

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

(produced by SZO/BGR - HANNOVER)

October 2019 UPDATED 16.November 2021

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

Event 91001002 Southern East Pacific Rise

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/01	03:56:06.80			-55.9900	-122.5400				10.0					151.84	151.84	m i ke	EMSC
OrigID 91001034																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	151.84		PKPbc	04:16:00.466		239.2		2.61		TAS					m_e

Event 91001007 Southern Mid-Atlantic Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/01	22:25:05.01			-22.7870	-10.7170				10.0					74.79	75.77	m i ke	BGR
OrigID 91001013																	

Magnitude Err Nsta Author OrigID

mb	5.4		BGR	91001013
Ms	4.8		BGR	91001013

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	74.79		P	22:36:47.159		200.2		6.25		TAS		59.2	1.59	m_e mb	5.4
GRA1	74.79		L	23:08:21.145						T__		404.7	19.90	a_e Ms	4.7
MOX	75.77		L	23:09:36.152						T__		444.5	18.20	a_e Ms	4.8

Event 91003001 Dodecanese Islands, Greece

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/03	04:45:02.42	4.11	2.57	36.4860	28.1070	185.7	48.9	157	10.0				28 312	7.97	19.85	m i ke	BGR

Magnitude	Err	Nsta	Author	OrigID
Ms	4.5		BGR	91003007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ARSA	14.24		Pn	04:48:25.874	3.9					T__					m_e
BFO	18.73		Pn	04:49:20.106	-2.5					T__					m_e
BRG	17.60		Pn	04:49:07.867	0.5					T__					m_e
CKRC	15.93		Pn	04:48:48.467	3.7					T__					m_e
CLL	18.32		Pn	04:49:16.992	-0.1					T__					m_e
CLZ	19.85		Pn	04:49:32.587	-5.1					T__					m_e
DAVA	17.29		Pn	04:49:05.225	2.1					T__					m_e
DPC	16.25		Pn	04:48:50.468	1.7					T__					m_e
FLT1	19.82		Pn	04:49:31.239	-6.0					T__					m_e
FUR	17.01		Pn	04:49:00.636	1.2					T__					m_e
GEC2	16.23		Pn	04:48:52.022	3.2					T__					m_e
GRA1	18.00		L	04:58:26.818						T__		2507.1	18.30	a_e Ms	4.5
GTTG	19.83		Pn	04:49:32.971	-4.5					T__					m_e
KHC	16.49		Pn	04:48:53.800	1.5					T__					m_e
KRUC	15.20		Pn	04:48:37.001	2.1					T__					m_e
MANZ	17.77		Pn	04:49:08.000	-1.7					T__					m_e
MLR	9.14		Pn	04:47:13.457	0.4					T__					m_e
MORC	15.33		Pn	04:48:38.100	1.4					T__					m_e
MOX	18.45		Pn	04:49:15.773	-3.1					T__					m_e
MOX	18.45		L	04:57:09.021						T__		2305.2	20.60	a_e Ms	4.5
PLN	18.09		Pn	04:49:11.536	-2.5					T__					m_e
PSZ	12.93		Pn	04:48:05.692	1.4					T__					m_e
PVCC	17.08		Pn	04:49:01.187	0.8					T__					m_e
ROTZ	17.57		Pn	04:49:06.263	-0.8					T__					m_e
TANN	17.91		Pn	04:49:09.367	-2.1					T__					m_e
TIRR	7.97		Pn	04:46:56.570	-0.6					T__					m_e
TREC	15.76		Pn	04:48:45.606	3.2					T__					m_e
UBR	17.37		Pn	04:49:05.321	1.0					T__					m_e
VRAC	15.31		Pn	04:48:37.320	0.9					T__					m_e
WET	16.83		Pn	04:48:57.063	0.1					T__					m_e

Event 91003003 Afghanistan-Tajikistan border region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/03	22:02:43.36			37.3530	71.9900				33.0					44.57	44.57	m i ke	BGR

91003009

Magnitude	Err	Nsta	Author	OrigID
mb	4.7		BGR	91003009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	44.57		P	22:10:51.570		88.9		6.84		TAS		8.8	0.87	m_e	mb	4.7

Event 91004004 Southern Alaska, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/04	12:27:49.90			61.5830	-151.2590				33.0					68.07	68.07	m i ke	BGR

OrigID
91004010

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	91004010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	68.07		P	12:38:45.260		348.3		5.82		TAS		4.8	0.80	m_e	mb	4.8

Event 91005001 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/05	00:38:49.50			-18.0900	-177.8300				578.0				12	143.59	147.85	m i ke	EMSC

OrigID
91005033

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
BRG	145.89		PKPbc	00:57:25.476		15.4		2.97		TAS				m_e	
BSEG	143.59		PKPbc	00:57:18.262	0.3	15.4		2.97		TAS				m_e	
FLT1	145.01		PKPbc	00:57:22.468	0.2	15.4		2.97		TAS				m_e	
GEC2	147.85		PKPbc	00:57:30.913		15.4		2.97		TAS				m_e	
GTTG	145.96		PKPbc	00:57:25.849	0.3	15.4		2.97		TAS				m_e	
MANZ	147.11		PKPbc	00:57:29.213		15.4		2.97		TAS				m_e	
MOX	146.57		PKPbc	00:57:27.160		15.4		2.97		TAS				m_e	
PLN	146.62		PKPbc	00:57:27.699		15.4		2.97		TAS				m_e	
ROTZ	147.30		PKPbc	00:57:29.504		15.4		2.97		TAS				m_e	
TANN	146.63		PKPbc	00:57:27.757		15.4		2.97		TAS				m_e	
TNS	147.46		PKPbc	00:57:29.895		15.4		2.97		TAS				m_e	

Event 91006002 Leeward Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/06	15:10:50.75			19.5980	-63.8210				33.0					65.68	65.91	m i ke	BGR
OrigID 91006008																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	91006008
Ms	4.8		BGR	91006008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	65.68		P	15:21:31.790		267.5		6.90		TAS		7.0	1.15	m_e	mb 4.8
GRA1	65.68		L	15:50:33.769						T__		739.7	18.10	a_e	Ms 4.9
MOX	65.91		L	15:46:03.104						T__		554.7	19.60	a_e	Ms 4.8

Event 91007003 Southwest of Sumatera, Indonesia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/07	20:09:47.78			-4.4090	100.1120				33.0				14	89.57	94.49	m i ke	BGR
OrigID 91007009																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.8		BGR	91007009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ARSA	89.57		P	20:22:41.837	-0.2	93.7		4.60		TAS		9.1	0.97	m_e	mb 5.0
BRG	90.99		P	20:22:48.688	0.2	93.7		4.60		TAS		5.2	0.81	m_e	mb 4.9
CLL	91.62		P	20:22:51.220	0.4	93.7		4.60		TAS		3.8	0.80	m_e	mb 4.8
CLZ	93.29		P	20:22:58.894		93.7		4.60		TAS		6.7	0.95	m_e	mb 5.0
DAVA	93.40		P	20:22:59.461		93.7		4.60		TAS		6.6	0.88	m_e	mb 5.1
GEC2	90.95		P	20:22:48.597	0.3	93.7		4.60		TAS		5.6	0.92	m_e	mb 4.9
GRA1	92.64		P	20:22:56.538		93.7		4.60		TAS		30.5	1.53	m_e	mb 5.5
KAST	94.49		P	20:23:04.787		93.7		4.60		TAS		3.0	0.92	m_e	mb 4.6
MOA	90.48		P	20:22:46.045	0.1	93.7		4.60		TAS		2.2	0.80	m_e	mb 4.5
MOX	92.44		P	20:22:54.865		93.7		4.60		TAS		3.0	0.77	m_e	mb 4.7
NEUB	92.38		P	20:22:55.235	0.1	93.7		4.60		TAS		8.1	0.75	m_e	mb 5.1
PLN	92.09		P	20:22:53.920	-0.2	93.7		4.60		TAS		1.5	0.96	m_e	mb 4.3
TNS	94.45		P	20:23:04.540		93.7		4.60		TAS		3.3	0.72	m_e	mb 4.8
WET	91.52		P	20:22:51.333	0.2	93.7		4.60		TAS		4.6	0.92	m_e	mb 4.8

Event 91009002 Hindu Kush, Afghanistan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
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OrigID
 2019/10/09 10:44:40.36 36.0010 69.7240 207.0 12 42.10 47.18 m i ke BGR
 91009008

Magnitude Err Nsta Author OrigID
 mb 4.7 BGR 91009008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	42.10		P	10:52:11.103	-0.2	85.2		7.95		TAS		15.4	0.72	m_e	mb 4.8
BSEG	44.25		P	10:52:27.796	0.7	85.2		7.95		TAS		11.4	0.83	m_e	mb 4.8
CLL	42.68		P	10:52:15.198	-0.1	85.2		7.95		TAS		9.5	0.79	m_e	mb 4.6
FLT1	43.74		P	10:52:23.307	0.0	85.2		7.95		TAS		34.9	0.66	m_e	mb 5.2
FUR	44.02		P	10:52:26.811		85.2		7.95		TAS		21.2	0.63	m_e	mb 5.0
GEC2	42.36		P	10:52:13.280		85.2		7.95		TAS		5.8	0.90	m_e	mb 4.3
GTTG	44.57		P	10:52:30.647	-0.1	85.2		7.95		TAS		23.1	0.69	m_e	mb 5.2
MANZ	43.32		P	10:52:21.367		85.2		7.95		TAS		3.3	1.17	m_e	mb 4.0
MOX	43.59		P	10:52:22.902		85.2		7.95		TAS		10.9	0.72	m_e	mb 4.7
NEUB	43.46		P	10:52:21.627	0.5	85.2		7.95		TAS		21.0	0.76	m_e	mb 4.9
PLN	43.25		P	10:52:20.279	-0.1	85.2		7.95		TAS		3.0	0.75	m_e	mb 4.1
ROTZ	43.27		P	10:52:20.942		85.2		7.95		TAS		2.7	1.13	m_e	mb 3.9
UBR	44.86		P	10:52:32.876		85.2		7.95		TAS		16.2	0.64	m_e	mb 5.1
WLF	47.18		P	10:52:51.435		85.2		7.95		TAS		18.4	0.80	m_e	mb 5.3

Event 91010001 Macquarie Island, Australia, region

Date Time Err RMS Latitude Longitude Smaj Smin Az Depth Err Ndef Nsta Gap mdist Mdist Qual Author
 OrigID
 2019/10/10 03:18:04.70 -57.9670 157.2600 10.0 24 156.72 161.59 m i ke NEIC
 91010040

Magnitude Err Nsta Author OrigID
 Ms 5.2 BGR 91010007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	160.15		PKPab	03:38:42.401	0.1	125.7		4.25		TAS				a_e	
BFO	159.21		PKPab	03:38:38.701	-0.6	125.7		4.25		TAS				a_e	
BFO	159.21		pPKPab	03:38:49.723	-1.0	122.5		4.47		TAS				a_e	
BRG	157.75		PKPab	03:38:32.501	0.4	125.7		4.25		TAS				a_e	
BRG	157.75		pPKPab	03:38:43.573	0.6	122.5		4.47		TAS				a_e	
BSEG	161.19		PKPab	03:38:46.851	-0.4	125.7		4.25		TAS				a_e	
BSEG	161.19		pPKPab	03:38:57.923		122.5		4.47		TAS				a_e	
BUG	161.59		PKPab	03:38:49.151	0.7	125.7		4.25		TAS				a_e	
BUG	161.59		pPKPab	03:39:00.173		122.5		4.47		TAS				a_e	
CLL	158.49		PKPab	03:38:35.301	0.0	125.7		4.25		TAS				a_e	
CLL	158.49		pPKPab	03:38:46.373	0.1	122.5		4.47		TAS				a_e	
CLZ	160.16		PKPab	03:38:42.751	0.4	125.7		4.25		TAS				a_e	
CLZ	160.16		pPKPab	03:38:53.773	0.1	122.5		4.47		TAS				a_e	

FLT1	159.95	PKPab	03:38:41.151	-0.4	125.7	4.25	TAS	a_e											
FLT1	159.95	pPKPab	03:38:52.223	-0.7	122.5	4.47	TAS	a_e											
FUR	157.57	PKPab	03:38:31.751	-0.1	125.7	4.25	TAS	a_e											
FUR	157.57	pPKPab	03:38:42.773	-0.0	122.5	4.47	TAS	a_e											
GEC2	156.72	PKPab	03:38:27.101	-0.6	125.7	4.25	TAS	a_e											
GEC2	156.72	pPKPab	03:38:38.023	-0.5	122.5	4.47	TAS	a_e											
GOR1	160.23	PKPab	03:38:43.093	0.2	125.7	4.25	TAS	m_e											
GRA1	158.53	PKPab	03:38:35.601	0.1	125.7	4.25	TAS	a_e											
GRA1	158.53	pPKPab	03:38:46.673	0.1	122.5	4.47	TAS	a_e											
GRA1	158.53	L	05:03:42.635				T__		335.5	19.90	a_e	Ms						5.2	
GTTG	160.22	PKPab	03:38:43.101	0.5	125.7	4.25	TAS	a_e											
GTTG	160.22	pPKPab	03:38:54.123	-0.0	122.5	4.47	TAS	a_e											
KAST	160.86	PKPab	03:38:46.101	0.8	125.7	4.25	TAS	a_e											
KAST	160.86	pPKPab	03:38:57.173	0.7	122.5	4.47	TAS	a_e											
MOX	158.86	PKPab	03:38:37.401	0.6	125.7	4.25	TAS	a_e											
MOX	158.86	pPKPab	03:38:48.423	0.5	122.5	4.47	TAS	a_e											
MOX	158.86	L	05:05:24.055				T__		290.5	18.90	a_e	Ms						5.1	
NEUB	159.08	PKPab	03:38:38.051	0.3	125.7	4.25	TAS	a_e											
NEUB	159.08	pPKPab	03:38:49.073	0.2	122.5	4.47	TAS	a_e											
PLN	158.49	PKPab	03:38:35.851	0.7	125.7	4.25	TAS	a_e											
PLN	158.49	pPKPab	03:38:46.973	0.7	122.5	4.47	TAS	a_e											
RETH	161.15	PKPab	03:38:44.558	-2.0	125.7	4.25	TAS	m_e											
RETH	161.15	pPKPab	03:38:57.973	-0.9	122.5	4.47	TAS	a_e											
RUE	158.67	PKPab	03:38:35.901	-0.5	125.7	4.25	TAS	a_e											
RUE	158.67	pPKPab	03:38:46.973	-0.5	122.5	4.47	TAS	a_e											
STU	159.04	PKPab	03:38:37.801	-0.4	125.7	4.25	TAS	a_e											
STU	159.04	pPKPab	03:38:48.873	-0.6	122.5	4.47	TAS	a_e											
TANN	158.29	PKPab	03:38:34.916	0.6	125.7	4.25	TAS	m_e											
TANN	158.29	pPKPab	03:38:46.073	0.7	122.5	4.47	TAS	a_e											
TNS	160.29	PKPab	03:38:43.601	0.5	125.7	4.25	TAS	a_e											
TNS	160.29	pPKPab	03:38:54.673	-0.2	122.5	4.47	TAS	a_e											
UBBA	159.81	PKPab	03:38:41.201	0.3	125.7	4.25	TAS	a_e											
UBBA	159.81	pPKPab	03:38:53.923	1.7	122.5	4.47	TAS	a_e											
UBR	157.87	PKPab	03:38:33.351	-0.1	125.7	4.25	TAS	a_e											
UBR	157.87	pPKPab	03:38:44.373	-0.3	122.5	4.47	TAS	m_e											
WET	157.33	PKPab	03:38:29.701	-0.7	125.7	4.25	TAS	m_e											
WET	157.33	pPKPab	03:38:40.673	-0.6	122.5	4.47	TAS	a_e											
WLF	161.16	PKPab	03:38:47.051	-0.3	125.7	4.25	TAS	a_e											
WLF	161.16	pPKPab	03:38:59.923	-0.1	122.5	4.47	TAS	a_e											

Event 91011004 Kamchatka Peninsula, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/11	07:48:50.96			57.7860	159.1680				33.0			19		67.67	71.88	m i ke	BGR
91011010																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.1		BGR	91011010
Ms	4.2		BGR	91011010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ARSA	70.96		P	08:00:04.741		17.6		6.19		TAS		11.4	1.29	m_e	mb 4.8
BFO	71.41		P	08:00:05.701		17.6		6.19		TAS		7.4	0.86	m_e	mb 4.8
BRG	67.89		P	07:59:45.098	1.7	17.6		6.19		TAS		20.7	1.50	m_e	mb 5.1
CLL	67.67		P	07:59:43.686	-0.6	17.6		6.19		TAS		31.7	1.54	m_e	mb 5.3
CLZ	67.67		P	07:59:44.059	-0.2	17.6		6.19		TAS		22.4	1.16	m_e	mb 5.3
GEC2	69.86		P	07:59:57.296		17.6		6.19		TAS		15.5	1.41	m_e	mb 4.9
GRA1	69.56		P	07:59:55.605		17.6		6.19		TAS		10.9	0.62	m_e	mb 5.1
GRA1	69.56		L	08:31:17.083						T__		154.2	20.30	a_e	Ms 4.2
KAST	68.64		P	07:59:49.615	0.3	17.6		6.19		TAS		9.8	1.02	m_e	mb 5.0
KBA	71.61		P	08:00:08.235		17.6		6.19		TAS		25.3	1.27	m_e	mb 5.2
MOX	68.57		P	07:59:49.294	-1.3	17.6		6.19		TAS		10.3	1.11	m_e	mb 5.0
MOX	68.57		L	08:30:48.476						T__		157.8	21.30	a_e	Ms 4.2
OBKA	71.88		P	08:00:10.036		17.6		6.19		TAS		16.3	1.19	m_e	mb 5.0
PLN	68.62		P	07:59:49.183	0.1	17.6		6.19		TAS		6.4	1.35	m_e	mb 4.7
STU	70.83		P	08:00:04.279		17.6		6.19		TAS		42.1	0.41	m_e	mb 5.9
TANN	68.63		P	07:59:49.345	-1.0	17.6		6.19		TAS		19.8	1.72	m_e	mb 5.1
TNS	69.57		P	07:59:54.966		17.6		6.19		TAS		34.9	1.69	m_e	mb 5.2
UBR	71.70		P	08:00:07.844		17.6		6.19		TAS		50.8	1.77	m_e	mb 5.4
WET	69.75		P	07:59:56.510		17.6		6.19		TAS		14.0	1.22	m_e	mb 5.0
WLF	70.51		P	08:00:02.877		17.6		6.19		TAS		8.7	0.53	m_e	mb 5.1
WTTA			P	08:00:09.124		17.6		6.19		TAS		16.2	1.16	m_e	mb 5.0

Event 91012001 Gulf of Alaska

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/12	02:44:20.70		56.2000	-148.6300					25.2					73.03	73.03	m i ke	EMSC

Magnitude	Err	Nsta	Author	OrigID
GRA1	73.03			
GRA1	73.03			

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	73.03		P	02:55:52.258		348.4		5.51		TAS				m_e	
GRA1	73.03		pP	02:55:59.431						T__				m_e	

Event 91012003 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
2019/10/12	09:21:53.40		34.5600	140.7800					40.0					83.96	84.85	m i ke	EMSC

91012035

Magnitude	Err	Nsta	Author	OrigID
mb	5.4		BGR	91012009
Ms	4.6		BGR	91012009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	84.85		P	09:34:26.006		39.7		4.43		TAS		27.4	1.16	m_e	mb	5.4
GRA1	84.85		L	10:14:51.782						T__		271.4	19.10	a_e	Ms	4.7
MOX	83.96		L	10:15:26.852						T__		247.5	21.40	a_e	Ms	4.6

Event 91012005 Western Iran

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/12	17:21:23.40			32.3300	49.7200				10.0					33.37	33.37	m i ke	EMSC
OrigID 91012037																	

Magnitude	Err	Nsta	Author	OrigID
mb	4.6		BGR	91012011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	33.37		P	17:28:01.514		106.7		9.72		TAS		9.0	1.05	m_e	mb	4.6

Event 91013001 Kuril Islands, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/13	09:58:39.60			44.5300	148.9300				60.0					79.06	79.06	m i ke	EMSC
OrigID 91013033																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.4		BGR	91013007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	79.06		P	10:10:38.231		29.3		4.81		TAS		55.8	1.39	m_e	mb	5.4

Event 91013003 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/13	20:02:42.20			-20.6500	-178.7100				603.0					149.88	149.88	m i ke	EMSC
OrigID 91013035																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	149.88		PKPbc	20:21:25.389						T__					m_e
GRA1	149.88		PKPab	20:21:33.358						T__					m_e

Event 91013004 Kermadec Islands, New Zealand

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/13	21:57:30.50			-30.4400	-177.7500				10.0					159.54	159.54	m i ke	EMSC
OrigID 91013036																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	159.54		PKPab	22:18:07.392		22.7		3.84		TAS					m_e

Event 91014002 Hindu Kush, Afghanistan, region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/14	01:11:28.80			36.5800	70.7400				205.3					44.22	44.22	m i ke	EMSC
OrigID 91014034																	

Magnitude Err Nsta Author OrigID

mb	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude		
4.8			BGR														
OrigID 91014008																	
GRA1	44.22		P	01:19:18.823		83.8		6.87		TAS		14.6	0.82	m_e mb	4.8		
GRA1	44.22		pP	01:20:02.896						T__					m_e		

Event 91014006 Tonga Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/14	22:00:09.40			-21.4100	-174.0400				10.0					151.38	151.38	m i ke	EMSC
OrigID 91014038																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
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GRA1 151.38 PKPbc 22:20:13.353 10.3 3.73 TAS m_e

Event 91014008 Kuril Islands, Russia

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/14	23:14:52.80			44.5700	146.7200				111.0					78.31	78.31	m i ke	EMSC

Magnitude Err Nsta Author OrigID
mb 5.3 BGR 91014014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	78.31		P	23:26:42.252		30.8		4.73		TAS		26.6	1.00	m_e mb	5.3

Event 91016002 Mindanao, Philippine Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/16	11:37:05.10			6.8000	125.0200				10.0				24	96.77	102.81	m i ke	EMSC

Magnitude Err Nsta Author OrigID
Ms 6.5 BGR 91016008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	99.17		PP	11:55:00.048	0.4	65.6		7.52		TAS				a_e	
BRG	97.76		PP	11:54:49.748	-0.1	65.6		7.52		TAS				a_e	
BSEG	98.63		PP	11:54:56.248	-0.3	65.6		7.52		TAS				a_e	
BUG	101.37		PP	11:55:16.798		65.6		7.52		TAS				a_e	
CLZ	99.45		Pdiff	11:50:48.925		68.0		4.48		TAS				m_e	
CLZ	99.45		PP	11:55:02.348	-0.7	65.6		7.52		TAS				a_e	
FLT1	98.77		PP	11:54:56.898	0.1	65.6		7.52		TAS				a_e	
GEC2	98.63		Pdiff	11:50:44.920		68.0		4.48		TAS				m_e	
GEC2	98.63		PP	11:54:56.998	0.3	65.6		7.52		TAS				a_e	
GOR1	98.47		PP	11:54:55.098	0.2	65.6		7.52		TAS				a_e	
GRA1	99.82		L	12:37:15.202						T__		14643.7	21.60	a_e Ms	6.5
GTTG	99.81		PP	11:55:04.898	0.4	65.6		7.52		TAS				a_e	
HLG	99.82		PP	11:55:05.148	0.1	65.6		7.52		TAS				a_e	
MANZ	99.17		Pdiff	11:50:47.453		68.0		4.48		TAS				m_e	
MANZ	99.17		PP	11:55:00.848	-0.1	65.6		7.52		TAS				a_e	
MOX	99.21		Pdiff	11:50:47.690		68.0		4.48		TAS				m_e	
MOX	99.21		PP	11:55:00.648	-0.0	65.6		7.52		TAS				m_e	
MOX	99.21		L	12:40:01.437						T__		16563.3	21.60	a_e Ms	6.5
NEUB	98.91		PP	11:54:58.198	-0.1	65.6		7.52		TAS				a_e	

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PLN	98.95	PP	11:54:58.798	0.3	65.6	7.52	TAS	a_e
RETH	99.65	PP	11:55:02.998	-0.1	65.6	7.52	TAS	a_e
RGN	96.77	PP	11:54:42.498	0.6	65.6	7.52	TAS	a_e
ROTZ	99.20	PP	11:55:01.198	-0.1	65.6	7.52	TAS	a_e
RUE	97.27	PP	11:54:45.248	-0.8	65.6	7.52	TAS	a_e
STU	101.40	PP	11:55:17.498		65.6	7.52	TAS	a_e
TANN	98.80	Pdiff	11:50:45.810		68.0	4.48	TAS	m_e
TANN	98.80	PP	11:54:57.848	-0.2	65.6	7.52	TAS	a_e
UBBA	100.08	PP	11:55:06.648	0.1	65.6	7.52	TAS	a_e
UBR	101.29	PP	11:55:16.948		65.6	7.52	TAS	a_e
WET	99.02	PP	11:54:59.998	0.2	65.6	7.52	TAS	a_e
WLF	102.81	PP	11:55:27.848		65.6	7.52	TAS	a_e

Event 91016005 Mindanao, Philippine Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/16	20:53:53.00			7.3200	126.5900				126.0					100.33	100.33	m i ke	EMSC
OrigID 91016037																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	100.33		Pdiff	21:07:24.902						T__					m_e

Event 91017005 Taiwan region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/17	11:44:33.10			24.0300	122.5700				25.0					84.68	84.68	m i ke	EMSC
OrigID 91017037																	

Magnitude Err Nsta Author OrigID

mb 5.1 BGR 91017011

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	84.68		P	11:57:03.858		58.8		4.43		TAS		11.8	0.95	m_e mb	5.1

Event 91018001 Northern Alaska, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/18	13:09:03.04			66.1100	-157.7300				33.0				27	59.36	66.04	m i ke	BGR
OrigID																	

91018007

Magnitude	Err	Nsta	Author	OrigID
mb	5.4		BGR	91018007
Ms	4.4		BGR	91018007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	61.65		P	13:19:17.927	-0.4	355.3		6.65		TAS		25.4	1.16	m_e	mb	5.3
BFO	65.27		P	13:19:41.857	-0.6	355.3		6.65		TAS		31.3	1.12	m_e	mb	5.5
BRG	63.06		P	13:19:27.326	-0.2	355.3		6.65		TAS		25.5	1.10	m_e	mb	5.3
BSEG	59.82		P	13:19:05.666	-0.5	355.3		6.65		TAS		14.3	0.79	m_e	mb	5.1
BUG	62.11		P	13:19:20.869		355.3		6.65		TAS		20.0	0.92	m_e	mb	5.3
CLL	62.58		P	13:19:23.952	0.4	355.3		6.65		TAS		22.4	1.09	m_e	mb	5.2
CLZ	61.91		P	13:19:20.526	-0.6	355.3		6.65		TAS		59.2	1.03	m_e	mb	5.8
FLT1	61.47		P	13:19:16.601	0.1	355.3		6.65		TAS		30.2	1.30	m_e	mb	5.4
FUR	65.63		P	13:19:44.887	0.2	355.3		6.65		TAS		35.6	0.88	m_e	mb	5.6
GEC2	65.07		P	13:19:41.203	0.5	355.3		6.65		TAS		50.3	1.27	m_e	mb	5.6
GOR1	60.82		P	13:19:13.334	0.4	355.3		6.65		TAS		84.1	1.86	m_e	mb	5.3
GRA1	64.11		P	13:19:35.067	0.4	355.3		6.65		TAS		51.0	1.08	m_e	mb	5.7
GRA1	64.11		L	13:47:57.410						T__		279.9	21.80	a_e	Ms	4.4
GTTG	62.18		P	13:19:22.303	-0.1	355.3		6.65		TAS		35.7	1.02	m_e	mb	5.5
IBBN	61.28		P	13:19:15.799	-0.2	355.3		6.65		TAS		35.8	0.89	m_e	mb	5.2
KAST	62.42		P	13:19:23.308	0.0	355.3		6.65		TAS		30.4	1.25	m_e	mb	5.3
MOX	63.17		P	13:19:28.510	-0.2	355.3		6.65		TAS		26.7	1.11	m_e	mb	5.3
MOX	63.17		L	13:49:05.189						T__		281.5	21.40	a_e	Ms	4.4
NEUB	62.64		P	13:19:24.674	0.0	355.3		6.65		TAS		44.6	1.07	m_e	mb	5.5
PLN	63.36		P	13:19:29.718	-0.1	355.3		6.65		TAS		8.3	1.02	m_e	mb	4.8
RETH	60.96		P	13:19:13.685	0.5	355.3		6.65		TAS		19.2	1.09	m_e	mb	4.8
RGN	59.36		P	13:19:03.480	0.3	355.3		6.65		TAS		76.4	0.93	m_e	mb	5.7
RUE	61.45		P	13:19:17.159	0.2	355.3		6.65		TAS		44.5	0.74	m_e	mb	5.8
STU	64.90		P	13:19:40.191	-0.1	355.3		6.65		TAS		58.9	0.94	m_e	mb	5.8
TANN	63.45		P	13:19:30.159	-0.2	355.3		6.65		TAS		25.6	1.10	m_e	mb	5.4
TNS	63.40		P	13:19:29.810	0.0	355.3		6.65		TAS		19.8	0.90	m_e	mb	5.3
UBBA	62.91		P	13:19:26.750	-0.2	355.3		6.65		TAS		48.3	1.55	m_e	mb	5.4
UBR	66.04		P	13:19:47.399	0.2	355.3		6.65		TAS		59.5	1.47	m_e	mb	5.6
WET	64.74		P	13:19:38.973	0.6	355.3		6.65		TAS		24.9	1.33	m_e	mb	5.3
WLF	63.78		P	13:19:32.929		355.3		6.65		TAS		33.3	0.95	m_e	mb	5.5

Event 91019002 Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/19	20:32:00.90			-18.4210	179.0470				33.0			27		143.42	149.37	m i ke	BGR
91019008																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.1		BGR	91019008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	145.06		PKPbc	20:51:33.508	0.2	21.7		2.88		TAS				a_e	
BFO	149.14		PKPbc	20:51:44.558	-0.6	21.7		2.88		TAS				a_e	
BRG	145.45		PKPbc	20:51:34.608	0.2	21.7		2.88		TAS				a_e	
BSEG	143.42		PKPbc	20:51:27.808	-0.9	21.7		2.88		TAS				a_e	
BUG	146.33		PKPbc	20:51:37.358	0.1	21.7		2.88		TAS				a_e	
CLL	145.30		PKPbc	20:51:33.958	0.0	21.7		2.88		TAS				a_e	
CLZ	145.39		PKPbc	20:51:34.808	0.5	21.7		2.88		TAS				a_e	
FLT1	144.75		PKPbc	20:51:32.058	-0.4	21.7		2.88		TAS				m_e	
FUR	148.63		PKPbc	20:51:43.258	-0.3	21.7		2.88		TAS				a_e	
GEC2	147.34		PKPbc	20:51:39.758	-0.2	21.7		2.88		TAS				a_e	
GOR1	144.12		PKPbc	20:51:30.508	-0.1	21.7		2.88		TAS				a_e	
GRA1	147.23		PKPbc	20:51:40.399	0.9	21.7		2.88		TAS				m_e	
GRA1	147.23		L	22:06:27.431						T__		331.0	20.00	a_e Ms	5.1
GTTG	145.75		PKPbc	20:51:35.758	0.4	21.7		2.88		TAS				a_e	
IBBN	145.41		PKPbc	20:51:34.608	-0.0	21.7		2.88		TAS				a_e	
KAST	146.37		PKPbc	20:51:37.408	0.1	21.7		2.88		TAS				a_e	
MOX	146.24		PKPbc	20:51:36.858	0.2	21.7		2.88		TAS				a_e	
MOX	146.24		L	22:17:39.645						T__		267.2	21.20	a_e Ms	5.0
NEUB	145.70		PKPbc	20:51:35.308	0.2	21.7		2.88		TAS				a_e	
PLN	146.26		PKPbc	20:51:36.908	0.2	21.7		2.88		TAS				a_e	
RETH	144.73		PKPbc	20:51:32.408	-0.1	21.7		2.88		TAS				a_e	
RUE	144.03		PKPbc	20:51:29.808	-0.5	21.7		2.88		TAS				a_e	
STU	148.54		PKPbc	20:51:43.258	-0.1	21.7		2.88		TAS				a_e	
TANN	146.25		PKPbc	20:51:36.958	0.2	21.7		2.88		TAS				a_e	
TNS	147.31		PKPbc	20:51:40.108	0.2	21.7		2.88		TAS				a_e	
UBBA	146.44		PKPbc	20:51:37.558	0.2	21.7		2.88		TAS				a_e	
UBR	149.37		PKPbc	20:51:44.858	-0.8	21.7		2.88		TAS				a_e	
WET	147.30		PKPbc	20:51:40.108	0.3	21.7		2.88		TAS				a_e	
WLF	148.22		PKPbc	20:51:43.058	0.2	21.7		2.88		TAS				a_e	

Event 91020002 Tonga Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/20	08:08:54.10			-18.9400	-172.4900				33.0			27		144.91	151.16	m i ke	BGR
91020008																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.0		BGR	91020008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	146.70		PKPbc	08:28:32.365	0.2	5.9		2.81		TAS				a_e	
BFO	150.58		PKPbc	08:28:42.715	-0.4	5.9		2.81		TAS				a_e	
BRG	147.64		PKPbc	08:28:35.115	0.1	5.9		2.81		TAS				a_e	
BSEG	144.91		PKPbc	08:28:26.365	-0.8	5.9		2.81		TAS				a_e	

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BUG	147.47	PKPbc	08:28:34.265	-0.2	5.9	2.81	TAS	a_e											
CLL	147.32	PKPbc	08:28:34.015	0.0	5.9	2.81	TAS	m_e											
CLZ	147.00	PKPbc	08:28:33.515	0.5	5.9	2.81	TAS	a_e											
FLT1	146.46	PKPbc	08:28:31.115	-0.4	5.9	2.81	TAS	a_e											
FUR	150.59	PKPbc	08:28:42.765	-0.4	5.9	2.81	TAS	a_e											
GEC2	149.66	PKPbc	08:28:40.565	-0.1	5.9	2.81	TAS	a_e											
GOR1	145.80	PKPbc	08:28:29.615	-0.0	5.9	2.81	TAS	a_e											
GRA1	149.08	PKPbc	08:28:39.215	0.3	5.9	2.81	TAS	a_e											
GRA1	149.08	L	09:57:07.931				T__					332.8	21.50	a_e Ms				5.1	
GTTG	147.31	PKPbc	08:28:34.165	0.3	5.9	2.81	TAS	a_e											
IBBN	146.61	PKPbc	08:28:32.115	0.1	5.9	2.81	TAS	a_e											
KAST	147.71	PKPbc	08:28:35.165	0.1	5.9	2.81	TAS	a_e											
MOX	148.10	PKPbc	08:28:36.315	0.2	5.9	2.81	TAS	a_e											
MOX	148.10	L	10:00:43.590				T__					196.0	19.00	a_e Ms				4.9	
NEUB	147.55	PKPbc	08:28:34.765	0.2	5.9	2.81	TAS	a_e											
PLN	148.22	PKPbc	08:28:36.715	0.2	5.9	2.81	TAS	a_e											
RETH	146.15	PKPbc	08:28:30.615	-0.0	5.9	2.81	TAS	a_e											
RUE	146.09	PKPbc	08:28:29.965	-0.1	5.9	2.81	TAS	a_e											
STU	150.12	PKPbc	08:28:41.665	0.3	5.9	2.81	TAS	a_e											
TANN	148.26	PKPbc	08:28:36.915	0.2	5.9	2.81	TAS	a_e											
TNS	148.69	PKPbc	08:28:37.965	0.2	5.9	2.81	TAS	a_e											
UBBA	148.04	PKPbc	08:28:36.165	-0.7	5.9	2.81	TAS	a_e											
UBR	151.16	PKPbc	08:28:44.015	0.3	5.9	2.81	TAS	a_e											
WET	149.47	PKPbc	08:28:40.365	0.3	5.9	2.81	TAS	a_e											
WLF	149.23	PKPbc	08:28:39.915		5.9	2.81	TAS	a_e											

Event 91021001 Vanuatu Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/21	02:52:21.47			-18.7290	170.8410				250.0				27	141.72	147.18	m i ke	BGR
	91021007																

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	143.15		PKPbc	03:11:31.560	-0.1	35.1		3.25		TAS					a_e
BFO	147.18		PKPbc	03:11:44.021	-0.6	35.1		3.25		TAS					m_e
BRG	143.01		PKPbc	03:11:30.610	-0.4	35.1		3.25		TAS					a_e
BSEG	141.72		PKPbc	03:11:26.560	-0.6	35.1		3.25		TAS					a_e
BUG	144.80		PKPbc	03:11:37.010	-0.2	35.1		3.25		TAS					a_e
CLL	143.02		PKPbc	03:11:30.610	-0.4	35.1		3.25		TAS					a_e
CLZ	143.49		PKPbc	03:11:32.960	0.2	35.1		3.25		TAS					a_e
FLT1	142.80		PKPbc	03:11:29.910	-0.5	35.1		3.25		TAS					a_e
FUR	146.22		PKPbc	03:11:41.460	-0.0	35.1		3.25		TAS					a_e
GEC2	144.69		PKPbc	03:11:36.410	-0.2	35.1		3.25		TAS					a_e
GOR1	142.22		PKPbc	03:11:28.846	0.3	35.1		3.25		TAS					m_e

GRA1	145.00	PKPbc	03:11:38.110	0.6	35.1	3.25	TAS	m_e
GTTG	143.88	PKPbc	03:11:34.310	0.3	35.1	3.25	TAS	a_e
IBBN	143.90	PKPbc	03:11:34.110	-0.2	35.1	3.25	TAS	a_e
KAST	144.67	PKPbc	03:11:36.860	0.2	35.1	3.25	TAS	a_e
MOX	144.07	PKPbc	03:11:34.560	0.1	35.1	3.25	TAS	m_e
NEUB	143.56	PKPbc	03:11:32.860	0.0	35.1	3.25	TAS	a_e
PLN	144.00	PKPbc	03:11:34.410	0.2	35.1	3.25	TAS	a_e
RETH	143.04	PKPbc	03:11:31.260	-0.2	35.1	3.25	TAS	a_e
RUE	141.79	PKPbc	03:11:27.559	0.5	35.1	3.25	TAS	m_e
STU	146.50	PKPbc	03:11:42.410	0.0	35.1	3.25	TAS	a_e
TANN	143.94	PKPbc	03:11:34.210	0.2	35.1	3.25	TAS	m_e
TNS	145.51	PKPbc	03:11:39.860	0.6	35.1	3.25	TAS	a_e
UBBA	144.49	PKPbc	03:11:36.260	0.4	35.1	3.25	TAS	a_e
UBR	147.07	PKPbc	03:11:43.610	-0.6	35.1	3.25	TAS	a_e
WET	144.79	PKPbc	03:11:37.110	0.2	35.1	3.25	TAS	m_e
WLF	146.71	PKPbc	03:11:43.710	0.3	35.1	3.25	TAS	a_e

Event 91022002 Samoa Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/22	04:18:40.17			-16.2950	-172.1680				33.0			25		142.30	148.55	m i ke	BGR
91022008																	

Magnitude Err Nsta Author OrigID
Ms 6.0 BGR 91022008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	144.08		PKPbc	04:38:09.366	-0.2	5.9		2.99		TAS				m_e	
BFO	147.95		PKPbc	04:38:21.306	0.1	5.9		2.99		TAS				m_e	
BRG	145.07		PKPbc	04:38:12.381	-0.2	5.9		2.99		TAS				a_e	
BSEG	142.30		PKPbc	04:38:04.546	0.3	5.9		2.99		TAS				m_e	
BUG	144.84		PKPbc	04:38:11.381	-0.7	5.9		2.99		TAS				a_e	
CLL	144.73		PKPbc	04:38:10.603	-0.9	5.9		2.99		TAS				m_e	
CLZ	144.38		PKPbc	04:38:10.533	0.1	5.9		2.99		TAS				m_e	
FLT1	143.85		PKPbc	04:38:08.226	-0.6	5.9		2.99		TAS				m_e	
FUR	148.00		PKPbc	04:38:21.931	0.7	5.9		2.99		TAS				a_e	
GEC2	147.09		PKPbc	04:38:18.468	-0.1	5.9		2.99		TAS				m_e	
GOR1	143.19		PKPbc	04:38:06.725	-0.1	5.9		2.99		TAS				m_e	
GRA1	146.48		PKPbc	04:38:17.481	0.8	5.9		2.99		TAS				a_e	
GRA1	146.48		L	05:42:59.021						T__		2764.1	20.40	a_e Ms	6.0
GTTG	144.70		PKPbc	04:38:11.031	-0.4	5.9		2.99		TAS				a_e	
IBBN	143.98		PKPbc	04:38:09.671	0.3	5.9		2.99		TAS				m_e	
KAST	145.08		PKPbc	04:38:12.431	-0.2	5.9		2.99		TAS				m_e	
MOX	145.50		PKPbc	04:38:13.781	0.0	5.9		2.99		TAS				a_e	
MOX	145.50		L	05:40:09.473						T__		2520.9	21.80	a_e Ms	6.0
NEUB	144.95		PKPbc	04:38:13.299	1.2	5.9		2.99		TAS				m_e	

PLN	145.62	PKPbc	04:38:14.281	0.2	5.9	2.99	TAS	a_e
STU	147.49	PKPbc	04:38:20.045	0.3	5.9	2.99	TAS	m_e
TANN	145.67	PKPbc	04:38:14.381	0.1	5.9	2.99	TAS	a_e
TNS	146.06	PKPbc	04:38:15.733	0.2	5.9	2.99	TAS	m_e
UBBA	145.42	PKPbc	04:38:13.531	-0.0	5.9	2.99	TAS	a_e
UBR	148.55	PKPbc	04:38:21.229	-1.6	5.9	2.99	TAS	m_e
WET	146.88	PKPbc	04:38:18.274	0.3	5.9	2.99	TAS	m_e
WLF	146.59	PKPbc	04:38:17.871	0.4	5.9	2.99	TAS	m_e

Event 91023001 North of Ascension Island

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/23	16:08:13.55			-1.6750	-12.2460				20.8	4.6		28		52.92	59.90	m i k e	BGR
OrigID 91023007																	

Magnitude	Err	Nsta	Author	OrigID
mb	6.1		BGR	91023007
Ms	6.3		BGR	91023007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	57.02		P	16:17:59.259	-0.2	209.0		7.22		TAS		441.7	2.01	m_e	mb 6.1
ASSE	57.02		sP	16:18:07.537	-0.1	209.5		7.17		TAS				a_e	
BFO	52.95		P	16:17:29.809	-0.3	209.0		7.22		TAS		443.0	1.48	a_e	mb 6.2
BFO	52.95		sP	16:17:38.087	-0.4	209.5		7.17		TAS				a_e	
BRG	56.94		P	16:17:58.959	0.0	209.0		7.22		TAS		272.4	1.55	a_e	mb 6.0
BRG	56.94		sP	16:18:07.187	-0.0	209.5		7.17		TAS				a_e	
BSEG	58.53		P	16:18:11.309	1.1	209.0		7.22		TAS		79.0	0.89	a_e	mb 5.8
BSEG	58.53		sP	16:18:17.737	-0.5	209.5		7.17		TAS				a_e	
BUG	55.48		P	16:17:48.059	0.0	209.0		7.22		TAS		305.8	1.51	a_e	mb 6.1
BUG	55.48		sP	16:17:56.337	0.2	209.5		7.17		TAS				a_e	
CLL	57.01		P	16:17:59.309	-0.1	209.0		7.22		TAS		297.6	1.54	m_e	mb 6.1
CLL	57.01		sP	16:18:07.587	-0.1	209.5		7.17		TAS				a_e	
CLZ	56.68		P	16:17:56.809	-0.2	209.0		7.22		TAS		214.6	1.57	a_e	mb 5.9
CLZ	56.68		sP	16:18:05.137	-0.0	209.5		7.17		TAS				a_e	
FLT1	57.36		P	16:18:01.609	-0.3	209.0		7.22		TAS		386.1	1.72	a_e	mb 6.2
FLT1	57.36		sP	16:18:09.937	-0.1	209.5		7.17		TAS				a_e	
FUR	53.73		P	16:17:35.859	0.2	209.0		7.22		TAS		1160.9	1.66	a_e	mb 6.6
FUR	53.73		sP	16:17:44.187	0.1	209.5		7.17		TAS				a_e	
GEC2	55.14		P	16:17:46.609	0.8	209.0		7.22		TAS		847.1	1.55	a_e	mb 6.5
GEC2	55.14		sP	16:17:54.887	0.7	209.5		7.17		TAS				a_e	
GOR1	57.96		P	16:18:06.459	0.2	209.0		7.22		TAS		976.8	1.50	a_e	mb 6.6
GOR1	57.96		sP	16:18:14.787	0.4	209.5		7.17		TAS				a_e	
GRA1	55.04		P	16:17:45.059	-0.2	209.0		7.22		TAS		221.6	1.37	a_e	mb 6.0
GRA1	55.04		sP	16:17:53.337	-0.2	209.5		7.17		TAS				a_e	
GRA1	55.04		L	16:40:07.195						T__		27073.9	21.80	a_e	Ms 6.3
GTTG	56.30		P	16:17:54.609	0.4	209.0		7.22		TAS		192.8	1.22	a_e	mb 6.0

GTTG	56.30	sP	16:18:02.937	0.5	209.5	7.17	TAS										a_e	
IBBN	56.39	P	16:17:54.559	-0.1	209.0	7.22	TAS	153.2	1.26	a_e	mb							5.9
IBBN	56.39	sP	16:18:02.887	0.2	209.5	7.17	TAS										a_e	
KAST	55.56	P	16:17:48.909	0.1	209.0	7.22	TAS	280.2	1.56	a_e	mb							6.0
KAST	55.56	sP	16:17:57.137	0.1	209.5	7.17	TAS										a_e	
MOX	56.00	P	16:17:52.109	-0.0	209.0	7.22	TAS	493.5	1.70	a_e	mb							6.3
MOX	56.00	sP	16:18:00.387	-0.0	209.5	7.17	TAS										a_e	
MOX	56.00	L	16:40:55.722				T__	33211.3	21.80	a_e	Ms							6.4
NEUB	56.52	P	16:17:55.859	-0.1	209.0	7.22	TAS	180.9	1.11	a_e	mb							6.0
NEUB	56.52	sP	16:18:04.187	0.0	209.5	7.17	TAS										m_e	
PLN	56.03	P	16:17:52.209	-0.2	209.0	7.22	TAS	61.6	1.30	a_e	mb							5.5
PLN	56.03	sP	16:18:00.487	-0.2	209.5	7.17	TAS										a_e	
RETH	57.20	P	16:18:01.059	0.4	209.0	7.22	TAS	461.0	1.77	a_e	mb							6.2
RETH	57.20	sP	16:18:09.337	0.6	209.5	7.17	TAS										a_e	
RGN	59.90	P	16:18:19.409	-0.9	209.0	7.22	TAS	230.7	1.05	a_e	mb							6.1
RGN	59.90	sP	16:18:27.737	-0.6	209.5	7.17	TAS										a_e	
RUE	58.26	P	16:18:08.209	-0.3	209.0	7.22	TAS	324.7	1.36	a_e	mb							6.2
RUE	58.26	sP	16:18:16.487	-0.2	209.5	7.17	TAS										a_e	
STU	53.60	P	16:17:34.309	-0.5	209.0	7.22	TAS	624.1	1.45	a_e	mb							6.4
STU	53.60	sP	16:17:42.587	-0.6	209.5	7.17	TAS										a_e	
TANN	56.06	P	16:17:52.609	-0.0	209.0	7.22	TAS	185.4	1.17	a_e	mb							6.0
TANN	56.06	sP	16:18:00.987	0.1	209.5	7.17	TAS										a_e	
TNS	54.69	P	16:17:42.459	-0.1	209.0	7.22	TAS	558.1	1.83	a_e	mb							6.3
TNS	54.69	sP	16:17:50.687	-0.1	209.5	7.17	TAS										a_e	
UBBA	55.66	P	16:17:49.809	0.1	209.0	7.22	TAS	296.7	1.46	a_e	mb							6.1
UBBA	55.66	sP	16:17:58.087	0.2	209.5	7.17	TAS										a_e	
UBR	52.92	P	16:17:29.609	-0.3	209.0	7.22	TAS	301.3	1.04	a_e	mb							6.2
UBR	52.92	sP	16:17:37.987	-0.4	209.5	7.17	TAS										a_e	
WET	55.11	P	16:17:46.109	0.5	209.0	7.22	TAS	595.4	1.62	a_e	mb							6.4
WET	55.11	sP	16:17:54.437	0.4	209.5	7.17	TAS										a_e	
WLF	53.57	P	16:17:34.309	0.1	209.0	7.22	TAS	424.5	1.62	a_e	mb							6.2
WLF	53.57	sP	16:17:42.587	0.1	209.5	7.17	TAS										a_e	

Event 91024002 Samoa Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/24	10:50:24.10			-16.8680	-172.9820				33.0			27		142.83	149.07	m i ke	BGR
91024008																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.2		BGR	91024008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	144.61		PKPbc	11:09:56.423	0.2	7.4		2.91		TAS					m_e
BFO	148.51		PKPbc	11:10:06.248	-1.4	7.4		2.91		TAS					m_e
BRG	145.53		PKPbc	11:09:58.749	-0.2	7.4		2.91		TAS					m_e

BSEG	142.83	PKPbc	11:09:50.349	-0.7	7.4	2.91	TAS	a_e												
BUG	145.41	PKPbc	11:09:58.799	-0.0	7.4	2.91	TAS	a_e												
CLL	145.22	PKPbc	11:09:58.199	0.2	7.4	2.91	TAS	a_e												
CLZ	144.91	PKPbc	11:09:57.599	0.5	7.4	2.91	TAS	m_e												
FLT1	144.37	PKPbc	11:09:55.099	-0.4	7.4	2.91	TAS	a_e												
FUR	148.50	PKPbc	11:10:07.599	0.1	7.4	2.91	TAS	a_e												
GEC2	147.55	PKPbc	11:10:05.249	0.3	7.4	2.91	TAS	a_e												
GOR1	143.71	PKPbc	11:09:53.499	-0.1	7.4	2.91	TAS	a_e												
GRA1	146.99	PKPbc	11:10:02.925	-0.2	7.4	2.91	TAS	m_e												
GRA1	146.99	L	12:24:49.011				T__		425.7	19.10	a_e	Ms							5.2	
GTTG	145.23	PKPbc	11:09:58.599	0.5	7.4	2.91	TAS	a_e												
IBBN	144.54	PKPbc	11:09:56.199	-0.0	7.4	2.91	TAS	a_e												
KAST	145.63	PKPbc	11:09:59.749	0.4	7.4	2.91	TAS	a_e												
MOX	146.01	PKPbc	11:10:00.169	-0.1	7.4	2.91	TAS	m_e												
MOX	146.01	L	12:17:54.147				T__		448.9	21.40	a_e	Ms							5.2	
NEUB	145.45	PKPbc	11:09:59.049	0.4	7.4	2.91	TAS	a_e												
PLN	146.12	PKPbc	11:10:01.131	0.5	7.4	2.91	TAS	m_e												
RETH	144.07	PKPbc	11:09:54.749	0.0	7.4	2.91	TAS	a_e												
RUE	143.98	PKPbc	11:09:53.749	-0.7	7.4	2.91	TAS	a_e												
STU	148.03	PKPbc	11:10:06.599	0.3	7.4	2.91	TAS	a_e												
TANN	146.16	PKPbc	11:10:00.342	-0.4	7.4	2.91	TAS	m_e												
TNS	146.61	PKPbc	11:10:02.338	0.2	7.4	2.91	TAS	m_e												
UBBA	145.95	PKPbc	11:10:00.495	0.3	7.4	2.91	TAS	m_e												
UBR	149.07	PKPbc	11:10:08.539	-0.7	7.4	2.91	TAS	m_e												
WET	147.36	PKPbc	11:10:04.949	0.7	7.4	2.91	TAS	a_e												
WLF	147.18	PKPbc	11:10:04.537	0.4	7.4	2.91	TAS	m_e												

Event 91026001 Fox Islands, Aleutian Islands, United States

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/26	00:41:31.39			53.5000	-170.5000				33.0				28	72.80	79.06	m i ke	BGR
	91026007																

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	91026007
Ms	5.3		BGR	91026007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	74.61		P	00:53:08.327	-0.3	1.2		5.66		TAS		21.6	0.93	m_e mb	5.2
BFO	78.41		P	00:53:29.499		1.2		5.66		TAS		23.6	1.15	m_e mb	5.1
BRG	75.80		P	00:53:14.943	0.2	1.2		5.66		TAS		21.4	0.93	m_e mb	5.3
BSEG	72.80		P	00:52:57.962	0.1	1.2		5.66		TAS				m_e	
BUG	75.28		P	00:53:11.790	-0.1	1.2		5.66		TAS		22.9	1.02	m_e mb	5.2
CLL	75.39		P	00:53:12.410	-0.1	1.2		5.66		TAS		16.9	0.85	m_e mb	5.2
CLZ	74.89		P	00:53:10.343	-0.3	1.2		5.66		TAS		26.9	0.99	m_e mb	5.2
FLT1	74.40		P	00:53:06.590	0.3	1.2		5.66		TAS		16.1	1.01	m_e mb	5.0

FUR	78.57	P	00:53:30.606		1.2	5.66	TAS	25.2	1.11	m_e	mb	5.2
GEC2	77.83	P	00:53:26.625	-0.1	1.2	5.66	TAS	12.8	0.84	m_e	mb	5.1
GRA1	77.04	S	01:02:59.114				T__			m_e		
GRA1	77.04	P	00:53:22.593	-0.3	1.2	5.66	TAS	22.4	0.80	m_e	mb	5.3
GRA1	77.04	PP	00:56:27.529				T__			m_e		
GRA1	77.04	L	01:33:39.848				T__	1341.7	19.50	a_e	Ms	5.3
GTTG	75.19	P	00:53:11.952	-0.0	1.2	5.66	TAS	35.7	1.00	m_e	mb	5.3
IBBN	74.42	P	00:53:07.345	0.4	1.2	5.66	TAS	43.2	0.97	m_e	mb	5.5
KAST	75.53	P	00:53:13.543	0.1	1.2	5.66	TAS	13.5	0.99	m_e	mb	5.0
MANZ	76.73	P	00:53:20.319	0.2	1.2	5.66	TAS	2.8	1.01	m_e	mb	4.3
MOX	76.08	S	01:02:51.278				T__			m_e		
MOX	76.08	P	00:53:16.752	-0.0	1.2	5.66	TAS	18.7	0.92	m_e	mb	5.2
MOX	76.08	PP	00:56:21.758				T__			m_e		
MOX	76.08	L	01:31:44.129				T__	1387.9	19.90	a_e	Ms	5.3
NEUB	75.53	P	00:53:13.444	-0.1	1.2	5.66	TAS	33.1	0.90	m_e	mb	5.5
PLN	76.23	P	00:53:17.443	0.2	1.2	5.66	TAS	3.7	0.85	m_e	mb	4.5
RETH	74.00	P	00:53:04.967	-0.6	1.2	5.66	TAS	23.5	1.11	m_e	mb	5.1
RJOB	78.97	P	00:53:32.879		1.2	5.66	TAS	16.7	0.93	m_e	mb	5.1
ROTZ	76.95	P	00:53:21.802	0.1	1.2	5.66	TAS			m_e		
RUE	74.20	P	00:53:06.115	0.0	1.2	5.66	TAS	31.3	0.84	m_e	mb	5.4
STU	77.97	P	00:53:27.330	-0.1	1.2	5.66	TAS	38.9	0.90	m_e	mb	5.5
TANN	76.30	P	00:53:18.053	0.3	1.2	5.66	TAS			m_e		
TNS	76.51	P	00:53:19.182	0.5	1.2	5.66	TAS	14.2	0.85	m_e	mb	5.1
UBR	79.06	P	00:53:33.427		1.2	5.66	TAS	47.5	1.51	m_e	mb	5.3
WET	77.56	P	00:53:25.250	-0.2	1.2	5.66	TAS	27.1	1.39	m_e	mb	5.2
WLF	77.04	P	00:53:22.286	-0.1	1.2	5.66	TAS	15.9	0.98	m_e	mb	5.1

Event 91026002 Samoa Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/26	08:52:37.10			-15.6900	-171.8400				10.0					145.90	145.90	m i ke	NEIC
OrigID 91026097																	

Magnitude	Err	Nsta	Author	OrigID
Ms	5.0		BGR	91026008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
GRA1	145.90		PKPbc	09:12:19.990		5.3		3.57		TAS				m_e		
GRA1	145.90		L	10:18:37.075						T__		248.6	19.40	a_e	Ms	5.0

Event 91027002 Kyrgyzstan-Xinjiang border region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	

./bul1910.txt

Tue Jan 04 10:09:55 2022

20

2019/10/27 05:29:49.37

41.3100

79.4700

13.6

0.1

25

45.01 50.14 m i ke BGR

91027008

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	91027008
Ms	4.4		BGR	91027008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BFO	49.25		P	05:38:35.371		73.7		7.76		TAS		22.8	1.28	m_e	mb	5.0
BFO	49.25		pP	05:38:39.042						T__				m_e		
BRG	45.01		P	05:38:02.507	0.2	73.7		7.76		TAS		41.5	1.41	m_e	mb	5.2
BSEG	46.42		P	05:38:14.320	0.6	73.7		7.76		TAS		28.3	1.26	m_e	mb	5.2
BUG	48.89		P	05:38:32.900		73.7		7.76		TAS		31.0	1.21	m_e	mb	5.2
CLL	45.48		P	05:38:05.850	-0.1	73.7		7.76		TAS		41.7	1.20	m_e	mb	5.3
CLZ	46.92		P	05:38:17.740	0.6	73.7		7.76		TAS		15.7	0.93	m_e	mb	5.1
FLT1	46.28		P	05:38:11.919	-0.1	73.7		7.76		TAS		52.7	1.37	m_e	mb	5.4
FUR	47.45		P	05:38:22.132	-0.1	73.7		7.76		TAS		80.0	1.31	m_e	mb	5.7
GEC2	45.71		P	05:38:08.229	0.5	73.7		7.76		TAS		40.2	1.24	m_e	mb	5.3
GOR1	46.07		P	05:38:11.411	-0.1	73.7		7.76		TAS		385.3	2.36	m_e	mb	6.0
GRA1	47.01		P	05:38:19.016	-0.5	73.7		7.76		TAS		69.3	1.25	m_e	mb	5.6
GRA1	47.01		L	05:58:56.412						T__		534.8	18.00	a_e	Ms	4.5
GTTG	47.25		P	05:38:20.606	0.1	73.7		7.76		TAS		48.4	0.87	m_e	mb	5.7
MANZ	46.38		P	05:38:13.457	-0.2	73.7		7.76		TAS		3.0	0.95	m_e	mb	4.3
MOX	46.50		P	05:38:14.322	0.0	73.7		7.76		TAS		39.7	1.42	m_e	mb	5.3
MOX	46.50		L	05:59:04.262						T__		261.0	20.80	a_e	Ms	4.2
NEUB	46.25		P	05:38:12.150	0.2	73.7		7.76		TAS		33.4	0.71	m_e	mb	5.5
PLN	46.21		P	05:38:12.131	-0.7	73.7		7.76		TAS		7.7	1.26	m_e	mb	4.6
RJOB	46.61		P	05:38:15.446	0.5	73.7		7.76		TAS		5.0	1.15	m_e	mb	4.5
ROTZ	46.38		P	05:38:13.771	1.1	73.7		7.76		TAS		21.3	2.05	m_e	mb	4.8
STU	48.56		P	05:38:30.331		73.7		7.76		TAS		65.7	1.03	m_e	mb	5.6
STU	48.56		pP	05:38:33.969						T__				m_e		
TANN	46.04		P	05:38:10.844	-0.0	73.7		7.76		TAS		24.5	1.13	m_e	mb	5.1
TNS	48.56		P	05:38:30.411		73.7		7.76		TAS		32.6	1.47	m_e	mb	5.2
TNS	48.56		pP	05:38:34.072						T__				m_e		
UBBA	47.43		P	05:38:21.246	-0.0	73.7		7.76		TAS		58.5	1.66	m_e	mb	5.5
UBR	48.35		P	05:38:28.544		73.7		7.76		TAS		91.7	1.68	m_e	mb	5.6
WET	46.14		P	05:38:11.531	-0.5	73.7		7.76		TAS		29.5	1.33	m_e	mb	5.1
WLF	50.14		P	05:38:42.685		73.7		7.76		TAS		29.4	1.03	m_e	mb	5.2

Event 91027004 Gansu, China

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/27	17:56:49.05			34.8120	102.7680				7.3			28		62.66	68.21	m i ke	BGR

91027010

Magnitude	Err	Nsta	Author	OrigID
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mb	5.3	BGR	91027010
Ms	4.9	BGR	91027010

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	67.57		P	18:07:44.537		64.8		6.51		TAS		34.9	1.47	a_e	mb 5.4
BRG	63.19		P	18:07:16.337	-0.1	64.8		6.51		TAS		15.2	0.99	m_e	mb 5.1
BSEG	64.00		P	18:07:22.137	0.3	64.8		6.51		TAS		23.4	1.08	a_e	mb 5.3
BUG	66.75		P	18:07:39.687	-0.3	64.8		6.51		TAS		33.8	1.12	a_e	mb 5.5
CLL	63.56		P	18:07:18.487	-0.3	64.8		6.51		TAS		15.4	1.04	a_e	mb 5.2
CLZ	64.84		P	18:07:27.587	-0.6	64.8		6.51		TAS		39.1	1.05	a_e	mb 5.6
CLZ	64.84		pP	18:07:29.635						T__				m_e	
FLT1	64.15		P	18:07:22.137	0.2	64.8		6.51		TAS		18.6	0.96	a_e	mb 5.3
FUR	65.89		P	18:07:34.737		64.8		6.51		TAS		117.4	1.31	a_e	mb 6.0
GEC2	64.14		P	18:07:22.937	0.5	64.8		6.51		TAS		24.8	1.20	a_e	mb 5.3
GOR1	63.84		P	18:07:21.087	-0.4	64.8		6.51		TAS		57.6	1.27	a_e	mb 5.7
GRA1	65.26		P	18:07:30.537	-0.7	64.8		6.51		TAS		45.8	1.18	a_e	mb 5.6
GRA1	65.26		L	18:37:09.851						T__		865.2	18.20	a_e	Ms 5.0
GTTG	65.19		P	18:07:29.787	-0.0	64.8		6.51		TAS		19.6	0.80	a_e	mb 5.4
IBBN	66.09		P	18:07:35.337	0.3	64.8		6.51		TAS		33.7	1.06	a_e	mb 5.5
KAST	66.22		P	18:07:36.253	-0.3	64.8		6.51		TAS		50.4	2.02	m_e	mb 5.4
MANZ	64.62		P	18:07:26.037	0.3	64.8		6.51		TAS		7.5	1.50	a_e	mb 4.7
MOX	64.63		P	18:07:25.887	0.1	64.8		6.51		TAS		17.4	1.20	a_e	mb 5.2
MOX	64.63		L	18:36:32.752						T__		615.2	20.60	a_e	Ms 4.8
NEUB	64.31		P	18:07:23.637	-0.2	64.8		6.51		TAS		77.6	1.54	a_e	mb 5.7
PLN	64.38		P	18:07:24.337	0.3	64.8		6.51		TAS		4.4	1.04	a_e	mb 4.6
RETH	65.02		P	18:07:28.637	0.0	64.8		6.51		TAS		16.9	1.09	a_e	mb 5.2
RJOB	65.15		P	18:07:29.798		64.8		6.51		TAS		57.2	1.90	m_e	mb 5.5
ROTZ	64.65		P	18:07:26.487	0.1	64.8		6.51		TAS		11.5	1.31	a_e	mb 4.9
RUE	62.66		P	18:07:12.737	-0.7	64.8		6.51		TAS		40.4	1.16	a_e	mb 5.4
STU	66.86		P	18:07:40.187	-0.2	64.8		6.51		TAS		60.8	1.18	a_e	mb 5.7
TANN	64.23		P	18:07:23.387	0.1	64.8		6.51		TAS		17.1	1.13	a_e	mb 5.2
UBBA	65.48		P	18:07:31.309	-0.1	64.8		6.51		TAS		16.2	1.36	m_e	mb 5.1
UBR	66.81		P	18:07:39.987		64.8		6.51		TAS		28.0	1.09	a_e	mb 5.4
WET	64.51		P	18:07:25.537	0.5	64.8		6.51		TAS		15.8	1.16	a_e	mb 5.1
WLF	68.21		P	18:07:49.437	-0.4	64.8		6.51		TAS		48.2	1.09	a_e	mb 5.7

Event 91028002 Southwest Indian Ridge

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/28	20:45:51.60			-29.2100	61.1600				10.0	0.4		13		88.12	90.81	m i ke	NEIC
91028097																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	91028008
Ms	4.3		BGR	91028008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	90.02		P	20:58:51.428		135.7		5.20		TAS		26.9	1.38	m_e mb	5.3
CLL	90.73		P	20:58:54.671	0.1	135.7		5.20		TAS		75.3	2.19	m_e mb	5.6
FUR	89.11		P	20:58:47.260		135.7		5.20		TAS		158.1	1.37	m_e mb	6.1
GEC2	88.56		P	20:58:43.554		135.7		5.20		TAS		14.9	1.52	m_e mb	5.0
GRA1	90.27		P	20:58:52.553		135.7		5.20		TAS		17.3	1.02	m_e mb	5.2
GRA1	90.27		pP	20:58:58.972						T__				m_e	
GRA1	90.27		L	21:47:40.437						T__		104.1	19.40	a_e Ms	4.3
MANZ	90.11		P	20:58:51.428		135.7		5.20		TAS		3.2	1.07	m_e mb	4.5
MANZ	90.11		pP	20:58:58.064						T__				m_e	
MOX	90.81		P	20:58:55.134		135.7		5.20		TAS		9.2	1.12	m_e mb	5.0
MOX	90.81		L	21:38:51.661						T__		127.7	21.20	a_e Ms	4.3
PLN	90.46		P	20:58:53.612		135.7		5.20		TAS		18.5	1.84	m_e mb	5.0
RJOB	88.12		P	20:58:41.635		135.7		5.20		TAS		16.8	1.37	m_e mb	5.2
ROTZ	89.90		P	20:58:50.436		135.7		5.20		TAS		4.9	1.48	m_e mb	4.5
TANN	90.28		P	20:58:52.818		135.7		5.20		TAS		21.4	1.29	m_e mb	5.2
UBR	89.28		P	20:58:48.054		135.7		5.20		TAS		55.1	1.20	m_e mb	5.7
UBR	89.28		pP	20:58:54.541						T__				m_e	
WET	89.14		P	20:58:46.195		135.7		5.20		TAS		7.0	1.07	m_e mb	4.8

Event 91029001 Mindanao, Philippine Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/29	01:04:44.70			6.8000	125.0400				15.0					99.83	99.83	m i ke	NEIC
OrigID 91029096																	

Magnitude	Err	Nsta	Author	OrigID
Ms 6.8			BGR	91029007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	99.83		Sdiff	01:30:03.135						T__				m_e	
GRA1	99.83		SS	01:37:20.143						T__				m_e	
GRA1	99.83		Pdiff	01:18:28.166		67.2		4.03		TAS				m_e	
GRA1	99.83		PP	01:22:31.721		80.2		7.48		TAS				m_e	
GRA1	99.83		L	02:09:01.942						T__		30260.7	21.40	a_e Ms	6.8

Event 91029002 Mindanao, Philippine Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/29	02:42:39.10			6.8600	125.0000				10.0					99.76	99.76	m i ke	NEIC
OrigID 91029097																	

Magnitude	Err	Nsta	Author	OrigID

Ms 5.6 BGR 91029008

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
GRA1	99.76		Pdiff	02:56:22.172						T__				m_e	
GRA1	99.76		L	03:42:22.056						T__		2134.0	21.10	a_e Ms	5.6

Event 91029003 South of Fiji Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/29	08:16:32.10			-23.3900	-177.1000				162.0			24		148.91	155.00	m i ke	NEIC
	91029098																

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	150.61		PKPbc	08:36:05.820	0.4	14.4		2.23		TAS				a_e	
BFO	154.65		PKPbc	08:36:14.443		14.4		2.23		TAS				m_e	
BRG	151.18		PKPbc	08:36:07.170	0.0	14.4		2.23		TAS				a_e	
BSEG	148.91		PKPbc	08:36:01.620	0.2	14.4		2.23		TAS				a_e	
BUG	151.71		PKPbc	08:36:07.935	-0.1	14.4		2.23		TAS				m_e	
BUG	151.71		pPKPbc	08:36:54.175						T__				m_e	
CLL	150.98		PKPbc	08:36:06.570	0.1	14.4		2.23		TAS				a_e	
CLZ	150.93		PKPbc	08:36:06.820	0.2	14.4		2.23		TAS				a_e	
FLT1	150.33		PKPbc	08:36:04.820	0.1	14.4		2.23		TAS				a_e	
FLT1	150.33		PKPab	08:36:10.499	0.1	15.4		4.36		TAS				m_e	
FUR	154.31		PKPab	08:36:28.129		15.4		4.36		TAS				m_e	
GEC2	153.12		PKPdf	08:36:03.378						T__				m_e	
GEC2	153.12		PKPbc	08:36:11.283		14.4		2.23		TAS				m_e	
GEC2	153.12		PKPab	08:36:22.924		15.4		4.36		TAS				m_e	
GOR1	149.68		PKPbc	08:36:03.820	0.0	14.4		2.23		TAS				a_e	
GRA1	152.87		PKPab	08:36:21.995		15.4		4.36		TAS				m_e	
GTTG	151.28		PKPbc	08:36:07.370	-0.3	14.4		2.23		TAS				a_e	
HLG	148.94		PKPbc	08:36:01.915	-0.3	14.4		2.23		TAS				m_e	
IBBN	150.80		PKPbc	08:36:06.270	-0.2	14.4		2.23		TAS				a_e	
IBBN	150.80		PKPab	08:36:13.266	0.1	15.4		4.36		TAS				m_e	
KAST	151.82		PKPbc	08:36:08.470	0.1	14.4		2.23		TAS				a_e	
KAST	151.82		PKPab	08:36:17.044	-0.3	15.4		4.36		TAS				m_e	
KAST	151.82		pPKPbc	08:36:54.698						T__				m_e	
MANZ	152.41		PKPbc	08:36:09.970	0.1	14.4		2.23		TAS				a_e	
MANZ	152.41		pPKPbc	08:36:55.568						T__				m_e	
MOX	151.88		PKPbc	08:36:08.620	0.1	14.4		2.23		TAS				a_e	
MOX	151.88		PKPab	08:36:17.266		15.4		4.36		TAS				m_e	
MOX	151.88		pPKPbc	08:36:54.965						T__				m_e	
NEUB	151.32		PKPbc	08:36:07.420	-0.0	14.4		2.23		TAS				a_e	
NEUB	151.32		PKPab	08:36:14.650	0.1	15.4		4.36		TAS				m_e	
PLN	151.93		PKPbc	08:36:08.820	0.2	14.4		2.23		TAS				m_e	

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PLN	151.93	PKPab	08:36:17.758		15.4	4.36	TAS	m_e
PLN	151.93	pPKPbc	08:36:55.118				T__	m_e
RETH	150.20	PKPbc	08:36:04.816	-0.3	14.4	2.23	TAS	m_e
RJOB	154.38	PKPab	08:36:28.670		15.4	4.36	TAS	m_e
ROTZ	152.60	PKPbc	08:36:10.320	-0.3	14.4	2.23	TAS	a_e
ROTZ	152.60	PKPab	08:36:20.691		15.4	4.36	TAS	m_e
ROTZ	152.60	pPKPbc	08:36:55.750				T__	m_e
RUE	149.71	PKPbc	08:36:03.570	0.1	14.4	2.23	TAS	a_e
STU	154.10	PKPdf	08:36:05.319				T__	m_e
TANN	151.93	PKPbc	08:36:08.920	0.1	14.4	2.23	TAS	a_e
TANN	151.93	PKPab	08:36:17.785		15.4	4.36	TAS	m_e
TANN	151.93	pPKPbc	08:36:55.114				T__	m_e
TNS	152.78	PKPbc	08:36:10.669	0.2	14.4	2.23	TAS	m_e
TNS	152.78	PKPab	08:36:21.308		15.4	4.36	TAS	m_e
TNS	152.78	pPKPbc	08:36:56.697				T__	m_e
UBBA	151.99	PKPbc	08:36:08.756	0.1	14.4	2.23	TAS	m_e
UBBA	151.99	PKPab	08:36:17.610		15.4	4.36	TAS	m_e
UBR	155.00	PKPdf	08:36:05.847				T__	m_e
WET	153.04	PKPab	08:36:22.763		15.4	4.36	TAS	m_e
WLF	153.56	PKPab	08:36:25.006		15.4	4.36	TAS	m_e

Event 91029004 Bougainville - Solomon Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/29	08:44:09.90			-6.3200	154.8100				69.0			10		124.46	129.35	m i ke	NEIC
	91029099																

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	125.59		PKPdf	09:03:03.501	-0.1	47.7		1.98		TAS				m_e	
BRG	124.93		pPKPdf	09:03:16.933	0.3	48.2		1.94		TAS				m_e	
BSEG	124.46		PKPdf	09:03:01.447	-0.0	47.7		1.98		TAS				m_e	
BSEG	124.46		pPKPdf	09:03:16.363	-0.0	48.2		1.94		TAS				m_e	
CLL	125.09		PKPdf	09:03:02.207	0.1	47.7		1.98		TAS				m_e	
CLL	125.09		pPKPdf	09:03:17.239	0.0	48.2		1.94		TAS				m_e	
CLZ	125.93		PKPdf	09:03:04.273	0.0	47.7		1.98		TAS				m_e	
CLZ	125.93		pPKPdf	09:03:19.284		48.2		1.94		TAS				m_e	
FLT1	125.20		PKPdf	09:03:02.455	-0.2	47.7		1.98		TAS				m_e	
FLT1	125.20		pPKPdf	09:03:17.205	-0.1	48.2		1.94		TAS				m_e	
FUR	128.02		PKPdf	09:03:08.140		47.7		1.98		TAS				m_e	
GEC2	126.35		PKPdf	09:03:04.797		47.7		1.98		TAS				m_e	
GEC2	126.35		pPKPdf	09:03:19.617		48.2		1.94		TAS				m_e	
GOR1	124.71		PKPdf	09:03:02.162	-0.2	47.7		1.98		TAS				m_e	
GRA1	127.02		PKPdf	09:03:06.258		47.7		1.98		TAS				m_e	
IBBN	126.71		PKPdf	09:03:05.784	0.1	47.7		1.98		TAS				m_e	

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IBBN	126.71	pPKPdf	09:03:20.496		48.2	1.94	TAS	m_e
KAST	127.24	PKPdf	09:03:06.738	0.3	47.7	1.98	TAS	m_e
MANZ	126.40	PKPdf	09:03:05.197	-0.2	47.7	1.98	TAS	m_e
MANZ	126.40	pPKPdf	09:03:19.867		48.2	1.94	TAS	m_e
MOX	126.19	PKPdf	09:03:04.511	0.2	47.7	1.98	TAS	m_e
MOX	126.19	pPKPdf	09:03:19.315		48.2	1.94	TAS	m_e
NEUB	125.74	PKPdf	09:03:03.700	-0.1	47.7	1.98	TAS	m_e
PLN	126.04	PKPdf	09:03:04.261	0.1	47.7	1.98	TAS	m_e
PLN	126.04	pPKPdf	09:03:19.090		48.2	1.94	TAS	m_e
RETH	125.72	PKPdf	09:03:03.931	-0.3	47.7	1.98	TAS	m_e
RJOB	127.52	PKPdf	09:03:06.783		47.7	1.98	TAS	m_e
ROTZ	126.50	PKPdf	09:03:05.007	-0.4	47.7	1.98	TAS	m_e
STU	128.62	PKPdf	09:03:09.435		47.7	1.98	TAS	m_e
TANN	125.94	PKPdf	09:03:04.133	0.1	47.7	1.98	TAS	m_e
UBR	128.93	PKPdf	09:03:09.465		47.7	1.98	TAS	m_e
WET	126.57	PKPdf	09:03:05.390		47.7	1.98	TAS	m_e
WLF	129.35	PKPdf	09:03:11.302		47.7	1.98	TAS	m_e

Event 91030003 Zaire

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/30	20:55:48.05			-0.2400	28.5800				17.4	0.1		14		50.52	54.99	m i ke	BGR
91030009																	

Magnitude	Err	Nsta	Author	OrigID
mb	5.2		BGR	91030009
Ms	4.5		BGR	91030009

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
ASSE	54.34		P	21:05:11.694	0.3	157.8		7.40		TAS		61.8	1.14	m_e	mb 5.5
ASSE	54.34		pP	21:05:16.478						T__					m_e
BFO	51.49		P	21:04:50.516		157.8		7.40		TAS		62.9	1.36	m_e	mb 5.4
BRG	52.45		P	21:04:57.514		157.8		7.40		TAS		40.5	1.47	m_e	mb 5.1
CLL	53.05		P	21:05:01.718	0.1	157.8		7.40		TAS		22.6	1.19	m_e	mb 5.0
FUR	50.52		P	21:04:43.314		157.8		7.40		TAS		70.4	0.98	m_e	mb 5.5
GEC2	50.58		P	21:04:44.410		157.8		7.40		TAS		30.6	0.91	m_e	mb 5.2
GOR1	54.99		P	21:05:16.873	-0.1	157.8		7.40		TAS		143.2	1.34	m_e	mb 5.8
GRA1	51.95		L	21:31:16.170						T__		418.9	18.80	a_e	Ms 4.5
GTTG	53.97		P	21:05:09.378	-0.0	157.8		7.40		TAS		69.3	1.35	m_e	mb 5.5
MANZ	52.01		P	21:04:54.605		157.8		7.40		TAS		10.2	1.01	m_e	mb 4.7
MOX	52.74		pP	21:05:04.617						T__					m_e
MOX	52.74		L	21:27:55.762						T__		430.5	21.20	a_e	Ms 4.5
PLN	52.47		P	21:04:57.385		157.8		7.40		TAS		11.4	0.82	m_e	mb 4.8
ROTZ	51.78		P	21:04:52.741		157.8		7.40		TAS		5.5	0.99	m_e	mb 4.4
ROTZ	51.78		pP	21:04:57.480						T__					m_e
TANN	52.33		P	21:04:57.238		157.8		7.40		TAS		26.5	1.18	m_e	mb 5.0

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UBBA	53.29	P	21:05:03.837	157.8	7.40	TAS	107.4	1.72	m_e	mb	5.5
WET	51.05	P	21:04:47.391	157.8	7.40	TAS	39.5	1.30	m_e	mb	5.2
WET	51.05	pP	21:04:52.112			T__				m_e	

Event 91031001 Mindanao, Philippine Islands

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/31	01:11:18.60			6.9600	125.2200				10.0			19		97.26	100.81	m i ke	EMSC

Magnitude	Err	Nsta	Author	OrigID
Ms	6.9		BGR	91031007

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
ASSE	99.15		Pdiff	01:25:00.270	0.1					T__				m_e		
ASSE	99.15		PP	01:29:04.982						T__				m_e		
BRG	97.75		Pdiff	01:24:53.501	-0.2					T__				m_e		
CLL	98.14		Pdiff	01:24:55.427	-0.1					T__				m_e		
CLZ	99.43		Pdiff	01:25:01.974	0.2					T__				m_e		
FLT1	98.75		Pdiff	01:24:57.833	0.1					T__				m_e		
GEC2	98.62		Pdiff	01:24:58.050	0.0					T__				m_e		
GRA1	99.81		Pdiff	01:25:03.843	-0.1					T__				m_e		
GRA1	99.81		L	02:15:24.019						T__		33931.3	21.10	a_e	Ms	6.8
GTTG	99.79		Pdiff	01:25:03.394	-0.1					T__				m_e		
IBBN	100.69		Pdiff	01:25:07.406						T__				m_e		
KAST	100.81		Pdiff	01:25:08.142						T__				m_e		
MANZ	99.16		Pdiff	01:25:00.875	-0.2					T__				m_e		
MANZ	99.16		PP	01:29:06.343						T__				m_e		
MOX	99.20		Pdiff	01:25:00.464	0.1					T__				m_e		
MOX	99.20		L	02:14:22.096						T__		41960.6	21.80	a_e	Ms	6.9
NEUB	98.89		Pdiff	01:24:59.230	0.1					T__				m_e		
PLN	98.94		Pdiff	01:24:59.317	0.1					T__				m_e		
ROTZ	99.19		Pdiff	01:25:00.788	0.4					T__				m_e		
RUE	97.26		Pdiff	01:24:51.325	0.2					T__				m_e		
TANN	98.79		Pdiff	01:24:58.763	-0.1					T__				m_e		
UBBA	100.07		Pdiff	01:25:04.531						T__				m_e		
UBBA	100.07		PP	01:29:12.068						T__				m_e		
WET	99.02		Pdiff	01:25:00.124	0.3					T__				m_e		

Event 91031002 Fiji Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/31	02:07:33.32			-21.3640	-177.5280				33.0			14		146.85	151.07	m i ke	BGR

91031008

Magnitude	Err	Nsta	Author	OrigID												
Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BRG	149.13		PKPbc	02:27:18.362		16.9		2.48		TAS				m_e		
BSEG	146.85		PKPbc	02:27:12.728	0.0	16.9		2.48		TAS				m_e		
CLL	148.92		PKPbc	02:27:17.726	0.2	16.9		2.48		TAS				m_e		
CLZ	148.88		PKPbc	02:27:17.998	0.3	16.9		2.48		TAS				m_e		
FLT1	148.27		PKPbc	02:27:15.999	-0.1	16.9		2.48		TAS				m_e		
GEC2	151.07		PKPbc	02:27:22.906		16.9		2.48		TAS				m_e		
GOR1	147.62		PKPbc	02:27:14.636	-0.3	16.9		2.48		TAS				m_e		
KAST	149.77		PKPbc	02:27:19.998	-0.1	16.9		2.48		TAS				m_e		
MANZ	150.36		PKPbc	02:27:21.270		16.9		2.48		TAS				m_e		
MOX	149.82		PKPbc	02:27:20.270		16.9		2.48		TAS				m_e		
NEUB	149.27		PKPbc	02:27:18.907	-0.3	16.9		2.48		TAS				m_e		
RETH	148.15		PKPbc	02:27:15.727	-0.0	16.9		2.48		TAS				m_e		
RUE	147.66		PKPbc	02:27:14.636	-0.2	16.9		2.48		TAS				m_e		
TANN	149.88		PKPbc	02:27:20.361		16.9		2.48		TAS				m_e		

Event 91031008 Persian Gulf

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
OrigID																	
2019/10/31	15:44:13.63			26.6300	52.9500				19.9	0.6		13		37.56	42.51	m i ke	BGR
91031014																	

Magnitude Err Nsta Author OrigID
mb 4.7 BGR 91031014

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude	
BRG	38.21		P	15:51:30.388		110.8		8.34		TAS		8.1	0.85	m_e mb	4.5	
CLL	38.93		P	15:51:36.647	0.6	110.8		8.34		TAS		17.5	1.12	m_e mb	4.6	
CLL	38.93		pP	15:51:41.736						T__				m_e		
CLZ	40.65		P	15:51:51.384	-0.1	110.8		8.34		TAS		20.7	0.78	m_e mb	4.9	
FLT1	40.34		P	15:51:48.456	0.1	110.8		8.34		TAS		26.0	1.00	m_e mb	4.8	
FUR	38.84		P	15:51:36.344		110.8		8.34		TAS				m_e		
GEC2	37.56		pP	15:51:30.499						T__		5.5	0.94	m_e		
GOR1	40.57		P	15:51:50.475	0.0	110.8		8.34		TAS		31.7	0.98	m_e mb	5.0	
GRA1	39.38		P	15:51:40.583		110.8		8.34		TAS		30.1	0.80	m_e mb	5.0	
GRA1	39.38		pP	15:51:45.933						T__				m_e		
GTTG	40.78		P	15:51:52.292	-0.7	110.8		8.34		TAS		15.9	0.96	m_e mb	4.7	
MANZ	38.95		P	15:51:37.050		110.8		8.34		TAS		2.1	1.00	m_e mb	3.7	
ROTZ	38.81		P	15:51:35.971		110.8		8.34		TAS		4.9	0.91	m_e mb	4.1	
ROTZ	38.81		pP	15:51:41.092						T__				m_e		
UBR	39.45		P	15:51:41.189		110.8		8.34		TAS		38.1	0.84	m_e mb	5.0	
WET	38.18		P	15:51:29.884		110.8		8.34		TAS		11.2	0.94	m_e mb	4.6	

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WLF	42.51	P	15:52:05.919	110.8	8.34	TAS	31.3	0.88	m_e	mb	5.0
WLF	42.51	pP	15:52:11.332			T__			m_e		

Event 91031009 Tonga Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/31	16:38:38.57			-23.3780	-175.7160				33.0			6		149.06	151.47	m i ke	BGR
OrigID 91031015																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BRG	151.47		PKPbc	16:58:29.558		14.2		2.27		TAS				m_e	
BSEG	149.06		PKPbc	16:58:24.069	-0.1	14.2		2.27		TAS				m_e	
CLL	151.23		PKPbc	16:58:28.832		14.2		2.27		TAS				m_e	
CLZ	151.11		PKPbc	16:58:28.966		14.2		2.27		TAS				m_e	
FLT1	150.52		PKPbc	16:58:27.277		14.2		2.27		TAS				m_e	
RUE	149.97		PKPbc	16:58:26.334	-0.0	14.2		2.27		TAS				m_e	

Event 91031010 Samoa Islands region

Date	Time	Err	RMS	Latitude	Longitude	Smaj	Smin	Az	Depth	Err	Ndef	Nsta	Gap	mdist	Mdist	Qual	Author
2019/10/31	19:18:53.21			-16.5240	-171.7500				33.0			16		144.10	148.80	m i ke	BGR
OrigID 91031016																	

Magnitude Err Nsta Author OrigID

Sta	Dist	EvAz	Phase	Time	TRes	Azim	AzRes	Slow	SRes	Def	SNR	Amp	Per	Qual	Magnitude
BFO	148.18		PKPbc	19:38:35.622		5.2		2.95		TAS				m_e	
BRG	145.34		PKPbc	19:38:27.372	0.3	5.2		2.95		TAS				m_e	
CLL	145.00		PKPbc	19:38:26.048	0.4	5.2		2.95		TAS				m_e	
CLZ	144.63		PKPbc	19:38:25.386	0.1	5.2		2.95		TAS				m_e	
FLT1	144.10		PKPbc	19:38:22.942	-0.3	5.2		2.95		TAS				m_e	
GEC2	147.37		PKPbc	19:38:33.178		5.2		2.95		TAS				m_e	
IBBN	144.20		PKPbc	19:38:24.011	0.1	5.2		2.95		TAS				m_e	
MANZ	146.38		PKPbc	19:38:30.733		5.2		2.95		TAS				m_e	
MOX	145.76		PKPbc	19:38:28.900	0.4	5.2		2.95		TAS				m_e	
PLN	145.88		PKPbc	19:38:29.358	-0.3	5.2		2.95		TAS				m_e	
ROTZ	146.59		PKPbc	19:38:31.345		5.2		2.95		TAS				m_e	
TANN	145.93		PKPbc	19:38:29.206	-0.2	5.2		2.95		TAS				m_e	
UBBA	145.66		PKPbc	19:38:28.442	0.5	5.2		2.95		TAS				m_e	
UBR	148.80		PKPbc	19:38:36.845		5.2		2.95		TAS				m_e	
WET	147.15		PKPbc	19:38:33.178		5.2		2.95		TAS				m_e	

./bul1910.txt

Tue Jan 04 10:09:55 2022

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WLF 146.81

PKPbc 19:38:32.567

5.2

2.95

TAS

m_e