z  
 NEIC: OT 06:35:16.8 21.8S 179.8W dep600km mb4.6  
 FIJI ISLANDS REGION

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 1997-06-17 D151.5  
 GRA1 08:45:38.0 e PKPdf Z  
 GRA1 08:45:43.3 e pPKPdf Z  
 GRA1 08:45:51.5 e PKPab Z  
 GRA1 08:45:58.0 e pPKPab Z

GRA1 09:48:13.9 e L Z T22.0 A179 MS4.8  
NEIC: OT 08:26:00.2 15.7S 174.6W dep 33km mb4.7  
TONGA ISLANDS

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1997-06-17 D 47.6 AZ 94  
GRA1 11:27:09.0 e P Z mb5.3  
GRA1 11:53:32.3 e L Z T20.3 A238 MS4.2  
SZGRF: OT 11:18:36.5 29.0N 68.6E dep 33km  
PAKISTAN

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1997-06-17 AZ 5  
GRA1 21:15:42.2 i P d Z mb6.4  
GRA1 21:15:51.2 e pP Z  
GRA1 21:57:57.1 e L Z T20.4 A8177 MS6.1  
SZGRF: OT 21:03:42.3 51.4N 176.1W dep 31km  
ANDREANOF ISLANDS, ALEUTIAN IS.

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1997-06-17 D 50.4 AZ246  
GRA1 22:32:19.8 i P c Z T2.0 A54 mb5.1  
GRA1 22:32:30.2 e pP Z  
SZGRF: OT 22:23:25.1  
NORTH ATLANTIC OCEAN

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1997-06-17 D 7.7  
GRA1 22:56:23.9 e Pn Z

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1997-06-18 D 90.1 AZ 60  
GRA1 02:15:59.4 e P Z mb4.8  
GRA1 02:57:12.0 e L Z T21.0 A113 MS4.3  
SZGRF: OT 02:03:03.1 19.1N 125.2E dep 33km  
PHILIPPINE ISLANDS REGION

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1997-06-18 D 40.0  
GRA1 09:10:00.3 e P Z  
GRA1 09:16:03.5 e (S) Z  
GRA1 09:22:22.3 e L Z T15.2 A407 MS4.4

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1997-06-18  
GRA1 17:15:08.3 e (PKPdf) Z  
GRA1 17:21:01.7 e (PP) Z  
GRA1 17:51:03.8 e L Z T20.0 A591

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1997-06-18 D 82.4 AZ 11  
GRA1 17:58:28.6 e P c Z mb5.1  
SZGRF: OT 17:46:11.3 47.2N 174.9E dep 33km  
ALEUTIAN ISLANDS REGION

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1997-06-18

GRA1 19:52:41.0 e PKPab Z  
GRA1 21:08:21.4 e L Z T19.8 A539

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1997-06-19

GRA1 00:44:16.0 e PKPab Z  
NEIC: OT 00:23:40.9 30.8S 179.1W dep 33km mb5.4  
KERMADEC ISLANDS REGION

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1997-06-19 D 84.1 AZ 57

GRA1 10:17:55.9 i P c Z mb5.9  
GRA1 11:00:41.9 e L Z T19.1 A324 MS4.7  
SZGRF: OT 10:05:28.9 25.8N 124.0E dep 33km  
NORTHEAST OF TAIWAN

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1997-06-19 D 75.2 AZ 19

GRA1 22:57:17.6 i P c Z mb5.2  
GRA1 22:57:27.6 e pP Z  
GRA1 22:57:33.9 e sP Z  
GRA1 23:34:32.8 e L Z T18.9 A362 MS4.7  
SZGRF: OT 22:45:40.6 52.2N 160.4E dep 38km  
OFF EAST COAST OF KAMCHATKA

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1997-06-20 D 79.0 AZ 2

GRA1 02:45:57.6 i P c Z T1.4 A172 mb5.9  
GRA1 02:46:04.1 e pP Z  
GRA1 02:46:10.0 e sP Z  
GRA1 02:56:00.3 e S N  
GRA1 03:00:59.0 e SS N  
GRA1 03:30:26.0 e L Z T20.2 A294 MS4.6  
SZGRF: OT 02:33:58.6 51.6N 172.1W dep 26km  
ANDREANOF ISLANDS, ALEUTIAN IS.

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1997-06-20 D 40.9 AZ 98

GRA1 13:05:08.9 e P Z T1.4 A36 mb5.0  
GRA1 13:06:42.0 e PP Z  
GRA1 13:11:12.8 e S E  
GRA1 13:26:47.6 e L Z T18.6 A2123 MS4.9  
SZGRF: OT 12:57:30.0 31.0N 60.3E dep 33km  
IRAN

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1997-06-20 D 80.2 AZ 11

GRA1 19:57:51.5 e P Z T1.2 A22 mb5.0  
SZGRF: OT 19:45:46.1 49.4N 174.3E dep 33km  
ALEUTIAN ISLANDS REGION

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1997-06-20



GRA1 20:49:24.1 e (P) Z  
NEIC: OT 20:35:48.2 21.6N 145.6E dep 33km mb4.8  
MARIANA ISLANDS REGION

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1997-06-21 D 15.0  
GRA1 04:05:32.7 e P Z  
GRA1 04:13:51.4 e L Z T20.4 A157 MS3.1  
NEIC: OT 04:01:12.6 34.8N 26.7E dep 33km mb4.2  
CRETE

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1997-06-21 D 3.7 408km  
GRA1 19:19:49.5 e Pn Z M13.7  
SZGRF: OT 19:18:51.9 51.6N 16.2E dep 1km  
POLAND

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1997-06-21 D 39.8 AZ 96  
GRA1 22:28:54.2 e P Z T1.0 A8 mb4.3  
SZGRF: OT 22:21:24.3 32.7N 60.3E dep 33km  
IRAN

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1997-06-21  
GRA1 23:57:53.8 e Pdiff Z  
NEIC: OT 23:45:00.4 3.4N 122.9E dep550km mb5.0  
CELEBES SEA

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1997-06-22 D 79.3 AZ 7  
GRA1 07:36:32.4 e P Z T1.3 A23 mb5.0  
SZGRF: OT 07:24:31.8 51.0N 179.1W dep 33km  
ANDREANOF ISLANDS, ALEUTIAN IS.

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1997-06-22 AZ 29  
GRA1 08:38:08.1 e P Z T1.0 A10 mb4.8  
SZGRF: OT 08:25:59.9 43.2N 150.0E dep 33km  
KURIL ISLANDS REGION

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1997-06-22 D 87.1 AZ 59  
GRA1 09:48:42.7 e P Z T1.5 A27 mb5.1  
GRA1 09:48:48.3 e pP Z  
GRA1 10:31:09.2 e L Z T20.9 A388 MS4.8  
SZGRF: OT 09:36:00.9 21.8N 123.6E dep 19km  
SOUTHEAST OF TAIWAN

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1997-06-22 D 1.6 175km  
GRC2 12:06:03.7 e Pn Z

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1997-06-22 D 68.3  
GRA1 17:27:15.6 e P Z

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1997-06-22

GRA1 21:45:02.8 e PKP Z  
NEIC: OT 21:25:39.2 15.8S 176.6W dep125km mb4.8  
FIJI ISLANDS REGION

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1997-06-22 D 2.0 223km

GRB2 12:06:09.1 e Pn Z

1997-06-23

AZ281

GRA1 01:16:20.5 e P Z T1.2 A14 mb5.0  
GRA1 01:26:43.4 e S E  
GRA1 01:51:17.4 e L Z T21.9 A294 MS4.6  
SZGRF: OT 01:03:42.9 10.4N 84.9W dep 33km  
COSTA RICA

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1997-06-23 D 80.3 AZ 26

GRA1 16:42:41.9 e P Z T1.6 A28 mb5.0  
SZGRF: OT 16:30:35.7 45.0N 154.1E dep 33km  
KURIL ISLANDS REGION

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1997-06-23 D 75.6 AZ330

GRA1 19:25:10.6 e P Z T1.0 A25  
SZGRF: OT 19:13:30.3 47.1N 122.7W dep 33km  
WASHINGTON

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1997-06-24

GRB5 07:24:06.4 e PKP Z  
NEIC: OT 07:05:23.8 17.3S 178.6W dep550km  
FIJI ISLANDS REGION

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1997-06-24 D 58.0 AZ 74

GRA1 09:33:13.8 e P Z T1.3 A32 mb5.2  
GRA1 09:53:36.1 e L Z T19.5 A1116 MS5.0  
NEIC: OT 09:24:51.1 39.5N 76.9E dep 67km mb5.0  
SOUTHERN XINJIANG, CHINA

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1997-06-24

GRA1 12:18:33.0 e PKP Z

1997-06-24 D148.2

GRA1 16:36:51.4 e PKP Z  
GRA1 17:40:57.7 e L Z T22.0 A1786 MS5.8

NEIC: OT 16:17:09.1 20.8S 174.2E dep 33km mb5.3  
VANUATU ISLANDS REGION

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1997-06-24 D 3.7 412km

GRA1 20:15:41.2 e Pn Z M14.3  
 SZGRF: OT 20:14:42.3 51.5N 16.3E dep 1km  
 POLAND

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 1997-06-24 D107.8  
 GRA1 23:19:13.5 e Pdiff Z  
 GRA1 23:23:31.4 e PP Z  
 GRA1 23:29:52.0 e SKSac E  
 GRA1 23:31:22.5 e Sdiff N  
 GRA1 23:32:50.3 e SP Z  
 GRA1 23:34:44.7 e PKKPab Z  
 GRA1 23:38:44.6 e SS E  
 GRA1 00:18:16.5 e L Z T19.2 A5229 MS6.1  
 NEIC: OT 23:04:53.0 1.9S 127.8E dep 33km mb6.0  
 HALMAHERA, INDONESIA

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 1997-06-25 D 42.5 AZ 85  
 GRA1 01:30:34.0 e P Z T1.1 A27 mb4.9  
 SZGRF: OT 01:22:42.4 36.8N 68.3E dep 33km  
 HINDU KUSH REGION

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 1997-06-25  
 GRA1 02:06:59.7 e PKP Z

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 1997-06-25 D 3.6 403km  
 GRA1 02:46:59.7 e Pn Z M13.8  
 SZGRF: OT 02:46:02.4 51.5N 16.1E dep 1km  
 POLAND

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 1997-06-25  
 GRA1 04:13:50.9 e PKP Z  
 NEIC: OT 03:54:12.0 15.9S 173.2W dep 33km mb5.1  
 TONGA ISLANDS Scalar Moment (PPT):

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 1997-06-25 D 84.1 AZ 43  
 GRA1 10:02:29.2 i P c Z T1.3 A199 mb6.2  
 GRA1 10:12:41.0 e S N  
 GRA1 10:39:54.0 e L Z T20.4 A7755 MS6.1  
 SZGRF: OT 09:50:02.8 33.5N 136.7E dep 33km  
 NEAR S. COAST OF SOUTHERN HONSHU

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 1997-06-25  
 GRA1 19:02:25.7 e (P) Z

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 1997-06-25 D 38.9 AZ 95  
 GRA1 19:46:06.0 i P c Z T1.1 A84 mb5.3  
 GRA1 19:47:35.8 e PP Z

GRA1 19:52:03.5 e S E  
GRA1 20:04:31.9 e L Z T20.0 A7020 MS5.5  
SZGRF: OT 19:38:43.9 33.8N 59.9E dep 33km  
IRAN

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1997-06-26 D 88.0 AZ276  
GRA1 06:25:06.6 e P Z T0.9 A16 mb5.4  
GRA1 06:35:43.2 e S E  
GRA1 06:57:47.1 e L Z T21.3 A1443 MS5.4  
SZGRF: OT 06:12:19.5 5.3N 82.0W dep 33km  
SOUTH OF PANAMA

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1997-06-26 D145.4  
GRA1 19:40:49.2 e PKP Z  
GRA1 20:38:07.5 e L Z T20.9 A3619 MS6.1  
NEIC: OT 19:21:08.6 49.7S 114.3W dep 10km mb5.5  
SOUTHERN EAST PACIFIC RISE

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1997-06-27 D 68.9  
GRA1 01:35:51.8 e P Z  
SZGRF: OT 01:24:50.7 18.5N 89.9E dep 33km  
BAY OF BENGAL

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1997-06-27  
GRA1 03:22:25.5 e P Z  
NEIC: OT 03:11:29.6 39.4N 130.3E dep535km mb4.4  
SEA OF JAPAN

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1997-06-27 D 34.0 AZ262  
GRA1 04:45:56.1 i P d Z T1.6 A415 mb6.1  
GRA1 04:57:44.9 e L Z T19.5 A10540 MS5.6  
SZGRF: OT 04:39:15.6 35.4N 31.5W dep 33km  
AZORES ISLANDS REGION

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1997-06-27  
GRA1 05:22:35.8 e (P) Z T0.7 A7

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1997-06-27 D 29.8 AZ261  
GRA1 17:29:58.5 e P Z T1.2 A30 mb5.0  
SZGRF: OT 17:23:55.0 37.7N 27.0W dep 33km  
AZORES ISLANDS

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1997-06-28 D 1.6 183km  
GRC1 02:45:26.9 e Pn Z M13.6  
GRA1 02:45:37.8 e Pn Z M13.5

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1997-06-28

GRA1 06:39:08.7 e PKP Z  
NEIC: OT 06:19:29.2 16.0S 173.1W dep 33km mb4.6  
TONGA ISLANDS

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1997-06-28 D146.1  
GRA1 08:24:29.8 e PKPdf Z  
GRA1 08:24:38.4 e PKPbc Z  
GRA1 08:24:51.9 e PKPab Z  
SZGRF: OT 08:05:15.3 16.8S 179.5W dep 33km  
FIJI ISLANDS REGION

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1997-06-28 D 40.3 AZ261  
GRA1 13:37:48.6 e P Z T1.3 A24 mb4.6  
GRA1 13:48:13.3 e L Z T18.2 A1279 MS4.8  
NEIC: OT 13:31:44.6 38.3N 26.7W dep 10km mb4.8  
AZORES ISLANDS

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1997-06-28 AZ261  
GRA1 13:38:07.3 e P Z T1.1 A30 mb5.1  
SZGRF: OT 13:31:41.2 36.3N 29.7W dep 33km  
AZORES ISLANDS REGION

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1997-06-28 AZ261  
GRA1 14:12:31.2 e P Z T1.1 A14 mb4.6  
GRA1 14:21:47.3 e L Z T21.6 A473 MS4.3  
SZGRF: OT 14:05:18.4 32.8N 34.7W dep 33km  
NORTH ATLANTIC RIDGE

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1997-06-28  
GRA1 16:43:50.8 e PKP Z

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1997-06-28 D 3.7 408km  
GRA1 19:51:52.8 e Pn Z M14.0  
SZGRF: OT 19:50:55.8 51.7N 16.1E dep 1km  
POLAND

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1997-06-29  
GRA1 01:01:27.2 e PKP Z  
NEIC: OT 00:41:39.7 19.3S 173.3W dep 33km mb4.4  
TONGA ISLANDS

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1997-06-29 AZ261  
GRA1 04:00:05.9 e P Z T1.1 A9 mb4.6  
SZGRF: OT 03:53:34.4 35.7N 30.0W dep 33km  
AZORES ISLANDS REGION

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1997-06-29 D 39.0 AZ261  
GRA1 04:28:42.6 e P Z T1.3 A8 mb4.2

NEIC: OT 04:22:37.2 38.3N 26.8W dep 10km mb4.5  
AZORES ISLANDS

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1997-06-29

GRA1 04:38:40.4 e (P) Z

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1997-06-29 D 51.8

GRC3 07:07:07.6 e P Z

GRA1 07:07:13.3 e P Z T0.8 A2 mb4.0

SZGRF: OT 06:58:02.0 6.1N 46.3E dep 33km

ETHIOPIA

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1997-06-29

GRB3 20:21:21.2 e PKP Z

GRA1 20:21:21.5 e PKP Z

NEIC: OT 20:02:59.6 7.0S 129.8E dep153km mb5.4

BANDA SEA

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1997-06-30

GRA1 07:58:12.4 e PKP Z

NEIC: OT 07:39:19.5 20.5S 178.1W dep514km

FIJI ISLANDS REGION

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1997-06-30

GRA1 12:47:14.0 e PKP Z

NEIC: OT 12:26:32.0 32.5S 178.0W dep 33km mb5.1

SOUTH OF KERMADEC ISLANDS

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1997-06-30

GRA1 16:06:41.7 e PP Z

GRA1 16:12:53.3 e SKS N

GRA1 16:16:06.2 e PS N

GRA1 16:22:19.1 e SS N

GRA1 16:58:17.6 e L Z T18.2 A460 MS5.1

NEIC: OT 15:47:39.5 19.4N 155.1W dep 8km mb5.3

HAWAII

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1997-06-30

AZ266

GRA1 19:09:48.8 e P Z T2.2 A98 mb5.9

GRA1 19:13:34.4 e PP Z

GRA1 19:20:04.4 e SKSac E

GRA1 19:22:06.8 e PS E

GRA1 19:27:13.0 e SS E

GRA1 19:48:29.3 e L Z T21.3 A842 MS5.2

SZGRF: OT 18:56:24.8 6.5S 79.6W dep 33km

NEAR COAST OF NORTHERN PERU

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1997-06-30

D 21.5

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23

GRA1 21:53:06.4 e P Z T0.9 A20 mb4.5  
SZGRF: OT 21:48:19.9 34.9N 32.5E dep 33km  
CYPRUS

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