

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

(produced by SZO/BGR - HANNOVER)

August 2019 UPDATED 19.July 2021

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

Event 90801001 Northern Territory, Australia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/01	01:22:16.00			-19.8600	133.7600				10.0			27		123.52	129.04	m i ke	EMSC
OrigID 90801033																	

Magnitude	Err	Nsta	Author	OrigID
Ms 4.4			BGR	90801007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	125.64		PKP	01:41:18.476	1.2	78.2		2.25		TAS				m_e	
BFO	128.00		PKP	01:41:22.307		78.2		2.25		TAS				m_e	
BRG	123.90		PKP	01:41:15.132	1.1	78.2		2.25		TAS				a_e	
BUG	127.86		PKP	01:41:22.379	-0.7	78.2		2.25		TAS				m_e	
CLL	124.41		PKP	01:41:15.532	0.5	78.2		2.25		TAS				a_e	
CLZ	125.89		PKP	01:41:18.982	0.3	78.2		2.25		TAS				a_e	
FLT1	125.25		PKP	01:41:17.336	0.6	78.2		2.25		TAS				m_e	
FUR	126.11		PKP	01:41:18.982	0.4	78.2		2.25		TAS				a_e	
GEC2	124.40		PKP	01:41:15.684	0.0	78.2		2.25		TAS				m_e	
GOR1	125.05		PKP	01:41:17.382	1.2	78.2		2.25		TAS				a_e	
GRA1	125.84		PKP	01:41:18.906	0.8	78.2		2.25		TAS				m_e	
GRA1	125.84		L	02:45:22.563						T__		101.6	20.80	a_e Ms	4.5
GTTG	126.21		PKP	01:41:19.679	-0.6	78.2		2.25		TAS				m_e	
IBBN	127.32		PKP	01:41:21.632	-0.3	78.2		2.25		TAS				a_e	
KAST	127.23		PKP	01:41:21.117	-0.8	78.2		2.25		TAS				m_e	
MANZ	125.22		PKP	01:41:17.532	-0.4	78.2		2.25		TAS				a_e	
MOX	125.40		PKP	01:41:16.627	0.9	78.2		2.25		TAS				m_e	
MOX	125.40		L	02:50:01.772						T__		80.3	19.20	a_e Ms	4.4
NRDL	125.88		PKP	01:41:19.246	0.8	78.2		2.25		TAS				m_e	
RETH	126.26		PKP	01:41:19.682	0.7	78.2		2.25		TAS				a_e	
RGN	123.52		PKP	01:41:07.882	-4.6	78.2		2.25		TAS				a_e	

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RJOB	125.17	PKP	01:41:17.334	-0.8	78.2	2.25	TAS	m_e
RUE	123.70	PKP	01:41:13.082	-0.2	78.2	2.25	TAS	a_e
STU	127.34	PKP	01:41:21.332	-1.4	78.2	2.25	TAS	a_e
TANN	124.92	PKP	01:41:16.847	0.5	78.2	2.25	TAS	m_e
TNS	127.47	PKP	01:41:21.728	-0.2	78.2	2.25	TAS	m_e
UBBA	126.36	PKP	01:41:19.731	-0.2	78.2	2.25	TAS	m_e
WET	124.89	PKP	01:41:16.932	0.3	78.2	2.25	TAS	m_e
WLF	129.04	PKP	01:41:24.887		78.2	2.25	TAS	m_e

Event 90801009 Northwest of Kuril Islands, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/01	13:52:30.46			46.8500	147.5400				163.9	6.4		26		73.76	78.76	m i ke	BGR
OrigID 90801015																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90801015

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	74.70		P	14:03:52.012	-0.1	29.3		5.65		TAS		21.2	1.08	m_e	mb	5.1
BFO	78.76		P	14:04:14.541		29.3		5.65		TAS		24.4	0.95	m_e	mb	5.2
BRG	74.77		P	14:03:52.443	-0.1	29.3		5.65		TAS		19.0	1.11	m_e	mb	5.0
BUG	76.30		P	14:04:01.188	0.5	29.3		5.65		TAS		47.5	1.26	a_e	mb	5.5
CLL	74.69		P	14:03:51.788	0.4	29.3		5.65		TAS		53.4	1.01	a_e	mb	5.5
CLZ	75.04		P	14:03:54.494	0.4	29.3		5.65		TAS		54.9	1.15	m_e	mb	5.5
FLT1	74.36		P	14:03:49.509	-0.3	29.3		5.65		TAS		42.1	1.14	m_e	mb	5.4
FUR	77.98		P	14:04:10.738		29.3		5.65		TAS		51.5	0.95	a_e	mb	5.6
GEC2	76.59		P	14:04:02.195	0.2	29.3		5.65		TAS		20.3	0.55	m_e	mb	5.5
GOR1	73.76		P	14:03:47.100	-0.1	29.3		5.65		TAS		58.0	1.28	m_e	mb	5.5
GRA1	76.66		P	14:04:03.688	0.1	29.3		5.65		TAS		93.2	1.15	a_e	mb	5.8
GTTG	75.42		P	14:03:56.638	-0.3	29.3		5.65		TAS		40.1	1.01	a_e	mb	5.4
IBBN	75.39		P	14:03:55.894	-0.1	29.3		5.65		TAS		35.2	1.11	m_e	mb	5.3
KAST	76.18		P	14:04:00.788	-0.5	29.3		5.65		TAS		35.8	1.14	a_e	mb	5.4
MANZ	76.13		P	14:04:00.197	0.1	29.3		5.65		TAS		7.7	1.31	m_e	mb	4.7
MOX	75.71		P	14:03:57.756	0.3	29.3		5.65		TAS		42.5	1.30	m_e	mb	5.4
NEUB	75.18		P	14:03:54.716	-0.1	29.3		5.65		TAS		63.6	1.20	m_e	mb	5.5
NRDL	74.55		P	14:03:51.161	-0.1	29.3		5.65		TAS		22.4	1.15	m_e	mb	5.1
NRDL	74.55		pP	14:04:29.718	-0.0					T__					m_e	
RETH	74.55		P	14:03:51.193	-0.0	29.3		5.65		TAS		28.7	1.17	m_e	mb	5.2
RJOB	77.85		P	14:04:10.188	-0.6	29.3		5.65		TAS		25.0	0.89	a_e	mb	5.3
ROTZ	76.28		P	14:04:01.215	0.5	29.3		5.65		TAS		5.1	0.92	m_e	mb	4.6
STU	78.11		P	14:04:11.188		29.3		5.65		TAS		78.8	0.73	a_e	mb	5.9
TANN	75.64		P	14:03:57.343	0.0	29.3		5.65		TAS		45.8	1.78	m_e	mb	5.3
TANN	75.64		pP	14:04:38.709	-0.0					T__					m_e	
TNS	77.05		P	14:04:05.538	-0.2	29.3		5.65		TAS		56.2	1.32	a_e	mb	5.5
UBBA	76.05		P	14:03:59.458	0.1	29.3		5.65		TAS		11.4	0.63	m_e	mb	5.2

WET 76.61 P 14:04:03.388 0.3 29.3 5.65 TAS 55.9 1.15 a\_e mb 5.6

Event 90801010 South Pacific Ocean

Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author
OrigID
2019/08/01 18:26:49.36 -50.5000 -129.5000 33.0 12 153.43 156.98 m i ke BGR
90801016

Magnitude Err Nsta Author OrigID

Table with columns: Sta, Dist, EvAz, Phase, Time, TRes, Azim, AzRes, Slow, SRes, Def, SNR, Amp, Per, Qual, Magnitude. Rows include stations ASSE, BRG, CLL, GEC2, GTTG, KAST, MOX, NEUB, NRDL, TANN, TNS, WET.

Event 90802003 Southwest of Sumatera, Indonesia

Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author
OrigID
2019/08/02 12:03:26.20 -7.2500 104.8200 30.9 4.5 21 96.12 100.01 m i ke EMSC
90802035

Magnitude Err Nsta Author OrigID

mb 6.3 BGR 90802009
MBB 6.7 BGR 90802009
Ms 6.2 BGR 90802009

Table with columns: Sta, Dist, EvAz, Phase, Time, TRes, Azim, AzRes, Slow, SRes, Def, SNR, Amp, Per, Qual, Magnitude. Rows include stations ASSE, BFO, BRG, CLL, CLZ.

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FLT1	97.88	P	12:16:56.816	0.1	92.0	4.40	TAS	204.1	2.57	m_e	MBB	6.8
GEC2	96.14	P	12:16:49.265		92.0	4.40	TAS	311.9	2.47	m_e	MBB	6.8
GRA1	97.80	P	12:16:57.352		92.0	4.40	TAS	344.9	2.46	m_e	MBB	6.9
GRA1	97.80	L	13:13:15.629				T__	8446.9	22.00	a_e	Ms	6.2
GTTG	98.65	P	12:17:00.514	0.4	92.0	4.40	TAS	183.3	2.38	m_e	MBB	6.7
IBBN	100.01	P	12:17:06.606	-0.1	92.0	4.40	TAS	167.4	2.47	m_e	MBB	6.6
KAST	99.62	P	12:17:05.309	-0.4	92.0	4.40	TAS	159.7	2.53	m_e	MBB	6.6
MANZ	97.24	P	12:16:54.684	-0.3	92.0	4.40	TAS	88.5	2.57	m_e	MBB	6.2
MANZ	97.24	pP	12:17:02.446		92.0	4.40	TAS			m_e		
MOX	97.58	P	12:16:56.215	0.2	92.0	4.40	TAS	170.8	2.45	m_e	MBB	6.7
MOX	97.58	L	13:16:00.236				T__	9384.7	19.70	a_e	Ms	6.3
NEUB	97.51	P	12:16:55.715	0.3	92.0	4.40	TAS	374.7	2.64	m_e	MBB	6.8
NEUB	97.51	pP	12:17:05.094		92.0	4.40	TAS			m_e		
NRDL	98.57	P	12:17:00.547	-0.0	92.0	4.40	TAS	232.1	2.48	m_e	MBB	6.8
NRDL	98.57	pP	12:17:09.131		92.0	4.40	TAS			m_e		
RETH	99.03	P	12:17:01.948	-0.1	92.0	4.40	TAS	136.4	2.51	m_e	MBB	6.7
RETH	99.03	pP	12:17:11.749		92.0	4.40	TAS			m_e		
ROTZ	97.17	P	12:16:54.355	-0.3	92.0	4.40	TAS	67.9	2.51	m_e	MBB	6.2
RUE	96.33	P	12:16:50.320	-0.4	92.0	4.40	TAS	118.8	1.60	m_e	MBB	6.9
TANN	97.03	P	12:16:53.420	0.4	92.0	4.40	TAS	182.3	2.56	m_e	MBB	6.7
UBBA	98.61	P	12:17:00.091	0.2	92.0	4.40	TAS	204.9	2.61	m_e	MBB	6.8
WET	96.70	P	12:16:51.923		92.0	4.40	TAS	245.5	2.43	m_e	MBB	6.8

Event 90803001 Western Iran

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/03	00:26:07.00			34.6000	46.4100				10.0					29.81	29.81	m i ke	EMSC
90803033																	

Magnitude Err Nsta Author OrigID  
mb 4.1 BGR 90803007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	29.81		P	00:32:13.088		107.0		10.06		TAS		4.1	1.35	m_e	mb 4.1

Event 90803002 Dodecanese Islands, Greece

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/03	09:51:24.10			35.1200	27.7900				10.0				13	18.96	18.96	m i ke	EMSC
90803034																	

Magnitude Err Nsta Author OrigID  
mb 4.8 BGR 90803008



GRA1 77.00 P 01:38:07.081 86.9 4.74 TAS 7.3 1.08 m\_e mb 4.7

Event 90804003 Near east coast of eastern Honshu, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/04	10:23:03.80			37.8200	141.5400				40.0					81.53	82.44	m i ke	EMSC
OrigID 90804035																	

Magnitude	Err	Nsta	Author	OrigID
mb	6.5		BGR	90804009
Ms	6.5		BGR	90804009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	82.44		P	10:35:22.571		37.5		4.53		TAS		337.1	0.93	m_e mb	6.5
GRA1	82.44		L	11:15:26.883						T__		15560.5	18.80	a_e Ms	6.4
MOX	81.53		L	11:14:48.330						T__		19715.8	18.60	a_e Ms	6.5

Event 90804005 Afghanistan-Tajikistan border region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/04	19:04:53.70			36.6900	71.3600				224.0					44.58	44.58	m i ke	EMSC
OrigID 90804037																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.5		BGR	90804011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	44.58		P	19:12:43.952		83.3		6.99		TAS		60.9	0.94	m_e mb	5.5

Event 90804006 Northern and central Iran

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/04	19:51:17.80			30.6100	50.8300				12.0					35.25	35.32	m i ke	EMSC
OrigID 90804038																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90804012
Ms	4.0		BGR	90804012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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GRA1	35.25	P	19:58:11.278	107.8	9.55	TAS	36.0	0.86	m_e	mb	5.3
GRA1	35.25	L	20:15:59.252			T__	230.1	20.10	a_e	Ms	3.9
MOX	35.32	L	20:16:04.751			T__	247.2	19.20	a_e	Ms	4.0

Event 90805001 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/05	00:40:45.50			1.0400	-27.8400				10.0					58.81	59.64	m i ke	EMSC
OrigID 90805033																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.5		BGR	90805007
Ms	5.3		BGR	90805007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	58.81		P	00:50:41.625		227.4		7.24		TAS		73.9	1.66	m_e	mb	5.5
GRA1	58.81		L	01:13:38.558						T__		2402.0	19.60	a_e	Ms	5.3
MOX	59.64		L	01:15:13.300						T__		2335.5	20.40	a_e	Ms	5.3

Event 90805002 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/05	03:32:21.20			-22.1100	-178.9300				451.0					151.33	151.33	m i ke	EMSC
OrigID 90805034																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	90806007
Ms	4.6		BGR	90806007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	151.33		PKP	03:51:22.882		19.9		1.75		TAS		12.0	0.82	m_e		

Event 90806001 Taiwan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/06	01:19:50.10			23.6400	121.6500				10.0					83.83	84.53	m i ke	EMSC
OrigID 90806033																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	90806007
Ms	4.6		BGR	90806007

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Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	84.53		P	01:32:21.259		59.7		4.83		TAS		10.9	1.14	m_e	mb 5.0
GRA1	84.53		L	02:14:08.523						T__		163.1	18.90	a_e	Ms 4.4
MOX	83.83		L	02:13:43.324						T__		299.7	18.00	a_e	Ms 4.7

Event 90806006 Sakhalin Island, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/06	17:40:45.00			47.7500	143.6900				30.0					73.67	74.62	m i ke	EMSC
OrigID 90806038																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	90806012
Ms	4.1		BGR	90806012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	74.62		P	17:52:22.329		31.1		5.19		TAS		7.0	1.08	m_e	mb 4.6
GRA1	74.62		L	18:32:01.129						T__		105.8	18.10	a_e	Ms 4.2
MOX	73.67		L	18:23:35.253						T__		98.8	20.90	a_e	Ms 4.1

Event 90806007 Costa Rica

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/06	21:14:10.90			10.3600	-84.2700				108.0					85.72	85.72	m i ke	EMSC
OrigID 90806039																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	90806013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	85.72		P	21:26:36.174		280.8		5.20		TAS		7.7	1.02	m_e	mb 4.8

Event 90806008 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/06	22:14:14.60			-17.9100	168.6200				152.0					143.44	143.44	m i ke	EMSC
OrigID 90806040																	

Magnitude	Err	Nsta	Author	OrigID
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Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	143.44		PKP	22:33:27.842		37.9		3.23		TAS		342.8	0.97	m_e	

Event 90807001 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/07	05:32:41.20			-15.5000	167.7000				136.0					140.90	140.90	m i ke	EMSC

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	140.90		PKPdf	05:51:51.941		37.6		1.29		TAS				m_e	

Event 90807002 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/07	07:06:40.80			-25.2900	179.9400				505.0					154.11	154.11	m i ke	EMSC

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	154.11		PKPab	07:25:58.721		23.9		3.71		TAS				m_e	

Event 90807007 Taiwan region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/07	21:28:01.70			24.4000	122.1400				10.0					83.50	84.20	m i ke	EMSC

Magnitude Err Nsta Author OrigID

mb	5.6		BGR	90807013													
Ms	6.1		BGR	90807013													

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	84.20		P	21:40:32.039		58.9		4.77		TAS		40.9	0.95	m_e mb	5.6
GRA1	84.20		L	22:22:06.398						T__		8433.8	20.40	a_e Ms	6.1
MOX	83.50		L	22:21:49.797						T__		8614.6	19.10	a_e Ms	6.1

Event 90808001 Hindu Kush, Afghanistan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/08	00:45:26.40			36.5700	70.2300				228.0					43.92	43.92	m i ke	EMSC

Magnitude	Err	Nsta	Author	OrigID
mb	6.3		BGR	90808007
MBB	6.3		BGR	90808007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	43.92		P	00:53:11.325		84.2		7.24		TAS		832.6	1.43	m_e	MBB 6.3

Event 90808002 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/08	03:37:07.03			-24.2160	-178.7890				33.0				8	150.20	151.62	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
ASSE	151.21		PKPbc	03:56:57.204
BRG	151.62		PKPbc	03:56:58.251
CLL	151.47		PKPbc	03:56:57.588
CLZ	151.54		PKPbc	03:56:58.240
FLT1	150.90		PKPbc	03:56:56.262
GOR1	150.26		PKPbc	03:56:55.087
NRDL	150.96		PKPbc	03:56:56.785
RUE	150.20		PKPbc	03:56:55.097

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	151.21		PKPbc	03:56:57.204	0.1	20.7		2.25		TAS		8.5	1.06	m_e	
BRG	151.62		PKPbc	03:56:58.251		20.7		2.25		TAS		6.9	0.68	m_e	
CLL	151.47		PKPbc	03:56:57.588		20.7		2.25		TAS		12.2	0.81	m_e	
CLZ	151.54		PKPbc	03:56:58.240		20.7		2.25		TAS		7.8	0.77	m_e	
FLT1	150.90		PKPbc	03:56:56.262	-0.2	20.7		2.25		TAS		9.3	0.96	m_e	
GOR1	150.26		PKPbc	03:56:55.087	0.1	20.7		2.25		TAS		26.5	1.28	m_e	
NRDL	150.96		PKPbc	03:56:56.785	-0.3	20.7		2.25		TAS		6.4	0.83	m_e	
RUE	150.20		PKPbc	03:56:55.097	-0.0	20.7		2.25		TAS		14.3	0.60	m_e	

Event 90808004 Aegean Sea

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/08	08:39:08.20			38.0200	26.9000				10.0					16.21	16.66	m i ke	EMSC

Magnitude	Err	Nsta	Author	OrigID
mb	4.4		BGR	90808010
Ms	3.3		BGR	90808010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	16.21		P	08:43:00.424		130.1		10.91		TAS		47.1	1.44	m_e	mb 4.4
GRA1	16.21		L	08:51:20.907						T__		244.9	19.60	a_e	Ms 3.4
MOX	16.66		L	08:49:19.554						T__		153.4	19.00	a_e	Ms 3.2

Event 90808006 Turkey

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/08	11:25:36.72			37.6630	28.8550				30.8	12.0		28		15.49	20.80	m i ke	BGR
OrigID 90808012																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.4		BGR	90808012
Ms	5.4		BGR	90808012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	19.29		P	11:29:58.467	-0.2	126.9		11.04		TAS				m_e	
ASSE	19.29		pP	11:30:04.820		129.2		10.74		TAS				m_e	
ASSE	19.29		S	11:33:42.895	0.9	127.9		21.76		TAS				m_e	
BFO	18.36		P	11:29:50.638	2.9	126.9		11.04		TAS				m_e	
BFO	18.36		S	11:33:24.281	5.3	127.9		21.76		TAS				m_e	
BRG	16.94		P	11:29:33.370	1.0	126.9		11.04		TAS				m_e	
BRG	16.94		pP	11:29:39.694	-0.7	129.2		10.74		TAS				m_e	
BRG	16.94		S	11:32:49.380	-0.8	127.9		21.76		TAS				m_e	
CLL	17.67		P	11:29:40.710	0.3	126.9		11.04		TAS				m_e	
CLL	17.67		S	11:33:06.598	0.4	127.9		21.76		TAS				m_e	
CLZ	19.24		P	11:29:58.338	-0.1	126.9		11.04		TAS				m_e	
CLZ	19.24		pP	11:30:04.582		129.2		10.74		TAS				m_e	
CLZ	19.24		S	11:33:43.127	1.7	127.9		21.76		TAS				m_e	
FLT1	19.17		P	11:29:56.705	-0.2	126.9		11.04		TAS				m_e	
FLT1	19.17		pP	11:30:03.072		129.2		10.74		TAS				m_e	
FLT1	19.17		S	11:33:38.241	-0.5	127.9		21.76		TAS				m_e	
FUR	16.57		P	11:29:30.098	1.1	126.9		11.04		TAS				m_e	
FUR	16.57		pP	11:29:36.297	-0.6	129.2		10.74		TAS				m_e	
FUR	16.57		S	11:32:43.330	0.8	127.9		21.76		TAS				m_e	
GEC2	15.68		P	11:29:19.260	-0.3	126.9		11.04		TAS				m_e	
GEC2	15.68		S	11:32:23.402	-1.1	127.9		21.76		TAS				m_e	
GOR1	19.59		P	11:30:00.985	0.1	126.9		11.04		TAS				m_e	
GOR1	19.59		pP	11:30:07.631		129.2		10.74		TAS				m_e	
GOR1	19.59		S	11:33:47.548	0.7	127.9		21.76		TAS				m_e	
GRA1	17.48		P	11:29:39.298	-0.2	126.9		11.04		TAS		514.6	1.80	m_e	mb 5.4
GRA1	17.48		pP	11:29:46.296	-0.6	129.2		10.74		TAS				m_e	
GRA1	17.48		S	11:33:02.642	-0.9	127.9		21.76		TAS				m_e	
GRA1	17.48		L	11:36:53.145						T__		14920.1	18.22	a_e	Ms 5.3
GTTG	19.25		P	11:29:58.779	0.0	126.9		11.04		TAS				m_e	

GTTG	19.25	S	11:33:43.127	1.2	127.9	21.76	TAS	m_e		
IBBN	20.80	P	11:30:14.832	-1.1	126.9	11.04	TAS	m_e		
IBBN	20.80	pP	11:30:21.802		129.2	10.74	TAS	m_e		
IBBN	20.80	S	11:34:12.212	-3.6	127.9	21.76	TAS	m_e		
KAST	19.82	P	11:30:04.819	-0.5	126.9	11.04	TAS	m_e		
KAST	19.82	S	11:33:54.063	-0.5	127.9	21.76	TAS	m_e		
MANZ	17.21	P	11:29:33.473	-3.0	126.9	11.04	TAS	m_e		
MANZ	17.21	pP	11:29:42.504	0.4	129.2	10.74	TAS	m_e		
MANZ	17.21	S	11:32:56.825	-0.9	127.9	21.76	TAS	m_e		
MOX	17.87	P	11:29:44.261	0.7	126.9	11.04	TAS	m_e		
MOX	17.87	S	11:33:11.251	-0.8	127.9	21.76	TAS	m_e		
MOX	17.87	L	11:38:23.262				T__		26369.6	19.14 a_e Ms 5.5
NEUB	18.15	P	11:29:47.343	0.9	126.9	11.04	TAS	m_e		
NEUB	18.15	pP	11:29:53.561	1.0	129.2	10.74	TAS	m_e		
NEUB	18.15	S	11:33:14.974	-2.8	127.9	21.76	TAS	m_e		
NRDL	19.79	P	11:30:02.515	-1.6	126.9	11.04	TAS	m_e		
NRDL	19.79	S	11:33:54.761	1.9	127.9	21.76	TAS	m_e		
RETH	20.29	P	11:30:09.618	-0.2	126.9	11.04	TAS	m_e		
RETH	20.29	pP	11:30:16.012		129.2	10.74	TAS	m_e		
RETH	20.29	S	11:34:01.741	-2.2	127.9	21.76	TAS	m_e		
RGN	19.95	P	11:30:03.163	2.1	126.9	11.04	TAS	m_e		
RGN	19.95	pP	11:30:09.765		129.2	10.74	TAS	m_e		
RGN	19.95	S	11:33:51.504	3.7	127.9	21.76	TAS	m_e		
RJOB	15.49	P	11:29:18.068	0.8	126.9	11.04	TAS	m_e		
RJOB	15.49	S	11:32:19.442	0.1	127.9	21.76	TAS	m_e		
ROTZ	17.02	P	11:29:30.751	-3.6	126.9	11.04	TAS	m_e		
ROTZ	17.02	pP	11:29:40.464	0.5	129.2	10.74	TAS	m_e		
ROTZ	17.02	S	11:32:54.266	0.6	127.9	21.76	TAS	m_e		
RUE	18.18	P	11:29:46.779	2.5	126.9	11.04	TAS	m_e		
RUE	18.18	S	11:33:13.112	-1.2	127.9	21.76	TAS	m_e		
STU	18.07	P	11:29:46.620	1.3	126.9	11.04	TAS	m_e		
STU	18.07	S	11:33:16.370	1.9	127.9	21.76	TAS	m_e		
TANN	17.31	P	11:29:35.369	-2.0	126.9	11.04	TAS	m_e		
TANN	17.31	pP	11:29:43.512	0.1	129.2	10.74	TAS	m_e		
TANN	17.31	S	11:32:59.617	-0.1	127.9	21.76	TAS	m_e		
TNS	19.25	P	11:29:58.545	-0.4	126.9	11.04	TAS	m_e		
TNS	19.25	S	11:33:43.360	1.7	127.9	21.76	TAS	m_e		
UBBA	18.78	P	11:29:53.490	-0.4	126.9	11.04	TAS	m_e		
UBBA	18.78	pP	11:30:00.116		129.2	10.74	TAS	m_e		
UBBA	18.78	S	11:33:32.890	0.9	127.9	21.76	TAS	m_e		
WET	16.29	P	11:29:26.044	-0.3	126.9	11.04	TAS	m_e		
WET	16.29	S	11:32:35.186	-2.5	127.9	21.76	TAS	m_e		
WLF	20.25	P	11:30:09.721	0.6	126.9	11.04	TAS	m_e		
WLF	20.25	S	11:33:57.321	-3.9	127.9	21.76	TAS	m_e		

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Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/08	18:56:34.57			25.1100	125.2430				33.0					85.34	85.34	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	90808015

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	85.34		P	19:09:07.622		60.8		4.69		TAS		11.6	1.08	m_e mb	5.0

Event 90809001 New Britain, Papua New Guinea, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/09	02:54:37.90			-5.1600	151.2000				129.0				23	122.18	126.62	m i ke	NEIC-M

Magnitude	Err	Nsta	Author	OrigID
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Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	122.98		PKPdf	03:13:17.798	-0.1	50.8		1.85		TAS				m_e	
BFO	126.62		PKPdf	03:13:24.404		50.8		1.85		TAS				m_e	
BRG	122.18		PKPdf	03:13:16.804	0.3	50.8		1.85		TAS				m_e	
BUG	125.00		PKPdf	03:13:21.699	-0.1	50.8		1.85		TAS				m_e	
CLL	122.38		PKPdf	03:13:16.490	0.4	50.8		1.85		TAS				m_e	
CLZ	123.31		PKPdf	03:13:18.844	-0.3	50.8		1.85		TAS				m_e	
FLT1	122.58		PKPdf	03:13:16.906	0.3	50.8		1.85		TAS				m_e	
GEC2	123.52		PKPdf	03:13:18.844		50.8		1.85		TAS				m_e	
GRA1	124.28		PKPdf	03:13:20.256	-0.3	50.8		1.85		TAS				m_e	
GTTG	123.69		PKPdf	03:13:19.609	0.1	50.8		1.85		TAS				m_e	
IBBN	124.18		PKPdf	03:13:20.327	0.2	50.8		1.85		TAS				m_e	
KAST	124.64		PKPdf	03:13:21.257	-0.2	50.8		1.85		TAS				m_e	
MANZ	123.65		PKPdf	03:13:19.367	0.0	50.8		1.85		TAS				m_e	
MOX	123.48		PKPdf	03:13:18.687	-0.0	50.8		1.85		TAS				m_e	
NEUB	123.06		PKPdf	03:13:18.005	0.0	50.8		1.85		TAS				m_e	
NRDL	123.00		PKPdf	03:13:18.216	-0.4	50.8		1.85		TAS				m_e	
RETH	123.17		PKPdf	03:13:18.399	-0.1	50.8		1.85		TAS				m_e	
RJOB	124.66		PKPdf	03:13:20.622		50.8		1.85		TAS				m_e	
ROTZ	123.74		PKPdf	03:13:19.262	0.1	50.8		1.85		TAS				m_e	
STU	125.89		PKPdf	03:13:23.395		50.8		1.85		TAS				m_e	
TANN	123.21		PKPdf	03:13:18.321	-0.0	50.8		1.85		TAS				m_e	
TNS	125.29		PKPdf	03:13:22.549	0.2	50.8		1.85		TAS				m_e	
WET	123.77		PKPdf	03:13:19.471		50.8		1.85		TAS				m_e	

Event 90809002 Qinghai, China

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/09	07:23:54.29			37.1010	101.4320				33.0			21		60.86	65.87	m i ke	BGR
OrigID 90809008																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90809008
Ms	4.0		BGR	90809008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	62.20		P	07:34:10.533	-0.1	63.8		6.67		TAS		20.3	1.42	m_e	mb 5.2
BFO	65.26		P	07:34:30.849		63.8		6.67		TAS		21.5	1.23	m_e	mb 5.2
BRG	60.86		P	07:34:02.475	-0.7	63.8		6.67		TAS		45.3	1.54	m_e	mb 5.1
BUG	64.40		P	07:34:25.510		63.8		6.67		TAS		77.8	1.45	m_e	mb 5.7
CLL	61.23		P	07:34:03.934	-0.7	63.8		6.67		TAS		27.9	1.19	m_e	mb 5.0
CLZ	62.49		P	07:34:13.217	0.2	63.8		6.67		TAS		54.2	1.20	m_e	mb 5.7
FLT1	61.80		P	07:34:07.578	-0.0	63.8		6.67		TAS		39.0	1.23	m_e	mb 5.5
GEC2	61.85		P	07:34:08.813	-0.3	63.8		6.67		TAS		16.7	1.14	m_e	mb 5.2
GRA1	62.95		P	07:34:16.514	-0.0	63.8		6.67		TAS		41.6	1.12	m_e	mb 5.5
GRA1	62.95		L	08:04:16.701						T__		99.5	19.20	a_e	Ms 4.0
GTTG	62.85		P	07:34:15.441	0.1	63.8		6.67		TAS		30.7	0.96	m_e	mb 5.4
IBBN	63.73		P	07:34:21.033		63.8		6.67		TAS		44.4	1.22	m_e	mb 5.6
KAST	63.87		P	07:34:21.987		63.8		6.67		TAS		11.4	1.13	m_e	mb 5.0
MANZ	62.30		P	07:34:11.655	0.3	63.8		6.67		TAS		6.7	1.46	m_e	mb 4.7
MOX	62.30		P	07:34:11.655	0.6	63.8		6.67		TAS		38.0	1.45	m_e	mb 5.4
MOX	62.30		L	08:04:52.479						T__		84.7	20.10	a_e	Ms 3.9
NEUB	61.98		P	07:34:09.226	0.2	63.8		6.67		TAS		39.0	1.11	m_e	mb 5.5
NRDL	62.36		P	07:34:12.436	0.2	63.8		6.67		TAS		62.3	1.20	m_e	mb 5.7
RETH	62.66		P	07:34:14.044	0.4	63.8		6.67		TAS		35.7	1.25	m_e	mb 5.4
ROTZ	62.34		P	07:34:12.360	0.3	63.8		6.67		TAS		5.7	1.09	m_e	mb 4.7
TANN	61.91		P	07:34:09.152	-0.4	63.8		6.67		TAS		17.7	1.24	m_e	mb 5.2
WET	62.21		P	07:34:11.395	-0.1	63.8		6.67		TAS		22.9	1.30	m_e	mb 5.2
WLF	65.87		P	07:34:35.746		63.8		6.67		TAS		65.9	1.30	m_e	mb 5.7

Event 90809005 Tonga Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/09	17:45:54.81			-21.6040	-173.1000				33.0			26		148.86	153.50	m i ke	BGR
OrigID 90809011																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.3		BGR	90809011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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ASSE	149.39	PKPbc	18:05:40.161	-0.2	8.5	2.40	TAS	m_e										
BFO	153.31	PKPab	18:05:59.731		8.7	4.10	TAS	m_e										
BRG	150.27	PKPbc	18:05:42.853	0.1	8.5	2.40	TAS	m_e										
BUG	150.22	PKPbc	18:05:42.231	-0.0	8.5	2.40	TAS	m_e										
CLL	149.97	PKPbc	18:05:41.382	-0.2	8.5	2.40	TAS	m_e										
CLZ	149.70	PKPbc	18:05:41.032	-0.1	8.5	2.40	TAS	m_e										
FLT1	149.15	PKPbc	18:05:39.249	0.0	8.5	2.40	TAS	m_e										
GEC2	152.28	PKPbc	18:05:46.831		8.5	2.40	TAS	m_e										
GEC2	152.28	PKPab	18:05:55.058		8.7	4.10	TAS	m_e										
GRA1	151.76	PKPbc	18:05:46.043	-0.4	8.5	2.40	TAS	m_e										
GRA1	151.76	PKPab	18:05:53.518		8.7	4.10	TAS	m_e										
GRA1	151.76	L	19:14:20.229				T__		529.9	20.70	a_e Ms						5.3	
GTTG	150.02	PKPbc	18:05:41.639	-0.1	8.5	2.40	TAS	m_e										
IBBN	149.34	PKPbc	18:05:40.060	0.0	8.5	2.40	TAS	m_e										
KAST	150.43	PKPbc	18:05:42.785	0.1	8.5	2.40	TAS	m_e										
LUEB	149.33	PKPbc	18:05:40.070	0.1	8.5	2.40	TAS	m_e										
MANZ	151.38	PKPbc	18:05:44.978	-0.0	8.5	2.40	TAS	m_e										
MILB	151.77	PKPbc	18:05:45.899		8.5	2.40	TAS	m_e										
MILB	151.77	PKPab	18:05:53.307		8.7	4.10	TAS	m_e										
MOX	150.78	PKPbc	18:05:43.536	0.1	8.5	2.40	TAS	m_e										
MOX	150.78	L	19:13:50.464				T__		540.5	20.40	a_e Ms						5.3	
NEUB	150.22	PKPbc	18:05:42.023	-0.1	8.5	2.40	TAS	m_e										
NRDL	149.06	PKPbc	18:05:39.868	-0.2	8.5	2.40	TAS	m_e										
POSS	150.17	PKPbc	18:05:41.973	0.5	8.5	2.40	TAS	m_e										
RETH	148.86	PKPbc	18:05:38.852	-0.1	8.5	2.40	TAS	m_e										
RJOB	153.50	PKPab	18:06:00.628		8.7	4.10	TAS	m_e										
ROTZ	151.58	PKPbc	18:05:45.411	-0.1	8.5	2.40	TAS	m_e										
TANN	150.91	PKPbc	18:05:43.918	0.2	8.5	2.40	TAS	m_e										
TANN	150.91	PKPab	18:05:49.660		8.7	4.10	TAS	m_e										
TNS	151.41	PKPbc	18:05:45.221	0.2	8.5	2.40	TAS	m_e										
TNS	151.41	PKPab	18:05:52.231		8.7	4.10	TAS	m_e										
UBBA	150.74	PKPbc	18:05:43.356	0.1	8.5	2.40	TAS	m_e										
WET	152.11	PKPbc	18:05:46.621		8.5	2.40	TAS	m_e										
WET	152.11	PKPab	18:05:54.872		8.7	4.10	TAS	m_e										
WIMM	149.92	PKPbc	18:05:41.438	-0.0	8.5	2.40	TAS	m_e										
WLF	151.99	PKPbc	18:05:46.996		8.5	2.40	TAS	m_e										
WLF	151.99	PKPab	18:05:54.746		8.7	4.10	TAS	m_e										

Event 90809006 Near east coast of Kamchatka Peninsula, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/09	21:27:00.43			56.7800	162.6000				42.1	3.4		26		68.14	73.09	m i ke	BGR
	90809012																

Magnitude	Err	Nsta	Author	OrigID
mb	5.5		BGR	90809012

MBB 5.7 BGR 90809012  
Ms 4.8 BGR 90809012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	69.03		P	21:38:02.024	0.2	16.2		6.09		TAS		55.3	1.42	a_e	mb	5.6
ASSE	69.03		pP	21:38:13.712						T__					m_e	
BFO	73.09		P	21:38:26.274		16.2		6.09		TAS		35.4	1.21	a_e	mb	5.4
BRG	69.63		P	21:38:05.874	0.2	16.2		6.09		TAS		39.7	1.26	a_e	MBB	5.6
BUG	70.24		P	21:38:09.224	0.3	16.2		6.09		TAS		45.9	1.25	a_e	MBB	5.7
CLL	69.40		P	21:38:03.774	0.2	16.2		6.09		TAS		90.1	1.29	a_e	MBB	5.9
CLL	69.40		pP	21:38:16.679						T__					m_e	
CLL	69.40		sP	21:38:20.740	-0.2	16.5		6.27		TAS					m_e	
FLT1	68.73		P	21:37:59.624	0.1	16.2		6.09		TAS		35.2	1.32	a_e	MBB	5.8
FLT1	68.73		pP	21:38:11.695						T__					m_e	
FLT1	68.73		sP	21:38:16.306	0.2	16.5		6.27		TAS					m_e	
FUR	72.73		P	21:38:24.324		16.2		6.09		TAS		94.5	1.45	a_e	MBB	5.9
GEC2	71.61		P	21:38:17.674	-0.2	16.2		6.09		TAS		45.2	1.27	a_e	MBB	5.6
GEC2	71.61		sP	21:38:34.311		16.5		6.27		TAS					m_e	
GEC2	71.61		PcP	21:38:36.849						T__					m_e	
GRA1	71.27		S	21:47:35.437						T__					m_e	
GRA1	71.27		P	21:38:16.074	0.4	16.2		6.09		TAS		196.3	1.67	a_e	MBB	5.9
GRA1	71.27		PcP	21:38:35.350						T__					m_e	
GRA1	71.27		L	22:12:47.273						T__		524.7	21.70	a_e	Ms	4.8
GTTG	69.71		P	21:38:06.324	-0.0	16.2		6.09		TAS		42.3	1.43	a_e	MBB	5.6
IBBN	69.33		P	21:38:03.924	-0.2	16.2		6.09		TAS		60.8	1.25	a_e	mb	5.7
KAST	70.29		P	21:38:09.924	-0.0	16.2		6.09		TAS		33.5	1.27	a_e	MBB	5.6
MANZ	70.83		P	21:38:12.924	0.4	16.2		6.09		TAS		12.7	1.42	m_e	MBB	5.0
MANZ	70.83		sP	21:38:29.594		16.5		6.27		TAS					m_e	
MOX	70.29		S	21:47:25.274						T__					m_e	
MOX	70.29		P	21:38:09.674	0.1	16.2		6.09		TAS		62.2	1.31	a_e	MBB	5.8
MOX	70.29		L	22:12:39.967						T__		513.3	21.50	a_e	Ms	4.7
NEUB	69.73		P	21:38:06.024	0.0	16.2		6.09		TAS		156.7	1.94	a_e	MBB	5.9
NRDL	68.77		P	21:38:00.324	-0.5	16.2		6.09		TAS		26.1	1.19	a_e	MBB	5.9
RETH	68.66		P	21:37:59.824	-0.1	16.2		6.09		TAS		65.9	1.60	a_e	MBB	5.9
RJOB	72.85		P	21:38:25.374		16.2		6.09		TAS		23.1	0.99	a_e	MBB	5.8
ROTZ	71.02		P	21:38:14.324	0.2	16.2		6.09		TAS		23.9	1.64	a_e	MBB	5.1
ROTZ	71.02		sP	21:38:31.133		16.5		6.27		TAS					m_e	
RUE	68.14		P	21:37:56.374	-0.6	16.2		6.09		TAS		112.4	1.41	a_e	mb	5.9
RUE	68.14		sP	21:38:13.044	0.0	16.5		6.27		TAS					m_e	
STU	72.52		P	21:38:22.924	-0.4	16.2		6.09		TAS		58.1	1.17	a_e	mb	5.6
TANN	70.35		P	21:38:10.174	0.0	16.2		6.09		TAS		37.7	1.31	a_e	MBB	5.8
TNS	71.24		P	21:38:15.574	-0.0	16.2		6.09		TAS		67.3	1.61	a_e	MBB	5.8
TNS	71.24		sP	21:38:32.577		16.5		6.27		TAS					m_e	
TNS	71.24		PcP	21:38:34.714						T__					m_e	
UBBA	70.40		P	21:38:10.374	0.2	16.2		6.09		TAS		18.4	1.04	a_e	mb	5.2
WET	71.49		P	21:38:17.324	-0.3	16.2		6.09		TAS		68.5	1.34	a_e	MBB	5.7
WET	71.49		sP	21:38:33.929		16.5		6.27		TAS					m_e	
WLF	72.14		sP	21:38:37.779		16.5		6.27		TAS					m_e	



Event 90809007 Near east coast of Kamchatka Peninsula, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/09	22:35:53.36			56.0900	161.5500				73.6	2.2		22		68.58	73.57	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	5.1		BGR	90809013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	69.50		P	22:46:53.409	0.3	17.1		6.06		TAS		20.2	1.13	m_e mb	5.2
BFO	73.57		P	22:47:17.552		17.1		6.06		TAS		10.4	0.83	m_e mb	4.9
BRG	70.07		P	22:46:56.950	0.3	17.1		6.06		TAS		7.0	0.65	m_e mb	4.9
BUG	70.74		P	22:47:00.767	0.2	17.1		6.06		TAS		30.8	1.17	m_e mb	5.3
CLL	69.84		P	22:46:55.081	-0.0	17.1		6.06		TAS		35.4	1.20	m_e mb	5.4
CLL	69.84		pP	22:47:14.045						T__				m_e	
FLT1	69.20		P	22:46:51.123	-0.3	17.1		6.06		TAS		37.7	1.78	m_e mb	5.3
FLT1	69.20		pP	22:47:11.074						T__				m_e	
GEC2	72.05		P	22:47:08.561		17.1		6.06		TAS		7.0	0.66	m_e mb	4.9
GRA1	71.73		P	22:47:07.300	-0.0	17.1		6.06		TAS		15.9	0.76	m_e mb	5.2
GTTG	70.18		P	22:46:57.761	-0.2	17.1		6.06		TAS		28.9	1.38	m_e mb	5.2
KAST	70.78		P	22:47:01.380	0.1	17.1		6.06		TAS		25.1	1.34	m_e mb	5.2
MANZ	71.28		P	22:47:04.125	-0.1	17.1		6.06		TAS		4.6	1.50	m_e mb	4.4
MOX	70.74		P	22:47:00.951	0.1	17.1		6.06		TAS		26.1	1.26	m_e mb	5.2
NEUB	70.19		P	22:46:57.349	0.1	17.1		6.06		TAS		12.9	0.63	m_e mb	5.2
NRDL	69.25		P	22:46:51.678	0.1	17.1		6.06		TAS		42.4	1.71	m_e mb	5.4
RJOB	73.29		P	22:47:16.222		17.1		6.06		TAS		11.9	0.97	m_e mb	5.0
ROTZ	71.47		P	22:47:05.343	-0.3	17.1		6.06		TAS		3.3	1.19	m_e mb	4.3
RUE	68.58		P	22:46:47.733	0.3	17.1		6.06		TAS		58.8	1.41	m_e mb	5.6
STU	72.99		P	22:47:14.183		17.1		6.06		TAS		64.5	1.33	m_e mb	5.6
TANN	70.80		P	22:47:01.299	0.4	17.1		6.06		TAS		22.7	1.64	m_e mb	5.0
TNS	71.72		P	22:47:07.038	0.3	17.1		6.06		TAS		39.9	1.53	m_e mb	5.3
UBBA	70.88		P	22:47:01.663	0.0	17.1		6.06		TAS		46.8	1.77	m_e mb	5.3
WET	71.93		P	22:47:08.300		17.1		6.06		TAS		9.5	0.85	m_e mb	5.0

Event 90810003 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/10	03:41:18.75			6.5970	-36.8490				33.0					58.81	58.81	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	90810009

Ms 4.5 BGR 90810009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	58.81		S	03:59:27.080						T__				m_e	
GRA1	58.81		P	03:51:14.643		237.2		6.75		TAS		23.5	1.06	m_e mb	5.2
GRA1	58.81		L	04:11:48.221						T__		350.4	20.50	a_e Ms	4.5

Event 90810004 Tajikistan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/10	06:43:11.86			37.3800	72.1900				113.8	1.1		27		42.82	47.95	m i ke	BGR
OrigID 90810010																	

Magnitude Err Nsta Author OrigID  
mb 4.9 BGR 90810010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	46.81		pP	06:51:55.473	-0.4	83.8		7.92		TAS				m_e	
BRG	42.84		P	06:50:59.017	-0.1	82.9		7.95		TAS		22.1	0.74	m_e mb	5.0
BRG	42.84		pP	06:51:25.166	0.3	83.8		7.92		TAS				m_e	
BUG	46.94		P	06:51:30.981	-0.2	82.9		7.95		TAS		24.0	1.11	m_e mb	5.2
BUG	46.94		pP	06:51:57.331	-0.1	83.8		7.92		TAS				m_e	
CLL	43.39		P	06:51:02.411	0.4	82.9		7.95		TAS		15.7	0.71	m_e mb	4.8
CLL	43.39		pP	06:51:28.682	-0.6	83.8		7.92		TAS				m_e	
FLT1	44.39		P	06:51:10.386	-0.1	82.9		7.95		TAS		51.2	0.73	m_e mb	5.3
FLT1	44.39		pP	06:51:36.557	-0.6	83.8		7.92		TAS				m_e	
FUR	44.90		P	06:51:14.928		82.9		7.95		TAS		84.2	1.47	m_e mb	5.5
FUR	44.90		pP	06:51:41.094	0.5	83.8		7.92		TAS				m_e	
GEC2	43.21		P	06:51:01.050	-0.2	82.9		7.95		TAS		3.9	0.69	m_e mb	4.2
GEC2	43.21		pP	06:51:27.182	-0.1	83.8		7.92		TAS				m_e	
GOR1	44.29		pP	06:51:36.656	0.4	83.8		7.92		TAS				m_e	
GRA1	44.70		P	06:51:14.047	-0.2	82.9		7.95		TAS		61.8	1.44	m_e mb	5.3
GRA1	44.70		pP	06:51:40.218	0.7	83.8		7.92		TAS				m_e	
GTTG	45.25		P	06:51:17.890	-0.3	82.9		7.95		TAS		38.5	0.94	m_e mb	5.3
GTTG	45.25		pP	06:51:44.306	0.2	83.8		7.92		TAS				m_e	
IBBN	46.51		P	06:51:27.819	0.2	82.9		7.95		TAS		29.2	0.75	m_e mb	5.5
IBBN	46.51		pP	06:51:54.104	0.1	83.8		7.92		TAS				m_e	
KAST	46.26		P	06:51:25.472	-0.4	82.9		7.95		TAS		5.4	0.81	m_e mb	4.6
KAST	46.26		pP	06:51:51.785	-0.3	83.8		7.92		TAS				m_e	
MANZ	44.10		P	06:51:08.876	0.7	82.9		7.95		TAS		2.1	0.92	m_e mb	3.9
MANZ	44.10		pP	06:51:35.043	0.3	83.8		7.92		TAS				m_e	
MOX	44.33		P	06:51:10.367	0.3	82.9		7.95		TAS		9.5	0.69	m_e mb	4.6
MOX	44.33		pP	06:51:36.621	-0.1	83.8		7.92		TAS				m_e	
NEUB	44.17		P	06:51:08.913	-0.1	82.9		7.95		TAS		31.6	0.81	m_e mb	5.1
NEUB	44.17		pP	06:51:35.115	-0.4	83.8		7.92		TAS				m_e	
NRDL	45.06		P	06:51:16.443	0.3	82.9		7.95		TAS		17.1	0.81	m_e mb	5.0

NRDL	45.06	pP	06:51:42.817	0.3	83.8	7.92	TAS											m_e	
RETH	45.48	P	06:51:19.710	-0.4	82.9	7.95	TAS			8.8	0.86	m_e	mb						4.7
RETH	45.48	pP	06:51:46.027	0.2	83.8	7.92	TAS											m_e	
RGN	43.01	pP	06:51:26.530	0.9	83.8	7.92	TAS											m_e	
RJOB	43.96	P	06:51:06.703		82.9	7.95	TAS			5.7	0.60	m_e	mb						4.5
ROTZ	44.06	P	06:51:08.680	-0.1	82.9	7.95	TAS			3.0	1.04	m_e	mb						4.0
ROTZ	44.06	pP	06:51:34.865	0.4	83.8	7.92	TAS											m_e	
RUE	42.82	P	06:50:57.877	-0.3	82.9	7.95	TAS			51.9	1.24	m_e	mb						5.1
RUE	42.82	pP	06:51:23.980	-0.8	83.8	7.92	TAS											m_e	
STU	46.16	P	06:51:24.641		82.9	7.95	TAS			59.4	1.31	m_e	mb						5.5
STU	46.16	pP	06:51:50.902	0.0	83.8	7.92	TAS											m_e	
TANN	43.82	P	06:51:06.330	0.4	82.9	7.95	TAS			11.4	1.18	m_e	mb						4.5
TANN	43.82	pP	06:51:32.544	-0.1	83.8	7.92	TAS											m_e	
TNS	46.40	P	06:51:26.636	-0.1	82.9	7.95	TAS			8.9	0.82	m_e	mb						4.8
TNS	46.40	pP	06:51:53.096	0.0	83.8	7.92	TAS											m_e	
UBBA	45.33	P	06:51:17.956	-0.2	82.9	7.95	TAS			9.4	0.53	m_e	mb						5.0
UBBA	45.33	pP	06:51:44.277	-0.4	83.8	7.92	TAS											m_e	
WET	43.71	P	06:51:05.260	0.3	82.9	7.95	TAS			4.7	0.98	m_e	mb						4.2
WET	43.71	pP	06:51:31.387	-0.0	83.8	7.92	TAS											m_e	
WLF	47.95	P	06:51:39.093	-0.2	82.9	7.95	TAS			31.8	0.80	m_e	mb						5.5
WLF	47.95	pP	06:52:05.568	0.2	83.8	7.92	TAS											m_e	

Event 90810006 Southern Sumatera, Indonesia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/10	21:11:14.99			-0.7500	98.1600				47.6	0.3		28		86.90	91.87	m i ke	BGR
OrigID 90810012																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.7		BGR	90810012
MBB	6.0		BGR	90810012
Ms	4.3		BGR	90810012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	89.04		P	21:24:04.646	-0.2	92.9		4.70		TAS		70.0	1.05	a_e	MBB 5.9
ASSE	89.04		pP	21:24:18.577	0.2	92.1		4.73		TAS				a_e	
BFO	90.44		P	21:24:11.096	-0.3	92.9		4.70		TAS		37.3	0.88	a_e	MBB 6.0
BRG	86.92		P	21:23:55.546	0.7	92.9		4.70		TAS		32.3	0.92	a_e	MBB 5.8
BUG	91.14		P	21:24:14.646	-0.1	92.9		4.70		TAS		29.1	1.04	a_e	MBB 5.9
BUG	91.14		pP	21:24:28.577		92.1		4.73		TAS				a_e	
CLL	87.54		P	21:23:57.396	-0.4	92.9		4.70		TAS		53.4	1.10	a_e	MBB 6.1
CLL	87.54		pP	21:24:11.327	0.3	92.1		4.73		TAS				a_e	
FLT1	88.70		P	21:24:02.396	-0.9	92.9		4.70		TAS		35.6	0.91	a_e	MBB 5.8
FLT1	88.70		pP	21:24:16.327	0.1	92.1		4.73		TAS				a_e	
FUR	88.47		P	21:24:01.846	-0.3	92.9		4.70		TAS		54.6	1.18	a_e	MBB 6.0
FUR	88.47		pP	21:24:15.777	0.4	92.1		4.73		TAS				a_e	

GEC2	86.90	P	21:23:54.946	0.2	92.9	4.70	TAS	139.8	1.51	m_e	MBB	5.9
GEC2	86.90	pP	21:24:08.877	0.1	92.1	4.73	TAS			a_e		
GOR1	88.69	P	21:24:03.096	-0.1	92.9	4.70	TAS	85.1	1.21	a_e	MBB	6.1
GOR1	88.69	pP	21:24:17.027	-0.3	92.1	4.73	TAS			a_e		
GRA1	88.58	P	21:24:03.146	0.5	92.9	4.70	TAS	62.2	0.98	a_e	MBB	6.0
GRA1	88.58	pP	21:24:17.027	0.0	92.1	4.73	TAS			m_e		
GRA1	88.58	L	22:17:29.584				T__	103.6	19.30	a_e	Ms	4.3
GTTG	89.46	P	21:24:06.796	-0.0	92.9	4.70	TAS	67.1	1.00	a_e	MBB	6.0
GTTG	89.46	pP	21:24:20.727		92.1	4.73	TAS			a_e		
IBBN	90.84	P	21:24:13.346	0.1	92.9	4.70	TAS	57.4	1.41	a_e	mb	5.7
IBBN	90.84	pP	21:24:27.327		92.1	4.73	TAS			a_e		
KAST	90.42	P	21:24:11.396	0.1	92.9	4.70	TAS	35.0	0.97	a_e	MBB	5.8
KAST	90.42	pP	21:24:25.327		92.1	4.73	TAS			a_e		
MANZ	88.02	P	21:24:00.596	0.6	92.9	4.70	TAS	16.0	1.02	a_e	MBB	5.5
MANZ	88.02	pP	21:24:14.477	0.1	92.1	4.73	TAS			a_e		
MOX	88.38	P	21:24:01.797	0.1	92.9	4.70	TAS	106.1	1.56	m_e	MBB	6.0
MOX	88.38	L	22:06:57.854				T__	118.1	21.60	a_e	Ms	4.3
NEUB	88.31	P	21:24:01.246	-0.2	92.9	4.70	TAS	94.0	0.92	a_e	MBB	6.3
NRDL	89.40	P	21:24:06.846	0.3	92.9	4.70	TAS	105.5	1.22	a_e	MBB	6.2
NRDL	89.40	pP	21:24:20.777	-0.1	92.1	4.73	TAS			a_e		
RETH	89.86	P	21:24:08.696	-0.0	92.9	4.70	TAS	70.3	1.39	a_e	MBB	6.0
RGN	87.60	P	21:23:58.096	0.0	92.9	4.70	TAS	283.7	1.33	a_e	MBB	6.6
RJOB	87.42	P	21:23:56.403	-0.8	92.9	4.70	TAS	16.8	0.93	m_e	MBB	5.6
ROTZ	87.94	P	21:24:00.096	0.4	92.9	4.70	TAS	7.5	0.92	a_e	MBB	5.3
ROTZ	87.94	pP	21:24:13.977	0.4	92.1	4.73	TAS			a_e		
RUE	87.16	P	21:23:55.846	-0.1	92.9	4.70	TAS	272.1	1.20	a_e	MBB	6.4
RUE	87.16	pP	21:24:09.727	0.0	92.1	4.73	TAS			a_e		
STU	89.88	P	21:24:08.696	-0.1	92.9	4.70	TAS	68.5	0.82	a_e	MBB	6.3
STU	89.88	pP	21:24:22.577		92.1	4.73	TAS			a_e		
TANN	87.82	P	21:23:59.196	0.1	92.9	4.70	TAS	50.7	1.46	a_e	MBB	5.7
TANN	87.82	pP	21:24:13.027	-0.5	92.1	4.73	TAS			a_e		
TNS	90.39	P	21:24:11.396	0.2	92.9	4.70	TAS	70.9	0.93	a_e	MBB	6.0
UBBA	89.41	P	21:24:06.596	0.0	92.9	4.70	TAS	21.3	0.82	a_e	MBB	5.9
WET	87.47	P	21:23:57.546	0.1	92.9	4.70	TAS	33.2	0.88	a_e	MBB	5.6
WET	87.47	pP	21:24:11.427	-0.0	92.1	4.73	TAS			a_e		
WLF	91.87	P	21:24:18.346	0.2	92.9	4.70	TAS	38.0	1.13	a_e	mb	5.6

Event 90810007 Fox Islands, Aleutian Islands, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/10	21:39:06.89			53.7000	-167.3800				33.0			25		73.67	78.94	m i ke	BGR
90810013																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	90810013
Ms	4.1		BGR	90810013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	78.28		P	21:51:03.790		359.2		5.68		TAS		19.2	1.14	a_e mb	5.1
BRG	75.79		P	21:50:50.240	0.0	359.2		5.68		TAS		11.0	1.00	a_e mb	4.9
BUG	75.14		P	21:50:45.890	0.1	359.2		5.68		TAS		23.7	1.01	a_e mb	5.2
CLL	75.37		P	21:50:46.990	-0.1	359.2		5.68		TAS		14.6	1.10	a_e mb	4.9
FLT1	74.33		P	21:50:41.009	0.3	359.2		5.68		TAS		12.3	0.94	m_e mb	4.9
FUR	78.51		P	21:51:05.290		359.2		5.68		TAS		36.8	1.21	a_e mb	5.3
GEC2	77.83		P	21:51:01.240	-0.0	359.2		5.68		TAS		13.1	0.93	m_e mb	5.0
GOR1	73.67		P	21:50:37.939	0.0	359.2		5.68		TAS		20.4	1.23	m_e mb	5.0
GRA1	76.98		P	21:50:57.040	-0.2	359.2		5.68		TAS		23.4	0.88	a_e mb	5.3
GRA1	76.98		L	22:17:29.545						T__		103.6	19.30	a_e Ms	4.2
GTTG	75.10		P	21:50:46.240	-0.4	359.2		5.68		TAS		34.0	1.08	a_e mb	5.3
IBBN	74.29		P	21:50:41.440	-0.6	359.2		5.68		TAS		31.2	1.00	a_e mb	5.3
KAST	75.41		P	21:50:47.799	0.4	359.2		5.68		TAS		10.0	1.03	m_e mb	4.8
MANZ	76.69		P	21:50:54.940	0.4	359.2		5.68		TAS		1.8	1.08	a_e mb	4.1
MOX	76.03		P	21:50:51.240	0.2	359.2		5.68		TAS		19.8	1.06	a_e mb	5.2
MOX	76.03		L	22:25:35.578						T__		92.3	19.20	a_e Ms	4.1
NEUB	75.48		P	21:50:48.040	-0.0	359.2		5.68		TAS		16.4	0.55	a_e mb	5.3
NRDL	74.16		P	21:50:40.550	-0.1	359.2		5.68		TAS		11.0	0.89	m_e mb	4.9
RETH	73.90		P	21:50:39.130	-0.0	359.2		5.68		TAS		17.5	1.08	m_e mb	5.0
RJOB	78.94		P	21:51:07.490		359.2		5.68		TAS		18.1	0.86	a_e mb	5.1
ROTZ	76.91		P	21:50:56.440	-0.2	359.2		5.68		TAS		4.8	1.37	a_e mb	4.4
RUE	74.19		P	21:50:40.640	0.2	359.2		5.68		TAS		40.2	1.28	a_e mb	5.3
STU	77.86		P	21:51:01.440	-0.3	359.2		5.68		TAS		29.6	0.78	a_e mb	5.5
TANN	76.26		P	21:50:52.640	-0.0	359.2		5.68		TAS		7.8	1.09	a_e mb	4.8
TNS	76.39		P	21:50:53.454	0.2	359.2		5.68		TAS		11.5	0.85	m_e mb	5.0
UBBA	75.83		P	21:50:50.090	0.1	359.2		5.68		TAS		33.4	1.75	a_e mb	5.2
WET	77.53		P	21:50:59.990	-0.2	359.2		5.68		TAS		15.5	1.18	a_e mb	5.0

Event 90810008 Off east coast of Kamchatka Peninsula, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/10	23:17:28.30		52.8910	159.9640					33.0					74.42	74.42	m i ke	BGR
90810014																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	90810014
Ms	4.5		BGR	90810014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	74.42		S	23:38:52.309						T__				m_e	
GRA1	74.42		P	23:29:01.427		20.2		5.09		TAS		12.1	1.16	m_e mb	4.8
GRA1	74.42		L	00:02:26.806						T__		241.4	21.70	a_e Ms	4.5

Event 90811001 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/11	01:55:27.21			-18.5000	-177.7200				500.0			19		144.87	149.84	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
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Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	145.80		PKPbc	02:14:09.022	0.7	14.9		2.73		TAS					m_e
BFO	149.84		PKPbc	02:14:19.636		14.9		2.73		TAS					m_e
BRG	146.39		PKPbc	02:14:11.482	0.1	14.9		2.73		TAS					m_e
CLL	146.18		PKPbc	02:14:10.077	0.1	14.9		2.73		TAS					m_e
FLT1	145.51		PKPbc	02:14:07.898	-0.1	14.9		2.73		TAS					m_e
FUR	149.52		PKPbc	02:14:18.933		14.9		2.73		TAS					m_e
GEC2	148.35		PKPbc	02:14:15.981		14.9		2.73		TAS					m_e
GOR1	144.87		PKPbc	02:14:06.379	-0.6	14.9		2.73		TAS					m_e
GTTG	146.47		PKPbc	02:14:11.061	0.3	14.9		2.73		TAS					m_e
MANZ	147.61		PKPbc	02:14:14.364	-0.3	14.9		2.73		TAS					m_e
MOX	147.08		PKPbc	02:14:12.677	-0.3	14.9		2.73		TAS					m_e
NEUB	146.52		PKPbc	02:14:11.131	0.3	14.9		2.73		TAS					m_e
NRDL	145.53		PKPbc	02:14:08.184	-0.0	14.9		2.73		TAS					m_e
ROTZ	147.80		PKPbc	02:14:14.856	-0.5	14.9		2.73		TAS					m_e
RUE	144.92		PKPbc	02:14:06.122	-0.1	14.9		2.73		TAS					m_e
STU	149.29		PKPbc	02:14:18.441		14.9		2.73		TAS					m_e
TANN	147.13		PKPbc	02:14:13.029	0.3	14.9		2.73		TAS					m_e
TNS	147.97		PKPbc	02:14:15.137		14.9		2.73		TAS					m_e
WLF	148.75		PKPbc	02:14:17.668		14.9		2.73		TAS					m_e

Event 90811002 Xizang

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/11	02:13:32.94			30.3360	94.3330				33.0					63.29	63.29	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
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mb	5.1		BGR	90811008
Ms	4.2		BGR	90811008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	63.29		P	02:23:57.716		79.3		6.20		TAS		18.2	1.22	m_e mb	5.1
GRA1	63.29		L	03:16:27.529						T__		160.5	21.20	a_e Ms	4.2

Event 90811003 Eastern Mediterranean Sea

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/11	07:02:29.14			32.6900	26.8300				25.8	6.9		21		18.41	23.99	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	90811009
Ms	4.4		BGR	90811009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	22.70		P	07:07:28.452	-0.1	142.8		10.62		TAS		40.5	0.91	m_e	mb	5.0
BRG	20.50		P	07:07:06.664	0.6	142.8		10.62		TAS		31.3	0.86	m_e	mb	4.6
BRG	20.50		pP	07:07:12.166		141.8		12.01		TAS				m_e		
BUG	23.57		P	07:07:38.017		142.8		10.62		TAS		72.1	0.93	m_e	mb	5.2
CLL	21.19		P	07:07:12.840	0.2	142.8		10.62		TAS		35.7	0.81	m_e	mb	4.7
CLL	21.19		pP	07:07:20.455		141.8		12.01		TAS				m_e		
FLT1	22.65		P	07:07:27.739	0.5	142.8		10.62		TAS		170.3	0.88	m_e	mb	5.6
FUR	19.41		P	07:06:53.669	0.6	142.8		10.62		TAS		209.0	0.95	m_e	mb	5.3
FUR	19.41		pP	07:06:59.223	-0.9	141.8		12.01		TAS				m_e		
GEC2	18.91		P	07:06:47.960	-0.8	142.8		10.62		TAS		122.8	0.85	m_e	mb	5.2
GEC2	18.91		pP	07:06:53.274	0.8	141.8		12.01		TAS				m_e		
GOR1	23.17		P	07:07:33.067		142.8		10.62		TAS		65.7	1.11	m_e	mb	5.1
GRA1	20.58		P	07:07:05.758	1.2	142.8		10.62		TAS		103.2	0.90	m_e	mb	5.2
GRA1	20.58		pP	07:07:12.591		141.8		12.01		TAS				m_e		
GRA1	20.58		L	07:15:58.575						T__		1263.0	19.60	a_e	Ms	4.3
GTTG	22.52		P	07:07:27.210	-0.8	142.8		10.62		TAS		444.4	0.95	m_e	mb	6.0
IBBN	23.99		P	07:07:42.435		142.8		10.62		TAS		81.3	1.04	m_e	mb	5.2
KAST	22.90		P	07:07:30.865		142.8		10.62		TAS		79.9	1.04	m_e	mb	5.2
MANZ	20.45		P	07:07:04.269	-0.5	142.8		10.62		TAS		15.8	1.08	m_e	mb	4.2
MOX	21.16		P	07:07:12.992	0.6	142.8		10.62		TAS		49.7	0.81	m_e	mb	4.9
MOX	21.16		L	07:15:56.699						T__		1964.7	19.00	a_e	Ms	4.5
NEUB	21.54		P	07:07:17.947	-0.8	142.8		10.62		TAS		181.6	0.85	m_e	mb	5.5
NRDL	23.20		P	07:07:34.066		142.8		10.62		TAS		53.1	0.81	m_e	mb	5.1
RETH	23.68		P	07:07:39.306		142.8		10.62		TAS		259.8	1.01	m_e	mb	5.7
RJOB	18.41		P	07:06:42.986	0.0	142.8		10.62		TAS				m_e		
RUE	21.92		P	07:07:20.551	0.2	142.8		10.62		TAS		66.2	0.86	m_e	mb	5.1
TANN	20.65		P	07:07:07.891	0.3	142.8		10.62		TAS		118.0	0.98	m_e	mb	5.2
WET	19.47		P	07:06:53.821	-0.9	142.8		10.62		TAS		158.8	0.96	m_e	mb	5.2
WET	19.47		pP	07:06:59.069	-0.5	141.8		12.01		TAS				m_e		

Event 90811004 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
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2019/08/11 07:20:50.27

-18.1700 -177.6460

500.0

7

144.61 149.53 m i ke BGR

90811010

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	149.53		PKPbc	07:39:41.652		15.9		2.71		TAS				m_e	
BFO	149.53		PKPab	07:39:48.402		13.7		4.05		TAS				m_e	
BRG	146.09		PKPbc	07:39:33.425	0.4	15.9		2.71		TAS				m_e	
CLL	145.87		PKPbc	07:39:32.046	0.3	15.9		2.71		TAS				m_e	
FLT1	145.20		PKPbc	07:39:29.761	0.1	15.9		2.71		TAS				m_e	
FUR	149.21		PKPbc	07:39:40.911		15.9		2.71		TAS				m_e	
FUR	149.21		PKPab	07:39:47.399		13.7		4.05		TAS				m_e	
GEC2	148.05		PKPbc	07:39:37.995		15.9		2.71		TAS				m_e	
GRA1	147.75		PKPbc	07:39:37.542		15.9		2.71		TAS				m_e	
GRA1	147.75		PKPab	07:39:41.560		13.7		4.05		TAS				m_e	
GTTG	146.16		PKPbc	07:39:33.140	0.1	15.9		2.71		TAS				m_e	
IBBN	145.67		PKPbc	07:39:31.572	-0.0	15.9		2.71		TAS				m_e	
MANZ	147.31		PKPbc	07:39:36.281	-0.2	15.9		2.71		TAS				m_e	
MOX	146.77		PKPbc	07:39:34.626	-0.1	15.9		2.71		TAS				m_e	
NEUB	146.21		PKPbc	07:39:33.050	0.4	15.9		2.71		TAS				m_e	
NRDL	145.21		PKPbc	07:39:30.143	-0.5	15.9		2.71		TAS				m_e	
RJOB	149.30		PKPbc	07:39:40.846		15.9		2.71		TAS				m_e	
RJOB	149.30		PKPab	07:39:48.224		13.7		4.05		TAS				m_e	
ROTZ	147.50		PKPbc	07:39:36.735	-0.6	15.9		2.71		TAS				m_e	
RUE	144.61		PKPbc	07:39:28.086	0.3	15.9		2.71		TAS				m_e	
STU	148.97		PKPbc	07:39:40.497		15.9		2.71		TAS				m_e	
TANN	146.83		PKPbc	07:39:34.981	-0.0	15.9		2.71		TAS				m_e	
TNS	147.65		PKPab	07:39:40.872		13.7		4.05		TAS				m_e	
WET	147.95		PKPbc	07:39:37.700		15.9		2.71		TAS				m_e	
WET	147.95		PKPab	07:39:42.429		13.7		4.05		TAS				m_e	
WLF	148.43		PKPbc	07:39:39.759		15.9		2.71		TAS				m_e	
WLF	148.43		PKPab	07:39:44.430		13.7		4.05		TAS				m_e	

Event 90812001 South Island, New Zealand

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/12	10:35:28.40			-44.5600	167.8700				10.0			24		161.17	166.55	m i ke	NEIC-M
OrigID 90812096																	

Magnitude Err Nsta Author OrigID  
Ms 5.3 BGR 90812007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	163.10		PKPab	10:56:20.830	0.2	80.3		4.36		TAS				m_e	
ASSE	163.10		pPKPab	10:56:26.170	-0.3	80.2		4.38		TAS				m_e	



BFO	165.41	PKPab	10:56:29.999		80.3	4.36	TAS						m_e
BFO	165.41	pPKPab	10:56:35.129		80.2	4.38	TAS						m_e
BRG	161.41	PKPab	10:56:13.727	-0.2	80.3	4.36	TAS						m_e
BUG	165.33	PKPab	10:56:30.769		80.3	4.36	TAS						m_e
BUG	165.33	pPKPab	10:56:36.002		80.2	4.38	TAS						m_e
CLL	161.91	PKPab	10:56:15.019	0.2	80.3	4.36	TAS						m_e
CLL	161.91	pPKPab	10:56:20.264	0.0	80.2	4.38	TAS						m_e
CLZ	163.37	PKPab	10:56:22.398	-0.3	80.3	4.36	TAS						m_e
CLZ	163.37	pPKPab	10:56:27.421	0.2	80.2	4.38	TAS						m_e
FLT1	162.71	PKPab	10:56:18.801	0.0	80.3	4.36	TAS						m_e
FLT1	162.71	pPKPab	10:56:23.979	0.2	80.2	4.38	TAS						m_e
FUR	163.46	PKPab	10:56:21.643	0.4	80.3	4.36	TAS						m_e
GEC2	161.81	PKPab	10:56:14.763	-0.4	80.3	4.36	TAS						m_e
GEC2	161.81	pPKPab	10:56:20.076	-0.0	80.2	4.38	TAS						m_e
GOR1	162.46	PKPab	10:56:18.524	-0.0	80.3	4.36	TAS						m_e
GOR1	162.46	pPKPab	10:56:23.822	0.5	80.2	4.38	TAS						m_e
GRA1	163.33	PKPab	10:56:21.605	-0.7	80.3	4.36	TAS						m_e
GRA1	163.33	pPKPab	10:56:26.930	-0.1	80.2	4.38	TAS						m_e
GRA1	163.33	L	12:18:29.905				T__	342.7	20.50	a_e	Ms	5.2	
GTTG	163.70	PKPab	10:56:23.782	0.1	80.3	4.36	TAS						m_e
GTTG	163.70	pPKPab	10:56:28.605	0.3	80.2	4.38	TAS						m_e
IBBN	164.73	PKPab	10:56:28.394	0.1	80.3	4.36	TAS						m_e
IBBN	164.73	pPKPab	10:56:33.513		80.2	4.38	TAS						m_e
KAST	164.72	PKPab	10:56:27.984	0.3	80.3	4.36	TAS						m_e
KAST	164.72	pPKPab	10:56:33.236	0.4	80.2	4.38	TAS						m_e
MANZ	162.71	PKPab	10:56:19.142	-0.2	80.3	4.36	TAS						m_e
MANZ	162.71	pPKPab	10:56:24.357	0.4	80.2	4.38	TAS						m_e
MOX	162.91	PKPab	10:56:19.639	0.1	80.3	4.36	TAS						m_e
MOX	162.91	pPKPab	10:56:24.972	0.2	80.2	4.38	TAS						m_e
MOX	162.91	L	12:19:00.603				T__	435.2	19.00	a_e	Ms	5.3	
NEUB	162.69	PKPab	10:56:18.784	0.4	80.3	4.36	TAS						m_e
NEUB	162.69	pPKPab	10:56:23.882	-0.0	80.2	4.38	TAS						m_e
NRDL	163.32	PKPab	10:56:22.398	0.3	80.3	4.36	TAS						m_e
NRDL	163.32	pPKPab	10:56:27.603	0.1	80.2	4.38	TAS						m_e
RETH	163.66	PKPab	10:56:23.681	0.0	80.3	4.36	TAS						m_e
RETH	163.66	pPKPab	10:56:28.886	-0.3	80.2	4.38	TAS						m_e
ROTZ	162.68	PKPab	10:56:18.956	-0.6	80.3	4.36	TAS						m_e
RUE	161.17	PKPab	10:56:12.343	0.6	80.3	4.36	TAS						m_e
RUE	161.17	pPKPab	10:56:17.818	-0.0	80.2	4.38	TAS						m_e
STU	164.78	PKPab	10:56:27.733	-0.7	80.3	4.36	TAS						m_e
STU	164.78	pPKPab	10:56:32.704		80.2	4.38	TAS						m_e
TANN	162.42	PKPab	10:56:17.694	-0.2	80.3	4.36	TAS						m_e
TANN	162.42	pPKPab	10:56:22.589	-0.1	80.2	4.38	TAS						m_e
TNS	164.98	PKPab	10:56:28.983	0.4	80.3	4.36	TAS						m_e
TNS	164.98	pPKPab	10:56:34.169		80.2	4.38	TAS						m_e
UBBA	163.87	PKPab	10:56:23.916	-0.1	80.3	4.36	TAS						m_e
UBBA	163.87	pPKPab	10:56:28.908	-0.8	80.2	4.38	TAS						m_e
WET	162.32	PKPab	10:56:17.325	0.2	80.3	4.36	TAS						m_e
WET	162.32	pPKPab	10:56:22.259	-0.1	80.2	4.38	TAS						m_e

WLF	166.55	PKPab	10:56:35.883	80.3	4.36	TAS	m_e
WLF	166.55	pPKPab	10:56:41.144	80.2	4.38	TAS	m_e

Event 90812003 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/12	17:20:25.89			-23.7100	-178.1630				500.0			20		149.89	154.48	m i ke	BGR
90812009																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	150.83		PKPbc	17:39:21.524	0.6	19.2		2.16		TAS					m_e
ASSE	150.83		PKPab	17:39:29.570	0.6	19.4		4.33		TAS					m_e
BRG	151.30		PKPbc	17:39:23.183	0.1	19.2		2.16		TAS					m_e
BRG	151.30		PKPab	17:39:32.281	-0.0	19.4		4.33		TAS					m_e
CLL	151.13		PKPbc	17:39:21.964	-0.0	19.2		2.16		TAS					m_e
CLL	151.13		PKPab	17:39:30.289	0.0	19.4		4.33		TAS					m_e
CLZ	151.16		PKPbc	17:39:22.579	0.1	19.2		2.16		TAS					m_e
CLZ	151.16		PKPab	17:39:31.300	-0.1	19.4		4.33		TAS					m_e
FLT1	150.53		PKPbc	17:39:20.471	-0.2	19.2		2.16		TAS					m_e
FLT1	150.53		PKPab	17:39:28.095	-0.6	19.4		4.33		TAS					m_e
FUR	154.47		PKPab	17:39:45.494		19.4		4.33		TAS					m_e
GEC2	153.22		PKPbc	17:39:26.496		19.2		2.16		TAS					m_e
GEC2	153.22		PKPab	17:39:39.607		19.4		4.33		TAS					m_e
GOR1	149.89		PKPbc	17:39:19.404	-0.0	19.2		2.16		TAS					m_e
GOR1	149.89		PKPab	17:39:26.099	-0.1	19.4		4.33		TAS					m_e
GRA1	153.04		PKPbc	17:39:26.185		19.2		2.16		TAS					m_e
GRA1	153.04		PKPab	17:39:39.477		19.4		4.33		TAS					m_e
GTTG	151.51		PKPab	17:39:32.674	0.0	19.4		4.33		TAS					m_e
KAST	152.09		PKPbc	17:39:24.461	-0.3	19.2		2.16		TAS					m_e
MANZ	152.57		PKPbc	17:39:25.451		19.2		2.16		TAS					m_e
MANZ	152.57		PKPab	17:39:37.122	0.0	19.4		4.33		TAS					m_e
MOX	152.06		PKPbc	17:39:24.129	-0.2	19.2		2.16		TAS					m_e
MOX	152.06		PKPab	17:39:34.767	0.3	19.4		4.33		TAS					m_e
NEUB	151.51		PKPbc	17:39:22.933	0.2	19.2		2.16		TAS					m_e
NEUB	151.51		PKPab	17:39:32.281	-0.3	19.4		4.33		TAS					m_e
NRDL	150.57		PKPbc	17:39:21.008	0.3	19.2		2.16		TAS					m_e
NRDL	150.57		PKPab	17:39:28.537	0.2	19.4		4.33		TAS					m_e
RETH	150.45		PKPbc	17:39:20.683	0.0	19.2		2.16		TAS					m_e
RETH	150.45		PKPab	17:39:28.131	-0.1	19.4		4.33		TAS					m_e
RJOB	154.48		PKPab	17:39:45.560		19.4		4.33		TAS					m_e
ROTZ	152.75		PKPab	17:39:38.103		19.4		4.33		TAS					m_e
TANN	152.09		PKPbc	17:39:24.286		19.2		2.16		TAS					m_e
TANN	152.09		PKPab	17:39:34.963	-0.5	19.4		4.33		TAS					m_e
TNS	153.04		PKPbc	17:39:26.476		19.2		2.16		TAS					m_e

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UBBA	152.21	PKPab	17:39:35.356	0.2	19.4	4.33	TAS	m_e
WET	153.16	PKPbc	17:39:26.365		19.2	2.16	TAS	m_e
WET	153.16	PKPab	17:39:39.869		19.4	4.33	TAS	m_e

Event 90812004 Near coast of Chiapas, Mexico

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/12	20:39:35.77			15.0130	-93.3750				101.1	1.8		30		84.41	89.67	m i ke	BGR
90812010																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.7		BGR	90812010
MBB	6.0		BGR	90812010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	86.67		P	20:52:06.886	0.2	290.7		4.81		TAS		98.0	1.06	m_e	MBB 6.2
BFO	86.51		P	20:52:05.364	-0.6	290.7		4.81		TAS		41.8	1.21	m_e	MBB 5.7
BRG	89.03		P	20:52:18.482	0.4	290.7		4.81		TAS		23.8	0.91	a_e	MBB 5.9
BUG	84.89		P	20:51:57.882	-0.3	290.7		4.81		TAS		85.3	1.34	a_e	MBB 6.0
CLL	88.32		P	20:52:14.832	0.2	290.7		4.81		TAS		161.6	2.11	a_e	MBB 6.0
CLL	88.32		pP	20:52:40.960						T__				m_e	
CLZ	86.59		P	20:52:06.632	0.3	290.7		4.81		TAS		77.6	1.15	a_e	MBB 6.0
FLT1	86.93		P	20:52:07.582	-0.3	290.7		4.81		TAS		68.8	1.12	a_e	MBB 6.0
FUR	88.42		P	20:52:15.137	0.0	290.7		4.81		TAS		24.6	1.20	m_e	MBB 6.0
GEC2	89.67		P	20:52:20.932	-0.2	290.7		4.81		TAS		27.9	1.03	a_e	MBB 5.8
GOR1	86.73		P	20:52:06.933	-0.1	290.7		4.81		TAS		120.5	1.43	m_e	MBB 6.1
GRA1	87.85		P	20:52:12.693	0.3	290.7		4.81		TAS		70.1	1.24	m_e	mb 5.8
GRA1	87.85		pP	20:52:39.557						T__				m_e	
GTTG	86.45		P	20:52:05.782	0.1	290.7		4.81		TAS		105.7	1.05	a_e	MBB 6.1
HLG	84.41		P	20:51:55.711	-0.1	290.7		4.81		TAS		364.0	1.20	m_e	MBB 6.7
IBBN	84.92		P	20:51:58.082	-0.2	290.7		4.81		TAS		82.4	0.94	a_e	MBB 6.2
KAST	85.65		P	20:52:01.632	-0.2	290.7		4.81		TAS		65.5	1.07	m_e	MBB 6.0
MANZ	88.28		P	20:52:14.320	-0.1	290.7		4.81		TAS		30.1	2.13	m_e	MBB 5.3
MOX	87.74		P	20:52:11.618	-0.2	290.7		4.81		TAS		77.7	1.72	m_e	MBB 5.9
MOX	87.74		pP	20:52:37.976						T__				m_e	
NEUB	87.64		P	20:52:11.632	0.3	290.7		4.81		TAS		36.7	0.88	a_e	MBB 6.2
NRDL	86.22		P	20:52:04.682	0.2	290.7		4.81		TAS		78.7	1.00	a_e	MBB 6.1
RETH	85.71		P	20:52:02.382	0.3	290.7		4.81		TAS		133.8	1.03	a_e	MBB 6.3
RGN	87.28		P	20:52:09.424	-0.2	290.7		4.81		TAS		417.7	1.78	m_e	MBB 6.3
RJOB	89.53		P	20:52:20.332	-0.1	290.7		4.81		TAS		11.8	0.96	a_e	MBB 5.8
ROTZ	88.42		P	20:52:15.112	0.0	290.7		4.81		TAS		41.3	2.47	m_e	MBB 5.3
RUE	88.32		P	20:52:14.032	-0.6	290.7		4.81		TAS		133.1	2.03	a_e	MBB 6.1
STU	86.91		P	20:52:07.782	-0.1	290.7		4.81		TAS		111.8	0.72	a_e	MBB 6.3
TANN	88.33		P	20:52:14.697	0.0	290.7		4.81		TAS		141.9	1.95	m_e	MBB 6.0
TNS	85.98		P	20:52:03.482	0.1	290.7		4.81		TAS		104.4	0.81	m_e	MBB 6.2
UBBA	86.72		P	20:52:07.079	0.1	290.7		4.81		TAS		71.6	1.47	m_e	MBB 5.8

WET	89.05	P	20:52:18.314	0.1	290.7	4.81	TAS	17.7	0.79	m_e	MBB	6.0
WLF	84.74	P	20:51:57.732	0.3	290.7	4.81	TAS	43.3	0.87	a_e	MBB	6.1

Event 90813002 Northern Italy

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/13	11:17:18.44	0.55	1.05	44.4770	9.7820	8.9	6.7	12	10.0			28	281	2.59	6.21	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
ML	4.2		BGR	90813008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ARSA	4.88		Pn	11:18:30.618	-0.8					T__				m_e	
BALST	3.21		Pn	11:18:09.490	0.6					T__				m_e	ML 4.2
BERGE	3.57		Sn	11:18:54.399	-1.0					T__				m_e	
BERGE	3.57		Pn	11:18:13.431	-0.4					T__				m_e	ML 4.0
BFO	3.98		Sn	11:19:03.759	-1.4					T__				m_e	
BFO	3.98		Pn	11:18:18.712	-0.7					T__				m_e	ML 4.0
DAVA	2.81		Sn	11:18:39.475	2.2					T__				m_e	
DAVA	2.81		Pn	11:18:05.139	1.6					T__				m_e	ML 4.1
ECH	4.16		Sn	11:19:08.717	-0.6					T__				m_e	
ECH	4.16		Pn	11:18:21.909	0.2					T__				m_e	
EMING	3.48		Pn	11:18:11.984	-0.6					T__				m_e	ML 4.2
FUR	3.83		Pn	11:18:17.803	0.5					T__				m_e	ML 4.4
GEC2	5.13		Sn	11:19:31.216	-1.3					T__				m_e	
GEC2	5.13		Pn	11:18:33.648	-1.3					T__				m_e	ML 4.0
GUNZ	6.14		Pn	11:18:48.541	0.1					T__				m_e	
HROE	6.07		Sn	11:19:52.235	-2.4					T__				m_e	
HROE	6.07		Pn	11:18:46.414	-1.1					T__				m_e	ML 4.4
KBA	3.60		Sn	11:18:56.372	0.3					T__				m_e	
KBA	3.60		Pn	11:18:14.589	0.4					T__				m_e	ML 4.2
METMA	3.41		Pn	11:18:11.213	-0.4					T__				m_e	ML 3.9
MILB	5.36		Pn	11:18:37.387	-0.6					T__				m_e	ML 4.7
MOA	4.59		Sn	11:19:20.890	1.3					T__				m_e	
MOA	4.59		Pn	11:18:27.726	0.1					T__				m_e	ML 4.2
OBER	2.95		Pn	11:18:06.830	1.4					T__				m_e	
PLONS	2.59		Sn	11:18:34.571	2.6					T__				m_e	
PLONS	2.59		Pn	11:18:01.762	1.2					T__				m_e	ML 3.7
RIVT	5.62		Pn	11:18:42.548	1.1					T__				m_e	
ROTZ	5.54		Pn	11:18:39.971	-0.5					T__				m_e	ML 3.9
SLE	3.41		Pn	11:18:11.192	-0.4					T__				m_e	ML 4.8
STU	4.31		Sn	11:19:11.890	-1.1					T__				m_e	
STU	4.31		Pn	11:18:23.660	-0.2					T__				m_e	ML 4.4
SULZ	3.27		Sn	11:18:48.564	0.5					T__				m_e	
SULZ	3.27		Pn	11:18:09.799	0.1					T__				m_e	ML 5.1

TANN	6.21	Pn	11:18:49.949	0.5	T__	m_e	
TNS	5.82	Sn	11:19:49.782	1.1	T__	m_e	
TNS	5.82	Pn	11:18:44.038	-0.1	T__	m_e ML	4.1
WALHA	3.31	Pn	11:18:09.979	-0.3	T__	m_e ML	4.3
WET	5.13	Pn	11:18:33.833	-1.0	T__	m_e ML	4.1
WET	5.13	Sn	11:19:30.606	-1.7	T__	m_e	
WILA	3.00	Pn	11:18:06.459	0.4	T__	m_e ML	4.3
WTTA	3.07	Sn	11:18:44.997	1.5	T__	m_e	
WTTA	3.07	Pn	11:18:07.288	0.2	T__	m_e ML	4.3

Event 90815001 Hokkaido, Japan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/15	05:32:59.92			41.7840	141.4420				94.4	5.2		28		75.78	81.18	m i ke	BGR
	90815007																

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90815007
MBB	5.5		BGR	90815007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	77.20		P	05:44:41.603	-0.3	35.7		5.55		TAS		16.7	0.89	a_e	MBB 5.4
ASSE	77.20		pP	05:45:05.859	0.3	35.5		5.52		TAS				m_e	
BFO	81.18		P	05:45:03.153		35.7		5.55		TAS		35.5	0.90	a_e	mb 5.4
BFO	81.18		pP	05:45:27.596		35.5		5.52		TAS				m_e	
BRG	76.99		P	05:44:41.203	0.0	35.7		5.55		TAS		20.3	0.96	a_e	MBB 5.6
BUG	78.96		P	05:44:51.053	-0.3	35.7		5.55		TAS		24.2	0.77	a_e	mb 5.3
BUG	78.96		pP	05:45:15.799		35.5		5.52		TAS				m_e	
CLL	77.00		P	05:44:40.153	0.7	35.7		5.55		TAS		34.1	0.82	a_e	MBB 5.6
CLL	77.00		pP	05:45:04.626	0.1	35.5		5.52		TAS				m_e	
CLZ	77.54		P	05:44:43.853	-0.4	35.7		5.55		TAS		41.7	0.94	a_e	MBB 5.7
CLZ	77.54		pP	05:45:08.351	0.2	35.5		5.52		TAS				m_e	
FLT1	76.83		P	05:44:39.103	0.1	35.7		5.55		TAS		44.7	0.81	a_e	MBB 5.8
FLT1	76.83		pP	05:45:03.732	0.4	35.5		5.52		TAS				m_e	
FUR	80.21		P	05:44:58.153		35.7		5.55		TAS		74.9	0.75	a_e	MBB 5.8
GEC2	78.70		P	05:44:49.703	-0.2	35.7		5.55		TAS		22.3	1.01	a_e	MBB 5.3
GRA1	78.98		P	05:44:51.903	-0.5	35.7		5.55		TAS		61.3	0.86	m_e	mb 5.7
GTTG	77.93		P	05:44:45.803	-0.1	35.7		5.55		TAS		31.9	0.90	a_e	MBB 5.8
IBBN	78.07		P	05:44:46.303	0.3	35.7		5.55		TAS		36.8	0.69	a_e	MBB 5.8
IBBN	78.07		pP	05:45:10.664	-0.5	35.5		5.52		TAS				m_e	
KAST	78.76		P	05:44:50.203	-0.1	35.7		5.55		TAS		13.6	0.87	a_e	MBB 5.3
KAST	78.76		pP	05:45:14.894		35.5		5.52		TAS				m_e	
KAST	78.76		sP	05:45:25.384						T__				m_e	
MANZ	78.40		P	05:44:48.353	0.4	35.7		5.55		TAS		4.0	0.82	a_e	MBB 4.7
MANZ	78.40		pP	05:45:12.862		35.5		5.52		TAS				m_e	
MOX	78.06		P	05:44:46.303	-0.2	35.7		5.55		TAS		14.7	0.82	a_e	MBB 5.4

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NEUB	77.55	P	05:44:43.353	-0.1	35.7	5.55	TAS	46.5	0.84	a_e	MBB	5.8
NRDL	77.10	P	05:44:41.053	-0.5	35.7	5.55	TAS	15.2	0.86	a_e	MBB	5.3
PLN	77.98	P	05:44:46.003	0.0	35.7	5.55	TAS	6.1	1.13	a_e	MBB	5.0
PLN	77.98	pP	05:45:10.509	-0.2	35.5	5.52	TAS			m_e		
RETH	77.16	P	05:44:41.553	-0.1	35.7	5.55	TAS	33.2	1.10	a_e	MBB	5.6
RETH	77.16	pP	05:45:05.995	0.1	35.5	5.52	TAS			m_e		
RJOB	79.95	P	05:44:57.053		35.7	5.55	TAS	41.3	0.89	a_e	MBB	5.5
RJOB	79.95	pP	05:45:21.536		35.5	5.52	TAS			m_e		
ROTZ	78.54	P	05:44:49.353	0.3	35.7	5.55	TAS	5.2	0.91	a_e	MBB	4.7
ROTZ	78.54	pP	05:45:13.891		35.5	5.52	TAS			m_e		
ROTZ	78.54	sP	05:45:24.534				T__			m_e		
RUE	75.78	P	05:44:33.853	-0.0	35.7	5.55	TAS	104.3	1.33	a_e	mb	5.8
STU	80.50	P	05:44:59.453	0.2	35.7	5.55	TAS	111.1	0.70	a_e	MBB	6.1
STU	80.50	pP	05:45:24.116		35.5	5.52	TAS			m_e		
TANN	77.92	P	05:44:45.671	0.2	35.7	5.55	TAS	10.4	0.95	m_e	MBB	5.2
TANN	77.92	pP	05:45:10.138	0.1	35.5	5.52	TAS			m_e		
TANN	77.92	sP	05:45:20.710				T__			m_e		
TNS	79.56	P	05:44:54.603	1.2	35.7	5.55	TAS	23.7	0.99	a_e	MBB	5.2
TNS	79.56	pP	05:45:19.262		35.5	5.52	TAS			m_e		
UBBA	78.51	P	05:44:48.803	-0.0	35.7	5.55	TAS	36.8	1.67	a_e	MBB	5.2
WET	78.79	P	05:44:50.703	-0.6	35.7	5.55	TAS	39.3	1.02	a_e	MBB	5.5
WLF	80.84	P	05:45:03.043	-0.2	35.7	5.55	TAS	14.8	0.86	m_e	mb	5.0
WLF	80.84	pP	05:45:26.302		35.5	5.52	TAS			m_e		

Event 90815004 East of Kuril Islands, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/15	13:54:30.13			46.4200	154.5790				33.0					79.13	79.13	m i ke	BGR
90815010																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	90815010
Ms	4.1		BGR	90815010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	79.13		P	14:06:29.953		25.8		4.79		TAS		6.5	0.80	m_e	mb 4.7
GRA1	79.13		L	15:25:00.511						T__		100.3	20.70	a_e	Ms 4.1

Event 90816003 Pakistan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/16	02:08:49.15			34.9900	72.3260				33.0				21	44.41	49.50	m i ke	BGR
90816009																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	90816009
Ms	3.5		BGR	90816009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	44.41		P	02:16:55.978	0.5	84.5		7.87		TAS		19.6	0.67	m_e	mb 5.0
CLL	44.98		P	02:16:59.198	-0.1	84.5		7.87		TAS		14.3	0.88	m_e	mb 4.9
CLZ	46.59		P	02:17:12.368	-0.3	84.5		7.87		TAS		14.4	0.90	m_e	mb 5.1
FLT1	46.03		P	02:17:07.400	-0.1	84.5		7.87		TAS		49.7	0.96	m_e	mb 5.5
FLT1	46.03		L	02:38:14.604						T__		93.9	18.60	a_e	Ms 3.8
FUR	46.36		P	02:17:10.954	0.1	84.5		7.87		TAS		18.3	0.65	m_e	mb 5.2
GEC2	44.69		P	02:16:57.436	-0.2	84.5		7.87		TAS		6.3	0.89	m_e	mb 4.5
GOR1	45.96		P	02:17:07.393	0.2	84.5		7.87		TAS		396.9	2.89	m_e	mb 5.9
GRA1	46.23		P	02:17:10.412	0.4	84.5		7.87		TAS		12.1	0.79	m_e	mb 5.0
GTTG	46.87		P	02:17:14.757	-0.1	84.5		7.87		TAS		25.2	0.77	m_e	mb 5.4
IBBN	48.16		P	02:17:24.702		84.5		7.87		TAS		28.1	0.78	m_e	mb 5.5
MANZ	45.63		P	02:17:05.495	0.4	84.5		7.87		TAS		2.7	0.90	m_e	mb 4.3
MOX	45.90		P	02:17:07.150	0.5	84.5		7.87		TAS		11.6	0.79	m_e	mb 5.0
MOX	45.90		L	02:41:23.638						T__		30.5	19.70	a_e	Ms 3.2
NEUB	45.76		P	02:17:05.858	-0.5	84.5		7.87		TAS		28.2	0.94	m_e	mb 5.3
NRDL	46.71		P	02:17:13.518	0.1	84.5		7.87		TAS		22.1	0.90	m_e	mb 5.3
PLN	45.56		P	02:17:04.446	-0.2	84.5		7.87		TAS		3.4	0.85	m_e	mb 4.4
RJOB	45.40		P	02:17:02.941	0.3	84.5		7.87		TAS		11.3	0.75	m_e	mb 4.9
ROTZ	45.59		P	02:17:05.187	-0.1	84.5		7.87		TAS		4.5	1.16	m_e	mb 4.4
TANN	45.38		P	02:17:02.924	0.3	84.5		7.87		TAS		8.9	0.92	m_e	mb 4.7
TNS	47.96		P	02:17:23.143		84.5		7.87		TAS		12.0	1.09	m_e	mb 4.9
UBBA	46.91		P	02:17:14.823		84.5		7.87		TAS		6.8	0.65	m_e	mb 4.9
WLF	49.50		P	02:17:35.575		84.5		7.87		TAS		25.2	0.95	m_e	mb 5.1

Event 90816004 Tonga Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/16	03:19:03.90			-15.6100	-173.6800				108.0					144.79	147.52	m i ke	EMSC

Magnitude	Err	Nsta	Author	OrigID
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Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	147.33		PKPbc	03:38:35.324		8.4		2.83		TAS				m_e	
GEC2	146.31		PKPbc	03:38:31.621		8.4		2.83		TAS				m_e	
GRA1	145.78		PKPbc	03:38:31.382		8.4		2.83		TAS				m_e	
GRA1	145.78		L	04:49:18.787						T__		30.0	18.70	a_e	
MOX	144.79		L	04:41:22.035						T__		22.3	20.10	a_e	
RJOB	147.52		PKPbc	03:38:35.909		8.4		2.83		TAS				m_e	
ROTZ	145.60		PKPbc	03:38:30.322		8.4		2.83		TAS				m_e	

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WET 146.13 PKPbc 03:38:32.277 8.4 2.83 TAS m\_e  
WLF 146.04 PKPbc 03:38:32.244 8.4 2.83 TAS m\_e

Event 90816005 Kermadec Islands region

Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2019/08/16 07:25:08.00 -30.7300 -179.7100 352.0 156.97 160.58 m i ke EMSC  
90816037

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	157.45		PKPab	07:44:56.533		27.6		3.84		TAS				m_e	
CLL	157.38		PKPab	07:44:55.282		27.6		3.84		TAS				m_e	
CLZ	157.63		PKPab	07:44:55.965		27.6		3.84		TAS				m_e	
FLT1	156.97		PKPab	07:44:52.893		27.6		3.84		TAS				m_e	
GEC2	159.24		PKPab	07:45:03.530		27.6		3.84		TAS				m_e	
GRC4	159.78		PKPab	07:45:06.391		27.6		3.84		TAS				m_e	
IBBN	157.75		PKPab	07:44:56.888		27.6		3.84		TAS				m_e	
MOX	158.38		PKPab	07:44:59.833		27.6		3.84		TAS				m_e	
PLN	158.36		PKPab	07:44:59.946		27.6		3.84		TAS				m_e	
RJOB	160.49		PKPab	07:45:09.559		27.6		3.84		TAS				m_e	
ROTZ	158.97		PKPab	07:45:02.449		27.6		3.84		TAS				m_e	
TANN	158.32		PKPab	07:44:59.889		27.6		3.84		TAS				m_e	
TNS	159.59		PKPab	07:45:04.781		27.6		3.84		TAS				m_e	
WLF	160.58		PKPab	07:45:09.559		27.6		3.84		TAS				m_e	

Event 90816006 Off coast of Oregon, United States

Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
OrigID  
2019/08/16 15:23:23.81 44.1730 -130.3280 33.0 18 75.73 82.15 m i ke BGR  
90816012

Magnitude Err Nsta Author OrigID

mb 5.0 BGR 90816012  
Ms 5.0 BGR 90816012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	78.35		P	15:35:18.276	-0.4	333.1		5.37		TAS		65.0	1.67	m_e mb	5.5
BFO	80.99		P	15:35:32.071		333.1		5.37		TAS		37.5	1.57	m_e mb	5.2
BFO	80.99		L	16:10:39.041						T__		749.9	19.70	a_e Ms	5.0
BRG	80.38		P	15:35:29.690		333.1		5.37		TAS		42.7	1.39	m_e mb	5.2
CLL	79.73		P	15:35:25.403	-0.5	333.1		5.37		TAS		27.1	1.26	m_e mb	5.0



CLL	79.73	L	16:12:03.613							T__	688.1	20.00	a_e	Ms	5.0
CLZ	78.51	P	15:35:19.339	-0.4	333.1	5.37				TAS	43.0	1.46	m_e	mb	5.3
FLT1	78.33	P	15:35:17.741	-0.3	333.1	5.37				TAS	34.5	1.29	m_e	mb	5.3
FUR	82.05	L	16:11:27.654							T__	1010.2	20.10	a_e	Ms	5.2
GEC2	82.15	P	15:35:38.224		333.1	5.37				TAS	21.3	1.44	m_e	mb	5.1
GEC2	82.15	L	16:13:04.125							T__	597.7	19.70	a_e	Ms	5.0
GRA1	80.67	P	15:35:32.043		333.1	5.37				TAS	82.1	1.77	m_e	mb	5.5
GRA1	80.67	L	16:12:42.306							T__	861.6	18.60	a_e	Ms	5.1
HLG	75.73	L	16:08:37.816							T__	487.7	20.80	a_e	Ms	4.8
MANZ	80.67	P	15:35:31.632		333.1	5.37				TAS	3.6	1.37	m_e	mb	4.2
MOX	79.94	P	15:35:26.444		333.1	5.37				TAS	30.6	1.42	m_e	mb	5.0
MOX	79.94	L	16:11:57.812							T__	611.9	20.10	a_e	Ms	4.9
NRDL	77.86	P	15:35:15.937	0.1	333.1	5.37				TAS	31.7	1.39	m_e	mb	5.3
PLN	80.23	P	15:35:27.903		333.1	5.37				TAS	5.0	1.29	m_e	mb	4.3
RETH	77.43	P	15:35:13.320	-0.0	333.1	5.37				TAS	37.5	1.36	m_e	mb	5.3
RGN	76.90	L	16:08:23.054							T__	395.3	21.80	a_e	Ms	4.7
ROTZ	80.89	P	15:35:32.110		333.1	5.37				TAS	3.6	1.21	m_e	mb	4.3
TANN	80.38	P	15:35:28.873		333.1	5.37				TAS	18.7	1.55	m_e	mb	4.8
TNS	79.37	P	15:35:23.736	-0.4	333.1	5.37				TAS	27.5	1.64	m_e	mb	5.0
TNS	79.37	L	16:09:43.432							T__	1252.4	20.50	a_e	Ms	5.2
UBBA	79.31	P	15:35:23.576	0.1	333.1	5.37				TAS	31.8	1.73	m_e	mb	5.1
WET	81.65	P	15:35:35.903		333.1	5.37				TAS	19.2	1.48	m_e	mb	5.0
WET	81.65	L	16:13:28.928							T__	914.9	18.10	a_e	Ms	5.2

Event 90817008 Ionian Sea

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/17	02:22:11.10			37.3300	20.4200				35.0				7	13.02	16.06	m i ke	NEIC
90817047																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.4		BGR	90817014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
CLL	14.94		P	02:25:45.706		148.3		10.99		TAS					m_e
GRA1	14.03		P	02:25:35.252		148.3		10.99		TAS					m_e
MANZ	14.00		P	02:25:35.773		148.3		10.99		TAS					m_e
MOX	14.73		P	02:25:43.570		148.3		10.99		TAS					m_e
PLN	14.42		P	02:25:40.350		148.3		10.99		TAS					m_e
RUE	15.85		P	02:25:55.606		148.3		10.99		TAS					m_e
TANN	14.27		P	02:25:38.138		148.3		10.99		TAS					m_e
WET	13.02		P	02:25:24.365		148.3		10.99		TAS					m_e
WLF	16.06		P	02:25:59.191		148.3		10.99		TAS		46.7	1.43	m_e mb	4.4

Event 90817007 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/17	05:26:32.50			-20.9700	-178.5000				570.0				13	148.41	152.16	m i ke	EMSC
OrigID 90817039																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	152.16		PKPbc	05:45:23.217		18.6		2.15		TAS					m_e
BRG	148.59		PKPbc	05:45:16.326		18.6		2.15		TAS					m_e
CLL	148.41		PKPbc	05:45:14.688	-0.2	18.6		2.15		TAS					m_e
CLZ	148.42		PKPbc	05:45:15.160	0.1	18.6		2.15		TAS					m_e
GEC2	150.52		PKPbc	05:45:19.875		18.6		2.15		TAS					m_e
KAST	149.34		PKPbc	05:45:17.036		18.6		2.15		TAS					m_e
MANZ	149.85		PKPbc	05:45:18.620		18.6		2.15		TAS					m_e
MOX	149.33		PKPbc	05:45:17.145		18.6		2.15		TAS					m_e
PLN	149.37		PKPbc	05:45:17.255		18.6		2.15		TAS					m_e
RJOB	151.78		PKPbc	05:45:22.452		18.6		2.15		TAS					m_e
ROTZ	150.03		PKPbc	05:45:18.893		18.6		2.15		TAS					m_e
TANN	149.37		PKPbc	05:45:17.255		18.6		2.15		TAS					m_e
TNS	150.29		PKPbc	05:45:19.657		18.6		2.15		TAS					m_e

Event 90817004 Sicily, Italy

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/17	21:35:11.70	2.40	1.28	38.6000	14.7300	58.9	47.8	154	291.0				12 341	7.91	13.36	m i ke	INGV
OrigID 90817094																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BALST	10.13		P	21:37:30.713		165.9		0.00		TAS					m_e
BFO	10.78		P	21:37:38.301		165.9		0.00		TAS					m_e
DAVA	9.38		P	21:37:22.350		165.9		0.00		TAS					m_e
GEC2	10.27		P	21:37:32.429		165.9		0.00		TAS					m_e
KAST	13.36		P	21:38:10.504		165.9		0.00		TAS		3.6	0.35		m_e
KBA	8.53		P	21:37:11.202		165.9		0.00		TAS					m_e
MOA	9.25		P	21:37:20.411		165.9		0.00		TAS					m_e
MOX	12.24		P	21:37:58.141		165.9		0.00		TAS					m_e
OBKA	7.91		P	21:37:03.411		165.9		0.00		TAS					m_e
PLONS	9.31		P	21:37:21.783		165.9		0.00		TAS					m_e
RJOB	9.24		P	21:37:20.584		165.9		0.00		TAS					m_e
SLE	10.23		P	21:37:31.350		165.9		0.00		TAS					m_e
SULZ	10.15		P	21:37:30.629		165.9		0.00		TAS					m_e

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WET	10.62	P	21:37:36.263	165.9	0.00	TAS	m_e
WILA	9.78	P	21:37:26.462	165.9	0.00	TAS	m_e
WTTA	8.95	P	21:37:17.995	165.9	0.00	TAS	m_e

Event 90817006 Southeast of Honshu, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/17	22:28:38.20			30.9500	142.5500				10.0					86.85	91.07	m i ke	NEIC
OrigID 90817045																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.9		BGR	90817012
Ms	4.1		BGR	90817012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	91.07		P	22:41:40.682		338.5		4.73		TAS		36.0	1.85	m_e mb	5.4
CLL	86.85		P	22:41:22.081		338.5		4.73		TAS		12.7	1.37	m_e mb	4.9
CLZ	87.51		P	22:41:25.796		338.5		4.73		TAS		11.2	1.30	m_e mb	5.0
GRA1	88.82		L	23:29:41.066						T__		53.9	18.60	a_e Ms	4.0
MOX	87.92		L	23:26:29.963						T__		83.8	18.10	a_e Ms	4.2
RJOB	89.62		P	22:41:35.709		338.5		4.73		TAS		7.0	1.15	m_e mb	4.8
ROTZ	88.34		P	22:41:29.025		338.5		4.73		TAS		4.7	1.95	m_e mb	4.5

Event 90818001 Southern Bolivia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/18	01:49:24.64			-19.1600	-63.6520				33.0				14	92.06	96.72	m i ke	BGR
OrigID 90818007																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.1		BGR	90818007
Ms	3.7		BGR	90818007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BUG	93.50		P	02:02:37.875	0.1	246.3		4.54		TAS		21.9	1.14	m_e mb	5.5
CLL	96.72		P	02:02:52.651	0.0	246.3		4.54		TAS		4.0	1.03	m_e mb	5.0
FUR	94.46		P	02:02:42.321		246.3		4.54		TAS		12.6	1.11	m_e mb	5.2
GEC2	96.21		P	02:02:49.913		246.3		4.54		TAS		3.8	0.93	m_e mb	4.9
GRA1	95.04		L	02:48:30.396						T__		28.5	19.70	a_e Ms	3.7
IBBN	94.15		P	02:02:40.710	0.4	246.3		4.54		TAS		28.1	1.17	m_e mb	5.5
KAST	94.04		P	02:02:40.092	-0.1	246.3		4.54		TAS		9.3	1.12	m_e mb	5.0
MANZ	95.69		P	02:02:47.863		246.3		4.54		TAS		0.8	0.85	m_e mb	4.2
MOX	95.65		P	02:02:47.749		246.3		4.54		TAS		4.1	1.13	m_e mb	4.9

MOX	95.65	L	02:46:57.646						T__	29.0	21.30	a_e	Ms	3.7
PLN	95.91	P	02:02:49.293	246.3	4.54				TAS	1.8	0.98	m_e	mb	4.6
RETH	95.23	P	02:02:46.018	0.1 246.3	4.54				TAS	12.8	1.16	m_e	mb	5.2
RJOB	95.23	P	02:02:45.735	246.3	4.54				TAS	6.6	1.32	m_e	mb	4.9
STU	93.45	P	02:02:37.760	246.3	4.54				TAS	23.9	0.90	m_e	mb	5.6
WET	95.82	P	02:02:48.559	246.3	4.54				TAS	6.5	1.05	m_e	mb	5.1
WLF	92.06	P	02:02:31.661	246.3	4.54				TAS	26.9	1.14	m_e	mb	5.5

Event 90818002 Myanmar

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/18	03:24:25.02			19.2070	94.7680				33.0			17		69.61	74.73	m i ke	BGR
OrigID 90818008																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	90818008
Ms	4.5		BGR	90818008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	73.58		L	04:14:35.298						T__		217.6	20.90	a_e	Ms	4.4
BRG	69.61		P	03:35:31.537	-0.0	82.0		6.04		TAS		9.8	0.96	m_e	mb	4.9
CLL	70.15		L	04:14:31.212						T__		326.2	19.60	a_e	Ms	4.6
CLZ	71.72		P	03:35:43.988	-0.1	82.0		6.04		TAS		8.9	0.90	m_e	mb	4.9
FLT1	71.12		P	03:35:39.724	0.1	82.0		6.04		TAS		39.4	1.83	m_e	mb	5.2
FUR	71.66		L	04:12:00.597						T__		221.7	21.50	a_e	Ms	4.4
GEC2	69.97		P	03:35:33.245		82.0		6.04		TAS		9.3	0.89	m_e	mb	4.9
GEC2	69.97		L	04:11:05.435						T__		237.3	21.90	a_e	Ms	4.4
GRA1	71.48		L	04:15:21.457						T__		408.7	18.90	a_e	Ms	4.7
GTTG	72.01		P	03:35:45.345	0.1	82.0		6.04		TAS		19.4	1.01	m_e	mb	5.2
IBBN	73.24		P	03:35:52.835	0.5	82.0		6.04		TAS		98.9	1.87	m_e	mb	5.6
KAST	73.02		P	03:35:51.628	0.2	82.0		6.04		TAS		58.6	2.07	m_e	mb	5.3
MANZ	70.87		P	03:35:38.900		82.0		6.04		TAS		41.6	2.79	m_e	mb	5.1
MOX	71.10		P	03:35:40.147		82.0		6.04		TAS		188.1	3.04	m_e	mb	5.7
MOX	71.10		L	04:15:12.637						T__		269.5	18.50	a_e	Ms	4.5
PLN	70.78		P	03:35:38.023		82.0		6.04		TAS		2.7	1.01	m_e	mb	4.3
RETH	72.20		P	03:35:46.281	0.3	82.0		6.04		TAS		16.4	1.42	m_e	mb	5.0
RJOB	70.71		P	03:35:37.162		82.0		6.04		TAS		84.7	2.41	m_e	mb	5.5
ROTZ	70.84		P	03:35:38.716		82.0		6.04		TAS		3.2	0.99	m_e	mb	4.4
TANN	70.59		P	03:35:36.885		82.0		6.04		TAS		14.3	1.30	m_e	mb	4.9
TNS	73.17		P	03:35:52.634		82.0		6.04		TAS		235.1	3.12	m_e	mb	5.8
TNS	73.17		L	04:14:44.056						T__		352.6	19.80	a_e	Ms	4.7
WET	70.48		P	03:35:36.269		82.0		6.04		TAS		187.8	2.99	m_e	mb	5.7
WET	70.48		L	04:12:55.611						T__		193.0	22.00	a_e	Ms	4.3
WLF	74.73		P	03:36:02.147		82.0		6.04		TAS		258.9	2.57	m_e	mb	5.8

Event 90818003 Myanmar-India border region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/18	06:28:31.96			23.8550	93.6450				33.0			15		65.49	70.63	m i ke	BGR
OrigID 90818009																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	90818009
Ms	3.7		BGR	90818009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	69.55		L	07:09:23.381						T__		39.5	20.90	a_e	Ms 3.6
BRG	65.49		P	06:39:12.048		79.4		6.34		TAS		6.3	0.92	m_e	mb 4.8
CLL	66.02		P	06:39:13.829	0.2	79.4		6.34		TAS		7.5	1.20	m_e	mb 4.8
CLL	66.02		L	07:09:42.595						T__		51.9	21.70	a_e	Ms 3.7
CLZ	67.55		P	06:39:23.930	0.1	79.4		6.34		TAS		8.0	0.85	m_e	mb 5.0
FUR	67.66		L	07:15:12.168						T__		46.8	20.30	a_e	Ms 3.7
GEC2	65.95		P	06:39:14.119		79.4		6.34		TAS		8.6	0.89	m_e	mb 5.0
GEC2	65.95		L	07:08:41.635						T__		34.0	20.50	a_e	Ms 3.5
GRA1	67.41		L	07:08:55.097						T__		51.0	19.90	a_e	Ms 3.7
MANZ	66.79		P	06:39:19.436		79.4		6.34		TAS		1.1	1.01	m_e	mb 4.0
MOX	66.99		P	06:39:20.479		79.4		6.34		TAS		6.2	0.97	m_e	mb 4.8
MOX	66.99		L	07:10:39.617						T__		39.2	19.50	a_e	Ms 3.6
NEUB	66.80		P	06:39:18.995	-0.3	79.4		6.34		TAS		11.2	0.73	m_e	mb 5.2
NRDL	67.59		P	06:39:24.637	0.9	79.4		6.34		TAS		13.6	1.10	m_e	mb 5.1
PLN	66.67		P	06:39:18.051		79.4		6.34		TAS		2.3	1.12	m_e	mb 4.3
RJOB	66.73		P	06:39:18.632		79.4		6.34		TAS		5.6	0.87	m_e	mb 4.8
ROTZ	66.76		P	06:39:19.669		79.4		6.34		TAS		3.0	0.86	m_e	mb 4.5
TANN	66.49		P	06:39:17.303		79.4		6.34		TAS		5.8	0.88	m_e	mb 4.8
TNS	69.06		P	06:39:33.377		79.4		6.34		TAS		5.8	0.81	m_e	mb 4.8
TNS	69.06		L	07:09:44.808						T__		33.4	19.20	a_e	Ms 3.6
WET	66.44		P	06:39:17.371		79.4		6.34		TAS		11.9	1.26	m_e	mb 5.0
WET	66.44		L	07:07:01.974						T__		51.9	18.30	a_e	Ms 3.8
WLF	70.63		P	06:39:44.056		79.4		6.34		TAS		21.6	0.96	m_e	mb 5.2

Event 90818004 Mariana Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/18	18:00:30.00			16.6800	146.2800				60.0					100.97	105.22	m i ke	EMSC
OrigID 90818036																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.9		BGR	90818010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	105.22		L	19:06:18.885						T__		3460.6	19.30	a_e	Ms 5.9
CLL	100.97		L	19:01:58.728						T__		3982.8	20.60	a_e	Ms 5.9
FUR	104.00		L	19:03:39.492						T__		3328.4	20.50	a_e	Ms 5.9
GEC2	102.37		L	19:02:41.746						T__		3687.7	20.00	a_e	Ms 5.9
GRA1	102.92		PP	18:18:35.360						T__				m_e	
GRA1	102.92		L	19:05:02.441						T__		4063.5	18.60	a_e	Ms 6.0
MOX	102.06		PP	18:18:29.222						T__				m_e	
MOX	102.06		L	19:04:25.222						T__		3888.0	18.50	a_e	Ms 6.0
TNS	103.75		L	19:05:30.891						T__		2224.4	21.00	a_e	Ms 5.7
WET	102.55		L	19:02:36.283						T__		5341.2	21.70	a_e	Ms 6.0

Event 90819002 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/19	19:05:18.10			-20.2300	-177.8400				548.0					147.48	149.98	m i ke	BGR
OrigID 90819008																	

Magnitude	Err	Nsta	Author	OrigID
Ms	4.1		BGR	90819008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	147.48		PKPbc	19:23:59.671		14.3		2.38		TAS				m_e	
BRG	148.04		PKPbc	19:24:02.563		14.3		2.38		TAS				m_e	
CLL	147.84		PKPbc	19:24:00.895		14.3		2.38		TAS				m_e	
GEC2	149.98		PKPbc	19:24:06.121		14.3		2.38		TAS				m_e	
GRA1	149.73		PKPbc	19:24:05.531		14.3		2.38		TAS				m_e	
GRA1	149.73		L	20:15:36.862						T__		32.0	18.10	a_e	Ms 4.2
KAST	148.70		PKPbc	19:24:03.230		14.3		2.38		TAS				m_e	
MANZ	149.27		PKPbc	19:24:04.787		14.3		2.38		TAS				m_e	
MOX	148.74		PKPbc	19:24:03.452		14.3		2.38		TAS				m_e	
MOX	148.74		L	20:19:12.199						T__		23.8	19.30	a_e	Ms 4.0
NEUB	148.19		PKPbc	19:24:01.895		14.3		2.38		TAS				m_e	
PLN	148.79		PKPbc	19:24:03.619		14.3		2.38		TAS				m_e	
ROTZ	149.46		PKPbc	19:24:05.314		14.3		2.38		TAS				m_e	
TANN	148.79		PKPbc	19:24:03.563		14.3		2.38		TAS				m_e	
TNS	149.66		PKPbc	19:24:05.582		14.3		2.38		TAS				m_e	

Event 90820006 Xizang

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/20	01:09:01.98			30.9350	94.6760				33.0					61.77	65.32	m i ke	BGR
OrigID 90820012																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	90820012
Ms	3.2		BGR	90820012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	65.32		P	01:19:38.254		77.5		5.85		TAS		7.3	1.13	m_e	mb	4.8
CLZ	62.99		P	01:19:24.198		77.5		5.85		TAS		7.0	0.96	m_e	mb	4.8
FUR	63.51		P	01:19:27.765		77.5		5.85		TAS		17.5	1.02	m_e	mb	5.2
GEC2	61.77		P	01:19:15.959		77.5		5.85		TAS		3.8	0.89	m_e	mb	4.6
GRA1	63.09		P	01:19:25.432		77.5		5.85		TAS		3.0	0.69	m_e	mb	4.5
GRA1	63.09		L	01:48:24.699						T__		10.7	19.90	a_e	Ms	3.0
GTTG	63.32		P	01:19:26.664		77.5		5.85		TAS		7.2	0.84	m_e	mb	4.8
MOX	62.58		L	01:52:03.267						T__		20.3	18.30	a_e	Ms	3.3
NRDL	62.97		P	01:19:24.661		77.5		5.85		TAS		5.9	1.11	m_e	mb	4.6
ROTZ	62.46		P	01:19:20.784		77.5		5.85		TAS		0.9	0.87	m_e	mb	4.0
WET	62.21		P	01:19:18.903		77.5		5.85		TAS		2.8	0.90	m_e	mb	4.5

Event 90820002 Ryukyu Islands, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/20	08:20:28.55			28.6950	130.8970				33.0			18		83.27	87.70	m i ke	BGR
	90820008																

Magnitude	Err	Nsta	Author	OrigID
mb	5.1		BGR	90820008
Ms	4.9		BGR	90820008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	84.06		P	08:32:55.113	0.6	49.9		5.00		TAS		12.9	1.14	m_e	mb	5.0
BFO	87.70		L	09:16:27.435						T__		259.5	20.30	a_e	Ms	4.6
BRG	83.27		P	08:32:51.798	-0.1	49.9		5.00		TAS		3.2	0.68	m_e	mb	4.7
CLL	83.46		P	08:32:51.869	-0.2	49.9		5.00		TAS		15.7	0.69	m_e	mb	5.3
CLL	83.46		L	09:14:01.297						T__		298.5	19.10	a_e	Ms	4.7
CLZ	84.39		P	08:32:57.350	-0.2	49.9		5.00		TAS		32.4	1.00	m_e	mb	5.5
FLT1	83.67		P	08:32:52.719	0.0	49.9		5.00		TAS		17.3	0.92	m_e	mb	5.3
FUR	86.33		L	09:15:52.616						T__		614.9	18.00	a_e	Ms	5.0
GEC2	84.64		P	08:32:57.909		49.9		5.00		TAS		7.0	0.81	m_e	mb	4.9
GEC2	84.64		L	09:14:22.720						T__		708.6	18.70	a_e	Ms	5.1
GRA1	85.37		P	08:33:01.588		49.9		5.00		TAS		20.0	0.86	m_e	mb	5.4
GRA1	85.37		L	09:12:46.642						T__		231.2	21.60	a_e	Ms	4.5
GTTG	84.77		P	08:32:59.020	-0.3	49.9		5.00		TAS		20.9	0.86	m_e	mb	5.4
IBBN	85.29		P	08:33:01.202	-0.3	49.9		5.00		TAS		31.6	0.85	m_e	mb	5.6
MANZ	84.74		P	08:32:58.646		49.9		5.00		TAS		1.3	0.89	m_e	mb	4.2
MOX	84.56		P	08:32:57.379	0.1	49.9		5.00		TAS		15.7	1.29	m_e	mb	5.1
MOX	84.56		L	09:14:44.706						T__		401.6	18.90	a_e	Ms	4.8

./bul1908.txt Wed Jul 21 10:35:31 2021 40

NEUB	84.14	P	08:32:55.572	0.2	49.9	5.00	TAS	14.7	0.74	m_e	mb	5.3
PLN	84.40	P	08:32:56.795		49.9	5.00	TAS	2.4	0.87	m_e	mb	4.4
RETH	84.27	P	08:32:56.323	-0.1	49.9	5.00	TAS	20.4	1.13	m_e	mb	5.2
RJOB	85.81	P	08:33:04.091		49.9	5.00	TAS	17.6	0.99	m_e	mb	5.2
ROTZ	84.83	P	08:32:59.289		49.9	5.00	TAS	6.5	1.29	m_e	mb	4.7
TANN	84.29	P	08:32:56.174		49.9	5.00	TAS	4.8	0.91	m_e	mb	4.7
TNS	86.37	L	09:17:01.353				T__	736.7	18.00	a_e	Ms	5.1
UBBA	85.23	P	08:33:00.862	-0.2	49.9	5.00	TAS	18.2	1.20	m_e	mb	5.2
WET	84.88	L	09:14:32.067				T__	579.0	18.10	a_e	Ms	5.0

Event 90820003 Turkey

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/20	09:34:54.80			36.1300	31.1300				49.0			14		18.02	22.62	m i ke	EMSC
90820035																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.3		BGR	90820009
Ms	3.0		BGR	90820009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	20.73		P	09:39:30.130		125.6		10.55		TAS		14.6	0.65	m_e	mb	4.5
CLL	19.96		P	09:39:21.498	-0.5	125.6		10.55		TAS		12.4	1.12	m_e	mb	4.0
CLZ	21.56		P	09:39:37.611		125.6		10.55		TAS		8.1	0.82	m_e	mb	4.2
GEC2	18.02		P	09:39:01.023	-0.3	125.6		10.55		TAS		15.2	0.99	m_e	mb	4.1
GRA1	19.83		P	09:39:20.104	0.7	125.6		10.55		TAS		24.5	0.97	m_e	mb	4.4
GRA1	19.83		L	09:47:25.287						T__		66.2	18.80	a_e	Ms	3.0
GTTG	21.58		P	09:39:38.639		125.6		10.55		TAS		25.8	1.10	m_e	mb	4.6
MANZ	19.54		P	09:39:17.603	0.8	125.6		10.55		TAS		6.9	0.91	m_e	mb	3.9
MOX	20.20		P	09:39:24.936	0.0	125.6		10.55		TAS		27.2	0.91	m_e	mb	4.5
MOX	20.20		L	09:49:18.205						T__		55.9	21.00	a_e	Ms	2.9
ROTZ	19.36		P	09:39:15.472	-0.5	125.6		10.55		TAS		7.0	1.10	m_e	mb	3.8
STU	20.44		P	09:39:26.954		125.6		10.55		TAS		117.0	0.83	m_e	mb	5.2
TANN	19.63		P	09:39:18.274	0.8	125.6		10.55		TAS		12.9	1.01	m_e	mb	4.1
TNS	21.61		P	09:39:38.364		125.6		10.55		TAS		7.9	0.60	m_e	mb	4.3
WET	18.63		P	09:39:07.684	-0.1	125.6		10.55		TAS		20.2	1.01	m_e	mb	4.3
WLF	22.62		P	09:39:49.958		125.6		10.55		TAS		17.6	1.06	m_e	mb	4.5

Event 90820004 West of Bonin Islands, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/20	12:52:15.45			26.3940	133.1780				33.0			20		85.38	90.85	m i ke	BGR
90820010																	



Magnitude	Err	Nsta	Author	OrigID
mb	5.4		BGR	90820010
Ms	5.3		BGR	90820010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	87.08		P	13:04:56.845	-0.3	49.5		4.74		TAS		143.1	1.93	m_e	mb	5.8
BFO	90.73		P	13:05:13.383		49.5		4.74		TAS		17.3	1.31	m_e	mb	5.2
BFO	90.73		L	13:49:34.264						T__		830.5	18.70	a_e	Ms	5.2
BRG	86.30		P	13:04:53.826	0.2	49.5		4.74		TAS		24.3	1.00	m_e	mb	5.3
CLL	86.49		P	13:04:53.826	-0.2	49.5		4.74		TAS		45.6	0.69	m_e	mb	5.7
CLL	86.49		L	13:46:57.747						T__		1598.3	18.10	a_e	Ms	5.5
CLZ	87.41		P	13:04:58.866	0.2	49.5		4.74		TAS		48.7	0.85	m_e	mb	5.7
FLT1	86.68		P	13:04:54.587	0.3	49.5		4.74		TAS		56.8	0.92	m_e	mb	5.7
FUR	89.37		L	13:48:55.609						T__		1145.7	19.00	a_e	Ms	5.3
GEC2	87.69		P	13:04:59.918		49.5		4.74		TAS		15.2	1.13	m_e	mb	5.2
GEC2	87.69		L	13:45:49.809						T__		670.3	18.80	a_e	Ms	5.1
GOR1	86.22		P	13:04:52.930	0.0	49.5		4.74		TAS		78.2	1.14	m_e	mb	5.7
GRA1	88.40		L	13:49:31.554						T__		730.0	18.40	a_e	Ms	5.1
GTTG	87.79		P	13:05:00.663	0.0	49.5		4.74		TAS		32.7	0.93	m_e	mb	5.7
IBBN	88.29		P	13:05:02.727	0.4	49.5		4.74		TAS		54.7	0.85	m_e	mb	5.9
KAST	88.74		P	13:05:05.016	-0.1	49.5		4.74		TAS		16.2	1.10	m_e	mb	5.2
MOX	87.59		P	13:04:59.226	0.1	49.5		4.74		TAS		10.6	1.09	m_e	mb	5.1
MOX	87.59		L	13:46:40.777						T__		909.4	20.30	a_e	Ms	5.2
NEUB	87.16		P	13:04:57.375	-0.4	49.5		4.74		TAS		42.0	0.77	m_e	mb	5.6
NRDL	87.10		P	13:04:57.042	-0.5	49.5		4.74		TAS		28.5	1.08	m_e	mb	5.3
PLN	87.43		P	13:04:58.485	-0.9	49.5		4.74		TAS		5.3	1.10	m_e	mb	4.6
RETH	87.28		P	13:04:57.711	0.0	49.5		4.74		TAS		36.5	1.05	m_e	mb	5.4
RJOB	88.85		P	13:05:05.709		49.5		4.74		TAS		18.1	0.94	m_e	mb	5.3
ROTZ	87.86		P	13:05:00.907		49.5		4.74		TAS		2.6	0.90	m_e	mb	4.6
RUE	85.38		L	13:46:08.202						T__		1701.2	19.20	a_e	Ms	5.5
TANN	87.32		P	13:04:57.705	0.3	49.5		4.74		TAS		37.7	1.64	m_e	mb	5.3
TNS	89.39		L	13:48:38.870						T__		1115.8	18.50	a_e	Ms	5.3
WET	87.92		L	13:49:05.050						T__		1117.8	18.10	a_e	Ms	5.3
WLF	90.85		P	13:05:15.427		49.5		4.74		TAS		29.2	0.95	m_e	mb	5.6

Event 90820005 Santa Cruz Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/20	13:03:53.30			-11.3100	166.3300				45.0					133.84	138.76	m i ke	EMSC
OrigID 90820037																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.8		BGR	90820011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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Magnitude Err Nsta Author OrigID  
 Ms 4.8 BGR 90821009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GEC2	145.45		L	14:35:13.877						T__		133.0	21.20	a_e Ms	4.7
GRA1	147.28		PKPab	13:17:54.561		111.4		3.55		TAS				m_e	
GRA1	147.28		L	14:29:55.019						T__		154.9	20.20	a_e Ms	4.8
MOX	147.38		L	14:28:41.140						T__		173.3	21.70	a_e Ms	4.8
WET	146.07		L	14:32:00.315						T__		168.0	20.60	a_e Ms	4.8

Event 90821004 Hindu Kush, Afghanistan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/21	20:10:45.59			35.6900	69.9440				33.0			18		42.46	47.54	m i ke	BGR

OrigID  
90821010

Magnitude Err Nsta Author OrigID  
 mb 4.5 BGR 90821010  
 Ms 3.8 BGR 90821010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	46.31		L	20:42:09.119						T__		124.9	18.20	a_e Ms	3.9
BRG	42.46		P	20:18:36.985	0.8	85.4		8.01		TAS		13.2	0.56	m_e mb	4.9
CLL	43.04		P	20:18:40.064	-0.3	85.4		8.01		TAS		5.5	0.70	m_e mb	4.4
CLL	43.04		L	20:40:30.563						T__		75.7	19.20	a_e Ms	3.6
CLZ	44.66		P	20:18:53.468		85.4		8.01		TAS				m_e	
FUR	44.37		P	20:18:51.566	-0.1	85.4		8.01		TAS		9.5	0.66	m_e mb	4.7
FUR	44.37		L	20:38:48.669						T__		97.4	19.10	a_e Ms	3.7
GEC2	42.71		P	20:18:37.770	-0.6	85.4		8.01		TAS		3.0	0.75	m_e mb	4.1
GOR1	44.05		P	20:18:48.390	0.3	85.4		8.01		TAS		20.4	1.26	m_e mb	4.7
GRA1	44.26		P	20:18:51.262	-0.3	85.4		8.01		TAS				m_e	
GRA1	44.26		L	20:41:19.631						T__		160.4	18.80	a_e Ms	4.0
GTTG	44.93		P	20:18:55.779		85.4		8.01		TAS		12.3	0.61	m_e mb	5.0
HLG	46.05		L	20:40:58.301						T__		241.6	21.00	a_e Ms	4.1
IBBN	46.24		P	20:19:05.848		85.4		8.01		TAS		15.1	0.67	m_e mb	5.2
MANZ	43.67		P	20:18:46.034	0.6	85.4		8.01		TAS		1.1	0.82	m_e mb	3.6
MOX	43.95		P	20:18:47.897	-0.0	85.4		8.01		TAS		4.7	0.64	m_e mb	4.4
MOX	43.95		L	20:38:21.319						T__		69.9	19.80	a_e Ms	3.6
NEUB	43.82		P	20:18:46.491	0.2	85.4		8.01		TAS		12.0	0.72	m_e mb	4.7
NRDL	44.79		P	20:18:54.625		85.4		8.01		TAS		7.2	0.70	m_e mb	4.7
PLN	43.61		P	20:18:45.129	-0.2	85.4		8.01		TAS		1.9	0.75	m_e mb	3.9
ROTZ	43.62		P	20:18:45.779	0.3	85.4		8.01		TAS		4.2	1.61	m_e mb	3.9
TANN	43.42		P	20:18:43.606	-0.5	85.4		8.01		TAS		3.1	0.75	m_e mb	4.1
TNS	46.00		L	20:39:34.118						T__		79.6	20.30	a_e Ms	3.6
UBBA	44.96		P	20:18:55.798		85.4		8.01		TAS		6.8	0.52	m_e mb	4.8



Magnitude	Err	Nsta	Author	OrigID
Ms	5.9		BGR	90822010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	146.27		PKPbc	19:46:54.889		14.2		2.64		TAS				a_e	
BFO	146.27		L	20:51:14.715						T__		2813.8	21.30	a_e Ms	6.0
BRG	142.93		PKPbc	19:46:49.239	-0.1	14.2		2.64		TAS				a_e	
CLL	142.69		PKPbc	19:46:47.589	-1.9	14.2		2.64		TAS				a_e	
CLL	142.69		L	20:53:26.128						T__		1900.1	20.10	a_e Ms	5.8
CLZ	142.57		PKPbc	19:46:47.589	1.1	14.2		2.64		TAS				a_e	
FLT1	141.98		PKPbc	19:46:45.912	0.2	14.2		2.64		TAS				m_e	
FUR	146.02		PKPbc	19:46:54.189		14.2		2.64		TAS				a_e	
FUR	146.02		L	20:57:01.282						T__		3203.7	19.70	a_e Ms	6.1
GEC2	144.90		PKPbc	19:46:50.339		14.2		2.64		TAS				m_e	
GEC2	144.90		L	20:53:33.558						T__		1765.7	20.80	a_e Ms	5.8
GOR1	141.32		PKPbc	19:46:45.639	0.2	14.2		2.64		TAS				a_e	
GRA1	144.55		PKPbc	19:46:50.243		14.2		2.64		TAS				m_e	
GRA1	144.55		L	20:54:07.578						T__		2414.3	19.90	a_e Ms	6.0
GTTG	142.91		PKPbc	19:46:48.289	1.2	14.2		2.64		TAS				a_e	
HLG	140.52		L	20:47:58.001						T__		2186.2	20.60	a_e Ms	5.9
IBBN	142.40		PKPbc	19:46:47.165	-0.1	14.2		2.64		TAS				m_e	
KAST	143.43		PKPbc	19:46:48.989	-0.9	14.2		2.64		TAS				a_e	
MANZ	144.12		PKPbc	19:46:49.089	0.9	14.2		2.64		TAS				m_e	
MOX	143.56		L	20:47:30.208						T__		2069.7	21.90	a_e Ms	5.9
NEUB	143.00		PKPbc	19:46:48.239	-1.1	14.2		2.64		TAS				a_e	
NRDL	141.97		PKPbc	19:46:46.167	0.3	14.2		2.64		TAS				m_e	
PLN	143.62		PKPbc	19:46:50.441	-1.2	14.2		2.64		TAS				m_e	
RJOB	146.15		PKPbc	19:46:54.639		14.2		2.64		TAS				a_e	
ROTZ	144.31		PKPbc	19:46:49.282	1.0	14.2		2.64		TAS				m_e	
STU	145.74		PKPbc	19:46:52.594		14.2		2.64		TAS				m_e	
TANN	143.64		PKPbc	19:46:49.861	-0.1	14.2		2.64		TAS				m_e	
TNS	144.39		PKPbc	19:46:48.489	1.3	14.2		2.64		TAS				m_e	
TNS	144.39		L	20:51:55.116						T__		1557.1	20.80	a_e Ms	5.8
WET	144.78		PKPbc	19:46:50.189		14.2		2.64		TAS				a_e	
WET	144.78		L	20:54:42.389						T__		2619.4	20.00	a_e Ms	6.0
WLF	145.14		PKPbc	19:46:51.539		14.2		2.64		TAS				a_e	

Event	90822005	Santa Cruz	Islands																																
Date	2019/08/22	Time	22:54:26.20	Err		RMS	-12.5700	Latitude	167.0400	Longitude		Smaj		Smin		Az	217.0	Depth		Err		Ndef		Nsta	28	Gap		mdist	135.26	Mdist	140.19	Qual	m i ke	Author	EMSC
OrigID	90822037																																		

Magnitude	Err	Nsta	Author	OrigID
Ms	4.7		BGR	90822011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	136.19		PKP	23:13:08.830	-0.8	45.3		2.54		TAS				m_e	
BFO	140.19		PKP	23:13:20.130		45.3		2.54		TAS				m_e	
BRG	135.97		PKP	23:13:08.800	11.0	45.3		2.54		TAS				m_e	
BUG	137.91		PKP	23:13:13.863	1.4	45.3		2.54		TAS				m_e	
CLL	136.00		PKP	23:13:08.001	-1.5	45.3		2.54		TAS				m_e	
CLZ	136.53		PKP	23:13:10.388	-1.3	45.3		2.54		TAS				m_e	
FLT1	135.83		PKP	23:13:09.669	-0.9	45.3		2.54		TAS				m_e	
FUR	139.17		PKP	23:13:17.323	0.2	45.3		2.54		TAS				m_e	
GEC2	137.62		PKP	23:13:13.667	-1.4	45.3		2.54		TAS				m_e	
GOR1	135.26		PKP	23:13:07.380	0.0	45.3		2.54		TAS				m_e	
GRA1	137.98		PKP	23:13:14.174	0.6	45.3		2.54		TAS				m_e	
GRA1	137.98		L	00:16:00.263						T__		144.3	20.30	a_e Ms	4.7
GTTG	136.92		PKP	23:13:10.868	-0.4	45.3		2.54		TAS				m_e	
IBBN	137.00		PKP	23:13:10.785	-1.1	45.3		2.54		TAS				m_e	
KAST	137.74		PKP	23:13:13.357	0.1	45.3		2.54		TAS				m_e	
MANZ	137.39		PKP	23:13:11.999	1.1	45.3		2.54		TAS				m_e	
MOX	137.06		PKP	23:13:11.529	0.1	45.3		2.54		TAS				m_e	
MOX	137.06		L	00:15:50.548						T__		147.5	22.00	a_e Ms	4.7
NEUB	136.56		PKP	23:13:10.382	-1.2	45.3		2.54		TAS				m_e	
NRDL	136.08		PKP	23:13:09.377	-0.8	45.3		2.54		TAS				m_e	
PLN	136.98		PKP	23:13:10.295	-0.5	45.3		2.54		TAS				m_e	
RETH	136.12		PKP	23:13:21.614	-0.4	45.3		2.54		TAS				m_e	
RJOB	138.86		PKP	23:13:17.005	0.6	45.3		2.54		TAS				m_e	
ROTZ	137.53		PKP	23:13:12.865	0.1	45.3		2.54		TAS				m_e	
STU	139.50		PKP	23:13:18.975		45.3		2.54		TAS				m_e	
TANN	136.92		PKP	23:13:10.555	-2.3	45.3		2.54		TAS				m_e	
TNS	138.56		PKP	23:13:15.311	0.9	45.3		2.54		TAS				m_e	
UBBA	137.51		PKP	23:13:12.281	-1.1	45.3		2.54		TAS				m_e	
WET	137.74		PKP	23:13:13.122	-1.0	45.3		2.54		TAS				m_e	
WLF	139.80		PKP	23:13:20.439		45.3		2.54		TAS				m_e	

Event 90823001 Kermadec Islands, New Zealand

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/23	00:04:31.60			-29.3900	-178.1100				221.0			14		155.42	159.91	m i ke	EMSC
	90823033																

Magnitude	Err	Nsta	Author	OrigID
Ms	4.5		BGR	90823007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	156.71		PKPdf	00:24:01.105		22.7		1.15		TAS				m_e	
BRG	156.71		PKPab	00:24:29.955		18.7		4.34		TAS				m_e	
BRG	156.71		pPKPab	00:25:23.456						T__				m_e	

BUG	157.61	PKPdf	00:24:01.306	0.4	22.7	1.15	TAS	m_e											
CLL	156.58	PKPab	00:24:28.799		18.7	4.34	TAS	m_e											
CLZ	156.70	PKPdf	00:24:00.353	-0.1	22.7	1.15	TAS	m_e											
CLZ	156.70	PKPab	00:24:29.094		18.7	4.34	TAS	m_e											
FLT1	156.06	PKPdf	00:23:59.020	-0.3	22.7	1.15	TAS	m_e											
FLT1	156.06	PKPab	00:24:26.036		18.7	4.34	TAS	m_e											
FUR	159.91	PKPab	00:24:43.647		18.7	4.34	TAS	m_e											
GEC2	158.57	PKPdf	00:24:01.584		22.7	1.15	TAS	m_e											
GEC2	158.57	PKPab	00:24:37.858		18.7	4.34	TAS	m_e											
GOR1	155.42	PKPdf	00:23:58.748	-0.3	22.7	1.15	TAS	m_e											
GRA1	158.52	pPKPab	00:25:30.652				T__	m_e											
GRA1	158.52	L	01:20:10.215				T__	m_e	60.8	21.50	a_e	Ms						4.4	
GTTG	157.06	PKPab	00:24:30.709		18.7	4.34	TAS	m_e											
IBBN	156.69	PKPdf	00:23:59.536	1.0	22.7	1.15	TAS	m_e											
IBBN	156.69	PKPab	00:24:28.604		18.7	4.34	TAS	m_e											
KAST	157.67	PKPdf	00:24:01.473	-0.8	22.7	1.15	TAS	m_e											
MANZ	158.02	PKPdf	00:24:01.644		22.7	1.15	TAS	m_e											
MANZ	158.02	pPKPab	00:25:27.871				T__	m_e											
MOX	157.54	PKPdf	00:24:00.773		22.7	1.15	TAS	m_e											
MOX	157.54	PKPab	00:24:33.117		18.7	4.34	TAS	m_e											
MOX	157.54	L	01:32:42.050				T__	m_e	68.4	18.10	a_e	Ms						4.5	
NEUB	156.99	PKPab	00:24:30.764		18.7	4.34	TAS	m_e											
PLN	157.55	PKPdf	00:24:01.165		22.7	1.15	TAS	m_e											
PLN	157.55	PKPab	00:24:32.417		18.7	4.34	TAS	m_e											
PLN	157.55	pPKPab	00:25:25.973				T__	m_e											
RJOB	159.83	PKPab	00:24:43.428		18.7	4.34	TAS	m_e											
RJOB	159.83	pPKPab	00:25:36.766				T__	m_e											
ROTZ	158.19	PKPab	00:24:36.579		18.7	4.34	TAS	m_e											
ROTZ	158.19	pPKPab	00:25:29.397				T__	m_e											
TANN	157.53	PKPdf	00:24:00.957		22.7	1.15	TAS	m_e											
TANN	157.53	PKPab	00:24:32.373		18.7	4.34	TAS	m_e											
TANN	157.53	pPKPab	00:25:25.983				T__	m_e											
WET	158.56	PKPdf	00:24:02.382		22.7	1.15	TAS	m_e											
WET	158.56	PKPab	00:24:37.509		18.7	4.34	TAS	m_e											
WLF	159.49	PKPdf	00:24:03.906		22.7	1.15	TAS	m_e											
WLF	159.49	pPKPab	00:25:37.448				T__	m_e											

Event 90823002 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/23	17:22:59.60			-17.4600	-178.7100				548.0				13	144.33	148.68	m i ke	EMSC
90823034																	

Magnitude	Err	Nsta	Author	OrigID
Ms	4.2		BGR	90823008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	148.68		PKPbc	17:41:46.019		17.5		2.74		TAS				m_e	
BRG	145.16		PKPbc	17:41:37.662		17.5		2.74		TAS				m_e	
CLL	144.97		PKPbc	17:41:35.823	-0.4	17.5		2.74		TAS				m_e	
CLZ	144.95		PKPbc	17:41:35.744	0.4	17.5		2.74		TAS				m_e	
FLT1	144.33		PKPbc	17:41:33.426	0.2	17.5		2.74		TAS				m_e	
GEC2	147.11		PKPbc	17:41:41.920		17.5		2.74		TAS				m_e	
GRA1	146.86		L	18:45:20.608						T__		37.3	21.20	a_e Ms	4.1
GTTG	145.30		PKPbc	17:41:37.043	-0.2	17.5		2.74		TAS				m_e	
IBBN	144.86		PKPbc	17:41:35.267		17.5		2.74		TAS				m_e	
MOX	145.88		L	18:42:06.698						T__		38.5	19.60	a_e Ms	4.2
NEUB	145.32		PKPbc	17:41:36.937		17.5		2.74		TAS				m_e	
PLN	145.92		PKPbc	17:41:38.689		17.5		2.74		TAS				m_e	
RJOB	148.36		PKPbc	17:41:45.077		17.5		2.74		TAS				m_e	
ROTZ	146.59		PKPbc	17:41:40.594		17.5		2.74		TAS				m_e	
TANN	145.92		PKPbc	17:41:38.855		17.5		2.74		TAS				m_e	
TNS	146.81		PKPbc	17:41:41.145		17.5		2.74		TAS				m_e	
WLF	147.64		PKPbc	17:41:43.853		17.5		2.74		TAS				m_e	

Event 90823003 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/23	20:10:15.30			-18.0000	-178.2500				574.0			14		144.94	149.28	m i ke	GFZ
	90823055																

Magnitude	Err	Nsta	Author	OrigID
Ms	4.2		BGR	90823009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	149.28		PKPbc	20:28:59.763		13.7		2.58		TAS				m_e	
BRG	145.79		PKPbc	20:28:52.107		13.7		2.58		TAS				m_e	
CLL	145.59		PKPbc	20:28:50.398	0.4	13.7		2.58		TAS				m_e	
CLZ	145.55		PKPbc	20:28:50.645	0.0	13.7		2.58		TAS				m_e	
FLT1	144.94		PKPbc	20:28:48.044	0.3	13.7		2.58		TAS				m_e	
FUR	148.93		PKPbc	20:28:59.499		13.7		2.58		TAS				m_e	
GEC2	147.74		PKPbc	20:28:55.858		13.7		2.58		TAS				m_e	
GRA1	147.48		L	21:48:36.496						T__		40.8	18.10	a_e Ms	4.2
IBBN	145.44		PKPbc	20:28:49.620	-0.3	13.7		2.58		TAS				m_e	
MANZ	147.02		PKPbc	20:28:54.057		13.7		2.58		TAS				m_e	
MOX	146.49		L	21:45:57.259						T__		33.3	20.90	a_e Ms	4.1
PLN	146.54		PKPbc	20:28:52.865		13.7		2.58		TAS				m_e	
RJOB	148.99		PKPbc	20:28:59.216		13.7		2.58		TAS				m_e	
ROTZ	147.21		PKPbc	20:28:54.717		13.7		2.58		TAS				m_e	
TANN	146.54		PKPbc	20:28:52.615		13.7		2.58		TAS				m_e	
TNS	147.41		PKPbc	20:28:55.197		13.7		2.58		TAS				m_e	



Event 90823004 Southwestern Ryukyu Islands, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/23	23:44:46.79			23.6720	125.5970				33.0			27		82.99	89.03	m i ke	BGR
OrigID 90823010																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90823010
Ms	4.5		BGR	90823010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	85.63		P	23:57:20.890	0.3	56.7		4.89		TAS		65.8	1.64	m_e	mb	5.5
BFO	89.03		P	23:57:36.996		56.7		4.89		TAS		35.0	1.85	m_e	mb	5.3
BFO	89.03		L	00:42:03.921						T__		216.7	18.80	a_e	Ms	4.6
BRG	84.58		P	23:57:16.374	-0.1	56.7		4.89		TAS		12.3	1.30	a_e	mb	5.0
BUG	87.76		P	23:57:31.692	0.1	56.7		4.89		TAS		32.2	1.18	m_e	mb	5.5
CLL	84.86		P	23:57:16.524	0.5	56.7		4.89		TAS		70.5	2.11	m_e	mb	5.5
CLL	84.86		L	00:39:37.152						T__		237.8	19.80	a_e	Ms	4.6
CLZ	85.95		P	23:57:22.974	-0.7	56.7		4.89		TAS		80.4	1.43	m_e	mb	5.7
FLT1	85.23		P	23:57:18.687	0.2	56.7		4.89		TAS		68.3	1.71	m_e	mb	5.6
FUR	87.49		P	23:57:30.477		56.7		4.89		TAS		72.9	1.44	m_e	mb	5.6
FUR	87.49		L	00:38:54.666						T__		225.9	20.80	a_e	Ms	4.6
GEC2	85.76		P	23:57:21.557	0.1	56.7		4.89		TAS		15.4	1.15	m_e	mb	5.0
GEC2	85.76		L	00:39:34.295						T__		119.4	19.10	a_e	Ms	4.3
GOR1	84.84		P	23:57:17.474	0.1	56.7		4.89		TAS		186.0	2.16	a_e	mb	5.9
GRA1	86.68		P	23:57:26.524	-0.6	56.7		4.89		TAS		81.3	1.67	a_e	mb	5.6
GRA1	86.68		L	00:40:07.416						T__		181.6	19.40	a_e	Ms	4.5
GTTG	86.32		P	23:57:24.624	0.0	56.7		4.89		TAS		34.8	1.15	a_e	mb	5.4
IBBN	87.01		P	23:57:27.546	0.4	56.7		4.89		TAS		83.0	1.53	m_e	mb	5.6
KAST	87.32		P	23:57:29.248	0.0	56.7		4.89		TAS		37.6	1.72	m_e	mb	5.2
MANZ	86.04		P	23:57:23.039	-0.0	56.7		4.89		TAS		11.4	1.86	m_e	mb	4.7
MOX	85.95		P	23:57:22.524	0.1	56.7		4.89		TAS		32.2	1.50	a_e	mb	5.2
MOX	85.95		L	00:39:19.602						T__		196.3	21.50	a_e	Ms	4.5
NEUB	85.57		P	23:57:20.839	-0.1	56.7		4.89		TAS		38.0	1.22	m_e	mb	5.4
NRDL	85.72		P	23:57:21.516	-0.4	56.7		4.89		TAS		107.1	1.83	m_e	mb	5.7
PLN	85.75		P	23:57:21.474	0.0	56.7		4.89		TAS		13.5	1.69	a_e	mb	4.8
RGN	82.99		P	23:57:07.679	-0.4	56.7		4.89		TAS		40.7	1.18	m_e	mb	5.5
RJOB	86.86		P	23:57:27.138		56.7		4.89		TAS		14.0	1.46	m_e	mb	4.9
ROTZ	86.11		P	23:57:23.574	-0.1	56.7		4.89		TAS		17.5	1.90	a_e	mb	4.9
STU	88.30		P	23:57:33.810		56.7		4.89		TAS		41.3	1.17	m_e	mb	5.7
TANN	85.62		P	23:57:20.824	0.2	56.7		4.89		TAS		32.5	1.70	a_e	mb	5.2
TNS	87.87		P	23:57:32.015	0.3	56.7		4.89		TAS		19.6	1.44	m_e	mb	5.2
TNS	87.87		L	00:40:01.393						T__		310.8	18.50	a_e	Ms	4.8
UBBA	86.71		P	23:57:26.324	-0.2	56.7		4.89		TAS		41.0	1.56	a_e	mb	5.3
WET	86.07		P	23:57:23.166	0.3	56.7		4.89		TAS		40.7	1.84	m_e	mb	5.2
WET	86.07		L	00:39:42.757						T__		213.5	21.10	a_e	Ms	4.5

Event 90824001 Off east coast of Honshu, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/24	04:52:50.67			37.7690	143.5150				33.0			20		80.56	85.47	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90824007
Ms	5.3		BGR	90824007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	81.49		P	05:05:03.124	-0.1	36.1		5.17		TAS		18.2	1.12	m_e mb	5.0
BFO	85.47		P	05:05:23.543		36.1		5.17		TAS		45.4	1.01	m_e mb	5.7
BFO	85.47		L	05:46:58.195						T__		942.6	18.80	a_e Ms	5.2
BRG	81.26		P	05:05:02.720	-0.5	36.1		5.17		TAS		24.0	0.93	a_e mb	5.2
CLL	81.28		P	05:05:01.470	-0.1	36.1		5.17		TAS		46.7	0.98	a_e mb	5.5
CLL	81.28		L	05:44:07.730						T__		1495.3	18.10	a_e Ms	5.4
CLZ	81.83		P	05:05:05.120	-0.1	36.1		5.17		TAS		51.0	1.09	m_e mb	5.6
FLT1	81.12		P	05:05:00.698	-0.0	36.1		5.17		TAS		39.3	1.00	m_e mb	5.4
FUR	84.47		L	05:46:07.330						T__		1645.3	18.60	a_e Ms	5.5
GEC2	82.95		P	05:05:10.274	-0.2	36.1		5.17		TAS		15.4	0.91	m_e mb	5.2
GEC2	82.95		L	05:46:04.290						T__		953.2	18.70	a_e Ms	5.2
GOR1	80.56		P	05:04:58.966	-0.6	36.1		5.17		TAS		56.9	1.22	m_e mb	5.5
GRA1	83.26		P	05:05:12.670		36.1		5.17		TAS		46.5	1.01	a_e mb	5.7
GRA1	83.26		L	05:45:17.369						T__		869.7	19.20	a_e Ms	5.1
GTTG	82.22		P	05:05:07.142	-0.5	36.1		5.17		TAS		32.9	1.03	m_e mb	5.4
KAST	83.05		P	05:05:11.480		36.1		5.17		TAS		18.8	1.17	m_e mb	5.2
MANZ	82.68		P	05:05:09.335	0.3	36.1		5.17		TAS		3.5	0.92	m_e mb	4.6
MOX	82.34		P	05:05:07.420	-0.1	36.1		5.17		TAS		19.0	1.04	a_e mb	5.2
MOX	82.34		L	05:45:33.035						T__		910.4	18.00	a_e Ms	5.2
NEUB	81.84		P	05:05:04.847	0.2	36.1		5.17		TAS		57.5	1.04	m_e mb	5.6
NRDL	81.39		P	05:05:02.205	0.2	36.1		5.17		TAS		18.2	1.07	m_e mb	5.0
PLN	82.26		P	05:05:07.262	0.3	36.1		5.17		TAS		6.9	1.21	m_e mb	4.7
RJOB	84.20		P	05:05:17.420		36.1		5.17		TAS		42.0	0.98	m_e mb	5.6
ROTZ	82.81		P	05:05:10.320	0.2	36.1		5.17		TAS		11.6	1.34	a_e mb	4.9
TANN	82.20		P	05:05:06.720	0.0	36.1		5.17		TAS		32.5	1.63	a_e mb	5.2
TNS	83.85		L	05:47:23.919						T__		1234.8	18.80	a_e Ms	5.3
WET	83.05		P	05:05:11.189		36.1		5.17		TAS		29.7	1.17	m_e mb	5.4
WET	83.05		L	05:45:06.164						T__		1744.3	19.40	a_e Ms	5.4

Event 90824002 Tonga Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
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OrigID  
 2019/08/24 15:05:53.60 -21.6100 -173.6000 40.0 149.11 153.43 m i ke EMSC  
 90824034

Magnitude Err Nsta Author OrigID  
 Ms 5.0 BGR 90824008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	153.29		PKPbc	15:25:49.270		6.6		2.30		TAS				m_e	
BFO	153.29		PKPab	15:26:00.997		8.6		4.04		TAS				m_e	
BRG	150.20		PKPbc	15:25:44.029		6.6		2.30		TAS				m_e	
BRG	150.20		PKPab	15:25:49.299		8.6		4.04		TAS				m_e	
CLL	149.91		PKPbc	15:25:41.868		6.6		2.30		TAS				m_e	
CLL	149.91		PKPab	15:25:46.790		8.6		4.04		TAS				m_e	
CLZ	149.67		PKPbc	15:25:41.744		6.6		2.30		TAS				m_e	
CLZ	149.67		PKPab	15:25:46.020		8.6		4.04		TAS				m_e	
FLT1	149.11		PKPbc	15:25:39.670		6.6		2.30		TAS				m_e	
FLT1	149.11		PKPab	15:25:43.313		8.6		4.04		TAS				m_e	
GEC2	152.21		PKPbc	15:25:47.451		6.6		2.30		TAS				m_e	
GEC2	152.21		PKPab	15:25:55.880		8.6		4.04		TAS				m_e	
GRA1	151.72		PKPbc	15:25:47.356		6.6		2.30		TAS				m_e	
GRA1	151.72		PKPab	15:25:54.891		8.6		4.04		TAS				m_e	
GRA1	151.72		L	16:36:59.451						T__		368.5	20.90	a_e Ms	5.2
GTTG	149.99		PKPbc	15:25:42.440		6.6		2.30		TAS				m_e	
GTTG	149.99		PKPab	15:25:47.660		8.6		4.04		TAS				m_e	
IBBN	149.34		PKPbc	15:25:40.779		6.6		2.30		TAS				m_e	
IBBN	149.34		PKPab	15:25:44.879		8.6		4.04		TAS				m_e	
KAST	150.42		PKPbc	15:25:43.235		6.6		2.30		TAS				m_e	
MANZ	151.32		PKPbc	15:25:45.569		6.6		2.30		TAS				m_e	
MOX	150.73		PKPbc	15:25:43.955		6.6		2.30		TAS				m_e	
MOX	150.73		PKPab	15:25:50.267		8.6		4.04		TAS				m_e	
MOX	150.73		L	16:40:02.683						T__		229.0	22.00	a_e Ms	4.9
NEUB	150.18		PKPbc	15:25:42.863		6.6		2.30		TAS				m_e	
PLN	150.83		PKPbc	15:25:44.178		6.6		2.30		TAS				m_e	
PLN	150.83		PKPab	15:25:50.590		8.6		4.04		TAS				m_e	
RJOB	153.43		PKPbc	15:25:49.742		6.6		2.30		TAS				m_e	
RJOB	153.43		PKPab	15:26:02.117		8.6		4.04		TAS				m_e	
ROTZ	151.53		PKPbc	15:25:45.842		6.6		2.30		TAS				m_e	
ROTZ	151.53		PKPab	15:25:53.461		8.6		4.04		TAS				m_e	
TANN	150.86		PKPbc	15:25:44.202		6.6		2.30		TAS				m_e	
TANN	150.86		PKPab	15:25:50.583		8.6		4.04		TAS				m_e	
TNS	151.40		PKPbc	15:25:45.097		6.6		2.30		TAS				m_e	
TNS	151.40		PKPab	15:25:52.577		8.6		4.04		TAS				m_e	
WET	152.04		PKPbc	15:25:47.203		6.6		2.30		TAS				m_e	
WLF	152.00		PKPbc	15:25:47.575		6.6		2.30		TAS				m_e	

Event 90824003 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/24	15:27:11.80			-19.7800	169.9000				40.0					144.58	147.86	m i ke	EMSC
OrigID 90824035																	

Magnitude	Err	Nsta	Author	OrigID
Ms 4.9			BGR	90824009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	147.86		PKPbc	15:46:52.451		37.4		2.76		TAS				m_e	
GEC2	145.26		PKPbc	15:46:44.991		37.4		2.76		TAS				m_e	
GRA1	145.64		PKPbc	15:46:46.497		37.4		2.76		TAS				m_e	
GRA1	145.64		L	16:55:08.388						T__		224.6	21.60	a_e Ms	4.9
KAST	145.41		PKPbc	15:46:45.593		37.4		2.76		TAS				m_e	
MANZ	145.06		PKPbc	15:46:44.535		37.4		2.76		TAS				m_e	
MOX	144.73		PKPbc	15:46:43.274		37.4		2.76		TAS				m_e	
MOX	144.73		L	16:49:16.906						T__		198.6	21.80	a_e Ms	4.8
PLN	144.64		PKPbc	15:46:42.969		37.4		2.76		TAS				m_e	
RJOB	146.49		PKPbc	15:46:48.346		37.4		2.76		TAS				m_e	
ROTZ	145.19		PKPbc	15:46:45.152		37.4		2.76		TAS				m_e	
STU	147.17		PKPbc	15:46:51.189		37.4		2.76		TAS				m_e	
TANN	144.58		PKPbc	15:46:43.101		37.4		2.76		TAS				m_e	
TNS	146.23		PKPbc	15:46:48.125		37.4		2.76		TAS				m_e	
WLF	147.48		PKPbc	15:46:52.577		37.4		2.76		TAS				m_e	

Event 90824005 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/24	15:51:28.10			-14.2900	167.2000				127.0					134.95	141.82	m i ke	EMSC
OrigID 90824037																	

Magnitude	Err	Nsta	Author	OrigID
Ms 5.2			BGR	90824011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	137.84		PKP	16:10:28.027		37.5		2.77		TAS				m_e	
ASSE	137.84		SKPdf	16:14:02.072						T__				m_e	
BFO	141.82		PKP	16:10:38.659		37.5		2.77		TAS				m_e	
BFO	141.82		SKPdf	16:14:11.991						T__				m_e	
BFO	141.82		L	17:17:16.078						T__		343.2	20.30	a_e Ms	5.1
BRG	137.59		PKP	16:10:27.464		37.5		2.77		TAS				m_e	
BRG	137.59		SKPdf	16:14:02.395						T__				m_e	
BUG	139.57		PKP	16:10:30.877		37.5		2.77		TAS				m_e	
BUG	139.57		SKPdf	16:14:05.880						T__				m_e	
CLL	137.63		PKP	16:10:27.587		37.5		2.77		TAS				m_e	

CLL	137.63	SKPdf	16:14:01.842			T__			m_e	
CLL	137.63	L	17:13:41.469			T__	540.0	20.50	a_e Ms	5.3
CLZ	138.19	PKP	16:10:27.749	37.5	2.77	TAS			m_e	
CLZ	138.19	SKPdf	16:14:03.160			T__			m_e	
FLT1	137.48	PKP	16:10:25.809	37.5	2.77	TAS			m_e	
FLT1	137.48	SKPdf	16:14:01.011			T__			m_e	
FUR	140.79	PKP	16:10:36.950	37.5	2.77	TAS			m_e	
FUR	140.79	SKPdf	16:14:09.153			T__			m_e	
FUR	140.79	L	17:21:48.405			T__	405.4	19.30	a_e Ms	5.2
GEC2	139.22	PKP	16:10:32.114	37.5	2.77	TAS			m_e	
GEC2	139.22	SKPdf	16:14:05.625			T__			m_e	
GOR1	136.91	PKP	16:10:25.885	37.5	2.77	TAS			m_e	
GRA1	139.60	PKP	16:10:32.060	37.5	2.77	TAS			m_e	
GRA1	139.60	SKPdf	16:14:06.732			T__			m_e	
GRA1	139.60	L	17:17:09.886			T__	460.9	19.20	a_e Ms	5.2
GTTG	138.57	PKP	16:10:29.214	37.5	2.77	TAS			m_e	
GTTG	138.57	SKPdf	16:14:03.825			T__			m_e	
HLG	137.01	PKP	16:10:25.723	37.5	2.77	TAS			m_e	
HLG	137.01	SKPdf	16:13:59.888			T__			m_e	
IBBN	138.67	PKP	16:10:28.908	37.5	2.77	TAS			m_e	
IBBN	138.67	SKPdf	16:14:04.635			T__			m_e	
KAST	139.40	PKP	16:10:31.602	37.5	2.77	TAS			m_e	
KAST	139.40	SKPdf	16:14:06.156			T__			m_e	
MANZ	139.02	PKP	16:10:30.640	37.5	2.77	TAS			m_e	
MANZ	139.02	SKPdf	16:14:05.004			T__			m_e	
MOX	138.69	PKP	16:10:28.958	37.5	2.77	TAS			m_e	
MOX	138.69	SKPdf	16:14:04.333			T__			m_e	
MOX	138.69	L	17:15:14.006			T__	389.9	20.50	a_e Ms	5.1
NEUB	138.19	PKP	16:10:27.620	37.5	2.77	TAS			m_e	
NEUB	138.19	SKPdf	16:14:02.883			T__			m_e	
NRDL	137.74	PKP	16:10:26.926	37.5	2.77	TAS			m_e	
NRDL	137.74	SKPdf	16:14:01.057			T__			m_e	
PLN	138.60	PKP	16:10:28.661	37.5	2.77	TAS			m_e	
PLN	138.60	SKPdf	16:14:03.759			T__			m_e	
RETH	137.79	PKP	16:10:27.093	37.5	2.77	TAS			m_e	
RETH	137.79	SKPdf	16:14:01.703			T__			m_e	
RGN	134.95	SKPdf	16:13:54.124			T__			m_e	
RJOB	140.46	PKP	16:10:35.405	37.5	2.77	TAS			m_e	
RJOB	140.46	SKPdf	16:14:08.000			T__			m_e	
ROTZ	139.15	PKP	16:10:30.531	37.5	2.77	TAS			m_e	
ROTZ	139.15	SKPdf	16:14:05.603			T__			m_e	
RUE	136.41	PKP	16:10:25.033	37.5	2.77	TAS			m_e	
RUE	136.41	SKPdf	16:13:58.319			T__			m_e	
STU	141.13	PKP	16:10:37.325	37.5	2.77	TAS			m_e	
STU	141.13	SKPdf	16:14:10.490			T__			m_e	
TANN	138.54	PKP	16:10:28.808	37.5	2.77	TAS			m_e	
TANN	138.54	SKPdf	16:14:03.805			T__			m_e	
TNS	140.21	PKP	16:10:33.959	37.5	2.77	TAS			m_e	
TNS	140.21	SKPdf	16:14:07.977			T__			m_e	

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TNS	140.21	L	17:14:32.808			T__	357.6	20.90	a_e	Ms	5.1
UBBA	139.16	PKP	16:10:30.628	37.5	2.77	TAS			m_e		
UBBA	139.16	SKPdf	16:14:05.117			T__			m_e		
WET	139.35	PKP	16:10:31.361	37.5	2.77	TAS			m_e		
WET	139.35	SKPdf	16:14:06.248			T__			m_e		
WET	139.35	L	17:08:51.221			T__	365.8	20.80	a_e	Ms	5.1
WLF	141.47	PKP	16:10:38.651	37.5	2.77	TAS			m_e		
WLF	141.47	SKPdf	16:14:12.129			T__			m_e		

Event 90824006 Hokkaido, Japan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/24	18:51:04.41			42.7670	143.7350				33.0			10		76.77	81.15	m i ke	BGR
OrigID 90824012																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.4		BGR	90824012
Ms	3.7		BGR	90824012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	81.15		P	19:03:14.567		33.5		5.50		TAS		3.9	0.89	m_e	mb	4.5
CLL	77.00		P	19:02:51.718	0.1	33.5		5.50		TAS		4.8	0.96	m_e	mb	4.6
CLZ	77.47		P	19:02:55.414		33.5		5.50		TAS		4.7	0.82	m_e	mb	4.7
FLT1	76.77		P	19:02:50.542	0.3	33.5		5.50		TAS		6.2	0.77	m_e	mb	4.8
GEC2	78.76		P	19:03:01.644		33.5		5.50		TAS		1.7	0.72	m_e	mb	4.2
GRA1	78.97		P	19:03:03.495		33.5		5.50		TAS		5.6	0.80	m_e	mb	4.7
GRA1	78.97		L	19:38:14.946						T__		38.9	19.80	a_e	Ms	3.7
MOX	78.04		L	19:36:50.548						T__		41.6	21.10	a_e	Ms	3.7
RJOB	80.01		P	19:03:08.869		33.5		5.50		TAS		6.1	0.92	m_e	mb	4.5
ROTZ	78.55		P	19:03:01.052		33.5		5.50		TAS		0.6	0.81	m_e	mb	3.7
TANN	77.93		P	19:02:57.274		33.5		5.50		TAS		2.6	1.08	m_e	mb	4.3
WET	78.82		P	19:03:02.328		33.5		5.50		TAS		3.4	0.93	m_e	mb	4.4

Event 90824007 Tonga Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/24	21:21:25.80			-20.1300	-175.7600				200.0			30		145.89	151.67	m i ke	EMSC
OrigID 90824039																	

Magnitude	Err	Nsta	Author	OrigID
Ms	4.3		BGR	90824013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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ASSE	147.67	PKPbc	21:40:46.503	0.2	13.2	2.47	TAS	m_e		
BFO	151.67	PKPdf	21:40:49.143		9.0	1.58	TAS	m_e		
BFO	151.67	PKPbc	21:40:56.083	-0.3	13.2	2.47	TAS	m_e		
BRG	148.38	PKPdf	21:40:45.515		9.0	1.58	TAS	m_e		
BRG	148.38	PKPbc	21:40:49.410	-0.2	13.2	2.47	TAS	m_e		
BUG	148.66	PKPdf	21:40:44.619		9.0	1.58	TAS	m_e		
BUG	148.66	PKPbc	21:40:48.920	-0.2	13.2	2.47	TAS	m_e		
CLL	148.13	PKPdf	21:40:43.871		9.0	1.58	TAS	m_e		
CLL	148.13	PKPbc	21:40:47.388	-0.1	13.2	2.47	TAS	m_e		
CLZ	147.99	PKPdf	21:40:43.626		9.0	1.58	TAS	m_e		
CLZ	147.99	PKPbc	21:40:47.336	0.1	13.2	2.47	TAS	m_e		
FLT1	147.40	PKPdf	21:40:42.460		9.0	1.58	TAS	m_e		
FLT1	147.40	PKPbc	21:40:45.273	0.1	13.2	2.47	TAS	a_e		
FUR	151.46	PKPdf	21:40:48.997		9.0	1.58	TAS	m_e		
FUR	151.46	PKPbc	21:40:55.527	-0.5	13.2	2.47	TAS	m_e		
GEC2	150.36	PKPdf	21:40:47.447		9.0	1.58	TAS	m_e		
GEC2	150.36	PKPbc	21:40:53.077	-0.1	13.2	2.47	TAS	m_e		
GOR1	146.75	PKPdf	21:40:41.403		9.0	1.58	TAS	m_e		
GOR1	146.75	PKPbc	21:40:43.960	0.0	13.2	2.47	TAS	m_e		
GRA1	149.98	PKPdf	21:40:46.847		9.0	1.58	TAS	m_e		
GRA1	149.98	PKPbc	21:40:52.360	0.1	13.2	2.47	TAS	m_e		
GRA1	149.98	L	22:43:02.736				T__		45.6	20.50
GTTG	148.33	PKPdf	21:40:44.065		9.0	1.58	TAS	a_e	Ms	4.3
GTTG	148.33	PKPbc	21:40:48.090	-0.1	13.2	2.47	TAS	m_e		
HLG	145.89	PKPbc	21:40:41.908	-0.1	13.2	2.47	TAS	m_e		
IBBN	147.77	PKPdf	21:40:43.240		9.0	1.58	TAS	m_e		
IBBN	147.77	PKPbc	21:40:46.641	-0.5	13.2	2.47	TAS	m_e		
KAST	148.82	PKPdf	21:40:44.678		9.0	1.58	TAS	m_e		
KAST	148.82	PKPbc	21:40:49.192	-0.0	13.2	2.47	TAS	m_e		
MANZ	149.56	PKPdf	21:40:46.273		9.0	1.58	TAS	m_e		
MANZ	149.56	PKPbc	21:40:51.222	0.2	13.2	2.47	TAS	m_e		
MOX	149.00	PKPdf	21:40:44.918		9.0	1.58	TAS	m_e		
MOX	149.00	PKPbc	21:40:49.723	0.0	13.2	2.47	TAS	m_e		
MOX	149.00	L	22:42:23.274				T__		49.1	20.50
NEUB	148.44	PKPdf	21:40:44.263		9.0	1.58	TAS	a_e	Ms	4.3
NEUB	148.44	PKPbc	21:40:48.273	1.1	13.2	2.47	TAS	m_e		
NRDL	147.38	PKPdf	21:40:42.429		9.0	1.58	TAS	a_e		
NRDL	147.38	PKPbc	21:40:45.709	-0.3	13.2	2.47	TAS	m_e		
PLN	149.06	PKPdf	21:40:45.248		9.0	1.58	TAS	m_e		
PLN	149.06	PKPbc	21:40:49.919	0.1	13.2	2.47	TAS	m_e		
RETH	147.21	PKPbc	21:40:45.291	0.0	13.2	2.47	TAS	m_e		
RJOB	151.60	PKPdf	21:40:48.882		9.0	1.58	TAS	m_e		
RJOB	151.60	PKPbc	21:40:55.763		13.2	2.47	TAS	m_e		
ROTZ	149.75	PKPdf	21:40:46.446		9.0	1.58	TAS	m_e		
ROTZ	149.75	PKPbc	21:40:51.773	0.6	13.2	2.47	TAS	m_e		
RUE	146.87	PKPbc	21:40:44.235	-0.1	13.2	2.47	TAS	m_e		
STU	151.15	PKPdf	21:40:48.726		9.0	1.58	TAS	m_e		
STU	151.15	PKPbc	21:40:54.866	-0.2	13.2	2.47	TAS	m_e		
TANN	149.08	PKPdf	21:40:45.501		9.0	1.58	TAS	m_e		

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TANN	149.08	PKPbc	21:40:50.072	0.2	13.2	2.47	TAS	m_e
TNS	149.79	PKPdf	21:40:46.513		9.0	1.58	TAS	m_e
TNS	149.79	PKPbc	21:40:51.823	0.1	13.2	2.47	TAS	a_e
UBBA	149.04	PKPdf	21:40:44.665		9.0	1.58	TAS	m_e
UBBA	149.04	PKPbc	21:40:49.594	0.0	13.2	2.47	TAS	m_e
WET	150.24	PKPdf	21:40:47.129		9.0	1.58	TAS	m_e
WET	150.24	PKPbc	21:40:52.994	-0.2	13.2	2.47	TAS	m_e
WLF	150.49	PKPdf	21:40:47.713		9.0	1.58	TAS	m_e
WLF	150.49	PKPbc	21:40:54.125	0.2	13.2	2.47	TAS	m_e

Event 90824008 Southern Chile

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/24	23:36:36.30			-43.1400	-74.2000				40.0					116.35	121.55	m i ke	EMSC
90824040																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.0		BGR	90824014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	116.35		PKPdf	23:55:14.972		229.2		1.83		TAS				m_e	
BFO	116.35		L	00:42:41.888						T__		436.7	21.10	a_e Ms	5.0
BUG	117.61		PKPdf	23:55:18.545		229.2		1.83		TAS				m_e	
CLL	120.53		PKPdf	23:55:23.049		229.2		1.83		TAS				m_e	
CLL	120.53		L	00:48:20.129						T__		308.1	18.70	a_e Ms	5.0
FUR	117.87		L	00:48:24.637						T__		393.0	18.20	a_e Ms	5.1
GEC2	119.59		PKPdf	23:55:20.809		229.2		1.83		TAS				m_e	
GEC2	119.59		L	00:44:26.546						T__		397.5	21.60	a_e Ms	5.0
GOR1	120.53		PKPdf	23:55:23.347		229.2		1.83		TAS				m_e	
GRA1	118.69		PKPdf	23:55:20.689		229.2		1.83		TAS				m_e	
GRA1	118.69		L	00:44:21.005						T__		211.2	21.70	a_e Ms	4.7
GTTG	119.06		PKPdf	23:55:21.318		229.2		1.83		TAS				m_e	
MANZ	119.34		PKPdf	23:55:21.047		229.2		1.83		TAS				m_e	
MOX	119.43		L	00:47:28.631						T__		321.6	18.80	a_e Ms	5.0
NEUB	119.81		PKPdf	23:55:22.153		229.2		1.83		TAS				m_e	
PLN	119.64		PKPdf	23:55:21.257		229.2		1.83		TAS				m_e	
RUE	121.55		L	00:50:09.618						T__		282.7	18.10	a_e Ms	5.0
TANN	119.76		PKPdf	23:55:22.003		229.2		1.83		TAS				m_e	
TNS	117.52		L	00:47:12.250						T__		297.7	18.00	a_e Ms	5.0
WET	119.30		L	00:46:39.355						T__		292.5	18.60	a_e Ms	4.9

Event 90825001 Eastern Sea of Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
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OrigID  
 2019/08/25 05:13:45.67 44.0210 140.8790 33.0 23 74.11 79.04 m i ke BGR  
 90825007

Magnitude Err Nsta Author OrigID  
 mb 4.8 BGR 90825007  
 Ms 3.5 BGR 90825007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	75.04		P	05:25:21.878	-0.3	34.7		5.66		TAS		5.0	0.94	m_e	mb 4.5
BFO	79.04		P	05:25:44.541		34.7		5.66		TAS		6.1	0.87	m_e	mb 4.6
BRG	74.87		P	05:25:22.120	-0.4	34.7		5.66		TAS		6.7	1.04	m_e	mb 4.6
BUG	76.78		P	05:25:32.228		34.7		5.66		TAS		12.2	1.06	m_e	mb 5.0
CLL	74.87		P	05:25:20.968	0.4	34.7		5.66		TAS		24.7	1.12	m_e	mb 5.1
CLZ	75.38		P	05:25:24.637	-0.2	34.7		5.66		TAS		12.1	0.96	m_e	mb 4.9
FLT1	74.67		P	05:25:19.779	0.1	34.7		5.66		TAS		21.3	0.95	a_e	mb 5.2
FUR	78.08		P	05:25:39.629		34.7		5.66		TAS		11.4	0.72	m_e	mb 5.1
GEC2	76.59		P	05:25:30.835	0.2	34.7		5.66		TAS		3.3	0.68	m_e	mb 4.6
GOR1	74.11		P	05:25:17.245	0.8	34.7		5.66		TAS		13.1	1.00	m_e	mb 4.9
GRA1	76.85		P	05:25:32.910		34.7		5.66		TAS		27.4	1.32	m_e	mb 5.2
GRA1	76.85		L	05:56:03.198						T__		15.9	21.70	a_e	Ms 3.3
GTTG	75.77		P	05:25:26.742	-0.2	34.7		5.66		TAS		19.2	1.35	m_e	mb 5.0
IBBN	75.89		P	05:25:27.075	-0.3	34.7		5.66		TAS		6.4	0.64	m_e	mb 4.9
IBBN	75.89		L	06:03:23.307						T__		30.3	18.90	a_e	Ms 3.6
KAST	76.59		P	05:25:31.243	0.1	34.7		5.66		TAS		4.6	0.71	m_e	mb 4.7
MANZ	76.27		P	05:25:29.197	0.2	34.7		5.66		TAS		2.2	1.30	m_e	mb 4.1
MOX	75.92		P	05:25:27.103	0.2	34.7		5.66		TAS		8.3	1.29	m_e	mb 4.7
NEUB	75.41		P	05:25:24.096	0.1	34.7		5.66		TAS		17.7	0.99	m_e	mb 5.0
NRDL	74.93		P	05:25:21.761	-0.3	34.7		5.66		TAS		7.9	1.05	m_e	mb 4.7
PLN	75.85		P	05:25:26.714	0.2	34.7		5.66		TAS		3.3	1.62	m_e	mb 4.2
RJOB	77.84		P	05:25:38.376		34.7		5.66		TAS		6.3	0.82	m_e	mb 4.8
ROTZ	76.42		P	05:25:30.313	0.3	34.7		5.66		TAS		1.3	0.89	m_e	mb 4.0
TANN	75.79		P	05:25:26.328	-0.1	34.7		5.66		TAS		4.1	1.12	m_e	mb 4.5
WET	76.67		P	05:25:31.790	-0.4	34.7		5.66		TAS		5.6	0.87	m_e	mb 4.7

Event 90825002 Fiji Islands region

Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
 OrigID  
 2019/08/25 06:31:31.40 -14.6100 -177.5500 20.0 142.66 146.03 m i ke EMSC  
 90825034

Magnitude Err Nsta Author OrigID  
 Ms 4.8 BGR 90825008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	146.03		PKPbc	06:51:09.669		14.6		3.10		TAS				m_e	

BRG	142.66	PKPbc	06:51:04.266	14.6	3.10	TAS										m_e
FUR	145.76	PKPbc	06:51:09.648	14.6	3.10	TAS										m_e
GEC2	144.63	PKPbc	06:51:05.412	14.6	3.10	TAS										m_e
GRA1	144.29	PKPbc	06:51:06.293	14.6	3.10	TAS										m_e
GRA1	144.29	L	08:04:42.869			T__	154.7	21.20				a_e	Ms			4.8
MANZ	143.85	PKPbc	06:51:05.492	14.6	3.10	TAS										m_e
MOX	143.30	L	08:03:28.816			T__	179.9	20.70				a_e	Ms			4.8
RJOB	145.87	PKPbc	06:51:09.669	14.6	3.10	TAS										m_e
ROTZ	144.04	PKPbc	06:51:05.134	14.6	3.10	TAS										m_e
STU	145.49	PKPbc	06:51:08.488	14.6	3.10	TAS										m_e
TNS	144.15	PKPbc	06:51:05.765	14.6	3.10	TAS										m_e
WET	144.51	PKPbc	06:51:05.916	14.6	3.10	TAS										m_e
WLF	144.91	PKPbc	06:51:07.177	14.6	3.10	TAS										m_e

Event 90825003 East of Kuril Islands, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/25	07:16:16.55			50.3950	159.3070				33.0			18		74.14	78.54	m i ke	BGR
	90825009																

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	90825009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	74.45		P	07:27:49.499	-0.2	20.3		5.68		TAS		7.2	1.13	m_e mb	4.6
BFO	78.54		P	07:28:12.380		20.3		5.68		TAS		6.5	1.11	m_e mb	4.6
BRG	74.88		P	07:27:52.812	-0.1	20.3		5.68		TAS		7.7	1.17	m_e mb	4.6
BUG	75.79		P	07:27:57.482	0.2	20.3		5.68		TAS		13.7	1.05	m_e mb	5.0
CLL	74.70		P	07:27:50.802	0.0	20.3		5.68		TAS		13.0	1.01	m_e mb	4.9
CLZ	74.78		P	07:27:51.771	-0.2	20.3		5.68		TAS		16.3	1.20	m_e mb	4.9
FLT1	74.14		P	07:27:47.245	0.7	20.3		5.68		TAS		6.3	0.93	m_e mb	4.6
GEC2	76.83		P	07:28:02.972		20.3		5.68		TAS		6.2	0.85	m_e mb	4.8
GRA1	76.62		P	07:28:02.310		20.3		5.68		TAS		16.5	0.86	m_e mb	5.2
GRA1	76.62		L	08:04:42.863						T__		154.7	21.20	a_e	
IBBN	74.88		P	07:27:51.878	0.3	20.3		5.68		TAS		8.6	0.91	m_e mb	4.8
KAST	75.79		P	07:27:57.482	0.3	20.3		5.68		TAS		8.7	1.00	m_e mb	4.8
MOX	75.64		P	07:27:56.220	0.0	20.3		5.68		TAS		11.3	1.28	m_e mb	4.8
MOX	75.64		L	08:03:28.796						T__		179.9	20.70	a_e	
PLN	75.66		P	07:27:56.378		20.3		5.68		TAS		3.1	1.16	m_e mb	4.3
RJOB	78.08		P	07:28:10.261		20.3		5.68		TAS		7.5	1.19	m_e mb	4.7
ROTZ	76.32		P	07:28:00.322		20.3		5.68		TAS		2.5	1.08	m_e mb	4.3
TANN	75.66		P	07:27:56.409		20.3		5.68		TAS		4.1	1.05	m_e mb	4.5
TNS	76.72		P	07:28:02.709		20.3		5.68		TAS		6.6	0.84	m_e mb	4.8
WET	76.75		P	07:28:02.751		20.3		5.68		TAS		11.6	0.86	m_e mb	5.0

Event 90825004 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/25	14:54:53.36			8.3250	-38.5750				10.0			22		56.06	60.47	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	90825010
Ms	3.6		BGR	90825010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	56.06		P	15:04:33.045	0.0	242.5		6.99		TAS		13.6	0.93	m_e	mb	5.0
BFO	56.06		L	15:27:28.734						T__		38.9	20.20	a_e	Ms	3.5
BRG	60.47		P	15:05:04.642		242.5		6.99		TAS		5.2	1.23	m_e	mb	4.4
BUG	57.07		P	15:04:39.822	0.0	242.5		6.99		TAS		7.3	0.82	m_e	mb	4.8
CLL	60.13		L	15:29:12.485						T__		53.2	19.30	a_e	Ms	3.7
CLZ	58.93		P	15:04:52.436	0.1	242.5		6.99		TAS		3.7	1.04	m_e	mb	4.4
FLT1	59.64		P	15:04:57.645		242.5		6.99		TAS		7.8	1.16	m_e	mb	4.6
FUR	57.72		P	15:04:45.210	-0.2	242.5		6.99		TAS		15.5	0.79	m_e	mb	5.1
FUR	57.72		L	15:24:14.648						T__		51.7	20.40	a_e	Ms	3.6
GEC2	59.47		P	15:04:56.546		242.5		6.99		TAS		4.6	1.20	m_e	mb	4.4
GRA1	58.38		P	15:04:49.347	0.3	242.5		6.99		TAS		8.3	0.84	m_e	mb	4.8
GRA1	58.38		L	15:25:09.803						T__		32.9	21.40	a_e	Ms	3.4
GTTG	58.57		P	15:04:50.678	-0.5	242.5		6.99		TAS		16.3	1.30	m_e	mb	4.9
IBBN	57.79		P	15:04:44.519	0.1	242.5		6.99		TAS				m_e		
KAST	57.56		P	15:04:43.192	0.6	242.5		6.99		TAS		6.8	1.20	m_e	mb	4.5
MANZ	59.03		P	15:04:53.367	-0.8	242.5		6.99		TAS		0.8	0.87	m_e	mb	3.7
MOX	59.05		P	15:04:53.979	0.1	242.5		6.99		TAS		5.5	0.98	m_e	mb	4.5
MOX	59.05		L	15:30:40.760						T__		41.4	20.70	a_e	Ms	3.5
NRDL	59.12		P	15:04:54.400	0.1	242.5		6.99		TAS		10.3	1.19	m_e	mb	4.7
PLN	59.28		P	15:04:55.629	0.8	242.5		6.99		TAS		5.6	1.49	m_e	mb	4.4
RETH	58.85		P	15:04:52.351	-0.1	242.5		6.99		TAS		7.0	1.42	m_e	mb	4.5
RJOB	58.46		P	15:04:49.748	0.2	242.5		6.99		TAS		11.8	0.97	m_e	mb	4.9
ROTZ	58.99		P	15:04:53.388	0.3	242.5		6.99		TAS		2.4	1.25	m_e	mb	4.1
STU	56.78		P	15:04:38.047	0.0	242.5		6.99		TAS				m_e		
TANN	59.42		P	15:04:56.658		242.5		6.99		TAS		8.9	1.26	m_e	mb	4.7
TNS	57.07		P	15:04:40.089	-0.1	242.5		6.99		TAS		14.3	1.56	m_e	mb	4.8
TNS	57.07		L	15:27:27.347						T__		69.1	19.00	a_e	Ms	3.8
WET	59.11		P	15:04:53.471	-0.2	242.5		6.99		TAS		2.6	0.95	m_e	mb	4.2
WET	59.11		L	15:28:52.646						T__		36.6	20.20	a_e	Ms	3.5

Event 90825005 Bougainville - Solomon Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
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Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	90825012
Ms	3.9		BGR	90825012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	56.51		P	18:41:25.910		241.8		6.80		TAS		12.0	1.49	m_e	mb	4.7
GRA1	58.83		P	18:41:42.270		241.8		6.80		TAS		4.0	0.78	m_e	mb	4.5
GRA1	58.83		L	19:05:14.937						T__		76.9	20.30	a_e	Ms	3.8
MOX	59.49		P	18:41:46.525		241.8		6.80		TAS		13.7	1.83	m_e	mb	4.7
MOX	59.49		L	19:01:37.922						T__		89.1	19.30	a_e	Ms	3.9
NRDL	59.53		P	18:41:47.833		241.8		6.80		TAS		10.9	1.39	m_e	mb	4.7
RJOB	58.92		P	18:41:42.890		241.8		6.80		TAS		13.7	1.78	m_e	mb	4.7
ROTZ	59.44		P	18:41:46.012		241.8		6.80		TAS		1.6	1.39	m_e	mb	3.9
TANN	59.87		P	18:41:49.590		241.8		6.80		TAS		10.1	1.56	m_e	mb	4.6
WET	59.56		P	18:41:46.970		241.8		6.80		TAS		18.3	2.11	m_e	mb	4.7

## Event 90825007 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/25	18:46:57.99			8.6370	-37.8250				10.0			19		55.37	59.79	m i ke	BGR
	90825013																

Magnitude	Err	Nsta	Author	OrigID
mb	4.9		BGR	90825013
Ms	4.0		BGR	90825013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	58.57		P	18:56:54.997		242.0		7.04		TAS		68.6	2.34	m_e	mb	5.3
BFO	55.37		P	18:56:33.104	-0.0	242.0		7.04		TAS		24.2	1.52	m_e	mb	5.0
BFO	55.37		L	19:18:47.783						T__		113.4	20.10	a_e	Ms	4.0
BRG	59.79		P	18:57:04.854		242.0		7.04		TAS		16.7	1.71	m_e	mb	4.8
BUG	56.41		P	18:56:39.801	-0.2	242.0		7.04		TAS		10.4	1.29	m_e	mb	4.7
CLL	59.46		P	18:57:00.896		242.0		7.04		TAS		23.0	1.99	m_e	mb	4.9
CLL	59.46		L	19:20:50.670						T__		160.3	18.20	a_e	Ms	4.2
FUR	57.03		P	18:56:44.880	-0.5	242.0		7.04		TAS		78.0	1.86	m_e	mb	5.4
FUR	57.03		L	19:18:48.681						T__		129.8	19.50	a_e	Ms	4.0
GEC2	58.77		P	18:56:56.566		242.0		7.04		TAS		19.1	1.89	m_e	mb	4.8
GOR1	59.34		P	18:57:00.222		242.0		7.04		TAS		35.4	1.56	m_e	mb	5.2
GRA1	57.70		P	18:56:49.187	-0.2	242.0		7.04		TAS		21.9	1.36	m_e	mb	5.0
GRA1	57.70		L	19:21:35.698						T__		71.6	20.90	a_e	Ms	3.8
KAST	56.89		P	18:56:43.103	-0.0	242.0		7.04		TAS		19.8	1.69	m_e	mb	4.9
MANZ	58.35		P	18:56:53.524	-0.2	242.0		7.04		TAS		2.5	1.57	m_e	mb	4.0
MOX	58.37		P	18:56:53.867	-0.6	242.0		7.04		TAS		20.4	1.72	m_e	mb	4.9
MOX	58.37		L	19:20:38.508						T__		142.5	20.20	a_e	Ms	4.1
NRDL	58.46		P	18:56:54.685	0.9	242.0		7.04		TAS		48.2	1.95	m_e	mb	5.2
PLN	58.60		P	18:56:55.475		242.0		7.04		TAS		5.8	1.51	m_e	mb	4.4

RETH	58.19	P	18:56:52.414	-0.1	242.0	7.04	TAS	61.2	2.25	m_e	mb	5.2
RJOB	57.75	P	18:56:48.878	-0.0	242.0	7.04	TAS	8.8	1.16	m_e	mb	4.7
ROTZ	58.30	P	18:56:53.255	-0.1	242.0	7.04	TAS	5.7	1.63	m_e	mb	4.3
TANN	58.74	P	18:56:56.757		242.0	7.04	TAS	27.5	1.56	m_e	mb	5.0
TNS	56.40	P	18:56:39.781	0.5	242.0	7.04	TAS	15.6	1.58	m_e	mb	4.8
TNS	56.40	L	19:20:21.099				T__	184.0	18.20	a_e	Ms	4.2
WET	58.42	L	19:16:26.054				T__	132.3	21.70	a_e	Ms	4.0

Event 90825008 North Atlantic Ocean

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/25	18:55:06.62			5.9190	-40.1860				10.0					61.26	61.26	m i ke	BGR
OrigID 90825014																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.3		BGR	90825014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	61.26		P	19:05:22.482		242.4		6.78		TAS		7.5	1.40	m_e	mb	4.3

Event 90825009 Central Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/25	19:05:37.30			8.6890	-39.0930				10.0					56.07	60.13	m i ke	BGR
OrigID 90825015																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	90825015
Ms	3.9		BGR	90825015

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	56.07		L	19:37:32.758						T__		86.8	18.40	a_e	Ms	3.9
CLL	60.13		L	19:36:22.485						T__		100.2	21.80	a_e	Ms	3.9
FUR	57.74		L	19:35:09.919						T__		99.1	21.50	a_e	Ms	3.9
GEC2	59.50		L	19:34:40.788						T__		116.2	21.90	a_e	Ms	4.0
GRA1	58.39		P	19:15:32.788		241.8		6.72		TAS		26.5	1.82	m_e	mb	5.0
GRA1	58.39		L	19:40:30.081						T__		73.8	18.60	a_e	Ms	3.8
KAST	57.53		P	19:15:27.319		241.8		6.72		TAS		12.3	1.63	m_e	mb	4.7
MOX	59.05		P	19:15:37.524		241.8		6.72		TAS		17.8	1.79	m_e	mb	4.8
MOX	59.05		L	19:40:11.220						T__		99.6	19.10	a_e	Ms	4.0
NRDL	59.09		P	19:15:38.593		241.8		6.72		TAS		13.2	1.48	m_e	mb	4.8
PLN	59.29		P	19:15:39.594		241.8		6.72		TAS		7.7	1.96	m_e	mb	4.4
RETH	58.81		P	19:15:36.655		241.8		6.72		TAS		7.9	1.30	m_e	mb	4.6

RJOB	58.49	P	19:15:34.641	241.8	6.72	TAS	3.0	0.89	m_e	mb	4.3
ROTZ	59.00	P	19:15:37.460	241.8	6.72	TAS	4.5	1.86	m_e	mb	4.2
TANN	59.43	P	19:15:40.050	241.8	6.72	TAS	22.0	1.85	m_e	mb	4.9
TNS	57.06	L	19:36:05.579			T__	114.9	19.80	a_e	Ms	4.0
WET	59.13	P	19:15:38.708	241.8	6.72	TAS	54.1	2.91	m_e	mb	5.1
WET	59.13	L	19:40:30.288			T__	119.0	18.70	a_e	Ms	4.0

Event 90825010 Colombia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/25	20:30:34.76			4.5970	-74.6050				33.0			22		80.53	85.55	m i ke	BGR
90825016																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.0		BGR	90825016
Ms	3.8		BGR	90825016

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	81.89	P		20:42:50.822	-0.2	269.8		5.10		TAS		4.3	0.91	m_e	mb	4.6
BFO	81.89	L		21:15:48.790						T__		28.1	21.50	a_e	Ms	3.6
BRG	85.55	P		20:43:10.613		269.8		5.10		TAS		6.9	1.13	m_e	mb	4.7
BUG	81.36	P		20:42:48.335	0.0	269.8		5.10		TAS		52.5	1.78	m_e	mb	5.3
CLL	84.95	P		20:43:06.238		269.8		5.10		TAS		7.2	0.75	m_e	mb	5.0
CLL	84.95	L		21:17:04.421						T__		56.3	21.70	a_e	Ms	3.9
CLZ	83.31	P		20:42:58.518	-0.2	269.8		5.10		TAS		17.9	0.92	m_e	mb	5.3
FLT1	83.85	P		20:43:00.586	-0.0	269.8		5.10		TAS		9.9	0.66	m_e	mb	5.2
FUR	83.85	L		21:18:55.934						T__		34.0	19.50	a_e	Ms	3.7
GEC2	85.46	P		20:43:08.729		269.8		5.10		TAS		4.6	0.94	m_e	mb	4.7
GRA1	83.82	P		20:43:01.168	-0.1	269.8		5.10		TAS		13.6	1.06	m_e	mb	5.1
GRA1	83.82	L		21:15:46.921						T__		50.9	22.00	a_e	Ms	3.9
GTTG	83.04	P		20:42:57.176	0.2	269.8		5.10		TAS		22.1	1.06	m_e	mb	5.3
IBBN	81.71	P		20:42:49.726	-0.4	269.8		5.10		TAS		39.3	1.50	m_e	mb	5.3
KAST	82.06	P		20:42:51.592	-0.3	269.8		5.10		TAS		11.1	1.21	m_e	mb	4.9
MANZ	84.39	P		20:43:03.988	-0.5	269.8		5.10		TAS		1.7	0.81	m_e	mb	4.3
MOX	84.08	P		20:43:01.995	0.1	269.8		5.10		TAS		15.4	1.51	m_e	mb	5.0
MOX	84.08	L		21:16:17.063						T__		44.6	21.60	a_e	Ms	3.8
NRDL	83.16	P		20:42:57.762	-0.4	269.8		5.10		TAS		11.0	0.90	m_e	mb	5.1
PLN	84.42	P		20:43:03.871		269.8		5.10		TAS		4.5	1.06	m_e	mb	4.6
RETH	82.71	P		20:42:55.077	0.3	269.8		5.10		TAS		32.2	1.17	m_e	mb	5.4
RJOB	84.88	P		20:43:06.274		269.8		5.10		TAS		10.8	0.74	m_e	mb	5.2
ROTZ	84.46	P		20:43:04.270	0.9	269.8		5.10		TAS		2.5	1.35	m_e	mb	4.3
TANN	84.62	P		20:43:05.054		269.8		5.10		TAS		14.7	1.04	m_e	mb	5.2
TNS	82.04	P		20:42:52.008	0.2	269.8		5.10		TAS		19.3	1.07	m_e	mb	5.2
TNS	82.04	L		21:15:28.826						T__		34.7	21.30	a_e	Ms	3.7
WET	84.91	P		20:43:06.450		269.8		5.10		TAS		15.1	1.00	m_e	mb	5.2
WET	84.91	L		21:17:06.953						T__		39.7	21.20	a_e	Ms	3.8

WLF 80.53 P 20:42:44.508 0.4 269.8 5.10 TAS 21.1 0.89 m\_e mb 5.2

Event 90826002 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/26	00:29:31.10			-18.9100	167.5600				10.0					143.02	146.16	m i ke	GFZ
OrigID 90826054																	

Magnitude	Err	Nsta	Author	OrigID
Ms 3.9			BGR	90826008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	146.16		PKPbc	00:49:11.947		40.2		3.33		TAS				m_e	
FUR	145.04		PKPbc	00:49:08.357		40.2		3.33		TAS				m_e	
GRA1	143.91		PKPbc	00:49:03.904		40.2		3.33		TAS				m_e	
GRA1	143.91		L	01:57:19.876						T__		22.9	18.30	a_e Ms	4.0
MOX	143.02		L	01:48:49.245						T__		20.9	20.70	a_e Ms	3.9
RJOB	144.66		PKPbc	00:49:07.048		40.2		3.33		TAS				m_e	
STU	145.46		PKPbc	00:49:10.005		40.2		3.33		TAS				m_e	
TNS	144.59		PKPbc	00:49:06.992		40.2		3.33		TAS				m_e	
WLF	145.88		PKPbc	00:49:11.652		40.2		3.33		TAS				m_e	

Event 90826003 Myanmar

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/26	02:49:32.64			25.9610	96.0810				33.0					65.98	67.47	m i ke	BGR
OrigID 90826009																	

Magnitude	Err	Nsta	Author	OrigID
mb 4.5			BGR	90826009
Ms 3.4			BGR	90826009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
CLL	65.98		P	03:00:14.225		81.5		5.74		TAS		4.7	1.44	m_e mb	4.5
CLL	65.98		L	03:25:55.193						T__		32.1	18.70	a_e Ms	3.6
CLZ	67.47		P	03:00:25.232		81.5		5.74		TAS		8.7	1.18	m_e mb	4.9
GEC2	66.06		P	03:00:16.336		81.5		5.74		TAS		5.0	1.05	m_e mb	4.7
GRA1	67.45		P	03:00:24.528		81.5		5.74		TAS		11.3	1.48	m_e mb	4.9
GRA1	67.45		L	03:29:47.920						T__		27.8	20.30	a_e Ms	3.5
MANZ	66.83		P	03:00:21.321		81.5		5.74		TAS		1.1	1.20	m_e mb	4.0
MOX	66.98		L	03:33:33.345						T__		18.7	21.10	a_e Ms	3.3
ROTZ	66.81		P	03:00:20.925		81.5		5.74		TAS		1.2	0.91	m_e mb	4.1
WET	66.53		P	03:00:19.315		81.5		5.74		TAS		2.6	0.76	m_e mb	4.5



Event 90826004 Ryukyu Islands, Japan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/26	18:46:55.99			26.8280	129.8860				33.0			21		84.31	87.31	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
mb	4.9		BGR	90826010
Ms	4.0		BGR	90826010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
CLL	84.50		P	18:59:23.816	0.1	53.5		5.22		TAS		4.4	0.69	m_e mb	4.8
CLZ	85.47		P	18:59:30.243	0.0	53.5		5.22		TAS		20.9	0.95	m_e mb	5.3
FLT1	84.75		P	18:59:25.525	0.1	53.5		5.22		TAS		17.5	1.45	m_e mb	5.1
FUR	87.31		P	18:59:38.650		53.5		5.22		TAS		18.6	0.94	m_e mb	5.2
GEC2	85.61		P	18:59:30.160	-0.1	53.5		5.22		TAS		4.0	0.84	m_e mb	4.6
GOR1	84.31		P	18:59:24.040	-0.1	53.5		5.22		TAS		32.1	1.65	m_e mb	5.3
GRA1	86.39		P	18:59:34.224		53.5		5.22		TAS		29.2	1.34	m_e mb	5.2
GRA1	86.39		L	19:36:40.398						T__		86.5	18.10	a_e Ms	4.2
GTTG	85.86		P	18:59:31.725	-0.1	53.5		5.22		TAS		17.0	0.82	m_e mb	5.2
IBBN	86.42		P	18:59:34.770		53.5		5.22		TAS		20.2	0.84	m_e mb	5.3
KAST	86.82		P	18:59:36.740		53.5		5.22		TAS		6.7	0.83	m_e mb	4.8
MANZ	85.76		P	18:59:31.281	0.1	53.5		5.22		TAS		1.4	1.03	m_e mb	4.0
MOX	85.60		P	18:59:29.692	-0.1	53.5		5.22		TAS		7.3	1.27	m_e mb	4.7
MOX	85.60		L	19:34:02.504						T__		52.7	21.60	a_e Ms	3.9
NEUB	85.19		P	18:59:27.909	0.5	53.5		5.22		TAS		24.3	1.41	m_e mb	5.2
NRDL	85.19		P	18:59:28.430	-0.5	53.5		5.22		TAS		7.0	0.99	m_e mb	4.8
PLN	85.42		P	18:59:29.614	-0.1	53.5		5.22		TAS		2.0	0.99	m_e mb	4.3
RETH	85.39		P	18:59:29.335	0.4	53.5		5.22		TAS		12.0	1.01	m_e mb	5.1
RJOB	86.76		P	18:59:35.627		53.5		5.22		TAS		6.7	0.81	m_e mb	4.8
ROTZ	85.84		P	18:59:31.199	-0.1	53.5		5.22		TAS		1.7	0.96	m_e mb	4.1
TANN	85.31		P	18:59:28.633	0.3	53.5		5.22		TAS		10.2	1.61	m_e mb	4.8
UBBA	86.30		P	18:59:33.752	-0.1	53.5		5.22		TAS		4.7	0.88	m_e mb	4.6
WET	85.87		P	18:59:31.215	-0.0	53.5		5.22		TAS		9.7	1.47	m_e mb	4.7

Event 90826005 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/26	21:40:49.40			-19.8400	170.0600				10.0					143.75	145.76	m i ke	NEIC

Magnitude	Err	Nsta	Author	OrigID

Ms 4.7 BGR 90826011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	143.75		PKPdf	22:00:24.014		37.2		1.96		TAS				m_e	
GEC2	145.38		PKPdf	22:00:28.087		37.2		1.96		TAS				m_e	
GRA1	145.76		PKPdf	22:00:27.514		37.2		1.96		TAS				m_e	
GRA1	145.76		L	23:04:01.112						T__		151.4	20.20	a_e Ms	4.8
MOX	144.84		L	22:59:30.925						T__		115.7	20.20	a_e Ms	4.7
PLN	144.76		PKPdf	22:00:26.369		37.2		1.96		TAS				m_e	
ROTZ	145.31		PKPdf	22:00:27.387		37.2		1.96		TAS				m_e	
WET	145.51		PKPdf	22:00:27.868		37.2		1.96		TAS				m_e	

Event 90827002 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/27	07:28:06.00			-19.6800	169.8800				16.0					144.48	147.59	m i ke	GFZ
OrigID 90827054																	

Magnitude Err Nsta Author OrigID  
 Ms 4.3 BGR 90827008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GEC2	145.16		PKPbc	07:47:42.946		37.3		2.72		TAS				m_e	
GRA1	145.54		PKPbc	07:47:44.829		37.3		2.72		TAS				m_e	
GRA1	145.54		L	08:53:07.892						T__		39.3	18.20	a_e Ms	4.2
GTTG	144.50		PKPbc	07:47:40.929		37.3		2.72		TAS				m_e	
MANZ	144.96		PKPbc	07:47:42.330		37.3		2.72		TAS				m_e	
MOX	144.63		L	08:56:11.836						T__		64.5	18.10	a_e Ms	4.4
PLN	144.54		PKPbc	07:47:41.086		37.3		2.72		TAS				m_e	
ROTZ	145.09		PKPbc	07:47:42.952		37.3		2.72		TAS				m_e	
TANN	144.48		PKPbc	07:47:40.972		37.3		2.72		TAS				m_e	
UBR	147.59		PKPbc	07:47:49.923		37.3		2.72		TAS				m_e	

Event 90827003 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/27	15:37:58.10			-20.3300	-177.5600				515.0				23	146.69	152.02	m i ke	EMSC
OrigID 90827035																	

Magnitude Err Nsta Author OrigID  
 Ms 4.6 BGR 90827009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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ASSE	147.62	PKPbc	15:56:45.146	-0.1	16.6	2.34	TAS	m_e
BFO	151.66	PKPbc	15:56:54.655		16.6	2.34	TAS	m_e
BRG	148.20	PKPbc	15:56:47.978	0.0	16.6	2.34	TAS	m_e
BUG	148.72	PKPbc	15:56:47.691	1.1	16.6	2.34	TAS	m_e
CLL	147.99	PKPbc	15:56:45.946	-0.0	16.6	2.34	TAS	m_e
CLZ	147.94	PKPbc	15:56:46.202	-0.2	16.6	2.34	TAS	m_e
FLT1	147.33	PKPbc	15:56:44.231	-0.3	16.6	2.34	TAS	m_e
GEC2	150.15	PKPbc	15:56:51.295		16.6	2.34	TAS	m_e
GOR1	146.69	PKPbc	15:56:42.888		16.6	2.34	TAS	m_e
GRA1	149.88	L	16:46:11.965				T__	122.2 18.20 a_e Ms 4.7
GTTG	148.29	PKPbc	15:56:46.992	1.1	16.6	2.34	TAS	m_e
IBBN	147.82	PKPbc	15:56:46.352	-0.2	16.6	2.34	TAS	m_e
KAST	148.83	PKPbc	15:56:48.259	0.0	16.6	2.34	TAS	m_e
MANZ	149.43	PKPbc	15:56:49.837	-0.3	16.6	2.34	TAS	m_e
MOX	148.89	PKPbc	15:56:48.333	0.1	16.6	2.34	TAS	m_e
MOX	148.89	L	16:44:05.311				T__	80.0 20.50 a_e Ms 4.5
NEUB	148.34	PKPbc	15:56:47.074	0.0	16.6	2.34	TAS	m_e
NRDL	147.35	PKPbc	15:56:44.429	-0.2	16.6	2.34	TAS	m_e
PLN	148.94	PKPbc	15:56:48.539	0.3	16.6	2.34	TAS	m_e
RETH	147.21	PKPbc	15:56:44.014	-0.7	16.6	2.34	TAS	m_e
ROTZ	149.61	PKPbc	15:56:50.112	-0.4	16.6	2.34	TAS	m_e
STU	151.11	PKPbc	15:56:53.724		16.6	2.34	TAS	m_e
TANN	148.95	PKPbc	15:56:48.603	0.2	16.6	2.34	TAS	m_e
TNS	149.79	PKPbc	15:56:50.654	-0.1	16.6	2.34	TAS	m_e
UBR	152.02	PKPbc	15:56:55.405		16.6	2.34	TAS	m_e
WET	150.06	PKPbc	15:56:51.251		16.6	2.34	TAS	m_e
WLF	150.58	PKPbc	15:56:52.844		16.6	2.34	TAS	m_e

Event 90828003 South Sandwich Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/27	23:55:21.10			-60.1900	-26.4300				33.0					111.55	118.70	m i ke	EMSC
90828035																	

Magnitude	Err	Nsta	Author	OrigID
Ms	6.6		BGR	90828009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	115.87		PKiKP	00:13:59.573						T__					m_e
BFO	111.79		PKiKP	00:13:52.085						T__					m_e
BFO	111.79		PP	00:14:34.019						T__					m_e
BFO	111.79		PKKPbc	00:24:45.849						T__					m_e
BFO	111.79		L	00:56:45.439						T__	25229.2	19.30	a_e Ms	6.8	
BRG	115.40		PKiKP	00:13:59.654						T__					m_e
BRG	115.40		PP	00:15:01.126						T__					m_e
BRG	115.40		PKKPbc	00:24:34.483						T__					m_e

BUG	114.54	PKiKP	00:13:58.040	T__				m_e	
BUG	114.54	PP	00:14:54.183	T__				m_e	
CLL	115.60	PKiKP	00:13:59.166	T__				m_e	
CLL	115.60	PKKPbc	00:24:32.424	T__				m_e	
CLL	115.60	L	00:59:00.178	T__	13049.5	20.60	a_e Ms		6.5
CLZ	115.54	PKiKP	00:13:59.465	T__				m_e	
CLZ	115.54	PP	00:14:58.581	T__				m_e	
CLZ	115.54	PKKPbc	00:24:33.754	T__				m_e	
FLT1	116.18	PKiKP	00:13:59.791	T__				m_e	
FLT1	116.18	PKKPbc	00:24:30.537	T__				m_e	
FUR	112.26	Pdiff	00:10:04.018	T__				m_e	
FUR	112.26	PKiKP	00:13:53.112	T__				m_e	
FUR	112.26	PP	00:14:37.581	T__				m_e	
FUR	112.26	L	00:56:38.467	T__	13690.0	21.50	a_e Ms		6.5
GEC2	113.45	Pdiff	00:10:08.773	T__				m_e	
GEC2	113.45	PKiKP	00:13:54.904	T__				m_e	
GEC2	113.45	PP	00:14:46.231	T__				m_e	
GEC2	113.45	L	00:58:13.274	T__	10108.7	19.90	a_e Ms		6.4
GOR1	116.82	PKPdf	00:14:01.689	T__				m_e	
GOR1	116.82	PP	00:15:04.381	T__				m_e	
GRA1	113.69	Pdiff	00:10:11.000	T__				m_e	
GRA1	113.69	PKiKP	00:13:55.625	T__				m_e	
GRA1	113.69	PP	00:14:47.692	T__				m_e	
GRA1	113.69	PKKPbc	00:24:40.316	T__				m_e	
GRA1	113.69	L	00:57:51.275	T__	13271.9	20.20	a_e Ms		6.5
GTTG	115.18	PKiKP	00:13:58.759	T__				m_e	
GTTG	115.18	PP	00:14:57.703	T__				m_e	
GTTG	115.18	PKKPbc	00:24:34.697	T__				m_e	
HLG	117.27	PKPdf	00:14:02.235	T__				m_e	
IBBN	115.46	PKiKP	00:13:59.465	T__				m_e	
IBBN	115.46	PKKPbc	00:24:33.497	T__				m_e	
KAST	114.54	PKiKP	00:13:57.836	T__				m_e	
KAST	114.54	PP	00:14:53.832	T__				m_e	
MANZ	114.16	PKiKP	00:13:56.154	T__				m_e	
MANZ	114.16	PP	00:14:51.074	T__				m_e	
MOX	114.67	PKiKP	00:13:57.375	T__				m_e	
MOX	114.67	PP	00:14:53.149	T__				m_e	
MOX	114.67	L	00:58:28.167	T__	10899.5	19.40	a_e Ms		6.5
NEUB	115.22	PKiKP	00:13:58.691	T__				m_e	
NEUB	115.22	PP	00:14:57.008	T__				m_e	
NEUB	115.22	PKKPbc	00:24:34.311	T__				m_e	
NRDL	116.10	PKiKP	00:14:00.672	T__				m_e	
NRDL	116.10	PP	00:15:06.127	T__				m_e	
PLN	114.64	PKiKP	00:13:57.375	T__				m_e	
PLN	114.64	PP	00:14:53.653	T__				m_e	
PLN	114.64	PKKPbc	00:24:36.601	T__				m_e	
RETH	116.18	PKPdf	00:14:00.972	T__				m_e	
RETH	116.18	PP	00:15:03.216	T__				m_e	
RGN	118.70	PKPdf	00:14:05.534	T__				m_e	

RJOB	112.20	Pdiff	00:10:02.580	T__														m_e
RJOB	112.20	PKiKP	00:13:52.492	T__														m_e
RJOB	112.20	PKKPbc	00:24:44.928	T__														m_e
ROTZ	113.98	PKiKP	00:13:55.951	T__														m_e
ROTZ	113.98	PP	00:14:49.703	T__														m_e
RUE	116.86	PKiKP	00:14:01.461	T__														m_e
STU	112.39	PKiKP	00:13:53.519	T__														m_e
STU	112.39	PP	00:14:37.867	T__														m_e
TANN	114.64	PKiKP	00:13:57.592	T__														m_e
TNS	113.61	Pdiff	00:10:11.113	T__														m_e
TNS	113.61	PKiKP	00:13:56.073	T__														m_e
TNS	113.61	PP	00:14:46.801	T__														m_e
TNS	113.61	PKKPbc	00:24:39.801	T__														m_e
TNS	113.61	L	00:57:39.627	T__							19388.4	19.90	a_e Ms				6.7	
UBBA	114.50	PKiKP	00:13:57.335	T__														m_e
UBBA	114.50	PP	00:14:52.983	T__														m_e
UBR	111.55	Pdiff	00:10:00.294	T__														m_e
UBR	111.55	PKiKP	00:13:51.719	T__														m_e
UBR	111.55	PP	00:14:32.595	T__														m_e
WET	113.54	Pdiff	00:10:09.147	T__														m_e
WET	113.54	PKiKP	00:13:54.985	T__														m_e
WET	113.54	PP	00:14:46.012	T__														m_e
WET	113.54	L	00:56:15.637	T__							13858.8	22.00	a_e Ms				6.5	
WLF	112.64	PKiKP	00:13:54.456	T__														m_e
WLF	112.64	PP	00:14:39.313	T__														m_e
WLF	112.64	PKKPbc	00:24:43.275	T__														m_e

Event 90828004 Pakistan

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/28	04:18:18.73			33.6300	73.6710				33.0			14		46.13	49.90	m i ke	BGR
OrigID 90828010																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	90828010
Ms	3.7		BGR	90828010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	46.13		P	04:26:40.405	1.0	85.0		7.75		TAS		6.5	0.77	m_e mb	4.7
CLL	46.71		P	04:26:42.914	0.2	85.0		7.75		TAS		3.7	0.69	m_e mb	4.6
CLZ	48.32		P	04:26:56.407		85.0		7.75		TAS		6.0	0.82	m_e mb	4.8
FLT1	47.76		P	04:26:51.240		85.0		7.75		TAS		17.7	0.68	m_e mb	5.3
GRA1	47.95		P	04:26:53.420		85.0		7.75		TAS		7.0	1.06	m_e mb	4.7
GRA1	47.95		L	04:47:42.517						T__		73.8	19.50	a_e Ms	3.7
GTTG	48.60		P	04:26:58.371		85.0		7.75		TAS		9.2	0.68	m_e mb	4.9
IBBN	49.90		P	04:27:08.332		85.0		7.75		TAS		11.3	0.76	m_e mb	4.9

./bul1908.txt

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MANZ	47.35	P	04:26:49.134	0.2	85.0	7.75	TAS	0.8	1.01	m_e	mb	3.8
MOX	47.62	P	04:26:50.807	-0.1	85.0	7.75	TAS	3.7	0.99	m_e	mb	4.5
MOX	47.62	L	04:45:50.430				T__	70.3	18.10	a_e	Ms	3.7
NEUB	47.49	P	04:26:49.878	0.0	85.0	7.75	TAS	10.0	0.52	m_e	mb	5.2
NRDL	48.45	P	04:26:57.135		85.0	7.75	TAS	6.1	0.88	m_e	mb	4.7
ROTZ	47.31	P	04:26:48.589	0.3	85.0	7.75	TAS	1.4	1.22	m_e	mb	4.0
TANN	47.10	P	04:26:46.700	-0.2	85.0	7.75	TAS	5.4	1.12	m_e	mb	4.6
UBBA	48.63	P	04:26:58.662		85.0	7.75	TAS	2.5	0.53	m_e	mb	4.5

Event 90828005 Nicobar Islands, India, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/28	13:39:42.46			9.6260	95.1840				33.0			13		77.08	80.60	m i ke	BGR
OrigID 90828011																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	90828011
Ms	4.0		BGR	90828011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BRG	77.08		P	13:51:33.721		88.3		5.49		TAS		8.2	1.00	m_e	mb	4.8
CLL	77.67		P	13:51:35.091	0.2	88.3		5.49		TAS		13.3	1.40	m_e	mb	4.9
GEC2	77.22		P	13:51:33.217		88.3		5.49		TAS		7.5	0.87	m_e	mb	4.8
GRA1	78.83		L	14:31:05.275						T__		68.5	18.60	a_e	Ms	4.0
GTTG	79.57		P	13:51:46.145	0.3	88.3		5.49		TAS				m_e		
MANZ	78.25		P	13:51:39.406		88.3		5.49		TAS		1.8	1.12	m_e	mb	4.1
MOX	78.55		P	13:51:40.472		88.3		5.49		TAS		10.7	1.44	m_e	mb	4.7
MOX	78.55		L	14:29:25.741						T__		73.5	19.50	a_e	Ms	4.0
NRDL	79.44		P	13:51:45.831	1.1	88.3		5.49		TAS		26.4	1.68	m_e	mb	5.0
PLN	78.21		P	13:51:38.751		88.3		5.49		TAS		1.1	0.85	m_e	mb	4.0
RETH	79.89		P	13:51:47.999	-0.8	88.3		5.49		TAS		12.8	1.44	m_e	mb	4.7
ROTZ	78.19		P	13:51:39.050		88.3		5.49		TAS		1.9	1.08	m_e	mb	4.2
TANN	78.02		P	13:51:37.629		88.3		5.49		TAS		5.1	1.14	m_e	mb	4.5
TNS	80.60		P	13:51:52.254		88.3		5.49		TAS		7.5	1.10	m_e	mb	4.6
WET	77.76		P	13:51:36.338		88.3		5.49		TAS		7.7	1.22	m_e	mb	4.7

Event 90828006 Hokkaido, Japan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/28	23:46:45.48			42.0830	144.2470				33.0			29		75.02	81.93	m i ke	BGR
OrigID 90828012																	

Magnitude	Err	Nsta	Author	OrigID
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mb	6.0	BGR	90828012
MBB	6.4	BGR	90828012
Ms	6.3	BGR	90828012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	77.91		P	23:58:38.238	-0.1	33.5		5.44		TAS		206.1	1.34	m_e	mb 6.1
BFO	81.93		P	23:58:59.886	-0.3	33.5		5.44		TAS		4803.2	3.96	m_e	MBB 6.6
BFO	81.93		L	00:36:12.823						T__		8535.8	21.90	a_e	Ms 6.1
BRG	77.79		P	23:58:38.741	1.0	33.5		5.44		TAS		170.0	1.30	a_e	MBB 6.5
CLL	77.78		P	23:58:37.091	-0.6	33.5		5.44		TAS		227.2	1.14	m_e	mb 6.2
CLL	77.78		L	00:36:08.474						T__		14022.7	21.20	a_e	Ms 6.3
FLT1	77.55		P	23:58:35.891	-0.5	33.5		5.44		TAS		319.2	1.27	m_e	mb 6.3
FUR	81.01		P	23:58:55.236	0.0	33.5		5.44		TAS		352.1	1.20	m_e	mb 6.3
FUR	81.01		L	00:37:00.306						T__		10628.8	22.00	a_e	Ms 6.2
GEC2	79.54		P	23:58:46.917	-0.3	33.5		5.44		TAS		155.2	1.32	m_e	MBB 6.2
GEC2	79.54		L	00:38:21.234						T__		11507.1	18.10	a_e	Ms 6.3
GOR1	76.98		P	23:58:33.454	0.2	33.5		5.44		TAS		506.4	1.45	m_e	mb 6.4
GRA1	79.75		P	23:58:48.842	0.4	33.5		5.44		TAS		186.0	1.69	m_e	mb 5.7
GRA1	79.75		L	00:37:37.491						T__		15509.4	20.50	a_e	Ms 6.3
GTTG	78.64		P	23:58:42.529	0.2	33.5		5.44		TAS		177.2	1.13	m_e	mb 6.0
HLG	77.08		P	23:58:33.373	-0.3	33.5		5.44		TAS		245.8	1.07	m_e	mb 6.3
HLG	77.08		L	00:36:23.529						T__		20510.7	19.60	a_e	Ms 6.5
IBBN	78.72		P	23:58:42.982	0.3	33.5		5.44		TAS		223.3	1.08	m_e	mb 6.1
KAST	79.45		P	23:58:46.923	0.2	33.5		5.44		TAS		141.0	1.21	m_e	mb 5.9
MANZ	79.19		P	23:58:45.291	-0.0	33.5		5.44		TAS		30.1	1.24	a_e	mb 5.2
MOX	78.82		P	23:58:43.228	-0.1	33.5		5.44		TAS		165.6	1.28	m_e	MBB 6.4
MOX	78.82		L	00:37:08.666						T__		16302.6	19.90	a_e	Ms 6.4
NEUB	78.31		P	23:58:40.359	-0.2	33.5		5.44		TAS		281.0	1.20	m_e	mb 6.3
NRDL	77.80		P	23:58:37.784	0.1	33.5		5.44		TAS		164.0	1.27	m_e	mb 6.0
PLN	78.76		P	23:58:42.881	-0.1	33.5		5.44		TAS		61.6	1.38	m_e	mb 5.5
RETH	77.84		P	23:58:38.166	0.3	33.5		5.44		TAS		253.5	1.30	m_e	mb 6.2
RGN	75.02		P	23:58:22.601	0.0	33.5		5.44		TAS		516.6	1.27	m_e	mb 6.4
RJOB	80.79		P	23:58:54.161	0.1	33.5		5.44		TAS		221.8	1.21	m_e	mb 6.1
ROTZ	79.34		P	23:58:46.039	-0.1	33.5		5.44		TAS		55.0	1.31	m_e	mb 5.4
RUE	76.54		P	23:58:30.691	-0.2	33.5		5.44		TAS		445.9	1.28	m_e	mb 6.4
STU	81.25		P	23:58:56.314	-0.2	33.5		5.44		TAS		535.5	1.24	m_e	mb 6.4
TANN	78.71		P	23:58:42.611	-0.1	33.5		5.44		TAS		142.8	1.45	m_e	mb 5.8
TNS	80.27		P	23:58:51.260	0.1	33.5		5.44		TAS		143.7	1.22	m_e	mb 5.8
TNS	80.27		L	00:38:31.781						T__		16405.8	18.80	a_e	Ms 6.4
UBBA	79.24		P	23:58:45.393	-0.2	33.5		5.44		TAS		247.9	1.71	m_e	mb 6.0
WET	79.60		P	23:58:47.756	0.2	33.5		5.44		TAS		234.4	1.21	m_e	MBB 6.4
WET	79.60		L	00:38:09.766						T__		12063.4	18.50	a_e	Ms 6.3
WLF	81.52		P	23:58:58.050	0.1	33.5		5.44		TAS		244.6	1.55	m_e	mb 6.1

Event 90829007 Off east coast of Kamchatka Peninsula, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
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OrigID  
 2019/08/29 02:48:04.53 53.4000 161.4970 33.0 72.36 76.12 m i ke BGR  
 90829013

Magnitude Err Nsta Author OrigID  
 mb 4.3 BGR 90829013  
 Ms 3.9 BGR 90829013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	76.12		P	02:59:46.962		14.7		5.04		TAS		1.0	0.66	m_e	mb 4.1
CLL	72.36		P	02:59:24.848		14.7		5.04		TAS		6.6	1.07	m_e	mb 4.7
GEC2	74.54		P	02:59:38.166		14.7		5.04		TAS		2.5	0.77	m_e	mb 4.3
GRA1	74.26		P	02:59:36.707		14.7		5.04		TAS		5.4	0.64	m_e	mb 4.7
GRA1	74.26		L	03:45:22.898						T__		71.6	20.60	a_e	Ms 4.0
GTTG	72.73		P	02:59:27.453		14.7		5.04		TAS		4.6	0.72	m_e	mb 4.7
MANZ	73.80		P	02:59:33.744		14.7		5.04		TAS		0.4	0.72	m_e	mb 3.5
MOX	73.27		P	02:59:30.547		14.7		5.04		TAS		2.5	0.71	m_e	mb 4.5
MOX	73.27		L	03:44:35.498						T__		64.3	20.00	a_e	Ms 3.9
NEUB	72.72		P	02:59:27.188		14.7		5.04		TAS		5.5	0.63	m_e	mb 4.8
PLN	73.31		P	02:59:30.966		14.7		5.04		TAS		1.1	0.83	m_e	mb 4.0
RJOB	75.79		P	02:59:46.003		14.7		5.04		TAS		4.5	0.85	m_e	mb 4.6
ROTZ	73.99		P	02:59:34.792		14.7		5.04		TAS		0.7	1.03	m_e	mb 3.6
WET	74.44		P	02:59:38.176		14.7		5.04		TAS		3.2	0.87	m_e	mb 4.4

Event 90829006 Off coast of Oregon, United States  
 Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author  
 OrigID  
 2019/08/29 15:08:01.38 0.41 0.66 43.5900 -127.9910 4.4 2.2 172 10.0 24 201 75.57 82.71 m i ke BGR  
 90829012

Magnitude Err Nsta Author OrigID  
 mb 5.6 BGR 90829012  
 MBB 5.8 BGR 90829012  
 Ms 6.1 BGR 90829012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	78.19		P	15:19:59.207	-0.1	331.3		5.39		TAS		166.1	1.56	m_e	mb 5.9
BFO	80.73		P	15:20:13.232	0.2	331.3		5.39		TAS		181.9	1.62	m_e	MBB 6.0
BFO	80.73		L	15:56:05.029						T__		11243.9	20.40	a_e	Ms 6.2
BRG	80.27		P	15:20:11.959	1.5	331.3		5.39		TAS		231.1	1.80	m_e	mb 5.8
CLL	79.61		P	15:20:06.629	-0.3	331.3		5.39		TAS		171.2	1.72	m_e	MBB 5.8
CLL	79.61		L	15:55:24.276						T__		9074.0	20.60	a_e	Ms 6.1
FLT1	78.18		P	15:19:58.710	-0.5	331.3		5.39		TAS		211.8	1.68	m_e	mb 6.0
FUR	81.85		L	15:54:47.644						T__		7338.9	21.40	a_e	Ms 6.0
GEC2	82.00		P	15:20:19.616	0.0	331.3		5.39		TAS		38.0	1.29	m_e	mb 5.4
GEC2	82.00		L	15:54:25.034						T__		4032.9	21.40	a_e	Ms 5.8



GOR1	77.63	P	15:19:56.268	0.3	331.3	5.39	TAS	208.3	1.56	m_e	mb	6.0
GRA1	80.49	P	15:20:11.982	0.4	331.3	5.39	TAS	227.4	1.76	m_e	mb	5.8
GRA1	80.49	L	15:57:24.612				T__	13128.1	18.00	a_e	Ms	6.3
GTTG	78.48	P	15:20:01.305	-0.2	331.3	5.39	TAS	143.8	1.61	m_e	mb	5.8
HLG	75.57	L	15:53:38.921				T__	7618.5	18.40	a_e	Ms	6.0
IBBN	77.13	P	15:19:53.419	-0.1	331.3	5.39	TAS	265.5	1.48	m_e	mb	6.2
KAST	78.29	P	15:19:59.567	-0.1	331.3	5.39	TAS	59.8	1.57	m_e	mb	5.5
MANZ	80.51	P	15:20:11.666	0.0	331.3	5.39	TAS	13.8	1.49	m_e	mb	4.8
MOX	79.78	P	15:20:07.696	-0.1	331.3	5.39	TAS	177.5	1.90	m_e	MBB	5.7
MOX	79.78	L	16:00:10.022				T__	6933.1	18.40	a_e	Ms	6.0
NEUB	79.34	P	15:20:05.482	0.2	331.3	5.39	TAS	56.3	1.23	m_e	mb	5.5
PLN	80.08	P	15:20:09.352	-0.1	331.3	5.39	TAS	11.3	1.23	m_e	mb	4.7
RETH	77.26	P	15:19:54.521	-0.6	331.3	5.39	TAS	233.8	1.66	m_e	mb	6.0
RJOB	82.71	P	15:20:23.508	-0.1	331.3	5.39	TAS			m_e		
RJOB	82.71	L	15:58:49.376				T__	7721.9	20.50	a_e	Ms	6.1
ROTZ	80.73	P	15:20:12.419	0.0	331.3	5.39	TAS	20.6	1.68	m_e	mb	4.9
STU	80.64	P	15:20:12.654	-0.1	331.3	5.39	TAS			m_e		
STU	80.64	L	15:54:53.509				T__	16074.5	20.20	a_e	Ms	6.4
TANN	80.24	P	15:20:10.177	0.3	331.3	5.39	TAS	29.6	1.27	m_e	mb	5.1
TNS	79.14	P	15:20:04.445		331.3	5.39	TAS	77.5	1.34	m_e	mb	5.6
TNS	79.14	L	15:55:06.326				T__	5877.8	19.10	a_e	Ms	5.9
UBBA	79.13	P	15:20:04.088		331.3	5.39	TAS	153.7	1.73	m_e	mb	5.8
WET	81.49	P	15:20:16.918		331.3	5.39	TAS	31.6	1.31	m_e	mb	5.2
WET	81.49	L	15:56:24.923				T__	7540.9	19.00	a_e	Ms	6.1
WLF	78.85	P	15:20:03.073		331.3	5.39	TAS	117.3	1.43	m_e	mb	5.7

Event 90830002 Northern Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/30	05:57:26.96			24.2000	-44.3400				33.0				26	46.58	51.87	m i ke	BGR
90830008																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.1		BGR	90830008
Ms	4.9		BGR	90830008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	49.93		P	06:06:18.216	0.2	259.1		7.63		TAS		114.6	1.80	a_e	mb	5.5
BFO	47.69		P	06:06:00.916	0.3	259.1		7.63		TAS		88.1	1.66	m_e	mb	5.6
BRG	51.72		P	06:06:32.566	0.9	259.1		7.63		TAS		15.0	1.00	a_e	mb	4.9
BUG	47.71		P	06:06:01.161	0.1	259.1		7.63		TAS		15.7	1.19	m_e	mb	5.0
CLL	51.20		P	06:06:27.116	-0.6	259.1		7.63		TAS		14.0	0.83	a_e	mb	4.9
FLT1	50.31		P	06:06:20.466	-0.4	259.1		7.63		TAS		88.4	1.88	a_e	mb	5.4
FUR	49.61		P	06:06:15.566	0.5	259.1		7.63		TAS		14.7	0.52	a_e	mb	5.2
GEC2	51.29		P	06:06:28.016	-0.1	259.1		7.63		TAS		54.7	1.50	a_e	mb	5.3
GOR1	50.49		P	06:06:21.866	-0.3	259.1		7.63		TAS		66.1	1.52	a_e	mb	5.3

GRA1	49.81	P	06:06:16.866	-0.1	259.1	7.63	TAS	31.0	1.16	a_e	mb	5.1
GRA1	49.81	L	06:23:30.426				T__	873.9	21.70	a_e	Ms	4.7
GTTG	49.38	P	06:06:13.816	0.0	259.1	7.63	TAS	21.3	1.08	a_e	mb	5.1
IBBN	48.23	P	06:06:04.916	0.0	259.1	7.63	TAS	22.0	0.82	a_e	mb	5.3
KAST	48.35	P	06:06:05.866	-0.1	259.1	7.63	TAS	18.4	1.29	a_e	mb	5.0
MANZ	50.42	P	06:06:22.116	0.4	259.1	7.63	TAS	13.9	1.80	a_e	mb	4.6
MOX	50.22	P	06:06:20.066	-0.2	259.1	7.63	TAS	14.3	1.10	a_e	mb	4.8
MOX	50.22	L	06:23:45.726				T__	1635.1	20.90	a_e	Ms	5.0
NEUB	50.42	P	06:06:21.936	0.2	259.1	7.63	TAS	20.4	1.09	m_e	mb	5.0
PLN	50.54	P	06:06:22.466	-0.2	259.1	7.63	TAS	17.9	1.92	a_e	mb	4.7
RETH	49.28	P	06:06:13.166	0.2	259.1	7.63	TAS	25.1	1.22	a_e	mb	5.1
ROTZ	50.45	P	06:06:20.866	-1.0	259.1	7.63	TAS	3.8	1.27	a_e	mb	4.2
RUE	51.87	P	06:06:33.309	0.5	259.1	7.63	TAS	33.4	0.71	m_e	mb	5.4
STU	48.34	P	06:06:05.416	-0.2	259.1	7.63	TAS	65.9	1.04	a_e	mb	5.7
TANN	50.72	P	06:06:23.747	-0.2	259.1	7.63	TAS	45.9	1.67	m_e	mb	5.1
TNS	48.15	P	06:06:04.766	0.3	259.1	7.63	TAS	20.4	1.05	a_e	mb	5.2
UBBA	49.25	P	06:06:12.797	-0.0	259.1	7.63	TAS	15.0	1.10	m_e	mb	4.9
WET	50.80	P	06:06:24.266	-0.1	259.1	7.63	TAS	16.0	1.08	a_e	mb	4.9
WLF	46.58	P	06:05:52.316	-0.1	259.1	7.63	TAS	47.2	1.44	a_e	mb	5.4

Event 90830006 Northwestern Balkan Peninsula

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/30	13:01:33.92	1.06	0.54	44.4140	18.8010	16.7	8.9	17	10.0			29	325	5.34	9.12	m i ke	BGR
OrigID 90830012																	

Magnitude	Err	Nsta	Author	OrigID
ML	4.7		BGR	90830012

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	8.23		Pn	13:03:31.415	-0.8					T__				m_e	
BRG	7.25		Pn	13:03:19.242	0.6					T__				m_e	
CLL	7.92		Pn	13:03:27.227	-0.7					T__				m_e	
FBE	7.47		Pn	13:03:21.636	-0.1					T__				m_e	
FUR	6.42		Sn	13:04:15.387	-0.3					T__				m_e	
FUR	6.42		Pn	13:03:08.244	0.9					T__				m_e	ML 5.0
GEC2	5.65		Pn	13:02:57.146	0.4					T__				m_e	ML 4.5
GRA1	7.39		Pn	13:03:20.700	0.1					T__				m_e	ML 5.0
GRZ1	7.70		Pn	13:03:25.803	1.0					T__				m_e	
GUNZ	7.39		Pn	13:03:20.394	-0.3					T__				m_e	
HKWD	7.79		Pn	13:03:25.765	-0.3					T__				m_e	
HWTS	7.92		Pn	13:03:28.236	0.3					T__				m_e	
MANZ	7.20		Pn	13:03:18.285	0.3					T__				m_e	ML 4.7
MOX	7.90		Pn	13:03:27.571	-0.1					T__				m_e	
MULD	7.40		Pn	13:03:20.627	-0.2					T__				m_e	
NEUB	8.27		Pn	13:03:32.838	0.2					T__				m_e	

NORI	7.09	Pn	13:03:15.944	-0.6	T__	m_e ML	4.8
OBER	6.65	Pn	13:03:10.316	-0.1	T__	m_e	
PLN	7.56	Pn	13:03:22.993	0.1	T__	m_e	
POSS	8.73	Pn	13:03:39.170	0.1	T__	m_e	
RJOB	5.34	Sn	13:03:51.079	1.2	T__	m_e	
RJOB	5.34	Pn	13:02:53.173	0.7	T__	m_e ML	4.6
ROTZ	6.99	Pn	13:03:14.019	-1.1	T__	m_e ML	4.7
SCHF	7.61	Pn	13:03:23.161	-0.5	T__	m_e	
TANN	7.38	Pn	13:03:20.247	-0.3	T__	m_e	
TAUT	8.12	Pn	13:03:31.187	0.5	T__	m_e	
TNS	9.12	Sn	13:05:18.877	-0.9	T__	m_e	
TNS	9.12	Pn	13:03:44.265	-0.1	T__	m_e	
TRIB	7.46	Pn	13:03:21.375	-0.2	T__	m_e	
WERD	7.47	Pn	13:03:21.947	0.2	T__	m_e	
WERN	7.32	Pn	13:03:18.991	-0.6	T__	m_e	
WET	6.24	Pn	13:03:05.240	0.4	T__	m_e ML	4.6

Event 90830007 Dodecanese Islands, Greece

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/30	15:38:14.30			37.5300	26.7700				10.0			24		14.46	19.90	m i ke	EMSC
OrigID 90830039																	

Magnitude Err Nsta Author OrigID  
 mb 4.1 BGR 90830013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	18.47		P	15:42:36.028	0.6	132.9		11.38		TAS		11.5	1.16	m_e mb	3.9
BFO	17.24		P	15:42:20.207	2.9	132.9		11.38		TAS		7.8	1.04	m_e mb	3.8
BRG	16.17		P	15:42:09.969	2.2	132.9		11.38		TAS		29.6	1.42	m_e mb	4.2
BUG	19.59		P	15:42:46.731		132.9		11.38		TAS		11.6	0.86	m_e mb	4.1
CLL	16.88		P	15:42:14.623	-1.4	132.9		11.38		TAS		46.7	1.86	m_e mb	4.3
FLT1	18.38		P	15:42:31.608	-0.1	132.9		11.38		TAS		20.1	1.25	m_e mb	4.1
FUR	15.53		P	15:42:01.360	0.8	132.9		11.38		TAS		25.4	0.81	m_e mb	4.4
GEC2	14.77		P	15:41:53.682	1.0	132.9		11.38		TAS				m_e	
GOR1	18.84		P	15:42:38.355	-1.8	132.9		11.38		TAS		41.3	1.63	m_e mb	4.4
GRA1	16.53		P	15:42:13.227	0.5	132.9		11.38		TAS		45.7	1.40	m_e mb	4.4
GTTG	18.37		P	15:42:32.538	0.5	132.9		11.38		TAS		38.7	1.23	m_e mb	4.4
IBBN	19.90		P	15:42:49.756		132.9		11.38		TAS		60.0	1.39	m_e mb	4.6
KAST	18.87		P	15:42:39.286	-0.7	132.9		11.38		TAS		10.2	1.28	m_e mb	3.9
MANZ	16.31		P	15:42:11.133	0.9	132.9		11.38		TAS		2.6	1.05	m_e mb	3.3
MOX	17.00		P	15:42:18.811	0.8	132.9		11.38		TAS		16.8	1.26	m_e mb	4.0
NEUB	17.32		P	15:42:24.395	0.8	132.9		11.38		TAS		38.9	1.38	m_e mb	4.3
PLN	16.64		P	15:42:14.157	0.2	132.9		11.38		TAS		22.7	1.49	m_e mb	4.1
RETH	19.47		P	15:42:44.172		132.9		11.38		TAS		33.0	1.41	m_e mb	4.4
RJOB	14.46		P	15:41:44.143	-4.7	132.9		11.38		TAS				m_e	

ROTZ	16.11	P	15:42:07.177	-0.8	132.9	11.38	TAS	4.1	1.42	m_e	mb	3.4
TANN	16.45	P	15:42:11.831	0.0	132.9	11.38	TAS	20.4	1.33	m_e	mb	4.1
TNS	18.25	P	15:42:32.771	1.6	132.9	11.38	TAS	30.8	1.14	m_e	mb	4.3
WET	15.36	P	15:41:58.801	-0.7	132.9	11.38	TAS	24.7	1.24	m_e		
WLF	19.16	P	15:42:41.380	-1.4	132.9	11.38	TAS	38.2	1.31	m_e	mb	4.5

Event 90830008 Dodecanese Islands, Greece

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/30	17:21:05.00			37.5300	26.7800				10.0			10		14.77	19.47	m i ke	EMSC
OrigID 90830040																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.2		BGR	90830014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	17.25	P		17:25:11.226		131.5		10.77		TAS		84.9	2.80	m_e	mb	4.4
BRG	16.17	P		17:24:59.825		131.5		10.77		TAS		19.3	1.34	m_e	mb	4.1
CLL	16.89	P		17:25:07.038		131.5		10.77		TAS		51.0	2.16	m_e	mb	4.3
FLT1	18.38	P		17:25:20.765	1.7	131.5		10.77		TAS		16.3	1.40	m_e	mb	4.0
GEC2	14.77	P		17:24:42.607		131.5		10.77		TAS		30.4	1.83	m_e		
GRA1	16.53	P		17:25:01.686		131.5		10.77		TAS		20.5	1.41	m_e		
GTTG	18.38	P		17:25:22.859	-0.8	131.5		10.77		TAS		22.1	1.14	m_e		
MANZ	16.31	P		17:25:01.221		131.5		10.77		TAS		4.9	1.60	m_e		
MOX	17.00	P		17:25:08.434		131.5		10.77		TAS		19.0	1.41	m_e		
PLN	16.64	P		17:25:02.384		131.5		10.77		TAS		11.9	1.51	m_e		
RETH	19.47	P		17:25:32.631		131.5		10.77		TAS		24.4	1.51	m_e		
ROTZ	16.11	P		17:24:56.800		131.5		10.77		TAS		3.0	1.46	m_e		
TANN	16.46	P		17:25:03.315		131.5		10.77		TAS		31.0	1.74	m_e		
TNS	18.26	P		17:25:21.231		131.5		10.77		TAS		10.9	0.99	m_e		
WET	15.37	P		17:24:48.424		131.5		10.77		TAS		23.5	1.50	m_e		

Event 90831001 Leeward Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/31	08:45:14.69			18.5000	-63.5000				33.0	0.4		26		62.99	67.99	m i ke	BGR
OrigID 90831007																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90831007
Ms	3.9		BGR	90831007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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ASSE	65.93	P	08:55:58.899	-0.0	270.6	6.45	TAS	42.7	1.13	m_e	mb	5.6
BFO	64.38	P	08:55:48.682	0.3	270.6	6.45	TAS	10.1	1.12	m_e	mb	5.0
BRG	67.99	P	08:56:13.221	0.1	270.6	6.45	TAS	17.6	0.96	m_e	mb	5.3
BUG	63.79	P	08:55:44.771	-0.3	270.6	6.45	TAS	86.5	1.71	m_e	mb	5.7
CLL	67.38	P	08:56:07.862	-0.2	270.6	6.45	TAS	39.0	1.43	m_e	mb	5.4
FLT1	66.28	P	08:56:00.555	0.2	270.6	6.45	TAS	26.3	1.03	m_e	mb	5.4
FUR	66.35	P	08:56:01.634	0.0	270.6	6.45	TAS	13.9	0.87	m_e	mb	5.2
GEC2	67.94	P	08:56:11.467	-0.1	270.6	6.45	TAS	8.3	0.80	m_e	mb	5.0
GOR1	66.32	P	08:56:01.139	-0.0	270.6	6.45	TAS	28.8	1.07	m_e	mb	5.4
GRA1	66.28	P	08:56:00.945	0.2	270.6	6.45	TAS	26.0	1.32	m_e	mb	5.3
GRA1	66.28	L	09:23:01.467				T__	71.3	19.80	a_e	Ms	3.9
GTTG	65.48	P	08:55:55.809	-0.2	270.6	6.45	TAS	40.7	1.66	m_e	mb	5.4
IBBN	64.14	P	08:55:47.207	-0.4	270.6	6.45	TAS	44.5	1.18	m_e	mb	5.6
KAST	64.50	P	08:55:49.350	-0.1	270.6	6.45	TAS	26.9	1.31	m_e	mb	5.3
MANZ	66.85	P	08:56:04.842	-1.0	270.6	6.45	TAS	10.4	1.14	m_e	mb	5.0
MOX	66.52	P	08:56:02.320	-0.3	270.6	6.45	TAS	6.6	1.04	m_e	mb	4.8
MOX	66.52	L	09:23:25.246				T__	68.6	18.60	a_e	Ms	3.9
NEUB	66.61	P	08:56:03.088	1.1	270.6	6.45	TAS	28.1	0.94	m_e	mb	5.5
PLN	66.87	P	08:56:04.566	0.2	270.6	6.45	TAS	6.4	1.29	m_e	mb	4.7
RETH	65.14	P	08:55:53.735	0.2	270.6	6.45	TAS	43.7	1.36	m_e	mb	5.5
RJOB	67.39	P	08:56:08.066		270.6	6.45	TAS	7.7	0.82	m_e	mb	5.0
ROTZ	66.92	P	08:56:04.160	0.2	270.6	6.45	TAS	5.3	1.13	m_e	mb	4.7
RUE	67.83	P	08:56:10.882		270.6	6.45	TAS	42.1	1.28	m_e	mb	5.5
STU	64.96	P	08:55:52.350	0.0	270.6	6.45	TAS	31.8	0.83	m_e	mb	5.6
TANN	67.07	P	08:56:06.303	0.3	270.6	6.45	TAS	15.7	1.04	m_e	mb	5.2
TNS	64.49	P	08:55:49.838	0.1	270.6	6.45	TAS	39.3	1.22	m_e	mb	5.5
UBBA	65.50	P	08:55:56.106	-0.3	270.6	6.45	TAS	21.0	1.71	m_e	mb	5.1
WET	67.38	P	08:56:08.252	-0.2	270.6	6.45	TAS	28.1	1.32	m_e	mb	5.3
WLF	62.99	P	08:55:39.993	-0.1	270.6	6.45	TAS	46.7	1.28	m_e	mb	5.5

Event 90831002 Myanmar

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/31	15:09:19.13			22.4500	96.1000				17.4	1.3		28		67.89	73.19	m i ke	BGR
90831008																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.3		BGR	90831008
Ms	5.1		BGR	90831008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	69.85		P	15:20:28.258	-0.2	79.1		6.12		TAS		15.3	0.97	a_e	mb	5.1
ASSE	69.85		pP	15:20:33.232		79.0		6.28		TAS				m_e		
BFO	72.13		P	15:20:41.766	-0.7	79.1		6.12		TAS		7.9	0.89	m_e	mb	4.8
BRG	68.05		P	15:20:18.808	1.3	79.1		6.12		TAS		17.0	0.89	a_e	mb	5.3
BUG	72.07		P	15:20:42.058	0.0	79.1		6.12		TAS		23.3	0.96	a_e	mb	5.3

BUG	72.07	pP	15:20:47.316		79.0	6.28	TAS					m_e	
CLL	68.57	P	15:20:20.208	-0.5	79.1	6.12	TAS	10.7	0.82	m_e	mb		5.1
FLT1	69.48	P	15:20:25.558	-0.6	79.1	6.12	TAS	16.2	1.08	a_e	mb		5.2
FLT1	69.48	pP	15:20:30.632		79.0	6.28	TAS					m_e	
FUR	70.25	P	15:20:30.908	0.1	79.1	6.12	TAS	37.7	1.23	a_e	mb		5.4
GEC2	68.54	P	15:20:20.358	-0.1	79.1	6.12	TAS	23.2	0.90	a_e	mb		5.4
GEC2	68.54	pP	15:20:25.131	-0.4	79.0	6.28	TAS					m_e	
GOR1	69.32	P	15:20:25.458	0.3	79.1	6.12	TAS	32.4	1.02	a_e	mb		5.5
GRA1	69.98	P	15:20:30.008	0.7	79.1	6.12	TAS	17.7	0.79	a_e	mb		5.2
GRA1	69.98	L	15:51:47.253				T__	1365.0	21.70	a_e	Ms		5.2
GTTG	70.40	P	15:20:31.958	0.1	79.1	6.12	TAS	20.4	0.86	a_e	mb		5.3
GTTG	70.40	pP	15:20:36.512		79.0	6.28	TAS					m_e	
IBBN	71.57	P	15:20:39.158	0.2	79.1	6.12	TAS	19.7	0.94	a_e	mb		5.2
IBBN	71.57	pP	15:20:43.952		79.0	6.28	TAS					m_e	
KAST	71.42	P	15:20:38.058	-0.1	79.1	6.12	TAS	7.8	0.90	a_e	mb		4.8
MANZ	69.36	P	15:20:25.908	0.4	79.1	6.12	TAS	5.8	1.18	a_e	mb		4.7
MOX	69.55	P	15:20:26.608	-0.1	79.1	6.12	TAS	23.9	1.11	a_e	mb		5.2
MOX	69.55	L	15:51:58.044				T__	1026.2	20.20	a_e	Ms		5.1
NEUB	69.35	P	15:20:25.158	-0.3	79.1	6.12	TAS	29.0	0.80	a_e	mb		5.6
PLN	69.24	P	15:20:24.658	-0.1	79.1	6.12	TAS	4.4	0.90	a_e	mb		4.7
PLN	69.24	pP	15:20:29.455	-0.1	79.0	6.28	TAS					m_e	
RETH	70.52	P	15:20:32.808	0.3	79.1	6.12	TAS	16.0	1.35	a_e	mb		5.0
RGN	67.89	P	15:20:16.358	0.1	79.1	6.12	TAS	46.9	0.85	a_e	mb		5.7
RJOB	69.33	P	15:20:25.421	0.3	79.1	6.12	TAS	22.2	1.00	m_e	mb		5.3
ROTZ	69.34	P	15:20:24.358	-1.0	79.1	6.12	TAS	9.4	0.76	a_e	mb		5.1
ROTZ	69.34	pP	15:20:29.616	0.2	79.0	6.28	TAS					m_e	
RUE	67.91	P	15:20:16.358	-0.3	79.1	6.12	TAS	56.5	1.01	a_e	mb		5.8
STU	71.47	P	15:20:38.408	0.0	79.1	6.12	TAS	69.6	0.84	a_e	mb		5.8
STU	71.47	pP	15:20:43.274		79.0	6.28	TAS					m_e	
TANN	69.06	P	15:20:23.558	-0.1	79.1	6.12	TAS	15.8	0.98	a_e	mb		5.2
TANN	69.06	pP	15:20:28.520	-0.1	79.0	6.28	TAS					m_e	
TNS	71.62	P	15:20:39.358	0.0	79.1	6.12	TAS	25.1	0.91	a_e	mb		5.3
UBBA	70.52	P	15:20:32.558	-0.1	79.1	6.12	TAS	24.9	1.40	a_e	mb		5.2
WET	69.02	P	15:20:23.408	0.0	79.1	6.12	TAS	14.8	0.93	a_e	mb		5.2
WLF	73.19	P	15:20:49.458	0.5	79.1	6.12	TAS	62.0	1.03	a_e	mb		5.7

Event 90901002 Southern East Pacific Rise

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/08/31	23:54:41.70			-49.9700	-114.3900				10.0					145.57	146.15	m i ke	NEIC
90901041																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.3		BGR	90901008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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./bul1908.txt

Wed Jul 21 10:35:31 2021

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GRA1	145.57	PKP	00:14:19.304	248.2	3.91	TAS			m_e		
GRA1	145.57	L	01:11:21.555			T__	652.6	21.90	a_e Ms		5.4
MOX	146.15	L	01:12:49.919			T__	565.2	21.10	a_e Ms		5.3